
Technical Report Overview

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Report: Permit 107517 Annual Water Quality Monitoring Report, 2017 (March 31, 2018)

Overview: This report presents the 2017 results of the surface water monitoring program required under Permit 107517. The report summarizes environmental incidents (i.e., non-compliances) recorded in 2017, summarizes monitoring data for discharges and receiving environment water sampling sites set forth in Permit 107517, and provides an assessment of the data.

This report was prepared by Teck and includes a flow monitoring component prepared by Kerr Wood Leidal.

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Permit 107517

Annual Water Quality Monitoring Report

March 31, 2018



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Abbreviations

ABMP	Area Based Management Plan (also known as the Elk Valley Water Quality Plan)
BC FAL WQG	British Columbia Freshwater Aquatic Life Water Quality Guideline
CaCO ₃	Calcium carbonate
CCME	Canadian Council of Ministers of the Environment
CMO	Coal Mountain Operations
DQOs	Data Quality Objectives
EMA	Environmental Management Plan
EMPR	Ministry of Energy, Mines & Petroleum Resources
EMS	Environmental Monitoring Site
ENV	Ministry of Environment and Climate Change Strategy
EPA	Environmental Protection Agency
EVO	Elkview Operations
FRO	Fording River Operations
GHO	Greenhills Operations
LCO	Line Creek Operations
MDL	Method detection limit
MoE	BC Ministry of Environment
MRL	Method reporting limit
NO ₃ ⁻	Nitrate
QA/QC	Quality assurance/quality control
RAEMP	Regional Aquatic Effects Monitoring Program
RPD	Relative percent difference
RSD	Relative standard deviation
Se	Selenium
SO ₄ ²⁻	Sulphate
SP&P	Standard Practices and Procedures
SPO	Site performance objective
TIE	Toxicity Identification Evaluation
TKN	Total Kjeldahl Nitrogen
WLC AWTF	West Line Creek Active Water Treatment Facility

Executive Summary

Permit 107517 takes an area based approach to authorizing and managing water quality constituents of interest originating from current and historical mining activities in the Elk Valley. To do so requires an extensive surface water monitoring program that includes authorized discharges, receiving environment and other sampling sites, eight authorized discharge Compliance Points, and seven Order Stations for which Site Performance Objectives (SPO) have been established. These permitted sampling locations are used to evaluate compliance, and supporting implementation of the Elk Valley Water Quality Plan. The following report is submitted in fulfillment of Section 10.2.4 of Permit 107517 and summarizes: non-compliances experienced in 2017, water quality/quantity measurements relative to appropriate compliance limits, Site Performance Objectives, and/or approved and working water quality guidelines, toxicity tests, and Quality Assurance/Quality Control issues during the 2017 calendar year.

In 2017 Site Performance Objectives for selenium, nitrate, sulphate and cadmium were met at all Order Stations in 100% of water samples collected and 90.2% of all samples collected at Compliance Points were below permit limits. In addition, only 1.6% of all parameters analyzed and compared to approved British Columbia Water Quality Guidelines were above said guideline (excluding parameters with Site Performance Objectives and compliance limits). The non-compliances in 2017 were associated with Compliance Points E300071 (FR_FRCP1), E297110 (LC_LCDSSLCC), and E258937 (CM_MC2).

Permit limit exceedances recorded at Fording River Operations' Compliance Point FR_FRCP1 were for selenium and sulphate. Water quality and quantity monitoring data have indicated that surface water at FR_FRCP1 is predominantly discharge water from the mine-impacted Cataract Creek during low flow months. Teck is currently compiling the information requested by the Ministry of Environment and Climate Change Strategy to support the submission of an application to amend Permit 107517 and move the Fording River Compliance Point to a location that is more suitable for assessing compliance. Submission of the amendment application is targeted for early 2018.

Non-compliances associated with Line Creek Compliance Point LC_LCDSSLCC were for selenium and nitrate. As stated in the 2016 annual water quality report, the LCO Compliance Point limits for nitrate were reduced from 14 mg/L monthly average and 20 mg/L daily maximum to 7 mg/L monthly average and 9 mg/L daily maximum. These changes in limits were initially defined based on modelling that included limited data at this location. Since this time, additional monitoring data indicates that the regional water quality model did not adequately represent the nitrate loadings in Line Creek. In order to improve water quality, Teck has since developed and received approval (January 9, 2018) from the Ministry of Environment and Climate Change Strategy (ENV) for a Nitrate Compliance Action Plan (CAP), which outlines the path forward to support permit compliance for nitrate concentrations in Line Creek. Developed with input from ENV and the Ktunaxa Nation Council (KNC), the approved CAP identifies objectives, key performance indicators (KPIs), and actions that Teck has taken and will take to reduce nitrate concentrations to support compliance with Permit 107517 limits at this compliance point. The CAP will be updated as required to incorporate learnings from monitoring results and the Regional Water Quality Model update. Despite higher than projected nitrate concentrations in Line Creek as measured at the LCO Compliance Point, nitrate concentrations at the Line Creek Order

Station in the Fording River (FR5, LC_LC5) have remained below the SPO during all periods to date. With respect to the selenium non-compliances, Teck has been working to address a challenge in the performance of our West Line Creek Active Water Treatment Facility (WLC AWTF) related to compounds of selenium in discharge water. Teck reduced the flow rate of the WLC AWTF from 5,500 m³/day to 2,500 m³/day on October 17, 2017, limiting the amount of selenium that is removed from Line Creek. This change in treatment volume increased selenium concentrations downstream in Line Creek, resulting in exceedances at the LCO Compliance Point. Teck submitted an application package to ENV to temporarily take the facility offline; approval was granted on February 28 and the shutdown process has been initiated. Teck recently completed the successful piloting of an advanced oxidation process (AOP) system which has been identified as a solution to managing compounds of selenium. The AOP system will be constructed and the WLC AWTF will be recommissioned in August 2018 to work towards full capacity over a commissioning period.

The one non-compliance in January 2017 at the Coal Mountain Compliance Point, CM_MC2, was due to elevated concentrations in water that was pumped to support pit dewatering activities but due to low winter flow conditions, caused an exceedance to nitrate permit limits. Pumping rates were immediately adjusted to bring nitrate concentrations back within permit limit. Since this incident, all samples collected since have met permit requirements.

Non-compliances were also recorded in 2017 associated with *Daphnia magna* (*D. magna*) acute toxicity testing. Ten of the 235 (4.3%) *D. magna* acute toxicity tests completed in 2017 showed >50% mortality and did not meet Permit 107517 requirement that effluent must not be acutely toxic. There were no failures of the rainbow trout toxicity tests in 2017 (i.e., mortality <50% for the 2017 rainbow trout acute toxicity tests). The results of additional testing, including Toxicity Identification Evaluation tests, tests conducted at different temperature regimes (e.g., 10 and 20°C), removal of toxicity following addition of antiscalant, and observations noted by laboratory staff indicated that reduced survival of *D. magna* may have been caused by precipitate formation on the organism during lab testing. The mineral precipitate is suspected to be calcite; additional work is ongoing to identify the cause(s) of adverse effects observed in *D. magna*. The two locations that account for the majority of *D. magna* toxicity test failures have treatment (West Line Creek) or are planned for treatment (Cataract Creek) to improve water quality. In addition, Teck is committed to addressing the issue of precipitate/calcite management in the valley. Identification of priority tributaries for calcite management as per Permit requirements and permitting to support calcite management is underway.

Other non-compliances were related to missed samples, administrative non-compliances, and hold time exceedances. Improvements in planning (e.g., scheduling of sample collection/shipping around statutory holidays), internal and external communications (e.g., timely reporting), and following standard protocols are anticipated to reduce future non-compliances.

In consideration of the extensive surface water monitoring program required under Permit 107517, in conjunction with all other active monitoring programs, no additional monitoring is proposed at this time. Teck will continue to collect and evaluate surface water monitoring data to provide information required to support Teck's Adaptive Management Plan.

1 Introduction

After consideration of the July 22, 2014, Elk Valley Water Quality Plan (EVWQP) and approval by the Ministry of Environment (ENV) on November 18, 2015, Permit 107517 was issued under provisions of the Environmental Management Act (EMA). Permit 107517 takes an area-based approach to authorizing and managing water quality constituents of interest originating from current and historical mining activities in the Elk Valley. This report was prepared to meet requirements of Permit 107517 dated October 13 of 2017. This report will also be submitted to the Ministry of Energy, Mines & Petroleum Resources (EMPR) as a fulfillment of water quality reporting requirements associated with Teck's mining authorizations in the Elk Valley.

The Elk Valley, located in the southeast corner of British Columbia, is bisected by the Elk River which in turn is fed by a number of tributaries of which the Fording River and Michel Creek are the largest. Primary communities in the Elk Valley include Elkford, Sparwood, Hosmer, Fernie, and Elko. Presently, five steelmaking coal mines are operated by Teck Coal Limited (Teck) within the Elk Valley. They include Fording River Operation, Greenhills Operation, Line Creek Operation, Elkview Operation, and Coal Mountain Operation (Figure 1).

The following report summarizes environmental incidents recorded in 2017, summarizes monitoring data for discharges and receiving environment water sampling sites set forth in Permit 107517, and provides an assessment of the data and associated recommendations, as appropriate.

In addition, as required in Permit 107517 Section 11, Teck has developed an Adaptive Management Plan (AMP) to support implementation of the EVWQP; to achieve water quality targets including calcite targets; confirm that human health and the environment are protected, and where necessary, restored; and to facilitate continuous improvement of water quality in the Elk Valley.

Details on the linkages between the AMP and the surface water monitoring program are provided in Section 6 of this report. Specifically, Section 6 provides details regarding how surface water monitoring data will be utilized to help answer Management Questions 1 and 2. Section 6 also contains a summary of progress made towards developing early warning triggers (EWTs) that are being developed as part of the 2018 AMP update process. Once developed, it is envisioned that water quality EWT will be analyzed and reported on as part of quarterly surface water reports and summarized annually to support the AMP.

1.1 Authorized Discharge and Receiving Environment Water Sampling Sites

Permit 107517 requires the collection of water samples from authorized discharges, receiving environment, and other sampling sites. The relative allocation of water sampling sites per operation in 2017 is as follows, excluding Order Stations and Compliance Points:

- Fording River Operation (FRO) collects samples from 25 sites
- Greenhills Operation (GHO) collects samples from 21 sites
- Line Creek Operation (LCO) collects samples from 12 sites
- West Line Creek Active Water Treatment Facility (WLC) collects samples from 2 sites
- Elkview Operation (EVO) collects samples from 19 sites

- Coal Mountain Operation (CMO) collects samples from 6 sites
- Kooconusa Reservoir for which there are 4 sites

Authorized discharge and receiving environment water sampling sites noted above are numerically identified by dedicated Environmental Monitoring Site (EMS) numbers and corresponding site-specific sampling codes. A summary of sampling sites by operation are presented in Tables 1 through 7 below.

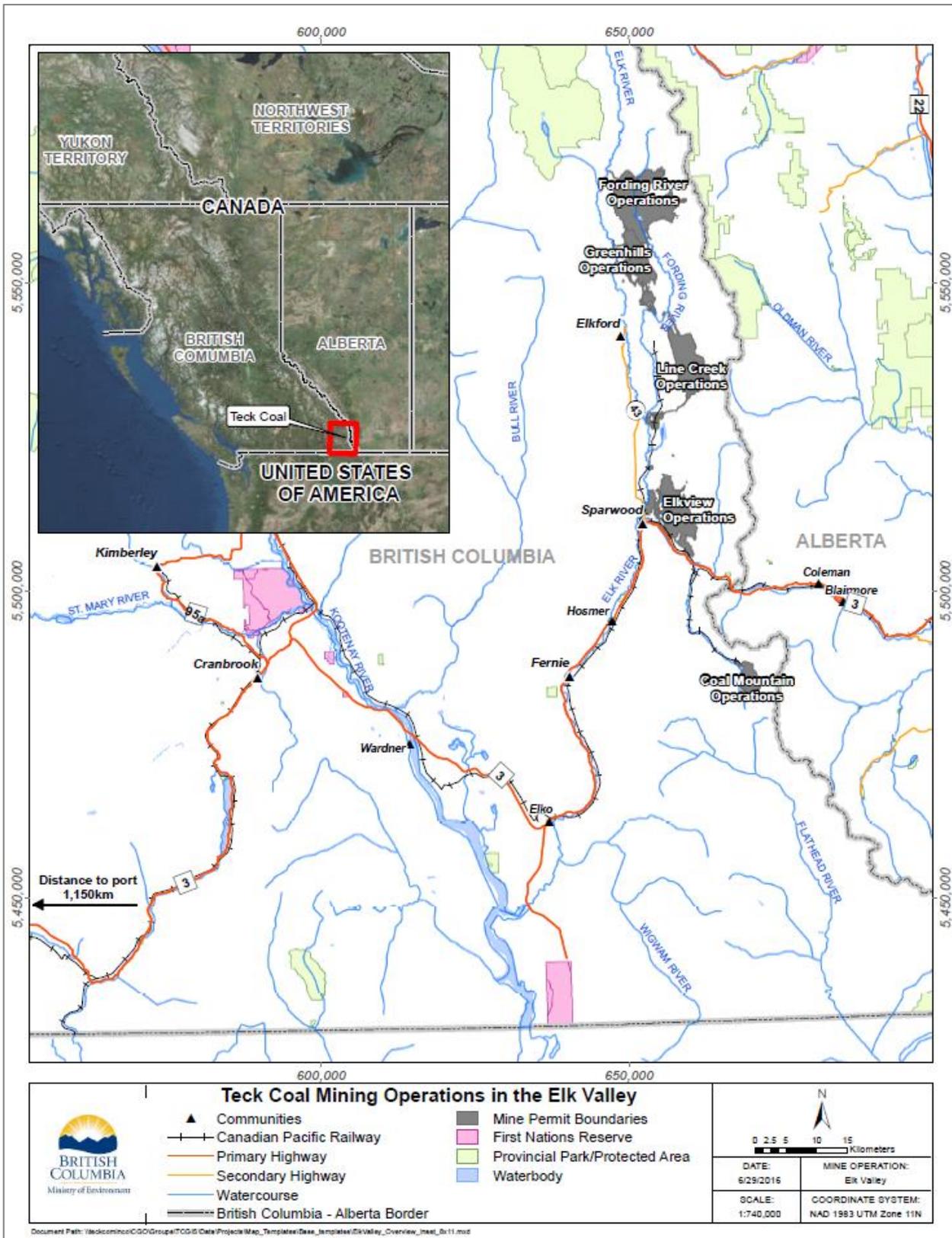


Figure 1. Location of Teck's five steelmaking coal operations within the Elk Valley, British Columbia.

Table 1. Summary of discharge, receiving environment, and other water sampling sites for Fording River Operation based on the version of Permit 107517 dated October 13, 2017.

EMS ID	Site ID	Sampling Site Type	Sampling Site Description
E216777	FR_UFR1	Receiving Environment	Fording River U/S of Henretta Cr.
E300096	FR_HC3	Receiving Environment	Henretta Creek Upstream of McQuarrie Creek
E216781	FR_HP1	Authorized Discharge	Henretta Pit Effluent into Diversion Culvert
E216778	FR_HC1	Receiving Environment	Henretta Cr. U/S of Fording River
0200251	FR_FR1	Receiving Environment	Fording River D/S of Henretta Cr.
E102481	FR_CC1	Authorized Discharge	Clode Pond Decant
E304750	FR_PP1	Authorized Discharge	Post Sediment Ponds Decant
E102480	FR_EC1	Authorized Discharge	Eagle Sedimentation Pond Decant
E304835	FR_LP1	Authorized Discharge	Liverpool Sedimentation Pond Decant
E102475	FR_TP1	Authorized Discharge	Tailings Slurry to North Tailings Pond
E102478	FR_MS1	Authorized Discharge	Maintenance & Service Sediment Ponds Decant
E206660	FR_TP3	Authorized Discharge	Tailing Slurry to South Tailings Pond
E102476	FR_NL1	Authorized Discharge	North Loop Sedimentation Pond Decant
E217403	FR_3PIT	Authorized Discharge	Swift Pit Effluent to Fording River
E261897	FR_SP1	Authorized Discharge	Smith Pond Decant
0200201	FR_FR2	Receiving Environment	Fording River U/S of Kilmarnock Cr.
0200252	FR_KC1	Other	Kilmarnock Cr. D/S of Rock Drain
E306924	FR_LMP1	Authorized Discharge	Lake Mountain Sediment Pond Decant
E208394	FR_SKP1	Authorized Discharge	South Kilmarnock Sediment Pond-Phs 1
E105061	GH_SC2	Authorized Discharge	Swift Creek Sed. Pond Bypass
E221329	GH_SC1	Authorized Discharge	Swift Pond Decant
E208395	FR_SKP2	Authorized Discharge	South Kilmarnock Sediment Pond-Phs 2
0200384	GH_CC1	Authorized Discharge	Cataract Creek Sed. Pond Decant
E300097	FR_FRRD	Receiving Environment	Fording River Near Fording River Road

Note: Environmental Monitoring Site (EMS) identification numbers (IDs) correspond to those listed in the ENV's monitoring data repository.

The spatial location and distribution of authorized discharge, receiving environment, and other water sampling sites for FRO are presented in Appendix K Map 1.

Table 2. Summary of discharge and receiving environment water sampling sites for Greenhills Operation based on the version of Permit 107517 dated October 13, 2017.

EMS ID	Site ID	Sampling Site Type	Sampling Site Description
200389	GH_ER2	Receiving Environment	Elk River U/S of Greenhills Operations
E287437	GH_BR_F	Receiving Environment	Branch F at LRP Road
E305855	GH_WOLF_SP1	Authorized Discharge	Wolf Creek Sed. Pond Decant
E305854	GH_WILLOW_SP1	Authorized Discharge	Willow Sediment Pond Decant
E287433	GH_WADE	Authorized Discharge	Wade Creek at LRP Road
E287432	GH_COUGAR	Receiving Environment	Cougar Creek at LRP Road
E305875	GH_NNC	Receiving Environment	No Name Creek at LRP Road

EMS ID	Site ID	Sampling Site Type	Sampling Site Description
0200388	GH_MC1	Authorized Discharge	Mickelson Creek at LRP Road
E257796	GH_LC1	Authorized Discharge	Leask Creek Sed. Pond Decant
E305878	GH_ERSC4	Receiving Environment	Elk River Side channel U/S of Wolfram Creek
E257795	GH_WC1	Authorized Discharge	Wolfram Creek Sed. Pond Decant
E305876	GH_ER1A	Receiving Environment	Elk River Side channel D/S of Wolfram Creek
E207436	GH_TC2	Authorized Discharge	Thompson Creek Sed. Pond Decant
E102714	GH_TC1	Receiving Environment	Thompson Creek at LRP Road
E305877	GH_ERSC2	Receiving Environment	Elk River Side Channel D/S of Thompson Creek
0200385	GH_PC1	Authorized Discharge	Porter Creek Sed. Pond Decant
E287438	GH_TPS	Authorized Discharge	Tailings Pond Water (Supernatant)
E102709	GH_GH1	Authorized Discharge	Greenhills Creek Sed. Pond Decant
E309911	GH_GH2	Monitoring Location	Greenhills Creek D/S of Sed. Pond Decant (as of October 13, 2017)
E207437	GH_RLP	Authorized Discharge	Rail Loop Sed. Pond Decant
E309912		Authorized Discharge	Discharge from Antiscalant Module to Lower Greenhills Creek (as of October 13, 2017)

Note: Environmental Monitoring Site (EMS) identification numbers (IDs) correspond to those listed in the ENV's monitoring data repository.

The spatial location and distribution of authorized discharges and receiving environment water sampling sites for GHO are presented in Appendix K Map 2.

Table 3. Summary of discharge and receiving environment water sampling sites for Line Creek Operation based on the version of Permit 107517 dated October 13, 2017.

EMS ID	Site ID	Sampling Site Type	Sampling Site Description
E216142	LC_LC1	Receiving Environment	Line Creek Upstream of MSA North Pit
0200335	LC_LC2	Receiving Environment	Line Creek Upstream of Rock Drain
E216144	LC_LC7	Authorized Discharge	MSA North Ponds Effluent to Line Creek
E304613	LC_LC7DSTF	Authorized Discharge	MSA North Ponds Effluent to Line Creek Alternate
E223240	LC_LC12	Receiving Environment	N Horseshoe Creek Near Mouth
E221268	LC_LC9	Authorized Discharge	No Name Creek Pond Decant
E293369	LC_LCUSWLC	Receiving Environment	Line Creek Upstream of West Line Creek, below rock drain
E261958	LC_WLC	Receiving Environment	West Line Creek
0200337	LC_LC3	Receiving Environment	Line Creek Downstream of West Line Creek
E282149	LC_SLC	Receiving Environment	South Line Creek
E219411	LC_LC8	Authorized Discharge	Contingency Treatment System to Line Creek
0200044	LC_LC4	Receiving Environment	Line Creek Upstream of Process Plant

Note: Environmental Monitoring Site (EMS) identification numbers (IDs) correspond to those listed in the ENV's monitoring data repository.

The spatial location and distribution of authorized discharges and receiving environment water sampling sites for LCO are presented in Appendix K Map 3.

Table 4. Summary of discharge, receiving environment, and other sampling sites for Elkview Operation based on the version of Permit 107517 dated October 13, 2017.

EMS ID	Site ID	Sampling Site Type	Sampling Site Description
E298590	EV_DC1	Authorized Discharge	Dry Creek Sed. Pond Decant
E102681	EV_SM1	Authorized Discharge	Six Mile Sed. Pond Decant
E298592	EV_BLM2	Monitoring	Balmer Creek at CFI Road
E298591	EV_FC1	Monitoring	Fennelon Creek at CFI Road
E258135	EV_LC1	Authorized Discharge	Lindsay Creek infiltration basin discharge
E208043	EV_GC2	Authorized Discharge	Goddard Creek Sedimentation Pond Decant
E296310	EV_GH1	Authorized Discharge	West Fork tailings impoundment discharge to ground
E102679	EV_OC1	Authorized Discharge	Otto Creek Near Mouth (~80m upstream of Elk River)
0200111	EV_ER2	Receiving Environment	Elk River upstream of Michel Cr.
0200097	EV_EC1	Authorized Discharge	Erickson Creek at Mouth
0200203	EV_MC3	Receiving Environment	Michel Creek Upstream of Erickson Creek
E296311	EV_SP1	Authorized Discharge	South Pit Creek Sed. Pond Decant
E208057	EV_MG1	Authorized Discharge	Milligan Creek Sed. Pond Decant
E298593	EV_TC1	Monitoring	Thresher Creek at Milligan Road
E206231	EV_GT1	Authorized Discharge	Gate Creek Sedimentation Pond Decant
E102685	EV_BC1	Authorized Discharge	Bodie Creek Sedimentation Pond Decant
E302170	EV_AQ6	Authorized Discharge	Aqueduct Control Structure to Aqueduct Creek
E298594	EV_SPR2	Monitoring	Spring Creek at mouth with Aqueduct Creek
310168	EV_MC2a	Receiving Environment	Michel Creek U/S of Bodie and Gate Creek (as of November 16th authorization of EVO SRF)

Note: Environmental Monitoring Site (EMS) identification numbers (IDs) correspond to those listed in the ENV's monitoring data repository.

The spatial location and distribution of authorized discharges, receiving environment, and other water sampling sites for EVO are presented in Appendix K Map 4.

Table 5. Summary of discharge and receiving environment water sampling sites for Coal Mountain Operation based on the version of Permit 107517 dated October 13, 2017.

EMS ID	Site ID	Sampling Site Type	Sampling Site Description
E258175	CM_MC1	Receiving Environment	Michel Creek Upstream of CMO
E298733	CM_PC2	Authorized Discharge	Pengelly channel decant
E206438	CM_CCPD	Authorized Discharge	Decant discharge from Corbin Sediment Pond
E298734	CM_SOW	Authorized Discharge	Sowchuck Sump
E102488	CM_SPD	Authorized Discharge	Main Pond Decant
0200209	CM_CC1	Receiving Environment	Corbin Creek Downstream of CMO

Note: Environmental Monitoring Site (EMS) identification numbers (IDs) correspond to those listed in the ENV's monitoring data repository.

The spatial location and distribution of authorized discharges and receiving environment water sampling sites for CMO are presented in Appendix K Map 5.

Table 6. Summary of receiving environment water sampling sites for the Koochanusa Reservoir based on the version of Permit 107517 dated October 13, 2017.

EMS ID	Site ID	Sampling Site Type	Sampling Site Description
E300095	RG_KERRRD	Receiving Environment	Koochanusa Reservoir Downstream of Kikkoman Creek
E300092	RG_GRASMERE	Receiving Environment	Koochanusa Reservoir West of Grasmere
E300093	RG_USGOLD	Receiving Environment	Koochanusa Reservoir Upstream of Gold Creek
E300094	RG_BORDER	Receiving Environment	Koochanusa Reservoir Upstream of the Canada/US border

Notes:

1. Environmental Monitoring Site (EMS) identification numbers (IDs) correspond to those listed in the ENV's monitoring data repository.
2. All receiving water sampling sites within the Koochanusa Reservoir are located on lands and waters of Canada.

The spatial location and distribution of receiving environment water sampling sites within the Koochanusa Reservoir are presented in Appendix K Map 6.

Table 7. Summary of water sampling sites for the West Line Creek Active Water Treatment Facility

EMS ID	Site ID	Sampling Site Type	Sampling Site Description
E293370	WL_LCI_SP02	Monitoring	AWTF Influent LC
E293371	WL_WLCI_SP01	Monitoring	AWTF Influent WLC

Note: Environmental Monitoring Site (EMS) identification numbers (IDs) correspond to those listed in the ENV's monitoring data repository.

The spatial location and distribution of authorized discharges and receiving environment water sampling sites for WLC are presented in Appendix K Map 9.

1.1.1 Compliance Points

In addition to the authorized discharges, receiving environment, and other water sampling sites outlined in Section 1.1, eight authorized Compliance Points have also been designated within the Elk Valley. Monitoring data collected at Compliance Points are intended to capture and represent all or most point and non-point discharges from operations, and as such, reflect a total discharge from the operation within the receiving environment. Compliance Points are subject to compliance limits established in Permit 107517. A list of the eight Compliance Points and their dedicated EMS numbers and corresponding site-specific sampling codes is presented in Table 8 below.

Table 8. Summary of authorized discharge compliance points within the Elk Valley.

EMS ID ¹	Site ID	Sampling Site Type	Sampling Site Description ²
E300071	FR_FRCP1	Authorized Discharge	FRO - Fording River, 525 m Downstream of Cataract Creek
200378	GH_FR1	Authorized Discharge	GHO Fording River - Fording River, 205 m Downstream of Greenhills Creek
E300090	GH_ERC	Authorized Discharge	GHO Elk River - Elk River, 220 m downstream of Thompson Creek

EMS ID ¹	Site ID	Sampling Site Type	Sampling Site Description ²
E291569	WL_BFWB_OUT_SP21	Authorized Discharge	WLC - AWTF Outfall (Effluent)
E297110	LC_LCDSSLCC	Authorized Discharge	LCO - Line Creek immediately downstream of South Line Creek Confluence (~1500 m downstream of the WLC WTP outfall)
E102682	EV_HC1	Authorized Discharge	EVO Harmer - Harmer Spillway
E258937	CM_MC2	Authorized Discharge	CMO - Michel Creek, 50 m Upstream of Andy Good Creek
E300091	EV_MC2	Authorized Discharge	EVO Michel Creek - Michel Creek at Highway -3 Bridge

Notes:

1. Environmental Monitoring Site (EMS) identification numbers (IDs) correspond to those listed in the ENV's monitoring data repository.
2. The **bold font** reflects which operation the Compliance Point applies to and is intended to reflect, all or most point and non-point discharges from the Operation (e.g., FRO's Compliance Point is EMS E300071; FR_FRCP1).

The spatial location and distribution of the Compliance Points is presented in Appendix K Map 7.

1.1.2 Order Stations

In addition to the authorized discharges, receiving environment, other water sampling sites, and Compliance Points, Teck collects water samples at seven Order Stations for which Site Performance Objectives (SPOs) have been established. Order Stations are used to monitor water quality in the Elk Valley (i.e., the Designated Area¹), and ultimately the implementation success of the EVWQP. A summary of the Order Stations and their dedicated EMS numbers and corresponding site-specific sampling codes is presented in Table 9 below. The spatial location and distribution of the Order Stations as well as a summary of their status compared to SPOs are presented in Appendix K Map 8.

Table 9. Summary of Order stations within the Elk Valley.

EMS ID	Site ID	Sampling Site Type	Sampling Site Description
0200378	GH_FR1	Receiving Environment / Authorized Discharge	Upper Fording River (Upstream Josephine Falls)
0200028	LC_LC5	Receiving Environment	Lower Fording River (Fording River Downstream of Line Creek)
E206661	GH_ER1	Receiving Environment	Elk River upstream of Boivin Creek (Upstream of Fording River)
0200027	EV_ER4	Receiving Environment	Elk River upstream of Grave Creek (from Fording River to Michel Creek)
200393	EV_ER1	Receiving Environment	Elk River Downstream Michel Creek

¹ The Designated Area as defined within Permit 107517 is: "a portion of southeastern British Columbia that contains the Elk Valley Watershed and the portion of Kooacanusa Reservoir within Canada, and is geographically defined by Ministerial Order M113. References to the Elk Valley are references to the Designated Area.

EMS ID	Site ID	Sampling Site Type	Sampling Site Description
E294312	RG_ELKORES	Receiving Environment	Elk River at Elko Reservoir
E300230	RG_DSELK	Receiving Environment	Koocanusa Reservoir – South of the Elk River

Notes:

1. Environmental Monitoring Site (EMS) identification numbers (IDs) correspond to those listed in the Ministry's monitoring data repository.
2. Water sampling site EMS 200378; GH_FR1 serves both as an Order Station (i.e., receiving environment sampling site), and as a Compliance Point (i.e., authorized discharge) for the Greenhills Operation.

2 Compliance

A number of water quality sampling sites have been established within Permit 107517 to evaluate compliance. The following section summarizes water quality results in comparison to authorized permit limits established for Compliance Points and SPOs established at Order Stations. Environmental non-compliances recorded in 2017 and associated corrective actions are also summarized.

2.1 Effluent Limits and Site Performance Objectives at Compliance Points

As noted in Section 1.1.1, eight Compliance Points have been designated within the Elk Valley. The intent of each Compliance Point is to capture and reflect, all or most point and non-point discharges from an operation, and as such, reflect an accumulated (i.e., integrated) discharge from that operation. A summary of the eight Compliance Points and their respective discharge effluent limits is presented in Table 10 below.

Table 10. Authorized discharge effluent limits established at Compliance Points within the Elk Valley (2017).

EMS ID ¹	Site ID	Constituent	Monthly Average Limit	Daily Maximum Limit ²
E300071	FR_FRCP1	Total Selenium	130 µg/L	155 µg/L
		Nitrate-N	27 mg/L as N	32.5 mg/L as N
		Sulphate	580 mg/L	-
0200378	GH_FR1	Total Selenium	80 µg/L	100 µg/L
		Nitrate-N	20 mg/L as N	29 mg/L as N
E300090	GH_ERC	Total Selenium	15 µg/L	-
		Nitrate-N	3 mg/L as N	-
E297110	LC_LCDSSLCC	Total Selenium	50 µg/L	58 µg/L
		Nitrate-N	7 mg/L as N	9 mg/L as N
E291569	WL_BFWB_OUT_SP21	Ammonia	-	1.0 mg/L
		Biological Oxygen Demand	-	25 mg/L
		pH range	-	6.5-8.5
		Nitrate	-	3.0 mg/L
		Total Phosphorus	-	0.3 mg/L
		Total Selenium	0.02 mg/L	-
		Total Suspended Solids	-	10.0 mg/L
E102682	EV_HC1	Total Selenium	45 µg/L ³	-
		Nitrate-N	4 mg/L as N ³	-
		Sulphate	300 mg/L ³	-
E300091	EV_MC2	Total Selenium	28 µg/L	-
		Nitrate-N	6 mg/L as N	-
E258937	CM_MC2	Total Selenium	19 µg/L	-
		Nitrate-N	5 mg/L as N	-
		Sulphate	500 mg/L	-

Notes:

1. Environmental Monitoring Site (EMS) identification numbers (IDs) correspond to those listed in the Ministry's monitoring data repository.
2. These limits apply to data collected and reported on in 2017.

In addition to the above-listed effluent limits, four specified Compliance Points (0200378 (GH_FR1), E300090 (GH_ERC), E297110 (LC_LCDSSLCC) and E300091 (EV_MC2) are required to maintain SPOs for sulphate per the following water hardness (expressed in terms of calcium carbonate (CaCO₃)) dependent relationship:

Table 11. Sulphate SPO at various water hardness values expressed as CaCO₃.

Water Hardness (mg/L CaCO ₃)	SO ₄ SPO (mg/L)
Very soft (<30)	128
Soft to moderately soft (31-75)	218
Moderately soft/hard to hard (76-180)	309
Very hard (181-250)	429
Very Hard (>250)	429

All Compliance Points are expected to maintain the following hardness dependant SPO for cadmium:

$$\text{Cadmium (Cd): } Cd (\mu\text{g/L}) = 10^{0.831 \log(\text{hardness}) - 2.53}$$

A summary of 2017 water quality data recorded at Compliance Points relative to the above-listed limits is presented in Figures 2 to 22. Exceedances in effluent limits (i.e., non-compliances) are discussed in Section 2.3.

Compliance Point E300071 (FR_FRCP1)

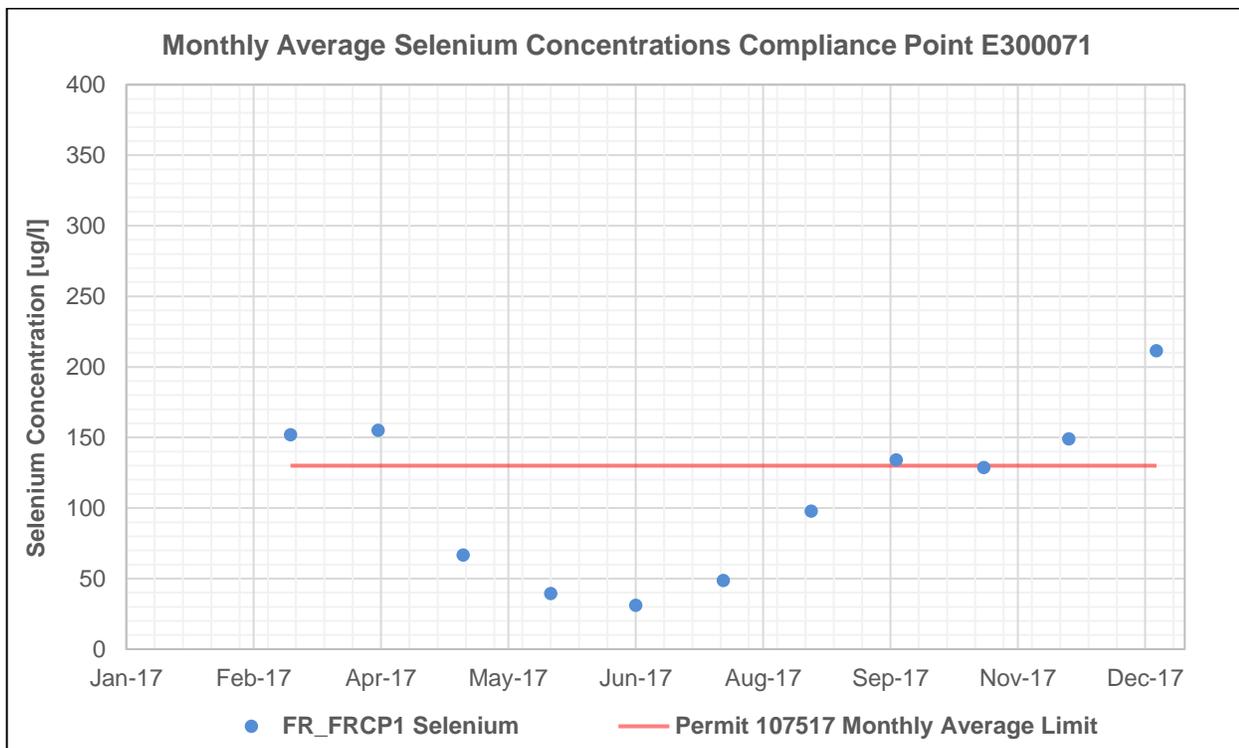


Figure 2. Monthly average total selenium concentrations recorded at Fording River Operation Compliance Point E300071 (FR_FRCP1).

Note: The monthly average compliance limit for total selenium was exceeded in March, November, September, and December and is discussed in Section 2.3.

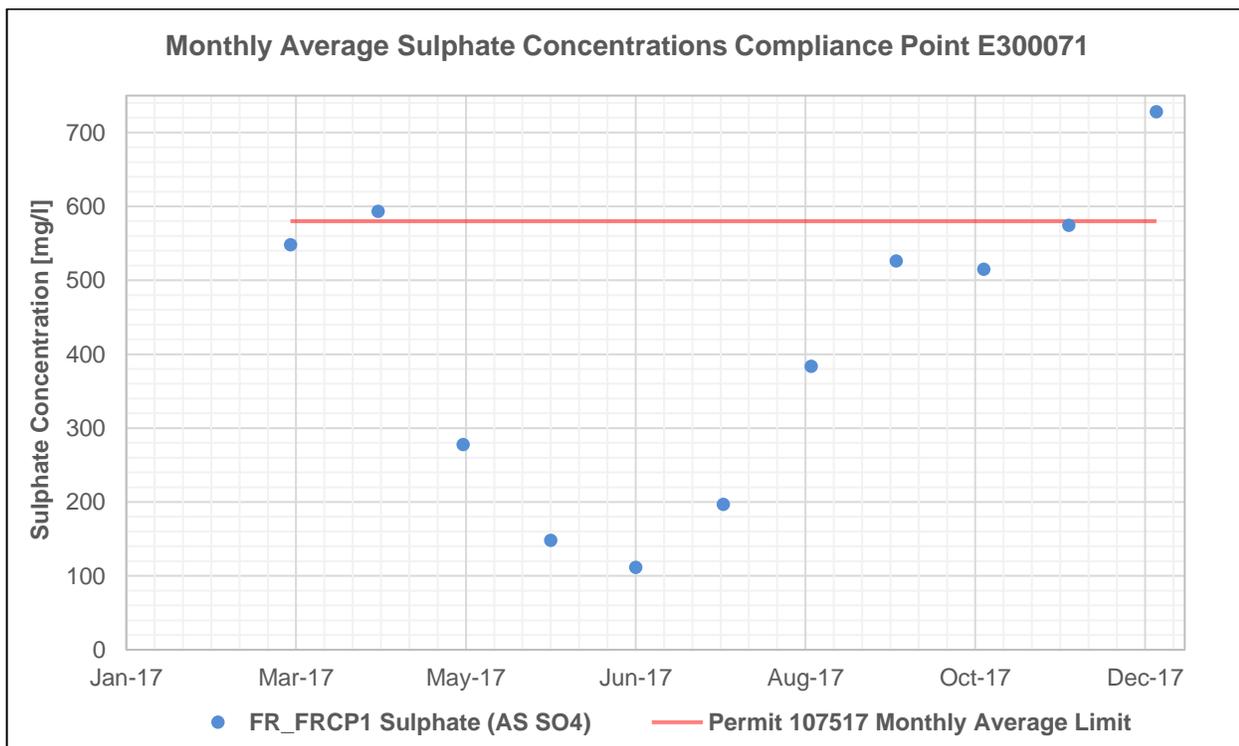
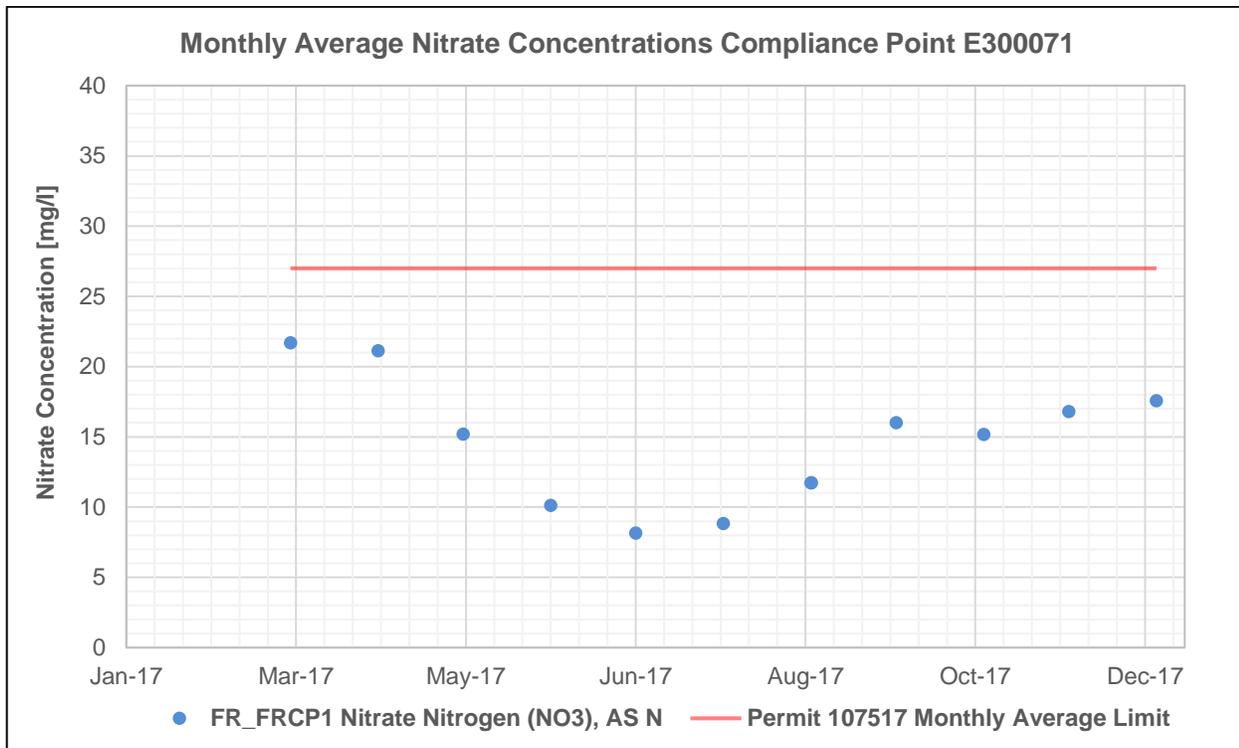


Figure 3. Monthly average nitrate (top panel) and sulphate (bottom panel) concentrations recorded at Fording River Operation Compliance Point E300071 (FR_FRCP1).

Note: The monthly average compliance limit for sulphate was exceeded in March and December are discussed in Section 3.2.

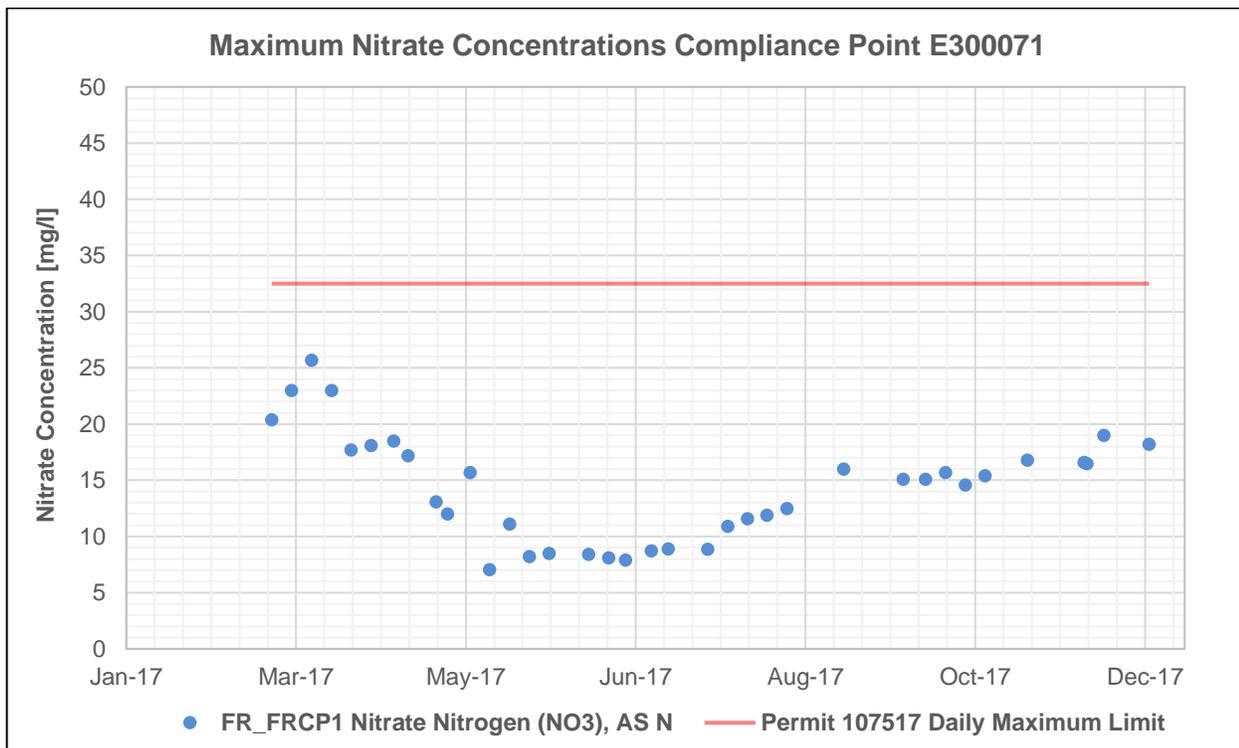
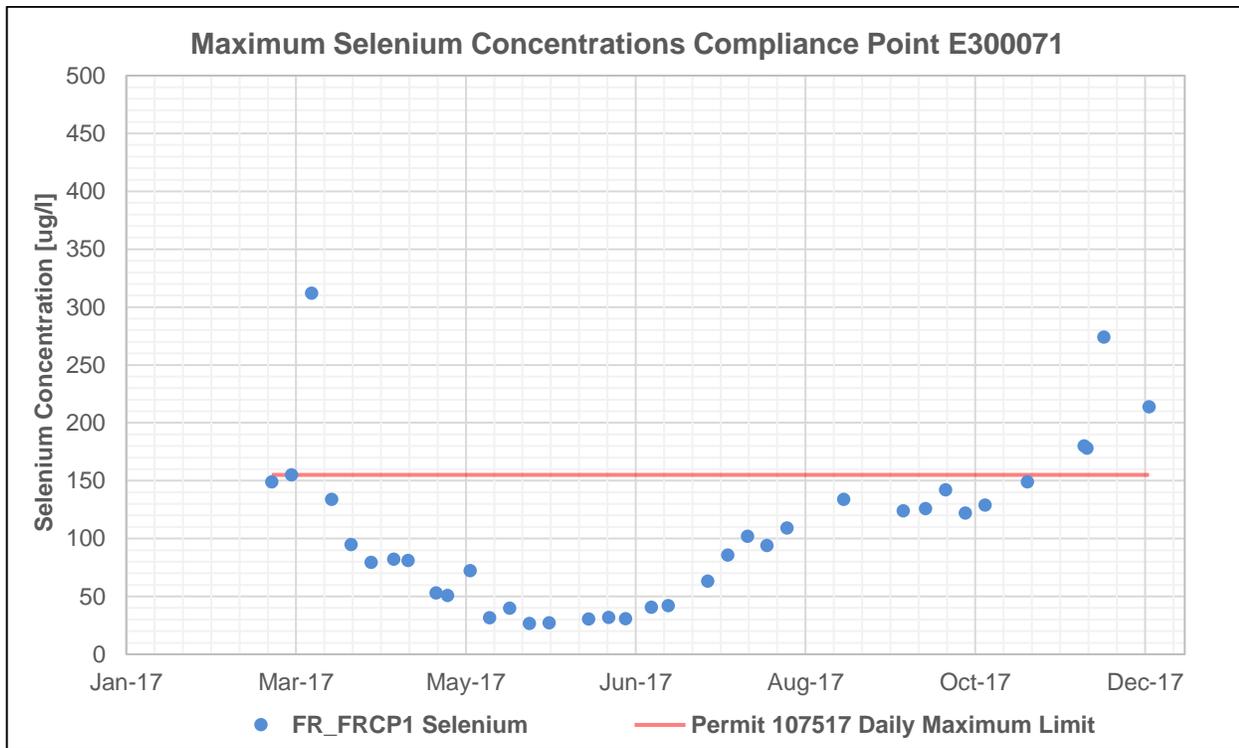


Figure 4. Daily maximum total selenium (top panel) and nitrate-N (Bottom Panel) concentrations recorded at Fording River Operation Compliance Point E300071 (FR_FRCP1).

Note: Compliance limit exceedances in March and December are discussed in Section 2.3 below.

Compliance Point 0200378 (GH_FR1)

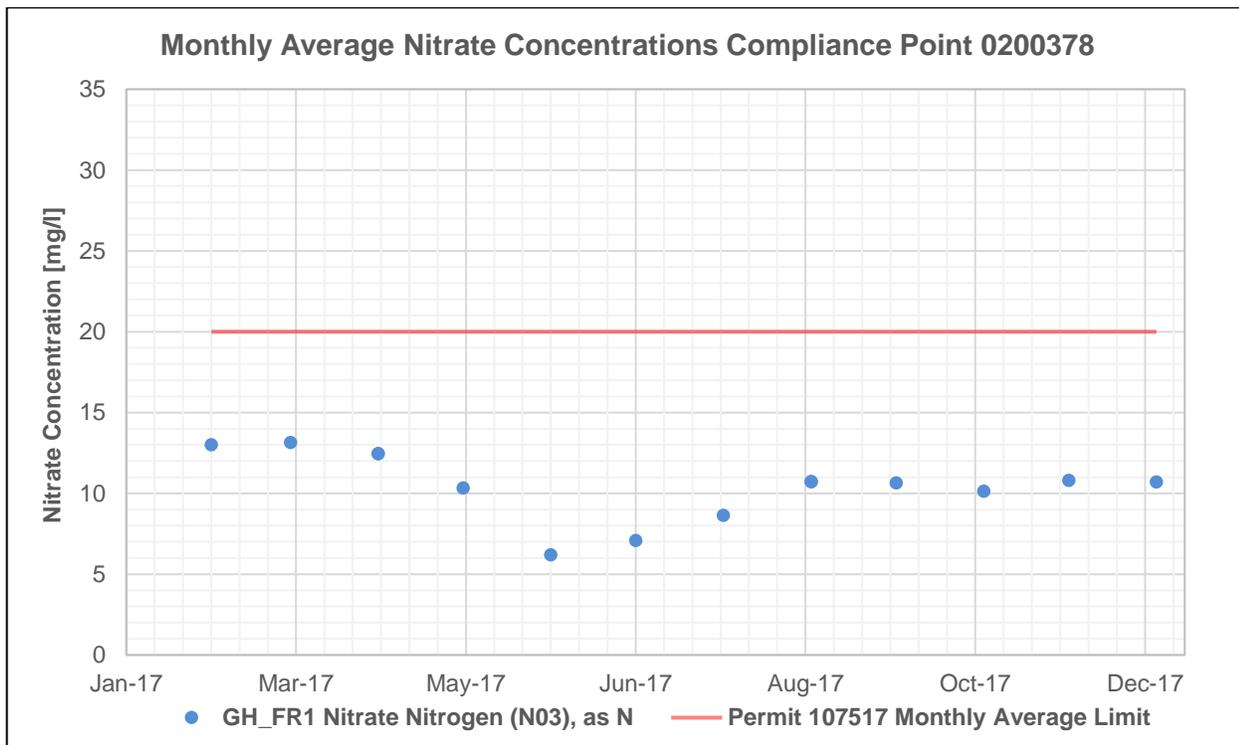
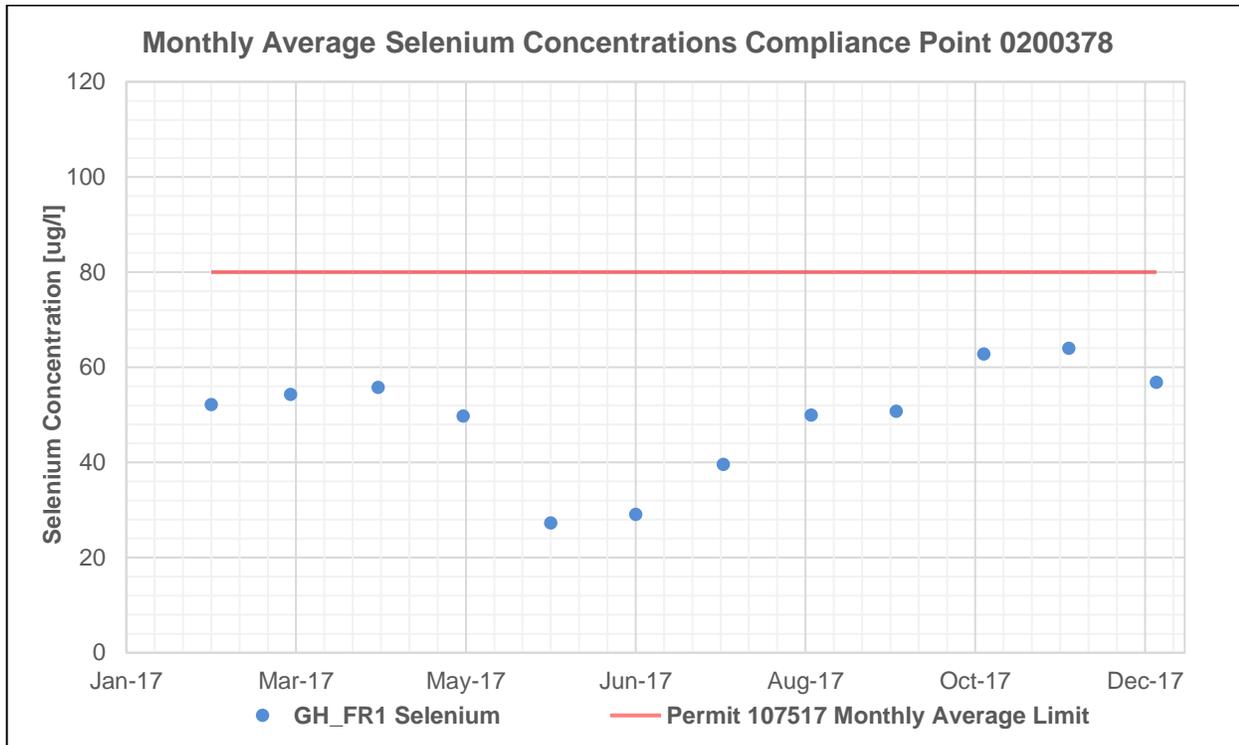


Figure 5. Monthly average total selenium (top panel) and nitrate-N (bottom panel) concentrations recorded at Greenhills Operation Compliance Point 0200378 (GH_FR1).

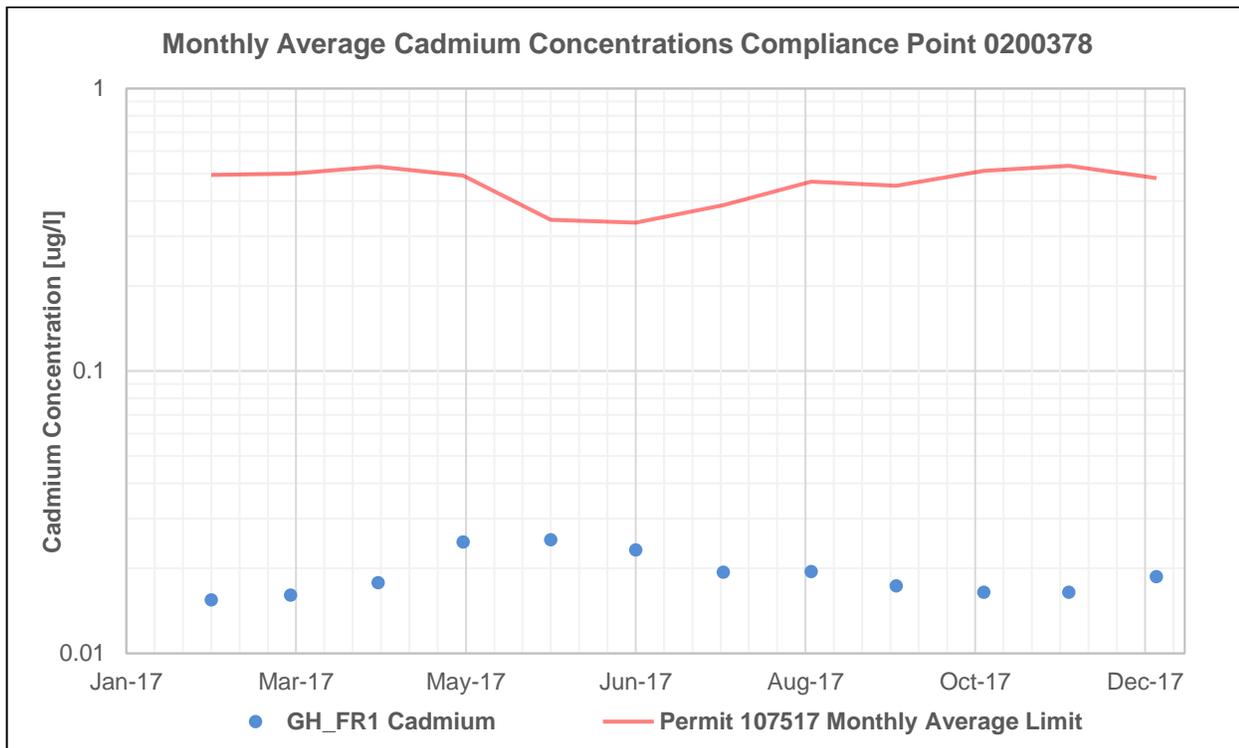
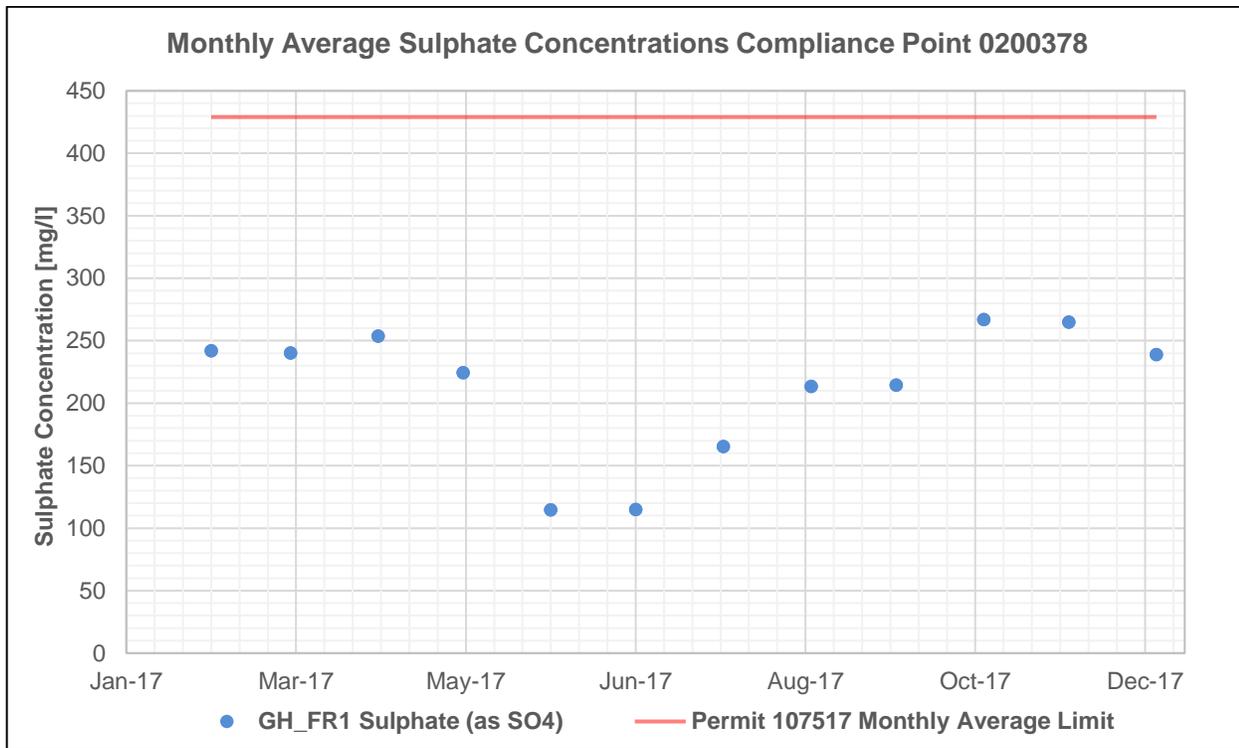


Figure 6. Monthly average sulphate (top panel) and cadmium (bottom panel) concentrations recorded at Greenhills Operation Compliance Point 0200378 (GH_FR1).

Note: The cadmium and sulphate SPOs are hardness dependent and as such, reflect temporal variation in measured water hardness.

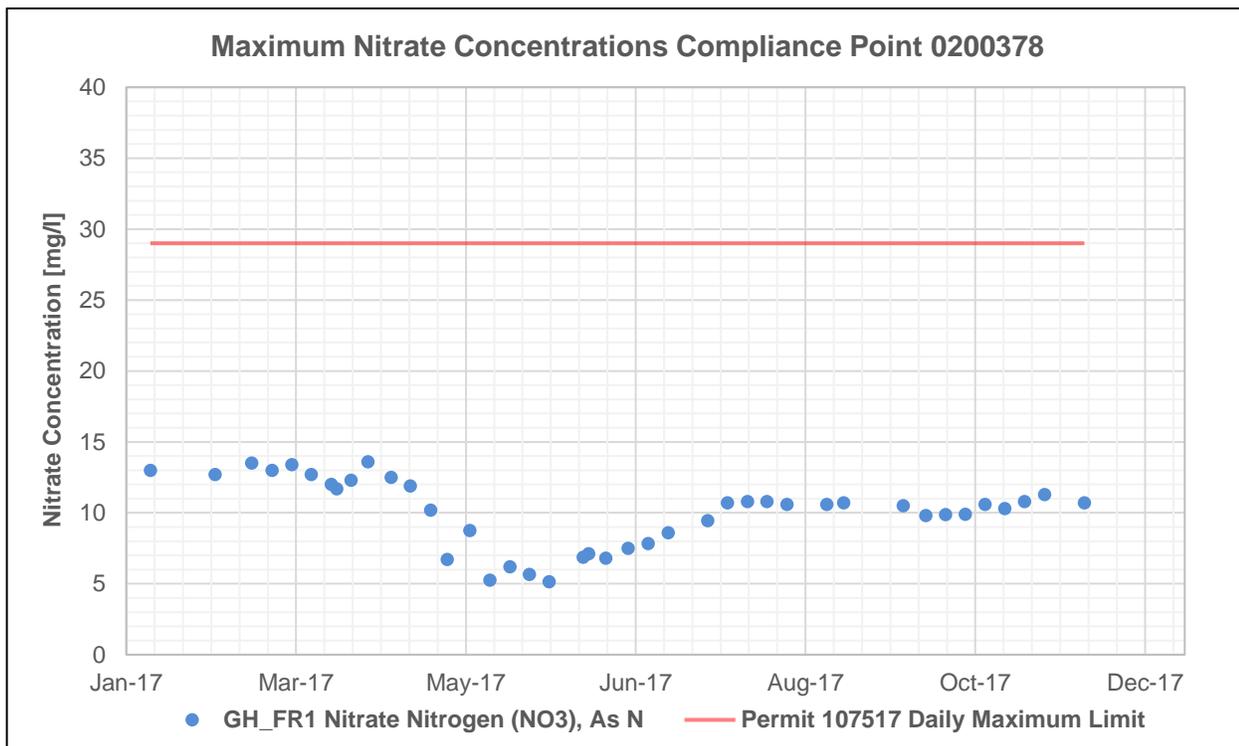
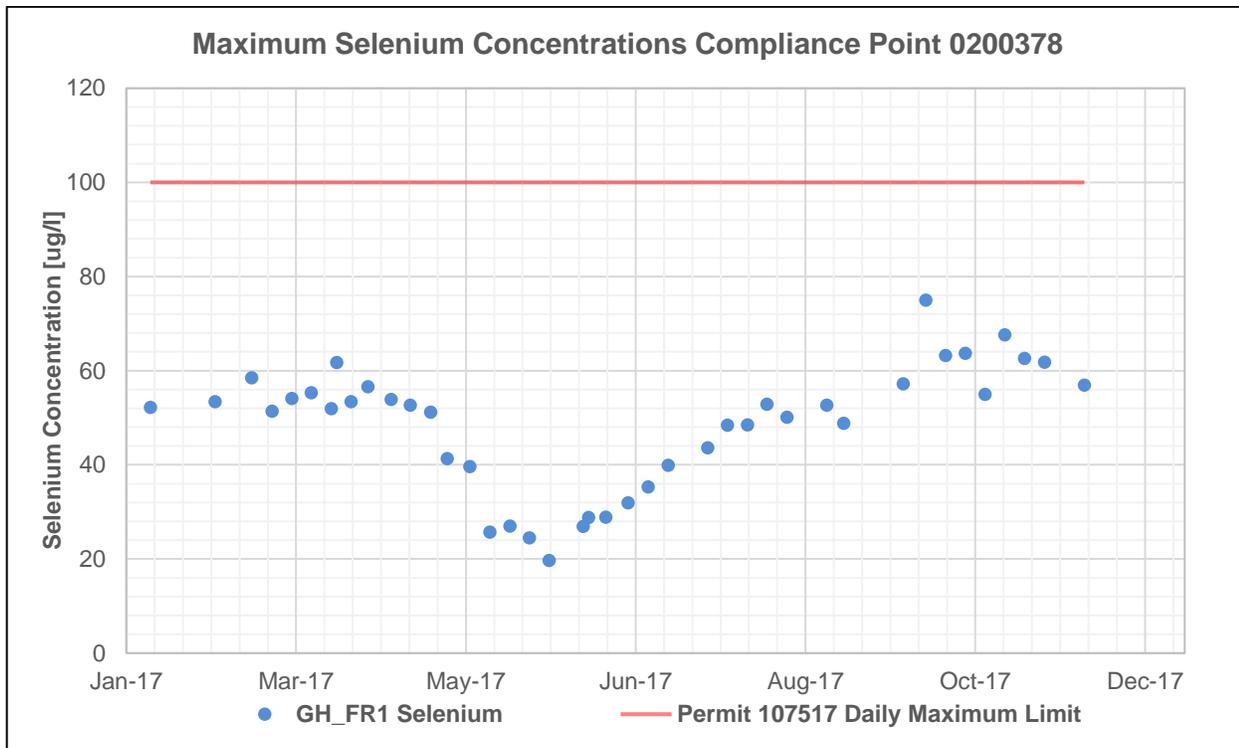


Figure 7. Daily maximum selenium (top panel) and nitrate-N (bottom panel) concentrations recorded at Greenhills Operation Compliance Point 0200378 (GH_FR1).

Compliance Point E300090 (GH_ERC)

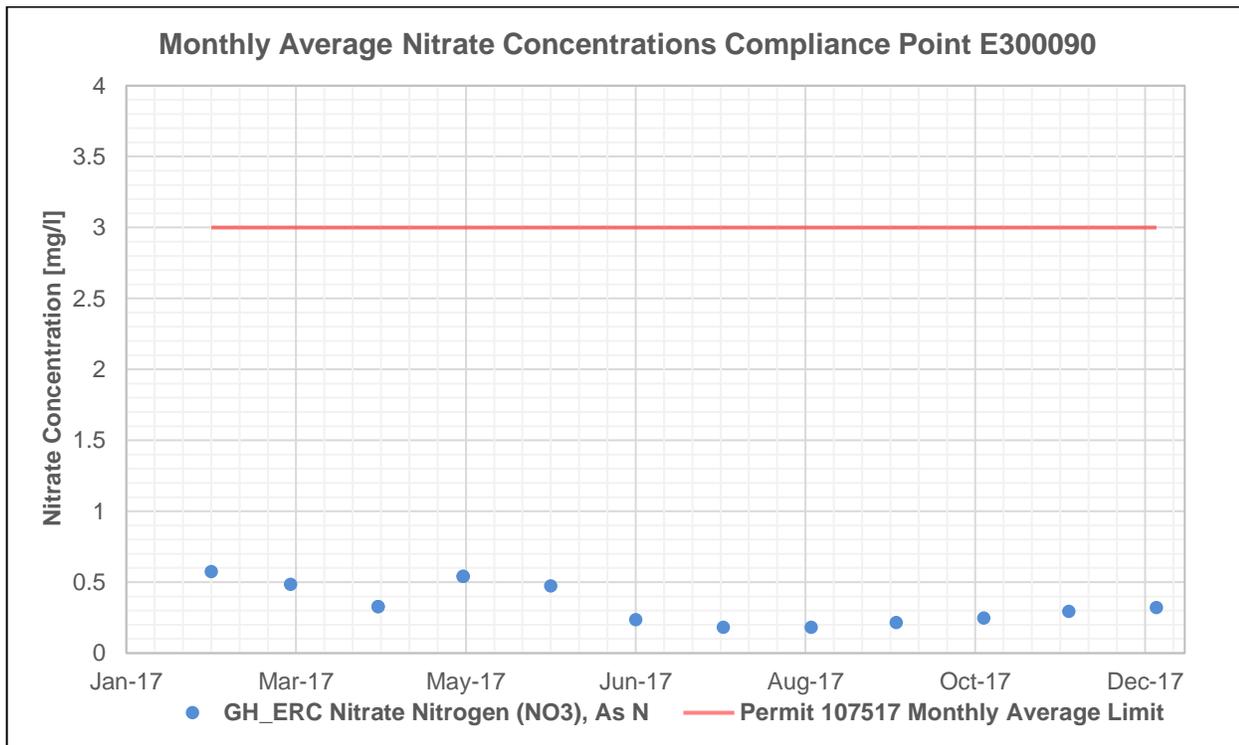
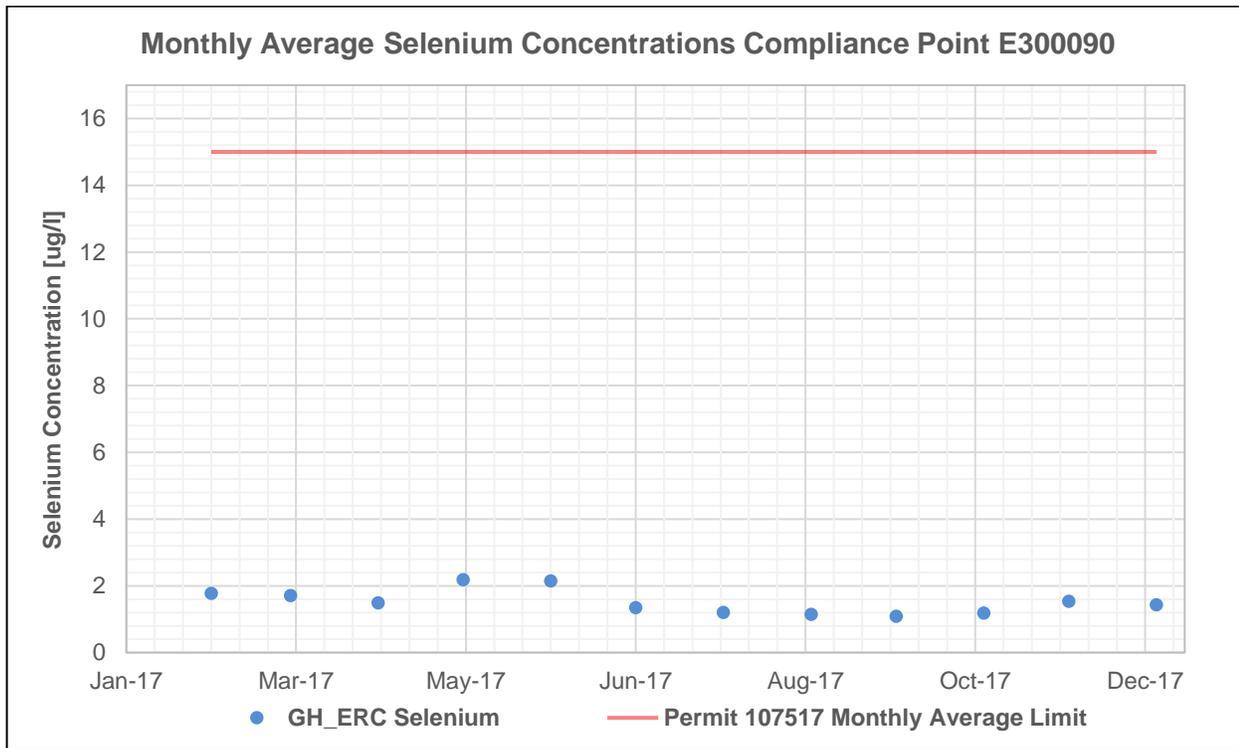


Figure 8. Monthly average total selenium (top panel) and nitrate-N (bottom panel) concentrations recorded at Greenhills Operation Compliance Point E300090 (GH_ERC).

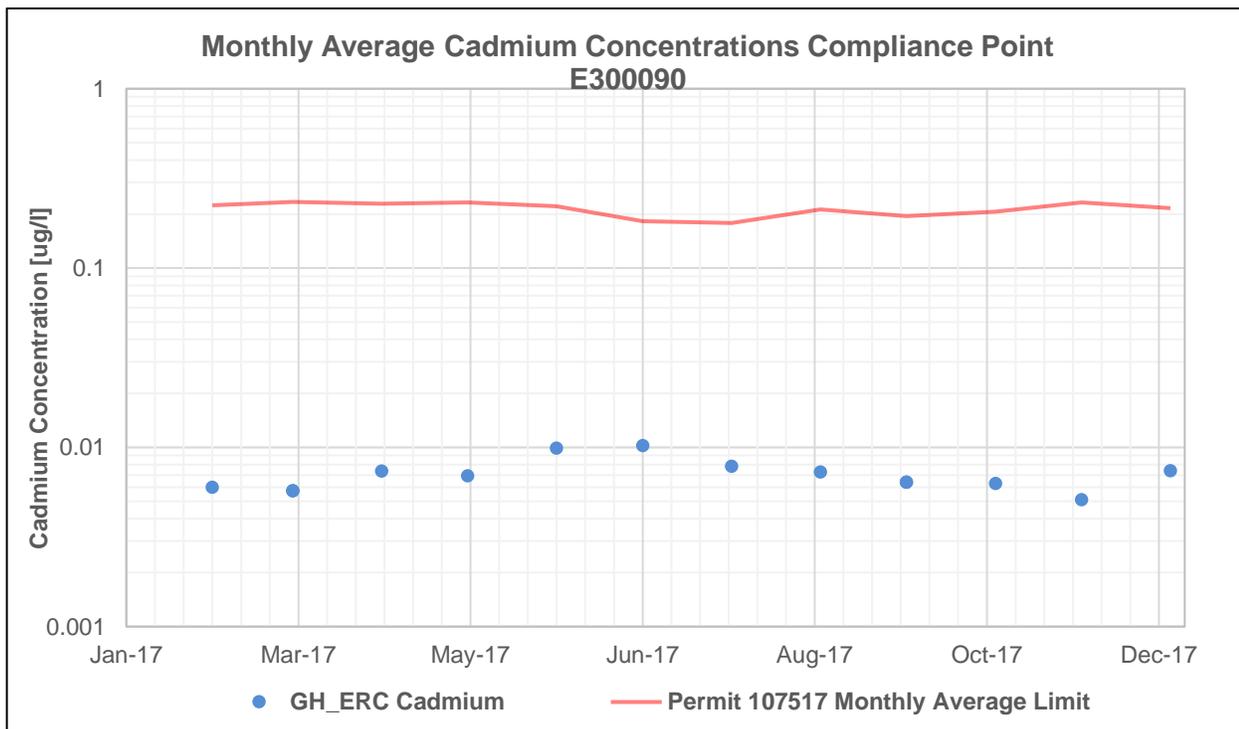
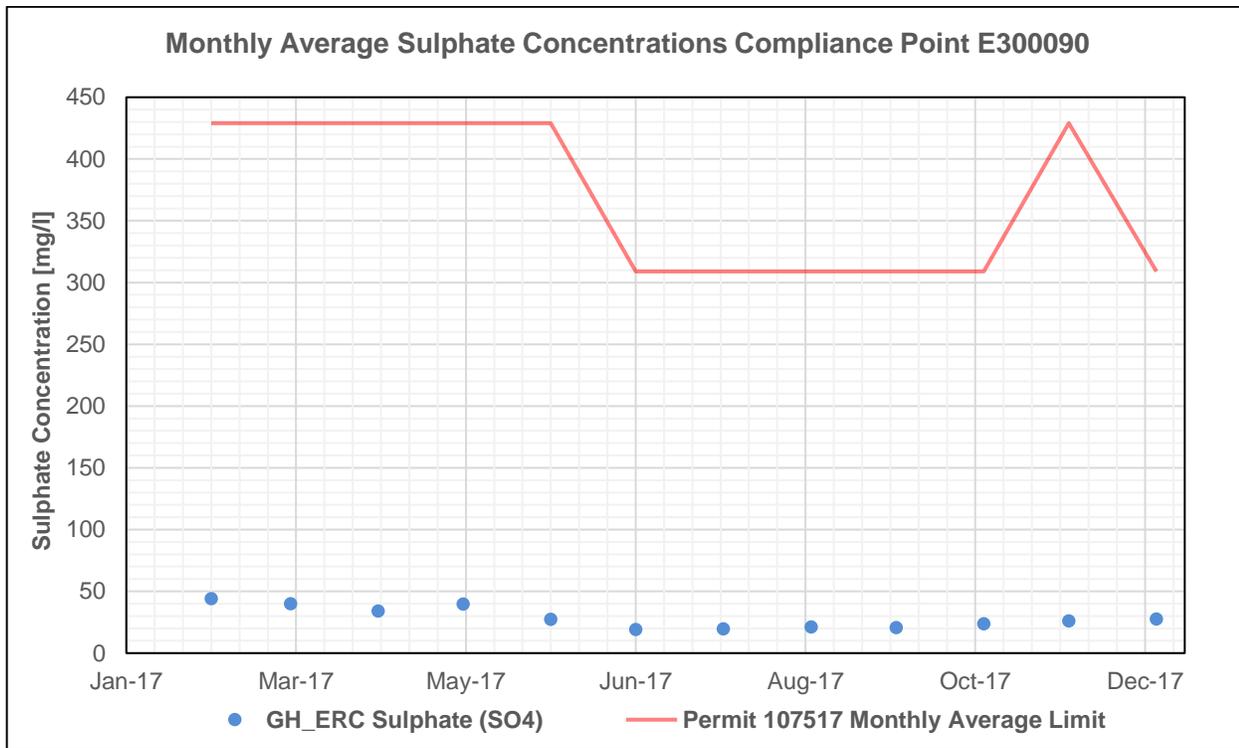


Figure 9. Monthly average sulphate (top panel) and cadmium (bottom panel) concentrations recorded at Greenhills Operation Compliance Point E300090 (GH_ERC).

Compliance Point E297110 (LC_LCDSSLCC)

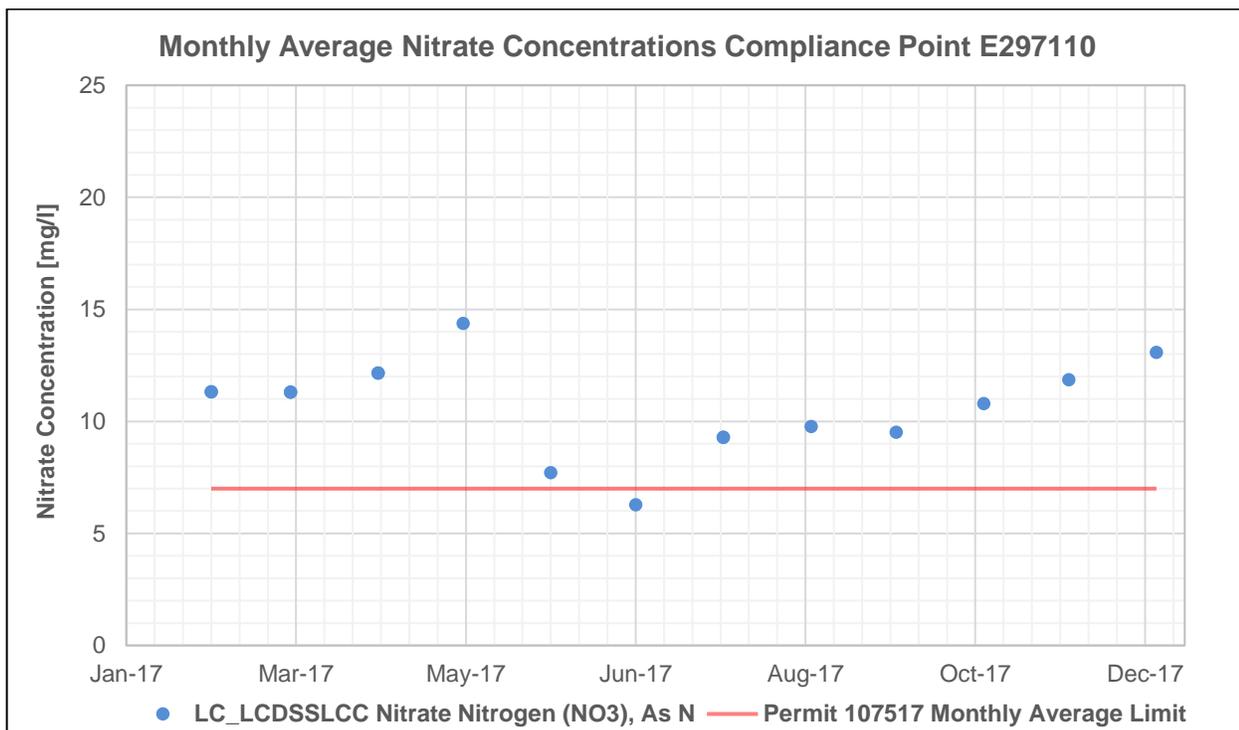
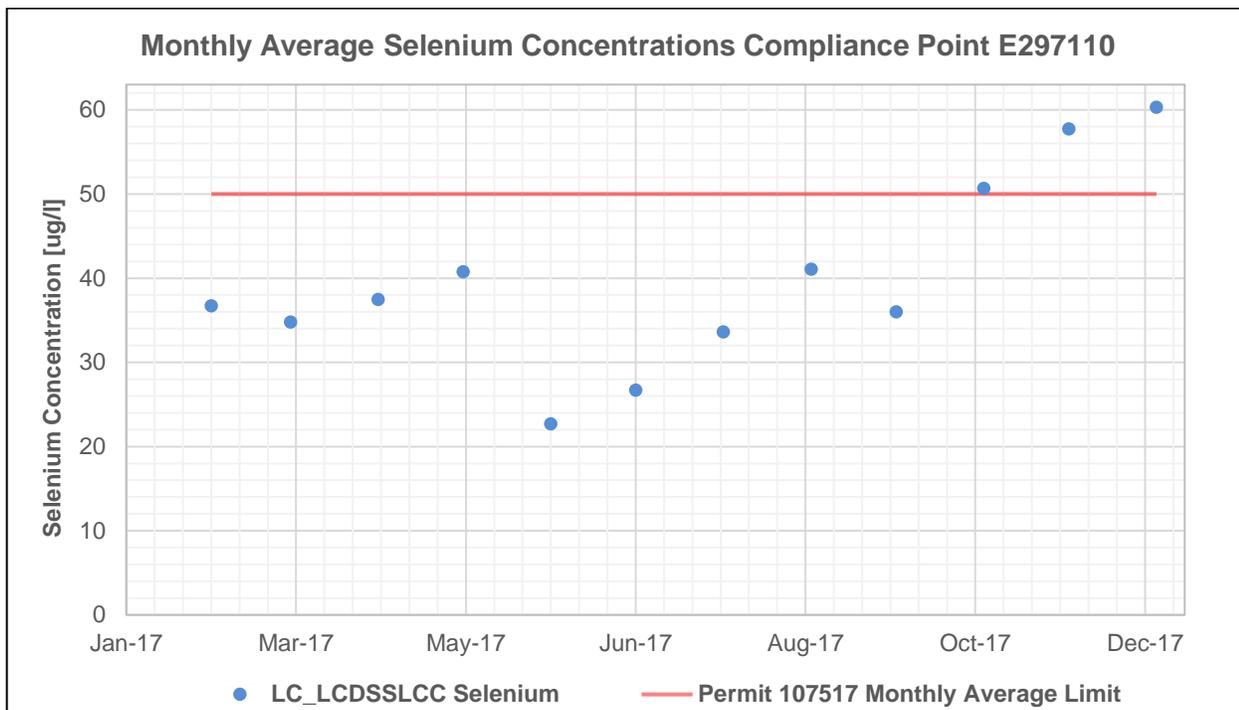


Figure 10. Monthly average total selenium (top panel) and nitrate-N (bottom panel) concentrations recorded at Line Creek Operation Compliance Point E297110 (LC_LCDSSLCC).

Note: The monthly average compliance limit for selenium was exceeded in October, November and December. The monthly average compliance limit for nitrate was exceeded in all months except June and will be further discussed in Section 2.3.

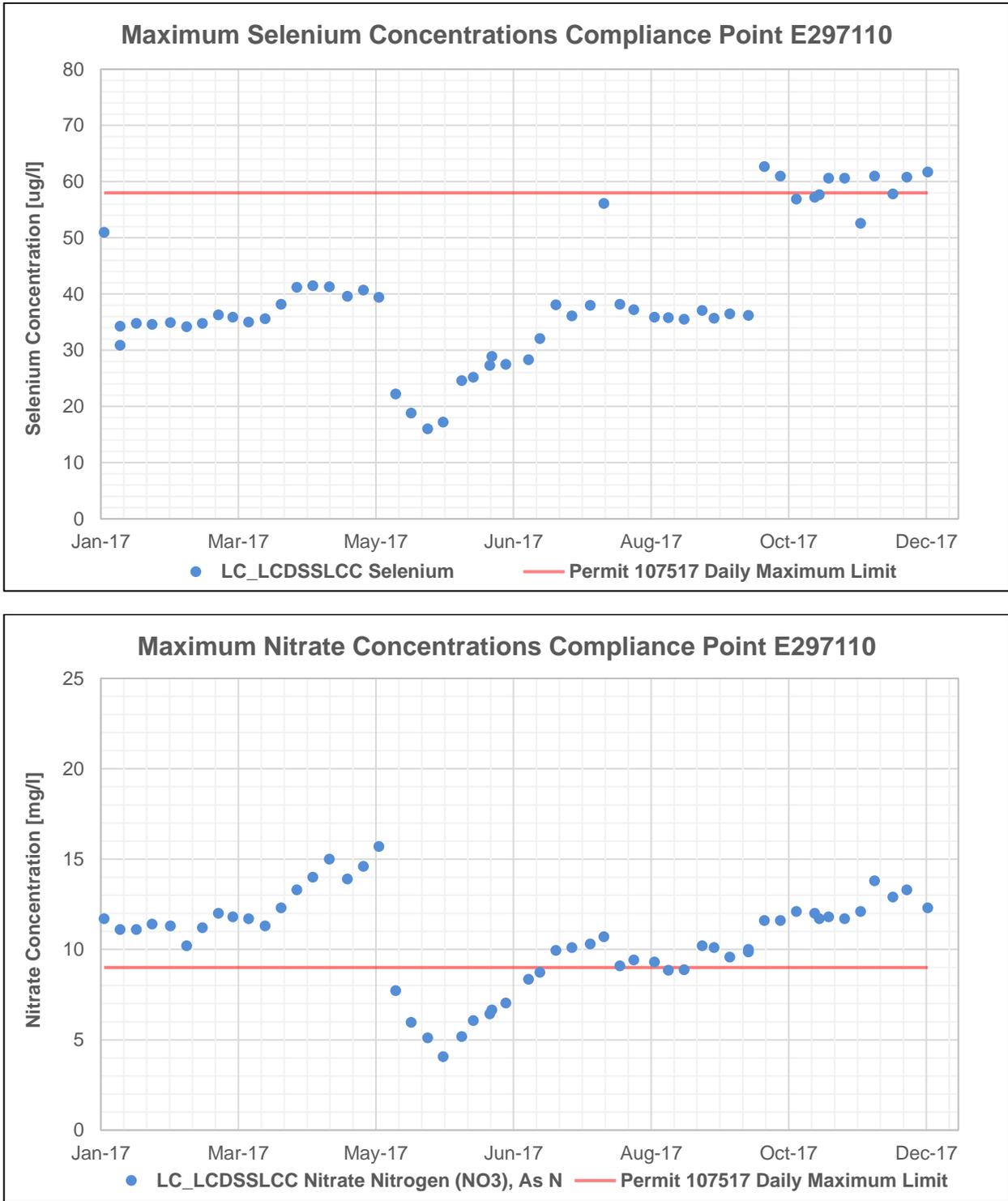


Figure 11. Daily maximum total selenium (top panel) and nitrate-N (bottom panel) concentrations recorded at Line Creek Operation Compliance Point E297110 (LC_LCDSSLCC).

Note: The daily maximum compliance limit for selenium was exceeded in October, November, and January. The daily maximum compliance limit for nitrate was exceeded in all months except June and will be discussed in Section 2.3.

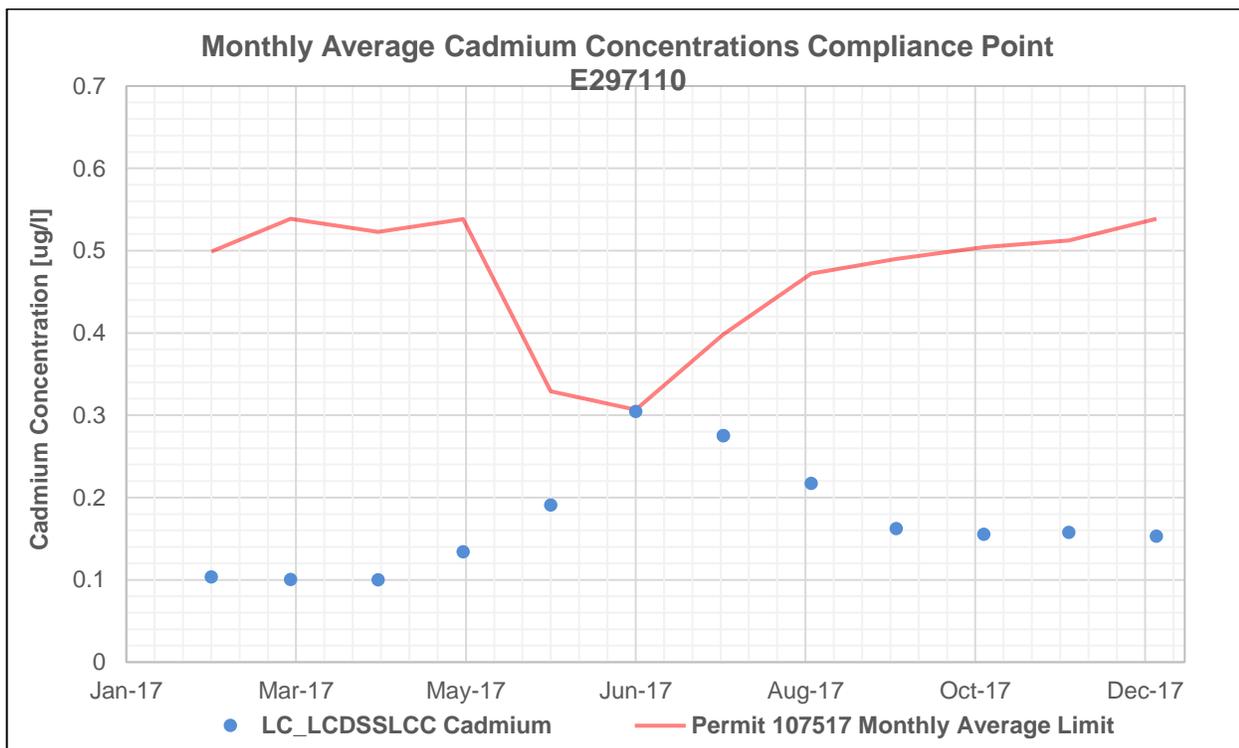
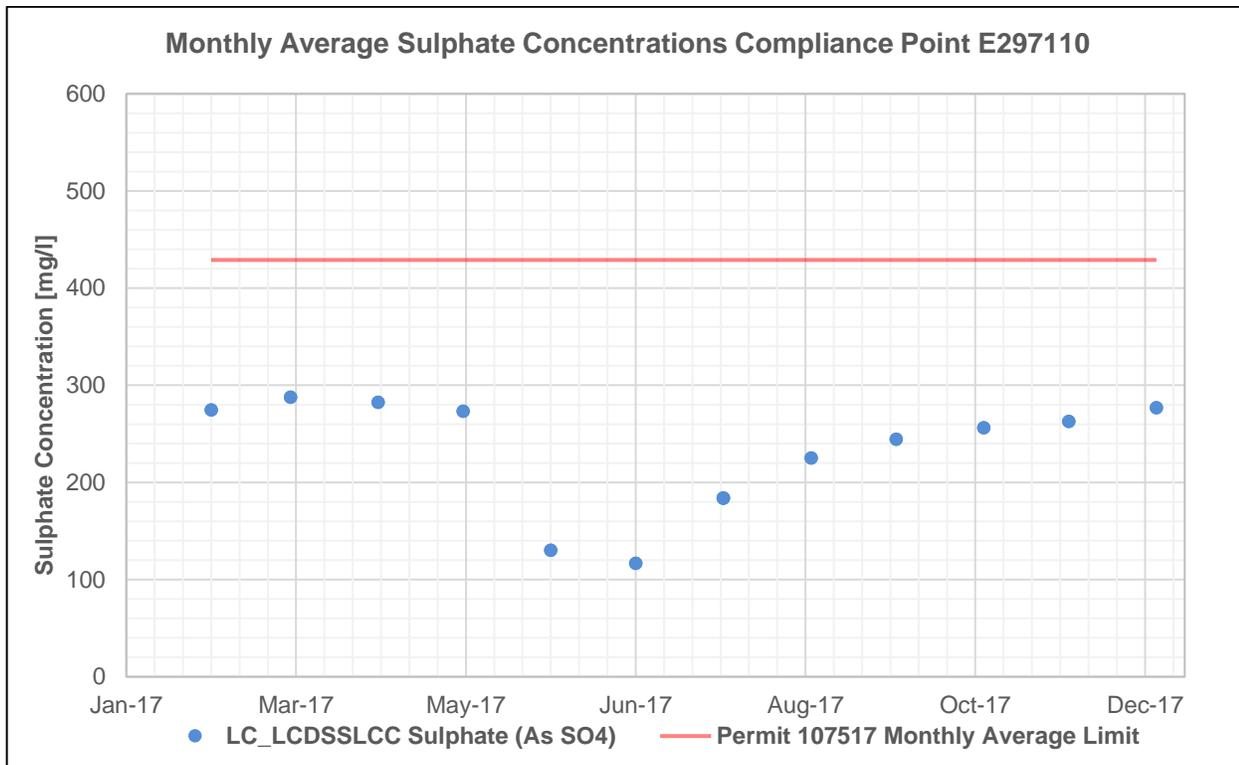


Figure 12. Monthly average sulphate (top panel) and cadmium (bottom panel) concentrations recorded at Line Creek Operation Compliance Point E297110 (LC_LCDSSLCC).

Compliance Point E102682 (EV_HC1)

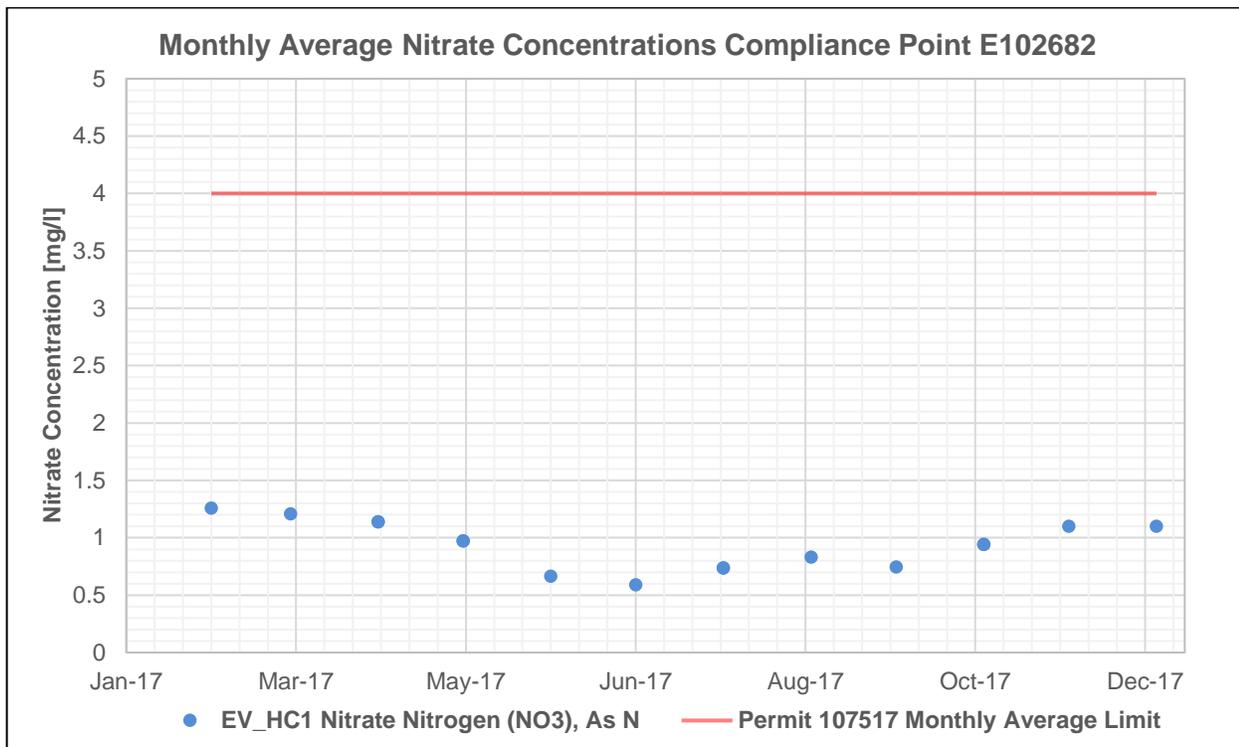
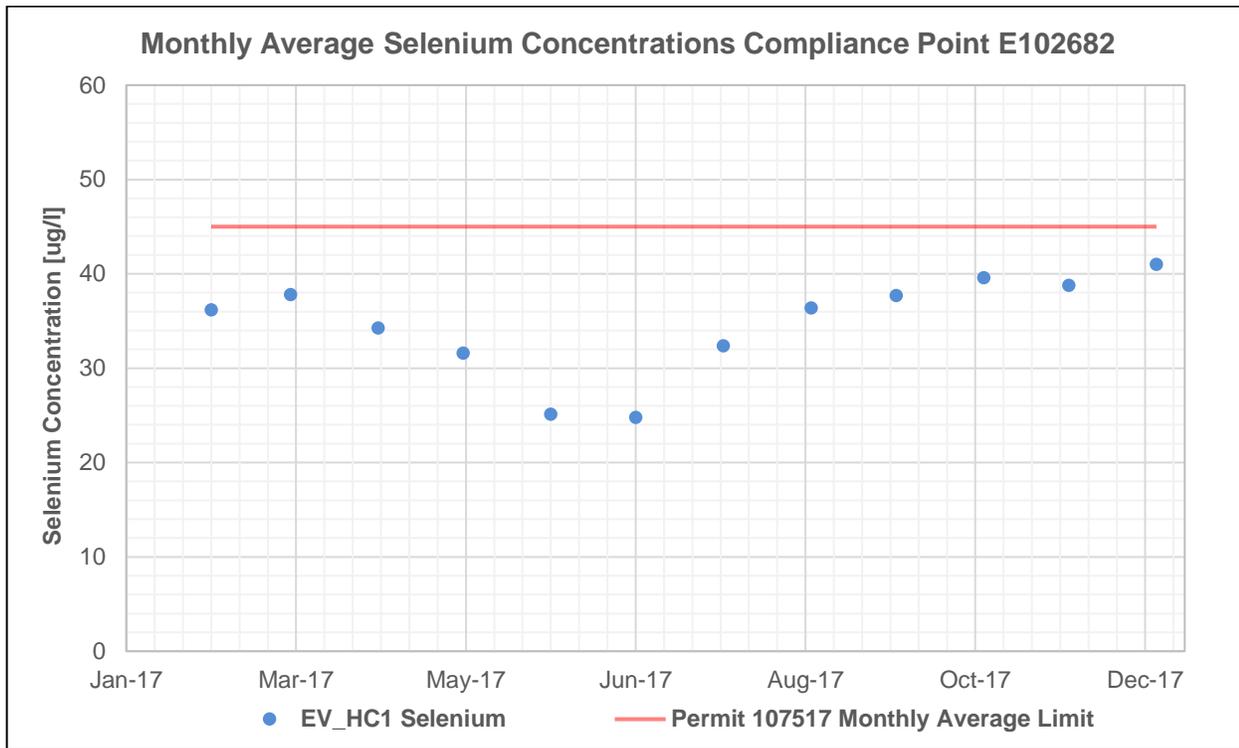


Figure 13. Monthly average total selenium (top panel) and nitrate-N (bottom panel) concentrations recorded at Elkview Operation Compliance Point E102682 (EV_HC1).

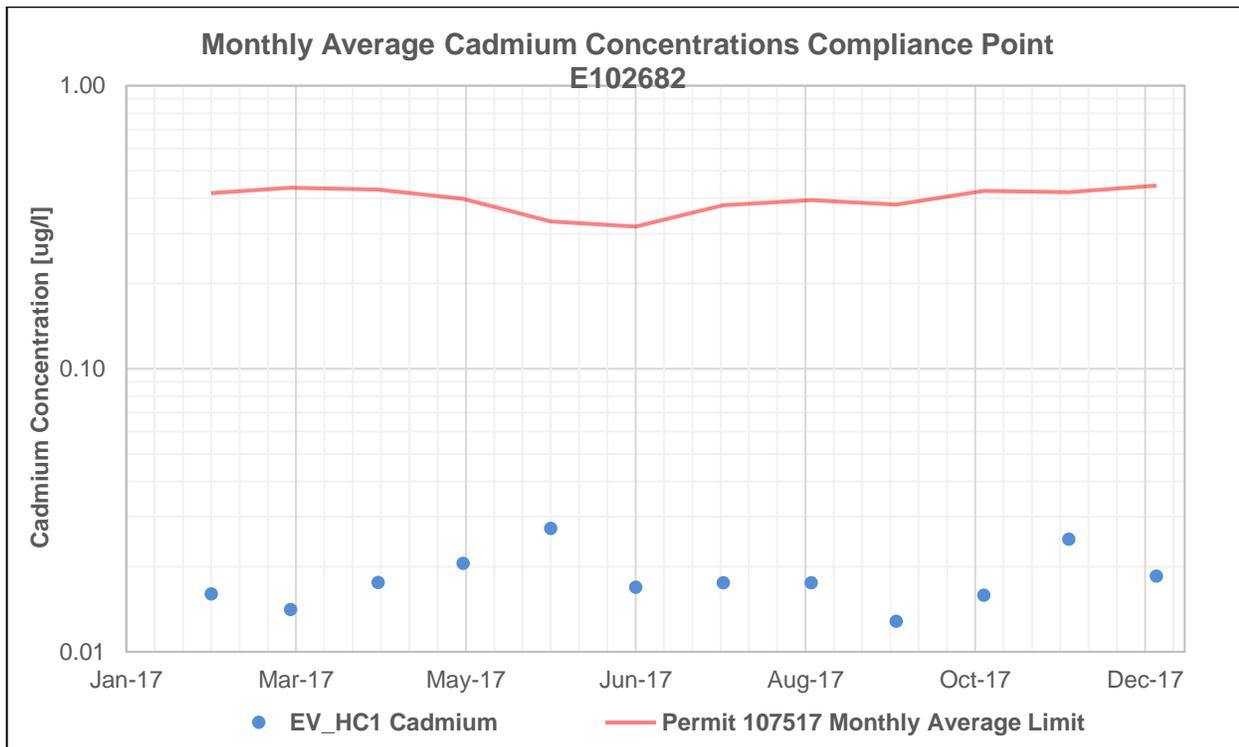
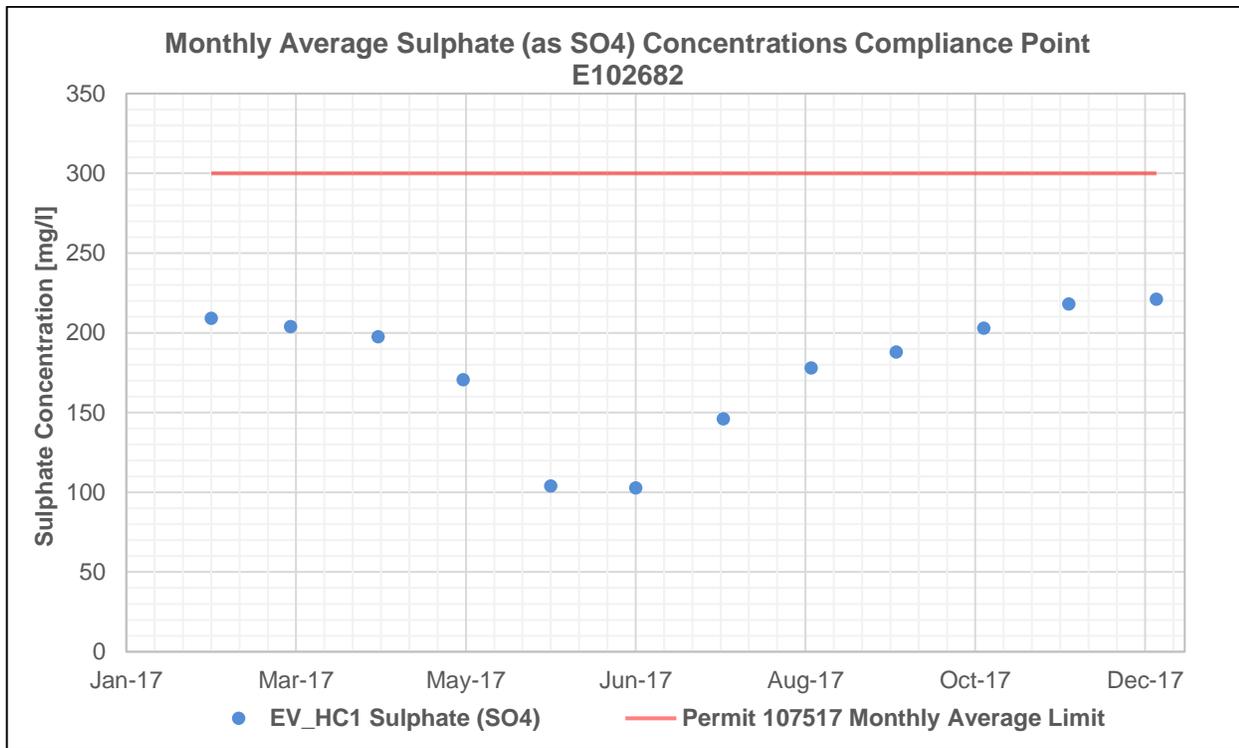


Figure 14. Monthly average sulphate (top panel) and cadmium (bottom panel) concentrations recorded at Elkview Operation Compliance Point E102682 (EV_HC1).

Compliance Point E300091 (EV_MC2)

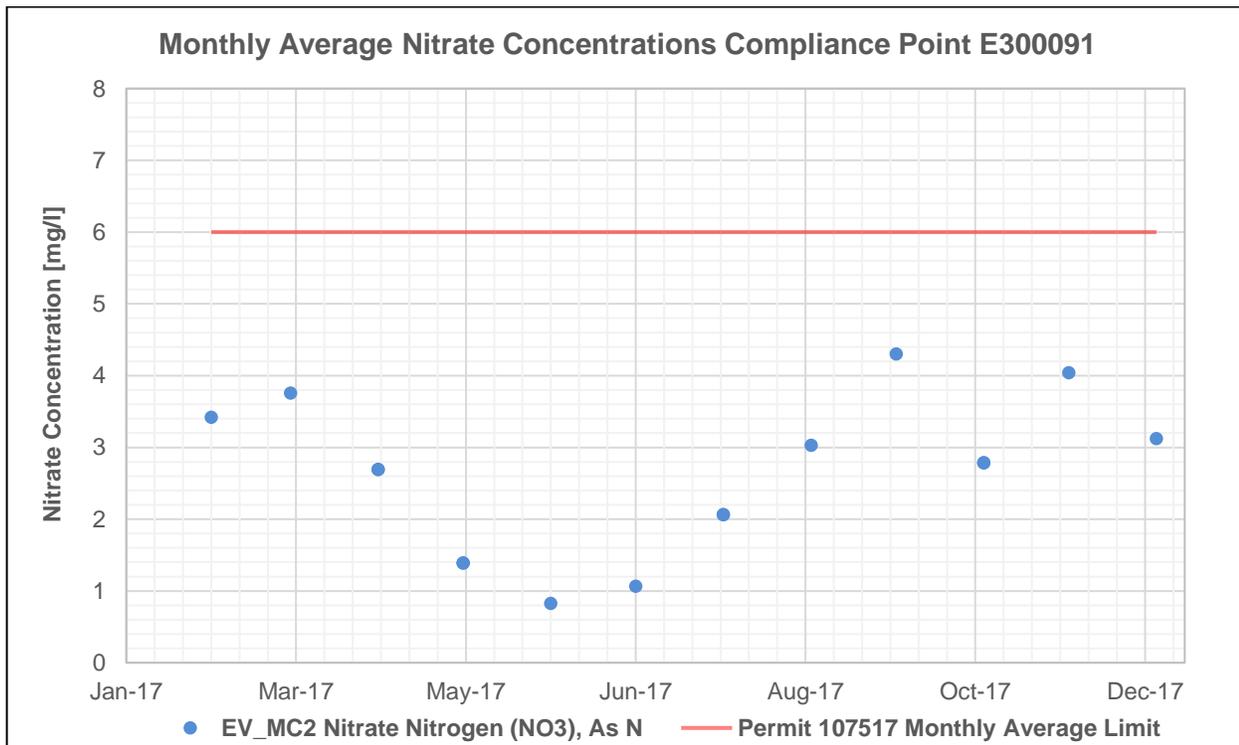
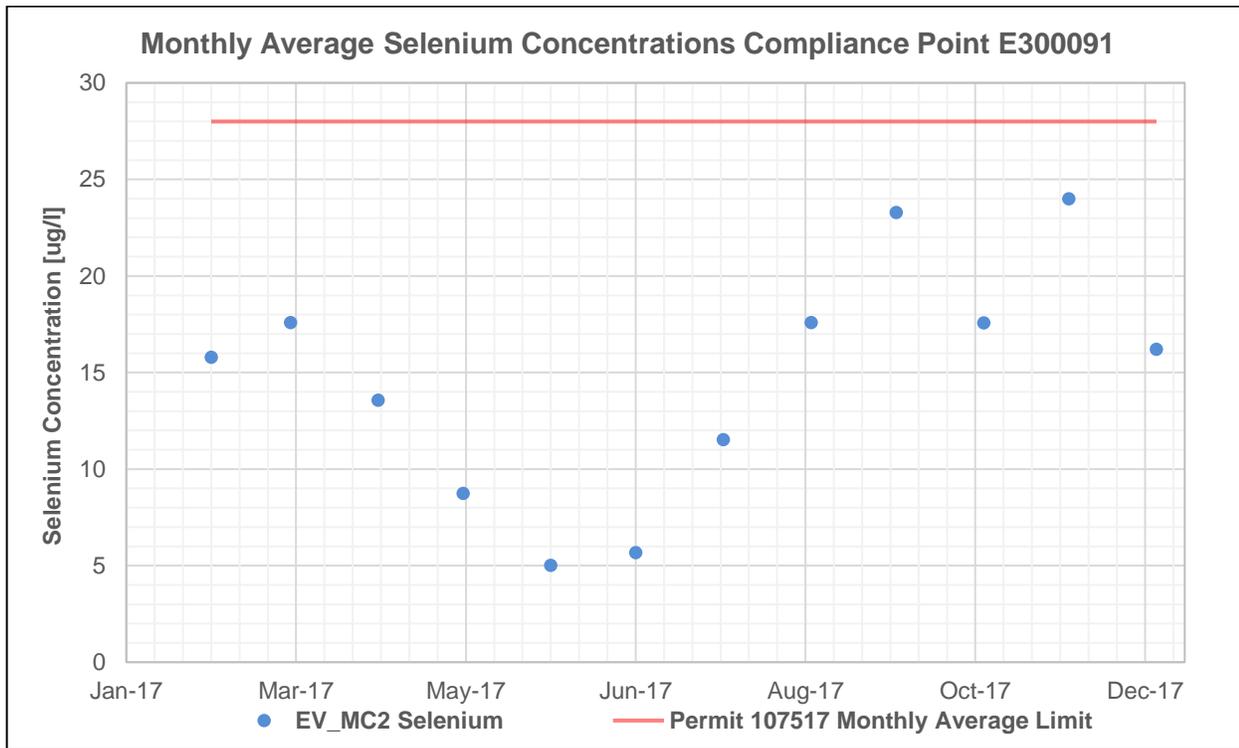


Figure 15. Monthly average total selenium (top panel) and nitrate-N (bottom panel) concentrations recorded at Elkview Operation Compliance Point E300091 (EV_MC2).

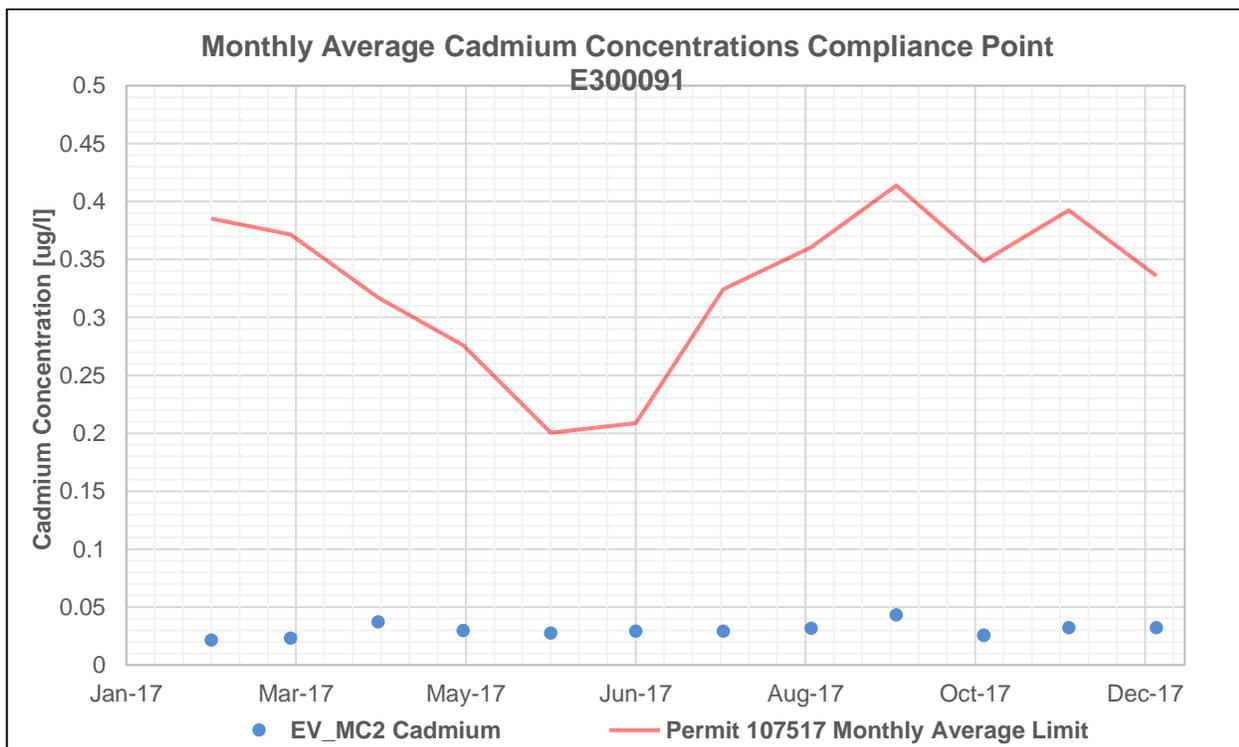
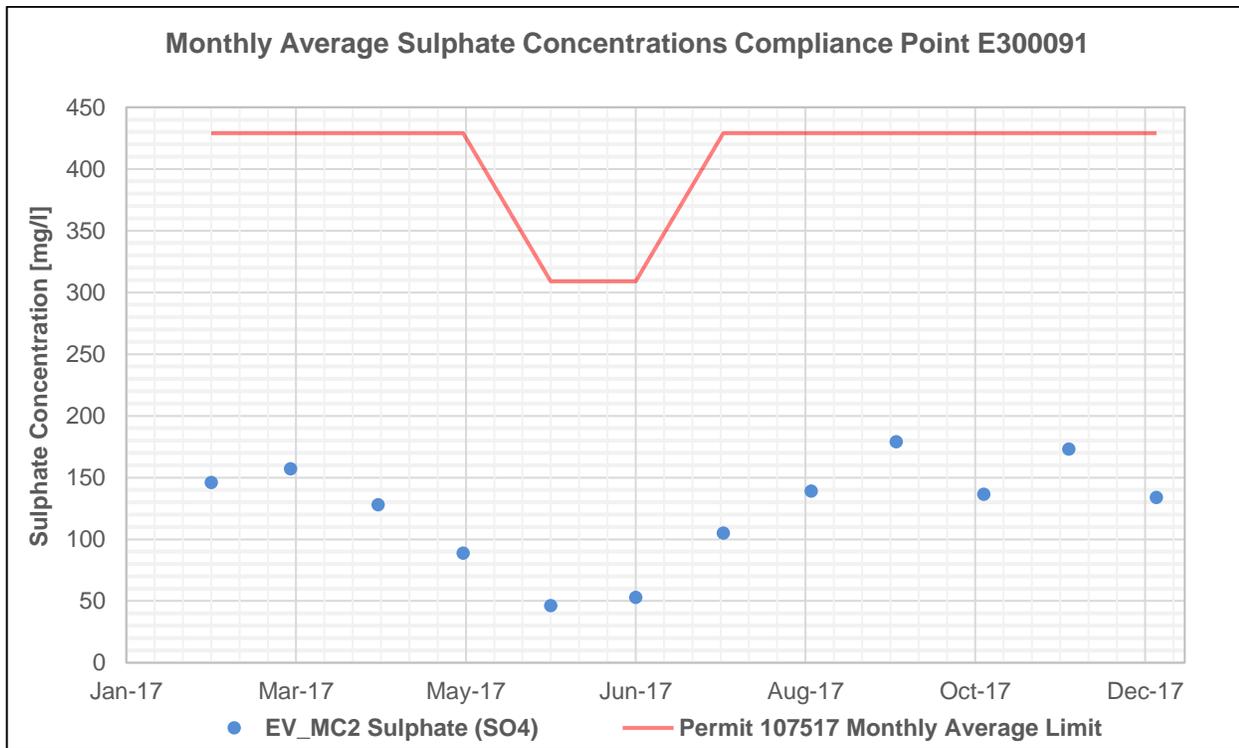


Figure 16. Monthly average sulphate (top panel) and cadmium (bottom panel) concentrations recorded at Elkview Operation Compliance Point E300091 (EV_MC2)

Compliance Point E258937 (CM_MC2)

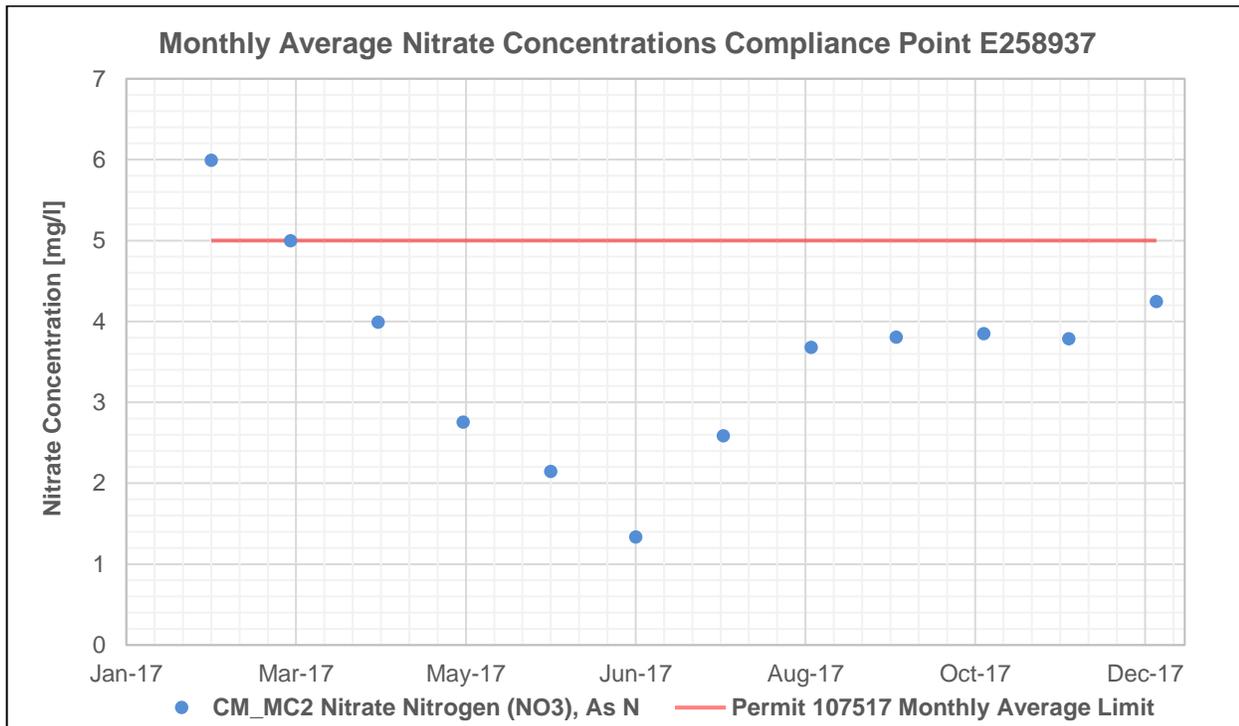
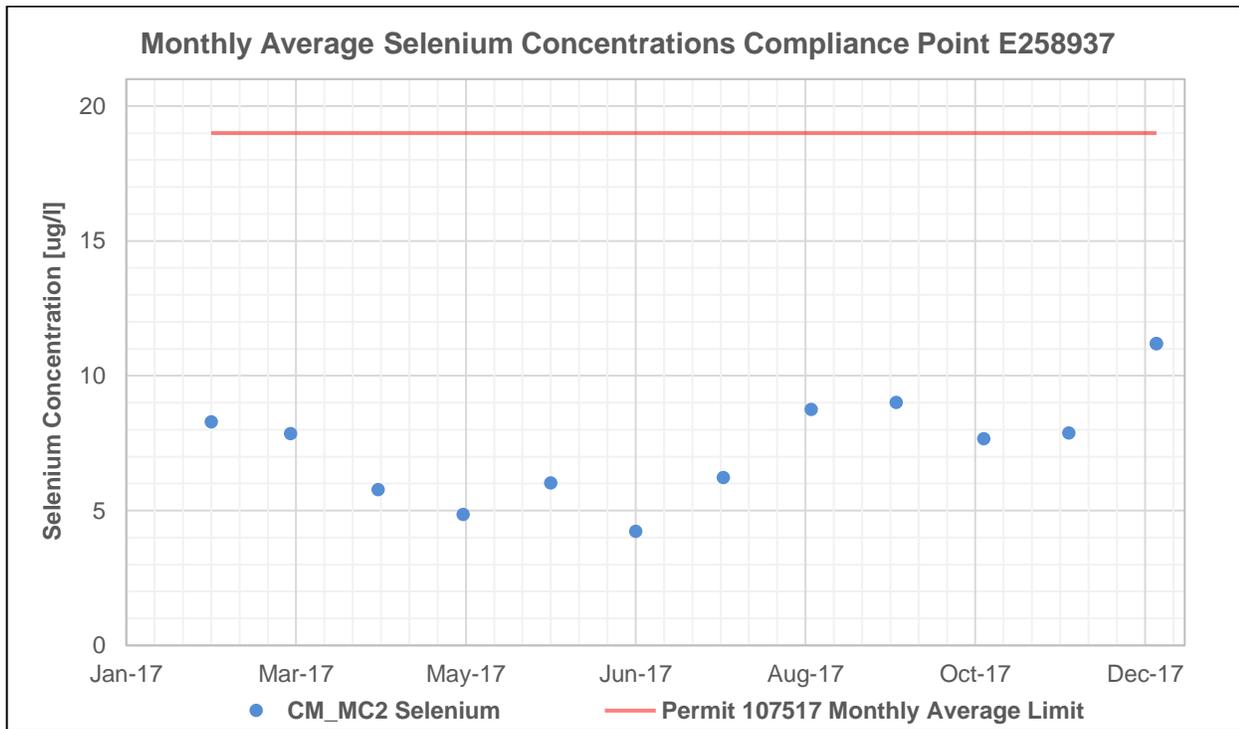


Figure 17. Monthly average total selenium (top panel) and nitrate-N (bottom panel) concentrations recorded at Coal Mountain Operation Compliance Point E258937 (CM_MC2).

Note: The monthly average compliance limit for nitrate was exceeded in January and is discussed in Section 2.3.

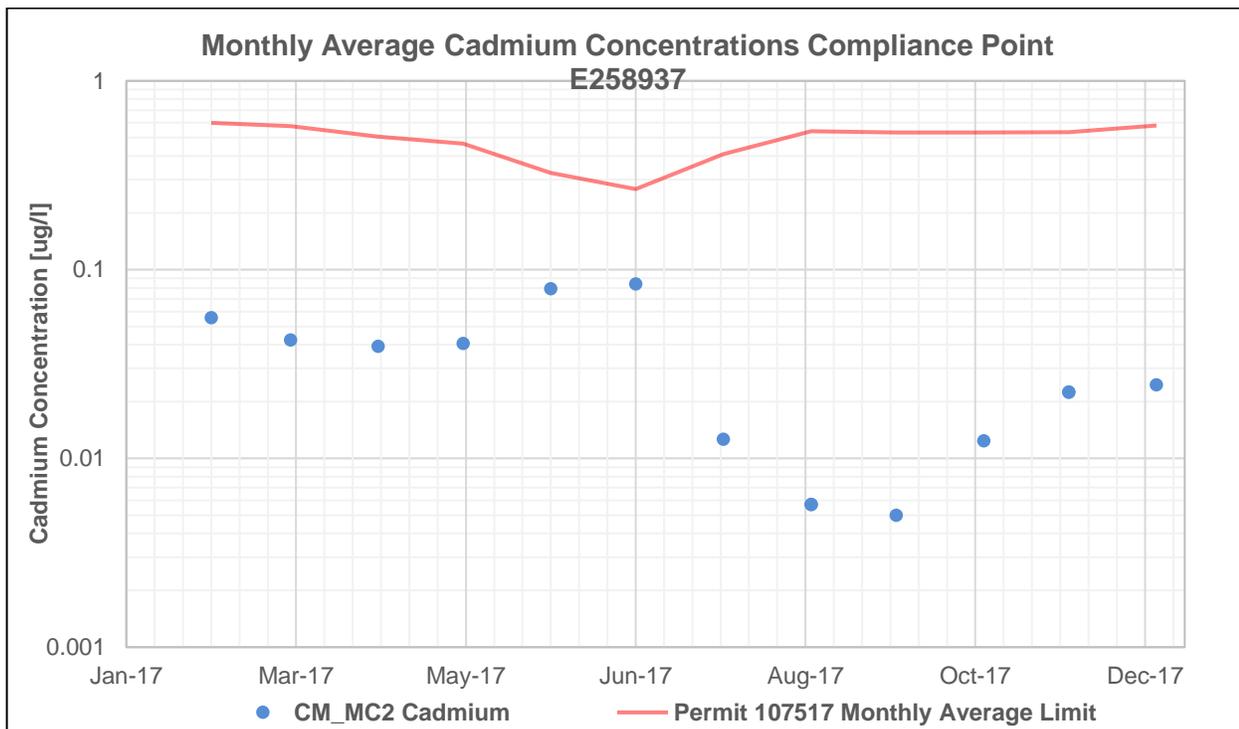
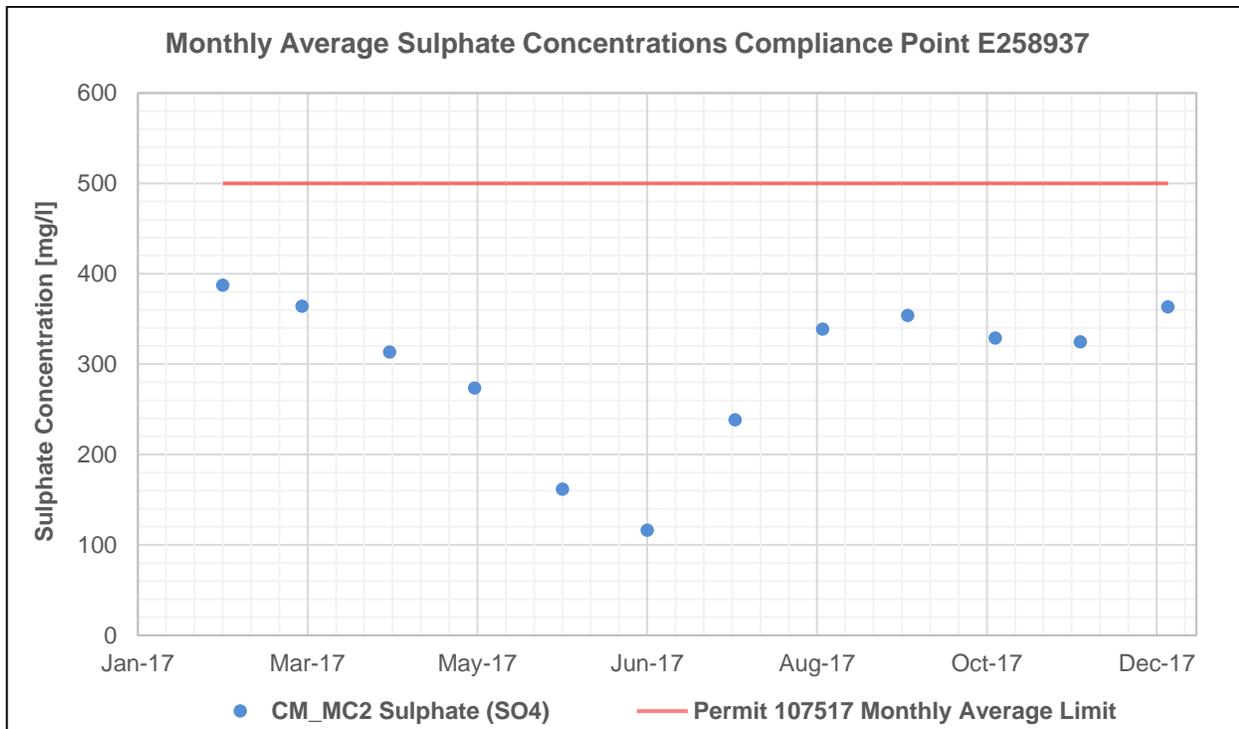


Figure 18. Monthly average sulphate (top panel) and cadmium (bottom panel) concentrations recorded at Coal Mountain Operation Compliance Point E258937 (CM_MC2).

Compliance Point E291569 (WL_BFWB_OUT_SP21)

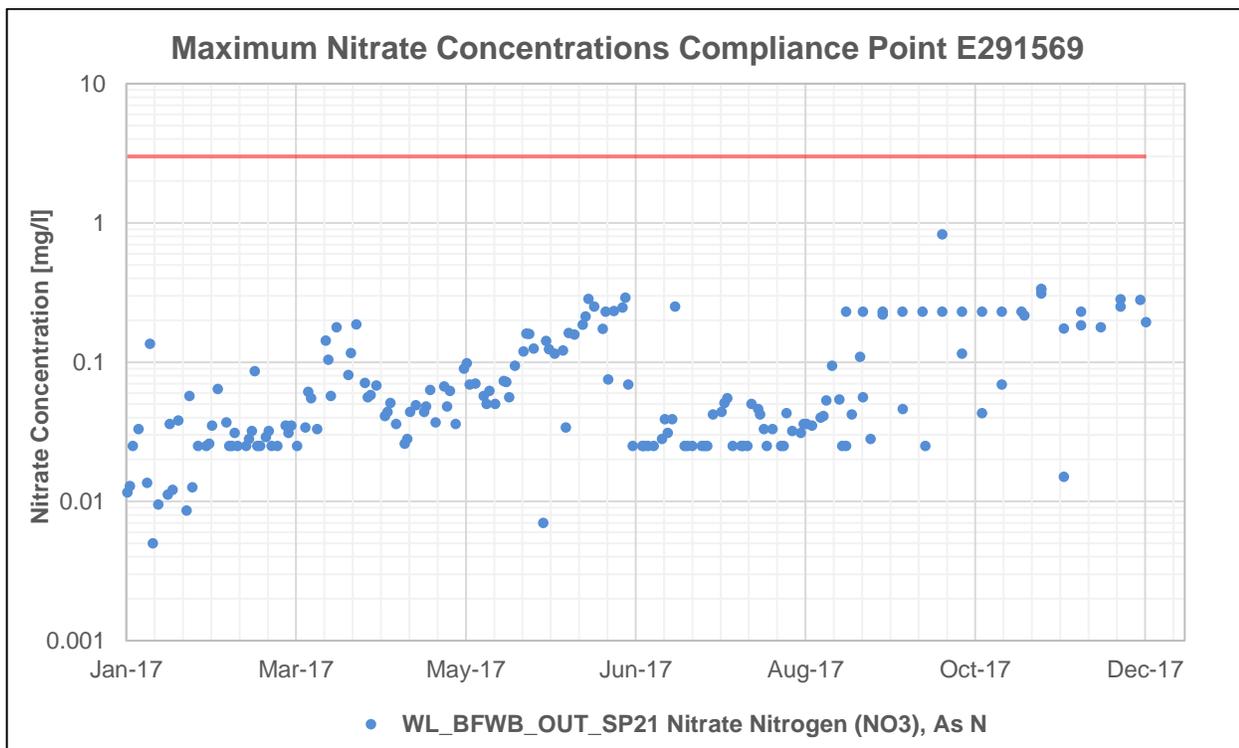
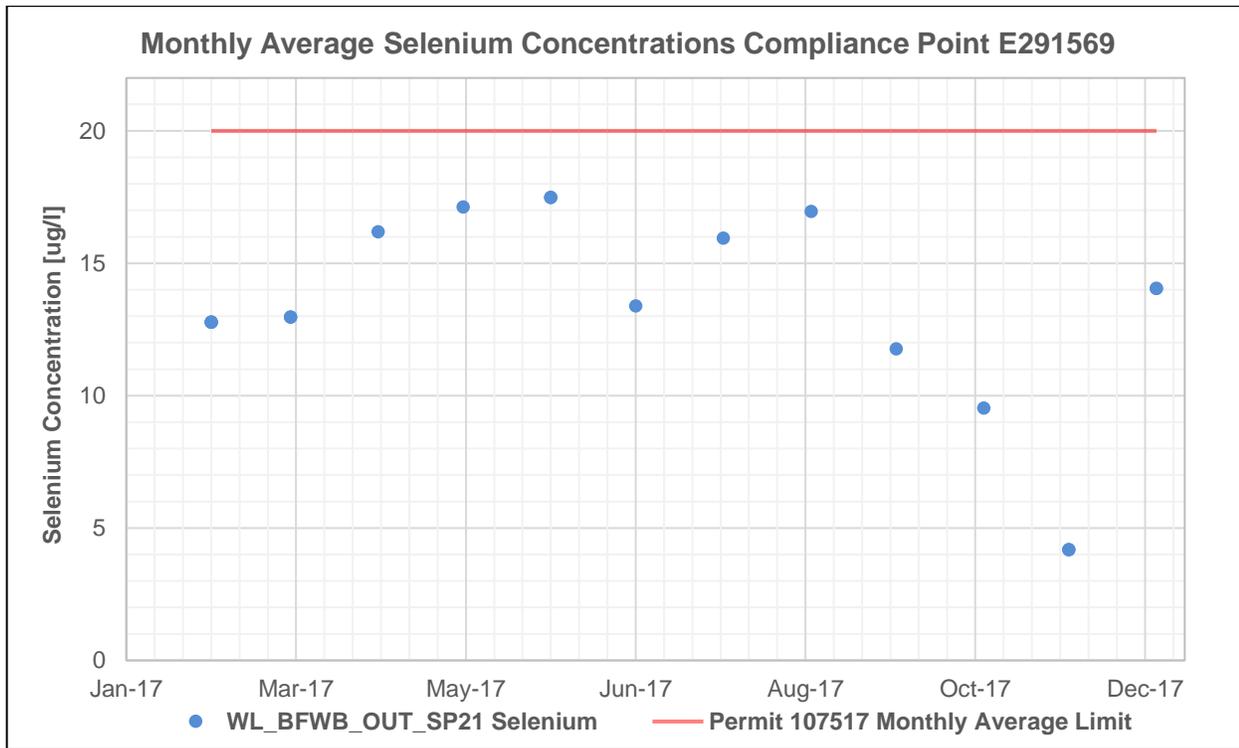


Figure 19. Monthly average total selenium (top panel) and maximum nitrate-N (bottom panel) concentrations recorded at the West Line Creek Active Water Treatment Facility Compliance Point E291569 (WL_BFWB_OUT_SP21).

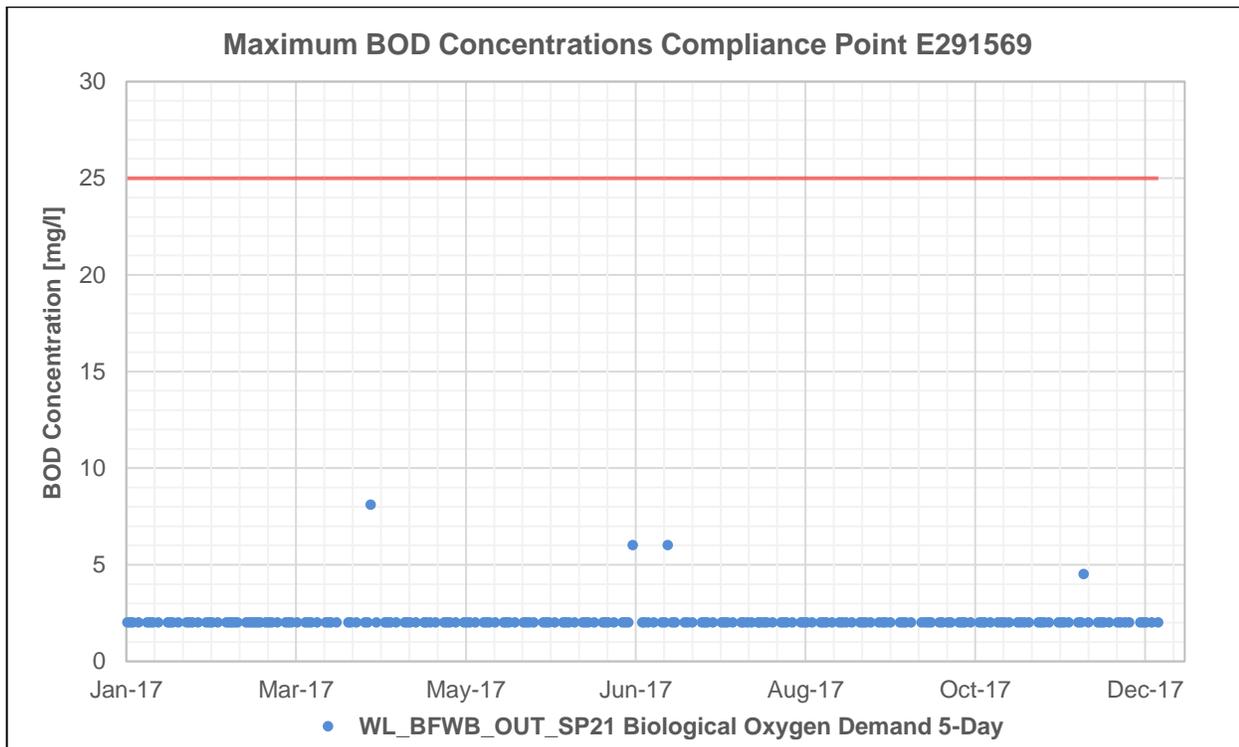
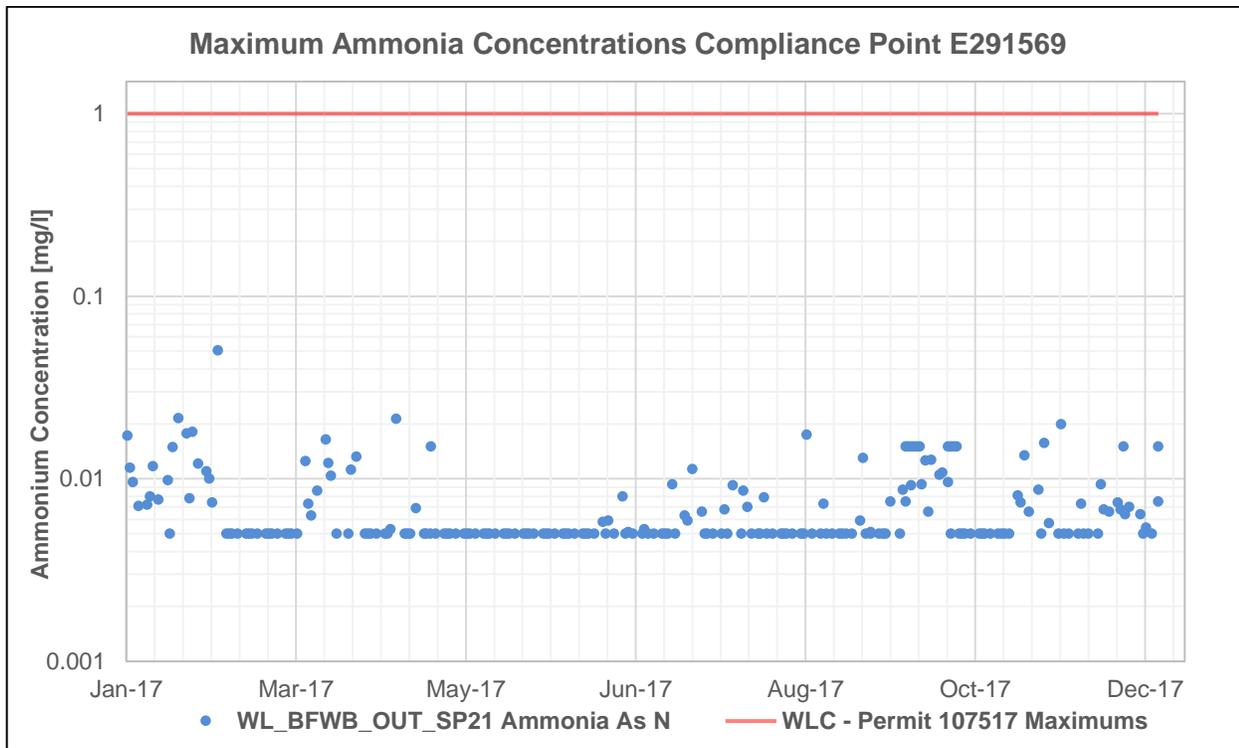


Figure 20. Ammonia (top panel) and Biological Oxygen Demand (bottom panel) maximum concentrations recorded at the West Line Creek Active Water Treatment Facility Compliance Point E291569 (WL_BFWB_OUT_SP21).

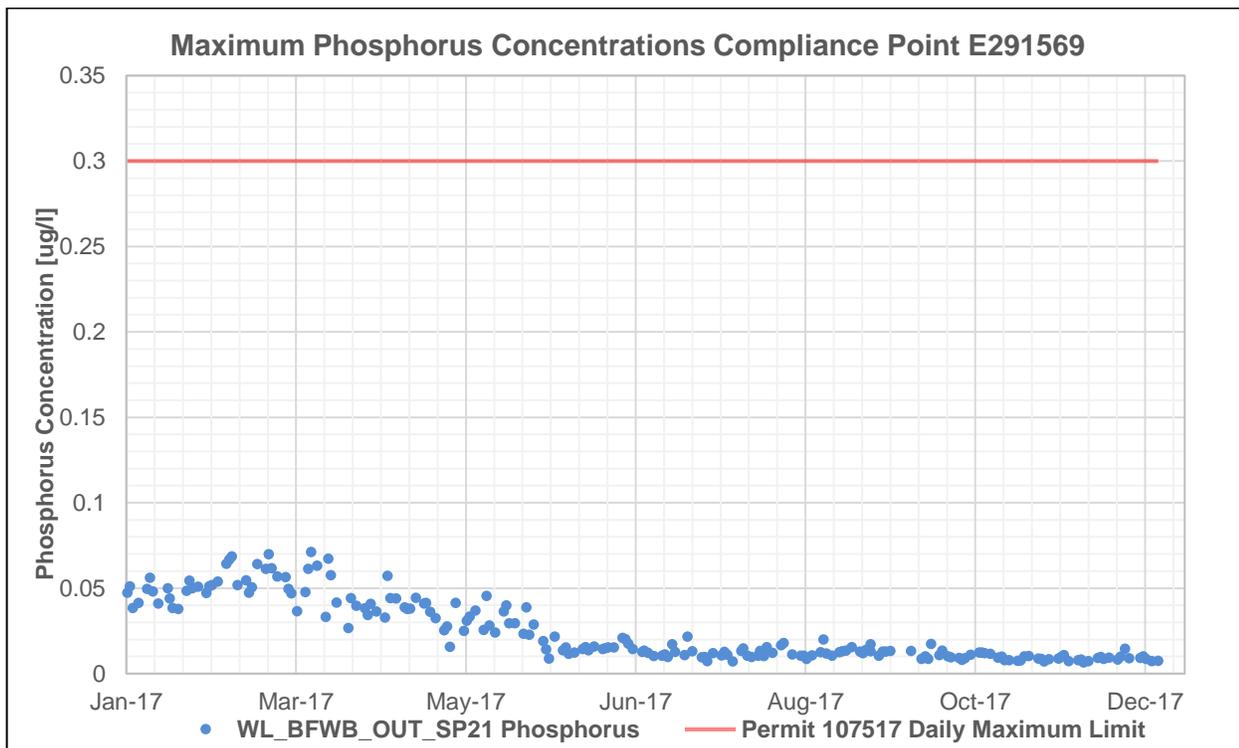
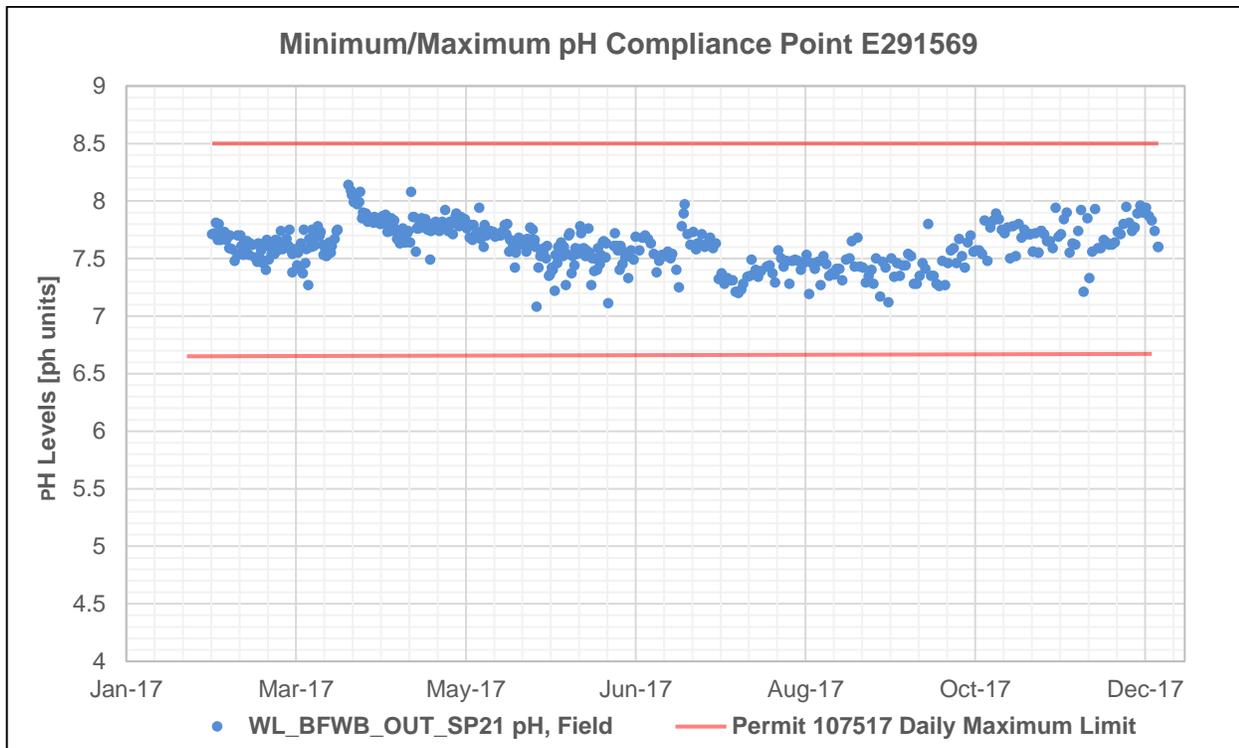


Figure 21. Minimum and maximum field pH (top panel) values and Total Phosphorus (bottom panel) maximum concentrations recorded at the West Line Creek Active Water Treatment Facility Compliance Point E291569 (WL_BFWB_OUT_SP21).

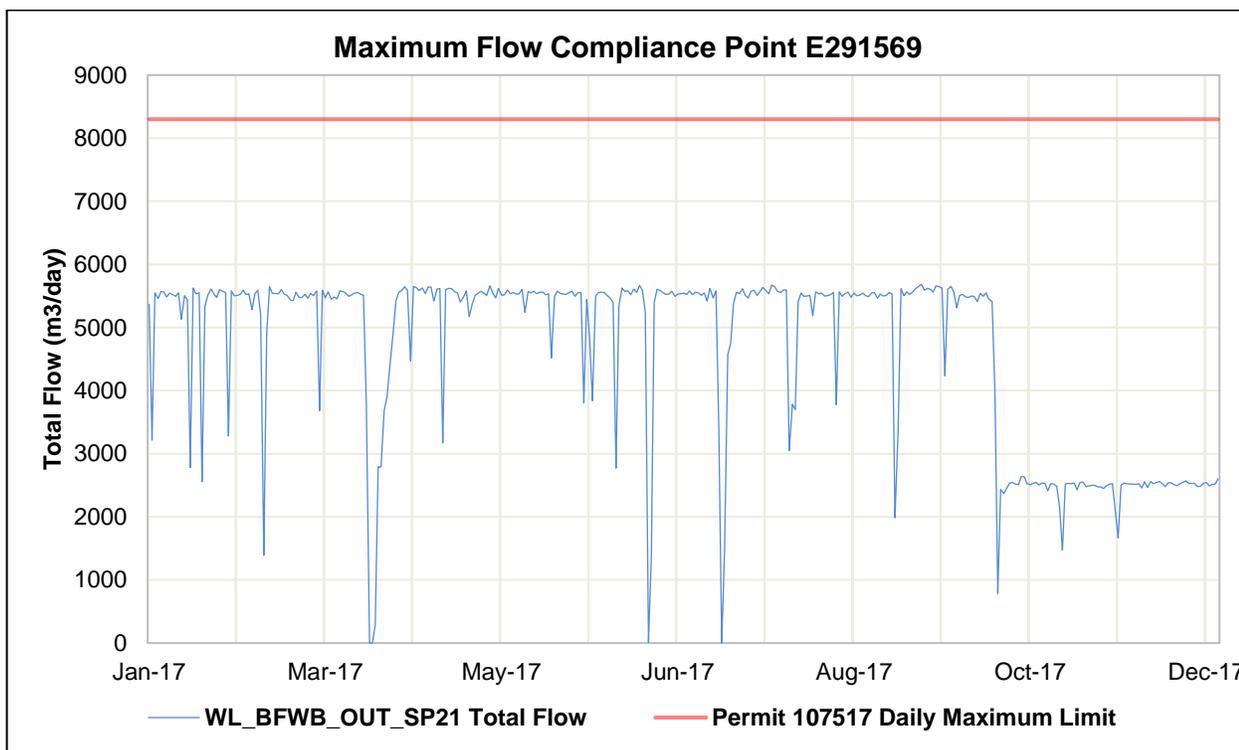
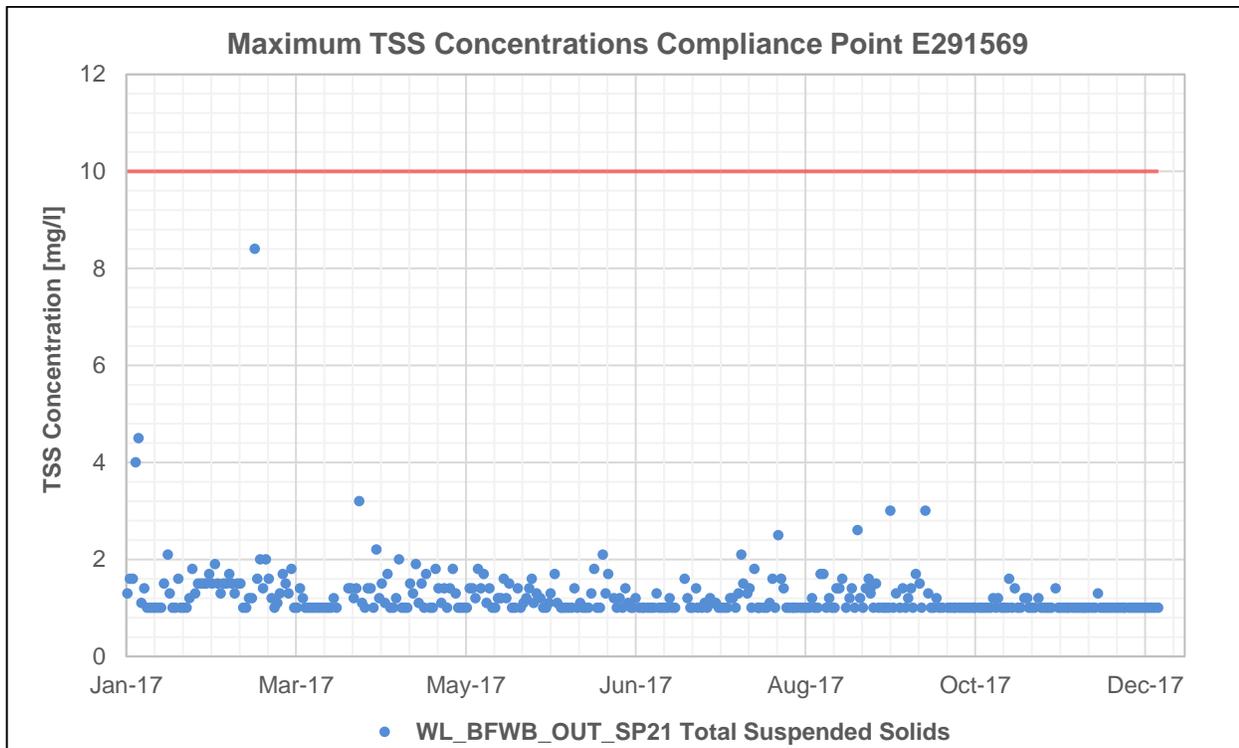


Figure 22. Total suspended solids maximum concentrations (top panel) and total flows (bottom panel) recorded at the West Line Creek Active Water Treatment Facility Compliance Point E291569 (WL_BFWB_OUT_SP21).

2.2 Site Performance Objectives at Order Stations

As noted in Section 1.1.2, seven Order Stations have been designated to monitor water quality in the Elk Valley (i.e., the Designated Area), and ultimately evaluate the implementation success of the ABMP. To aid in this evaluation, short-, medium-, and long-term SPOs have been established at each Order Station. SPOs are required to be attained by the outlined timeframes. A summary of the Order Stations and their respective short-term SPOs are presented in Table 12 below.

Table 12. Short-term site performance objectives established at Order stations within the Elk Valley.

EMS ID	Site ID	Constituent	Monthly Average SPO	Timeframe
0200378	GH_FR1	Total Selenium	63 µg/L	December 31, 2019
		Nitrate-N	20 mg/L as N	Immediately
		Sulphate	429 mg/L	Immediately
		Dissolved Cadmium	0.39 µg/L	Immediately
0200028	LC_LC5	Total Selenium	51 µg/L	December 31, 2019
		Nitrate-N	18 mg/L as N	Immediately
		Sulphate	429 mg/L	Immediately
		Dissolved Cadmium	0.39 µg/L	Immediately
E206661	GH_ER1	Total Selenium	19 µg/L	Immediately
		Nitrate-N	3 mg/L as N	Immediately
		Sulphate	309 mg/L	Immediately
		Dissolved Cadmium	0.24 µg/L	Immediately
0200027	EV_ER4	Total Selenium	23 µg/L	Immediately
		Nitrate-N	4 mg/L as N	December 31, 2019
		Sulphate	429 mg/L	Immediately
		Dissolved Cadmium	0.24 µg/L	Immediately
0200393	EV_ER1	Total Selenium	19 µg/L	Immediately
		Nitrate-N	3 mg/L as N	December 31, 2019
		Sulphate	429 mg/L	Immediately
		Dissolved Cadmium	0.24 µg/L	Immediately
E294312	RG_ELKORES	Total Selenium	19 µg/L	Immediately
		Nitrate-N	3 mg/L as N	December 31, 2019
		Sulphate	429 mg/L	Immediately
		Dissolved Cadmium	0.24 µg/L	Immediately
E300230	RG_DSELK	Total Selenium	2 µg/L	Immediately
		Nitrate-N	3 mg/L as N	Immediately
		Sulphate	308 mg/L	Immediately
		Dissolved Cadmium	0.19 µg/L	Immediately

Notes:

1. Environmental Monitoring Site (EMS) identification numbers (IDs) correspond to those listed in the Ministry's monitoring data repository.
2. As was the case for effluent limits developed for Compliance Points, SPOs for cadmium are hardness dependent and for purposes herein have been set at 360 mg/L as CaCO₃ (sites 0200378, 0200028, and E206661), 200 mg/L as CaCO₃ (sites 0200027, 0200393, and E294312), and 150 mg/L as CaCO₃ (site E300230), respectively.

A summary of 2017 water quality data recorded at Order Stations relative to current SPOs are presented in Figure 23 (0200378; GH_FR1), Figure 24 (0200028; LC_LC5), Figure 25 (E206661; GH_ER1), Figure 26 (0200027; EV_ER4), Figure 27 (0200393; EV_ER1), Figure 28 (E294312; RG_ELKORES), and Figure 29 (E300230; RG_DSELK).

All of the above-mentioned figures have been set-up and presented in a consistent format. Specifically, each figure is divided into four quadrants (panels) with nitrate-N concentrations appearing in quadrant 1 (top right panel), total selenium in quadrant 2 (top left panel), sulphate in quadrant 3 (bottom left panel), and dissolved cadmium in quadrant 4 (bottom right panel). Based on review and input from the EMC regarding the 2016 annual report, future SPOs have been included in the figures below for Order Stations that do not have a current SPO associated with them at this time. These future SPOs are represented by a dashed blue line and the dates that they will come into effect are indicated in the legend of the figure. Based on 2017 data and as illustrated within Figures 23 through 29, current SPOs were attained at all Order Stations.

Order Station 0200378 (GH_FR1)

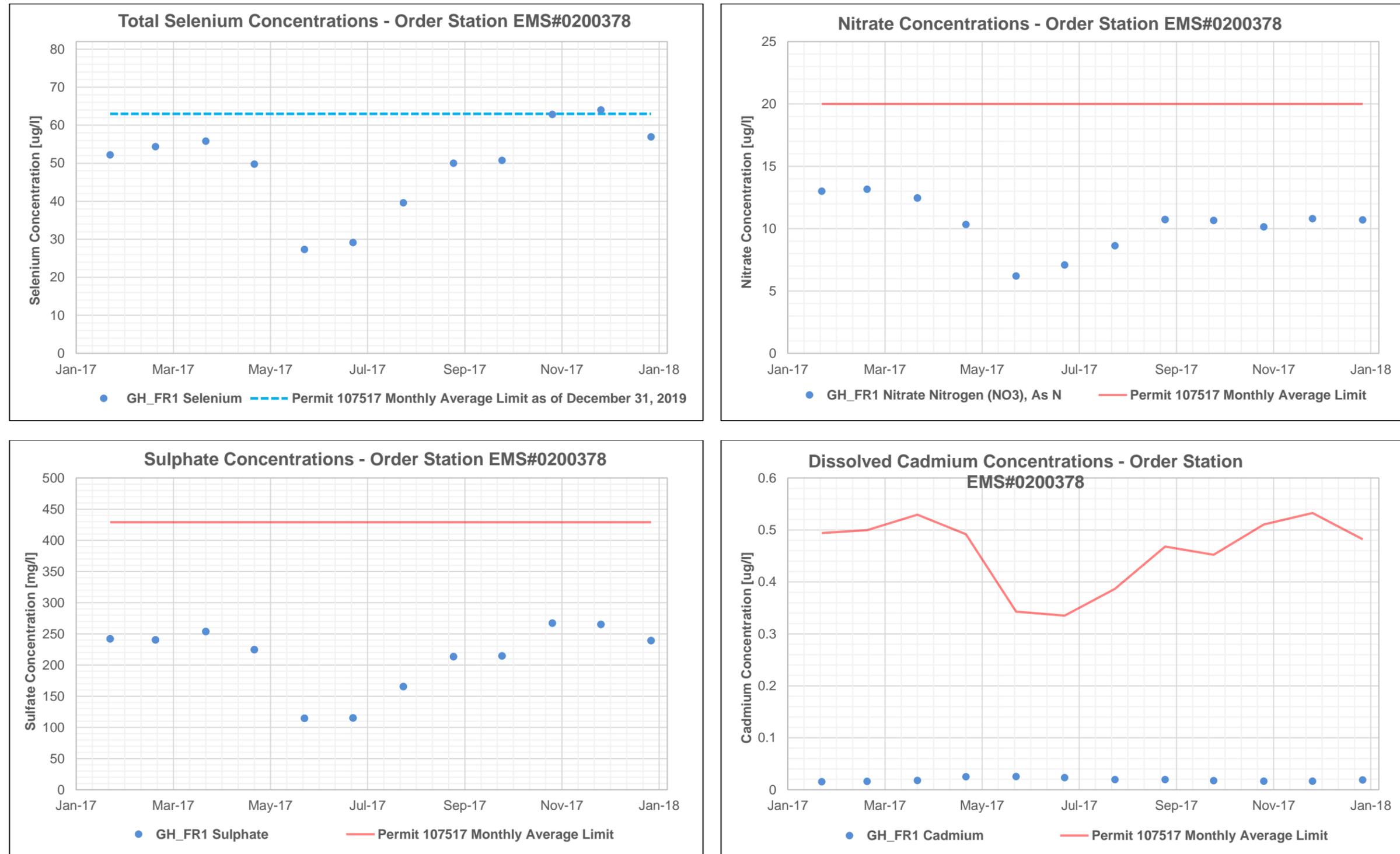


Figure 23. Plot of monthly average total selenium, nitrate-N, sulphate, and dissolved cadmium concentrations relative to site performance objectives recorded at Order Station 0200378 (GH_FR1).

Order Station 0200028 (LC_LC5)

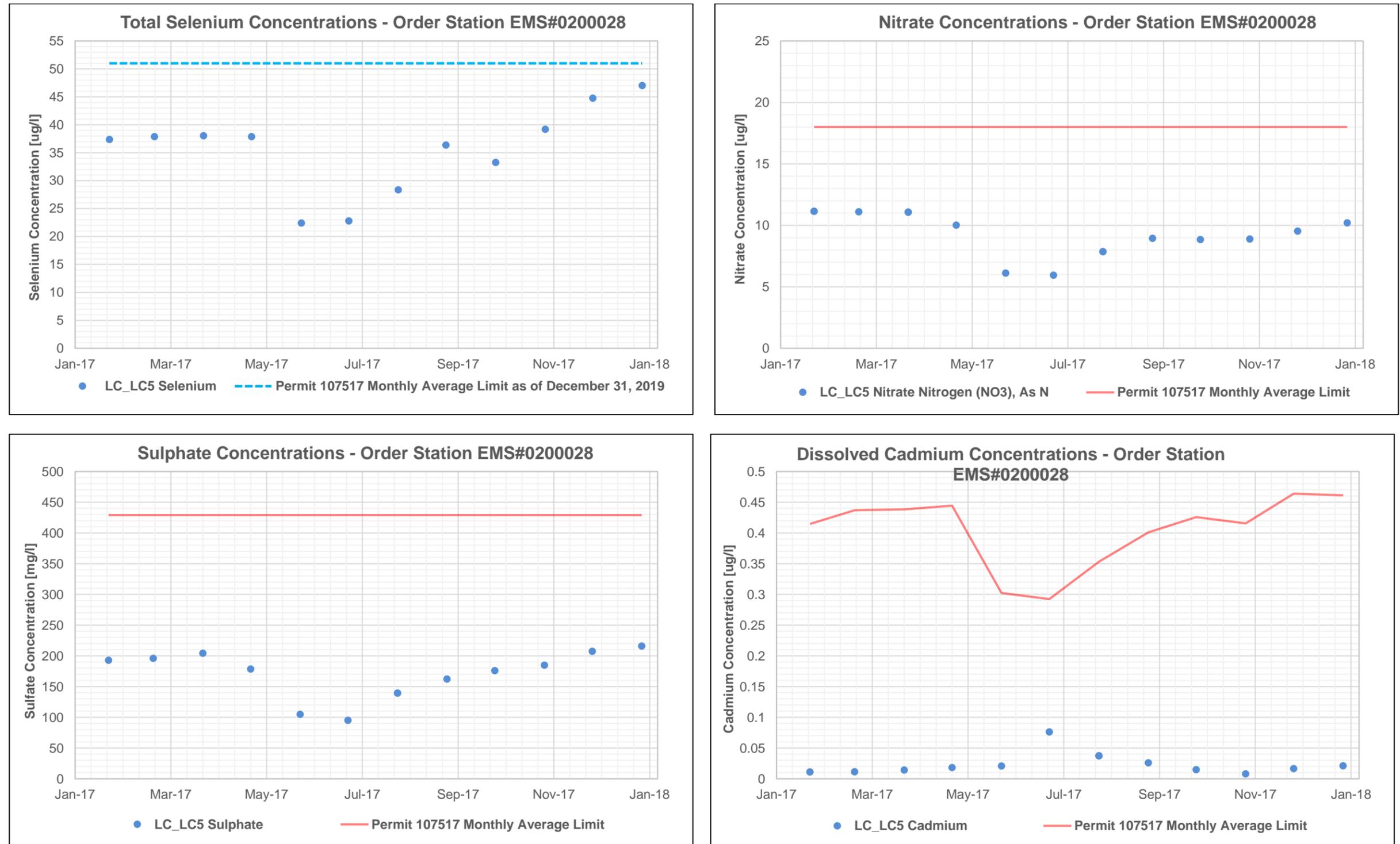


Figure 24. Plot of monthly average total selenium, nitrate-N, sulphate, and dissolved cadmium concentrations relative to site performance objectives recorded at Order Station 0200028 (LC_LC5).

Order Station 0206661 (GH_ER1)

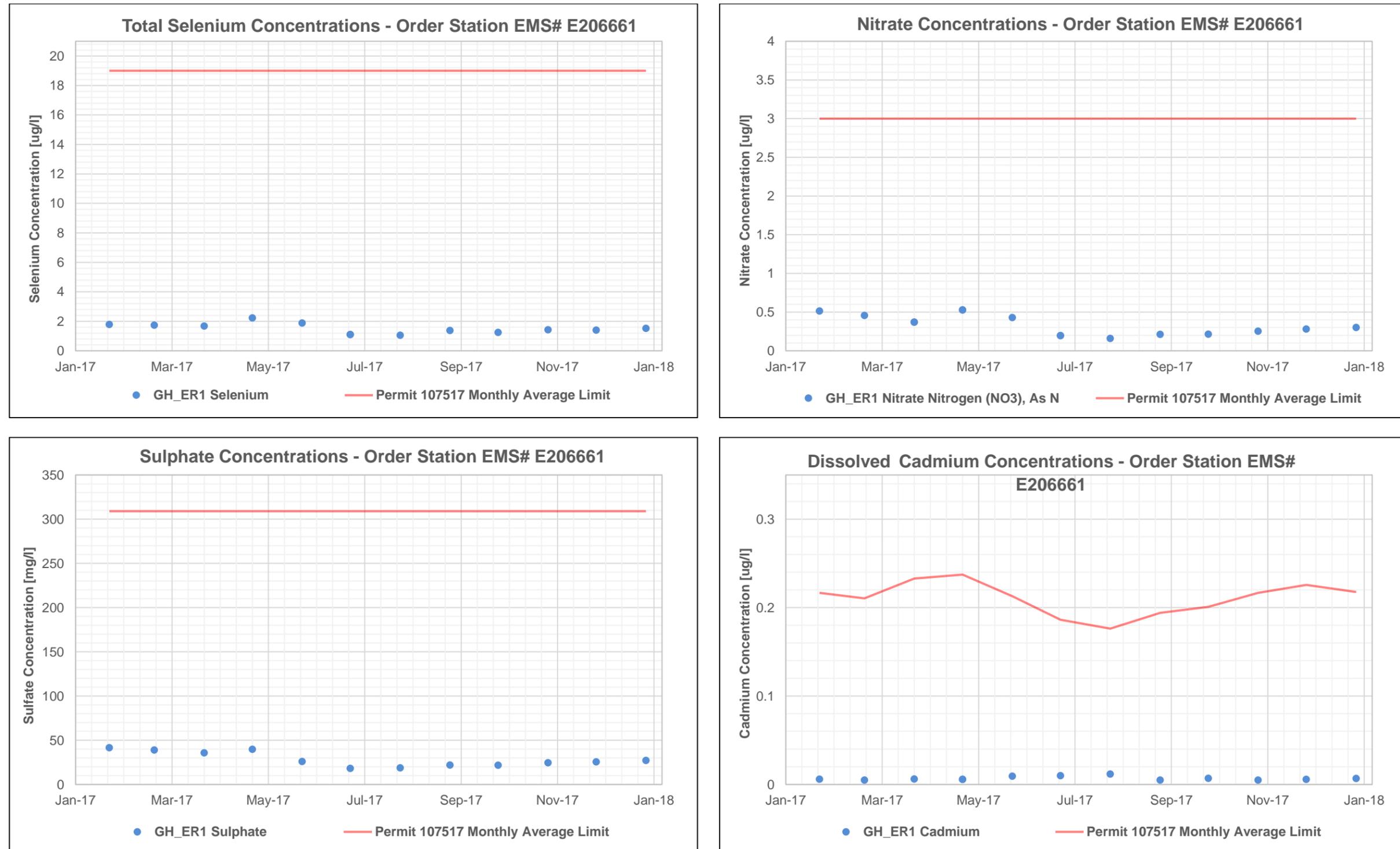


Figure 25. Plot of monthly average total selenium, nitrate-N, sulphate, and dissolved cadmium concentrations relative to site performance objectives recorded at Order Station 0206661 (GH_ER1).

Order Station 0200027 (EV_ER4)

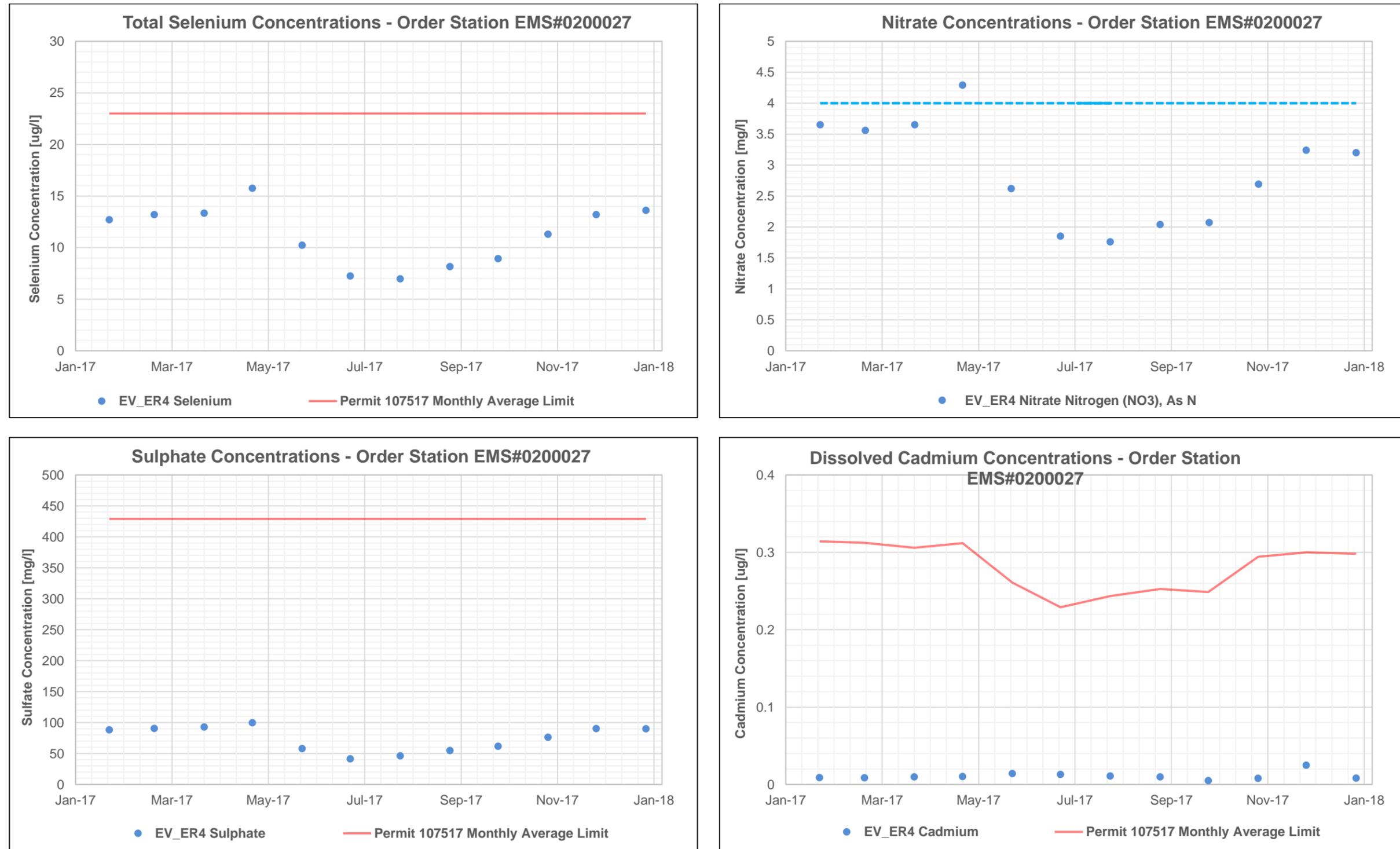


Figure 26. Plot of monthly average total selenium, nitrate-N, sulphate, and dissolved cadmium concentrations relative to site performance objectives recorded at Order Station 0200027 (EV_ER4).

Order Station 0200393 (EV_ER1)

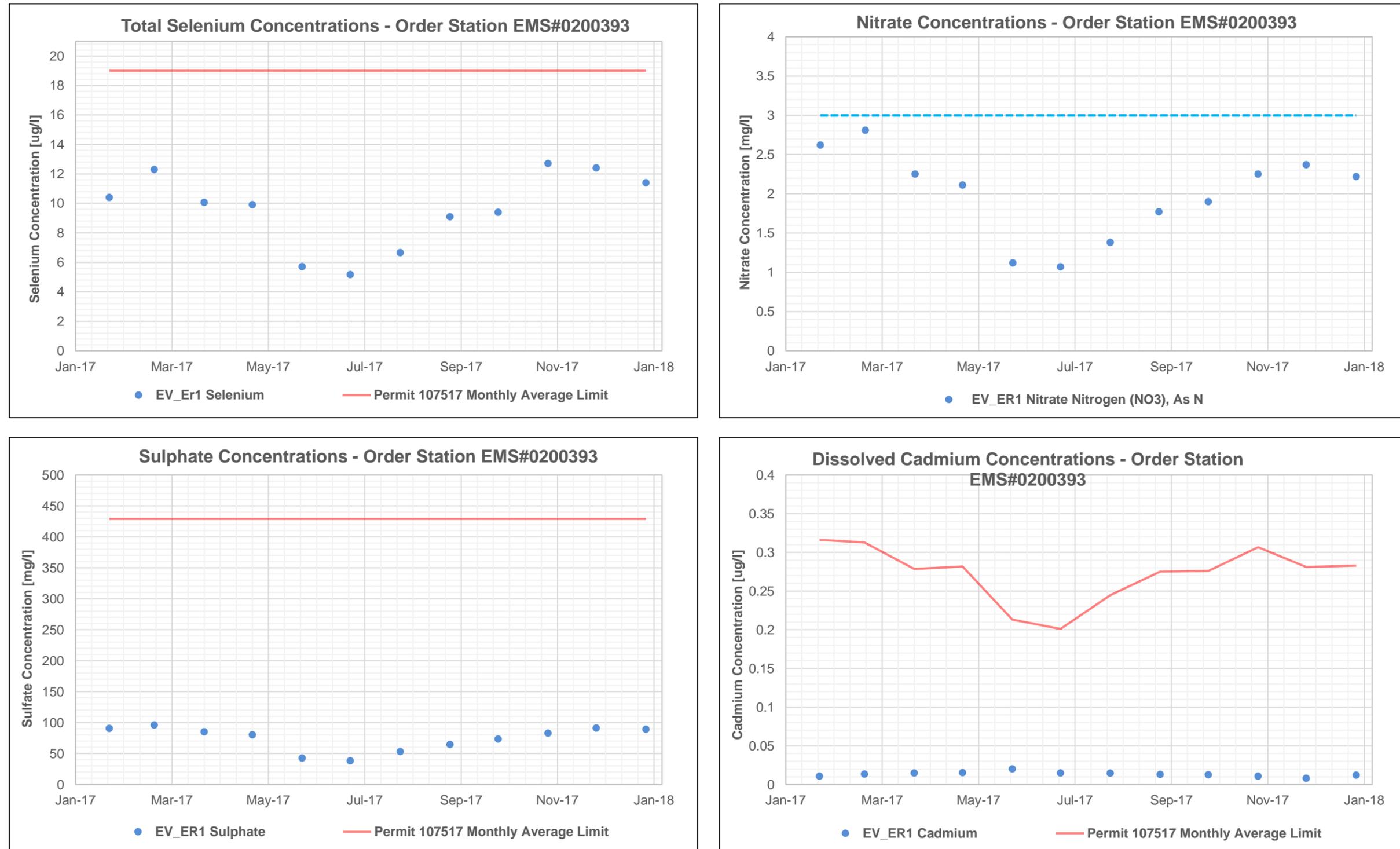


Figure 27. Plot of monthly average total selenium, nitrate-N, sulphate, and dissolved cadmium concentrations relative to site performance objectives recorded at Order Station 0200393 (EV_ER1). Individual data points are illustrated.

Order Station E294312 (RG_ELKORES)

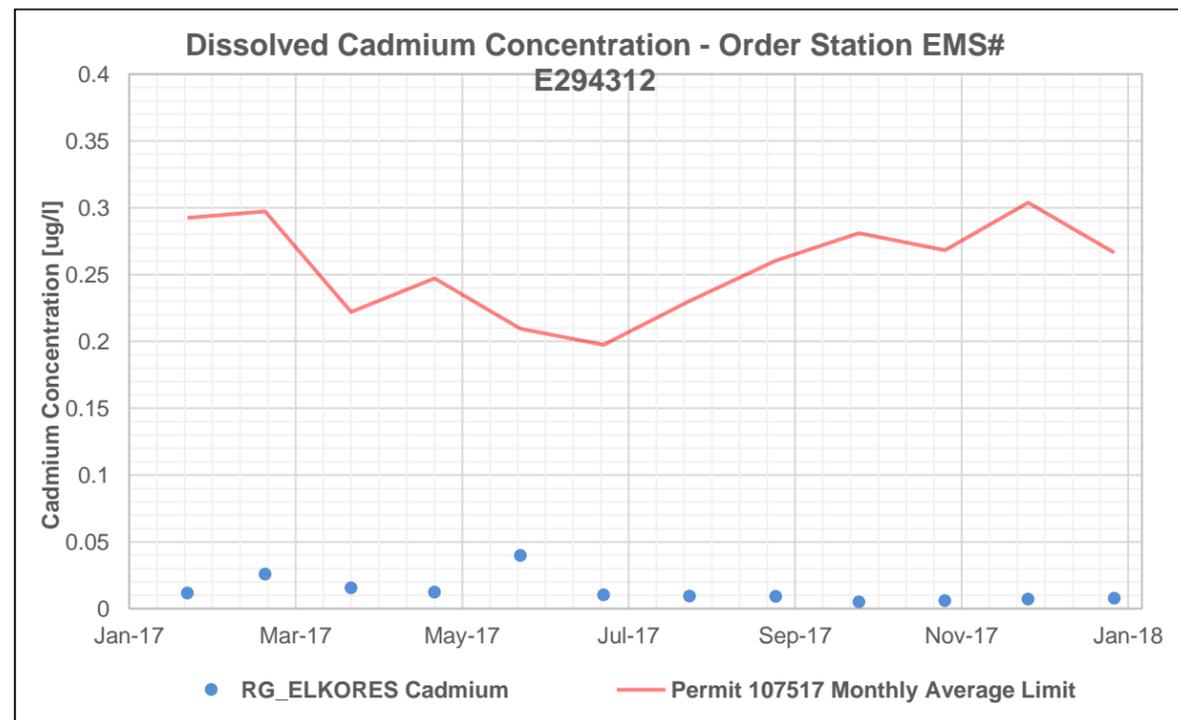
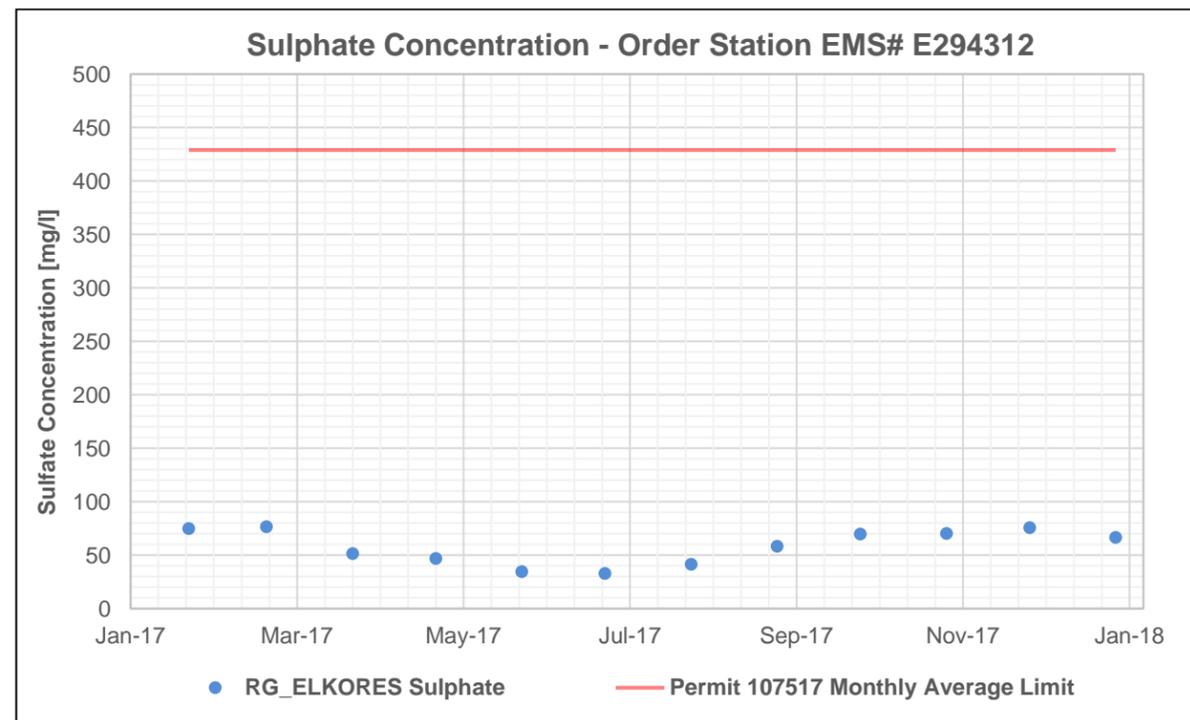
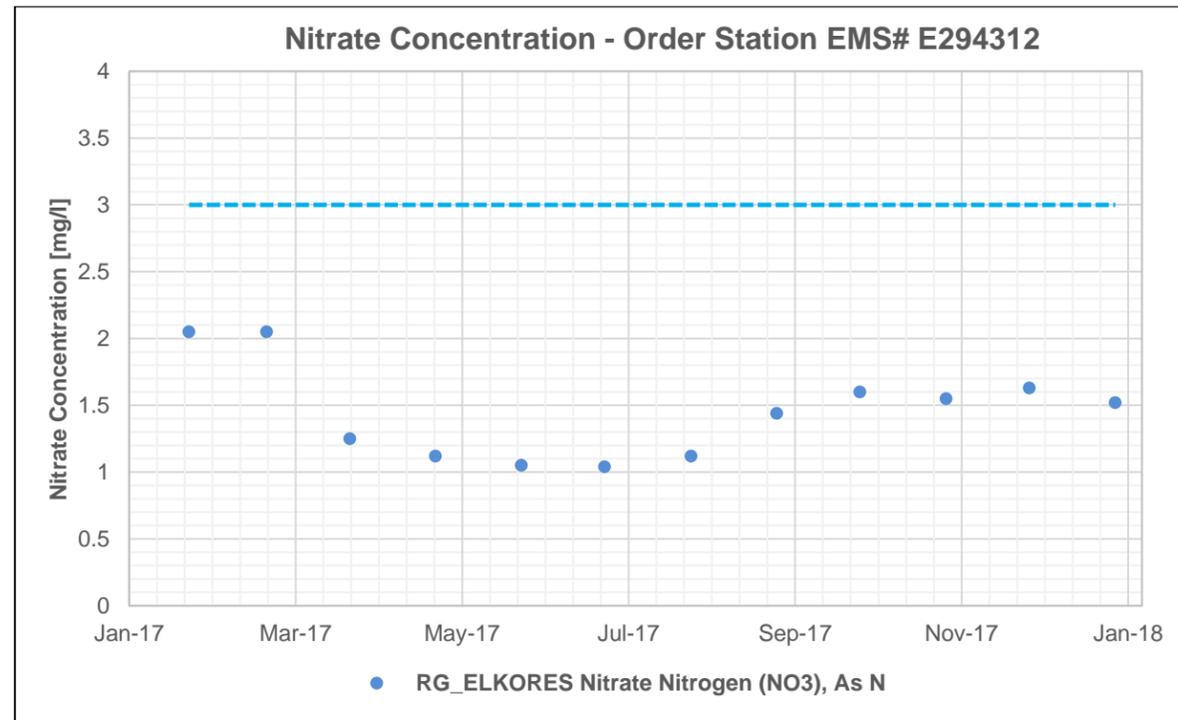
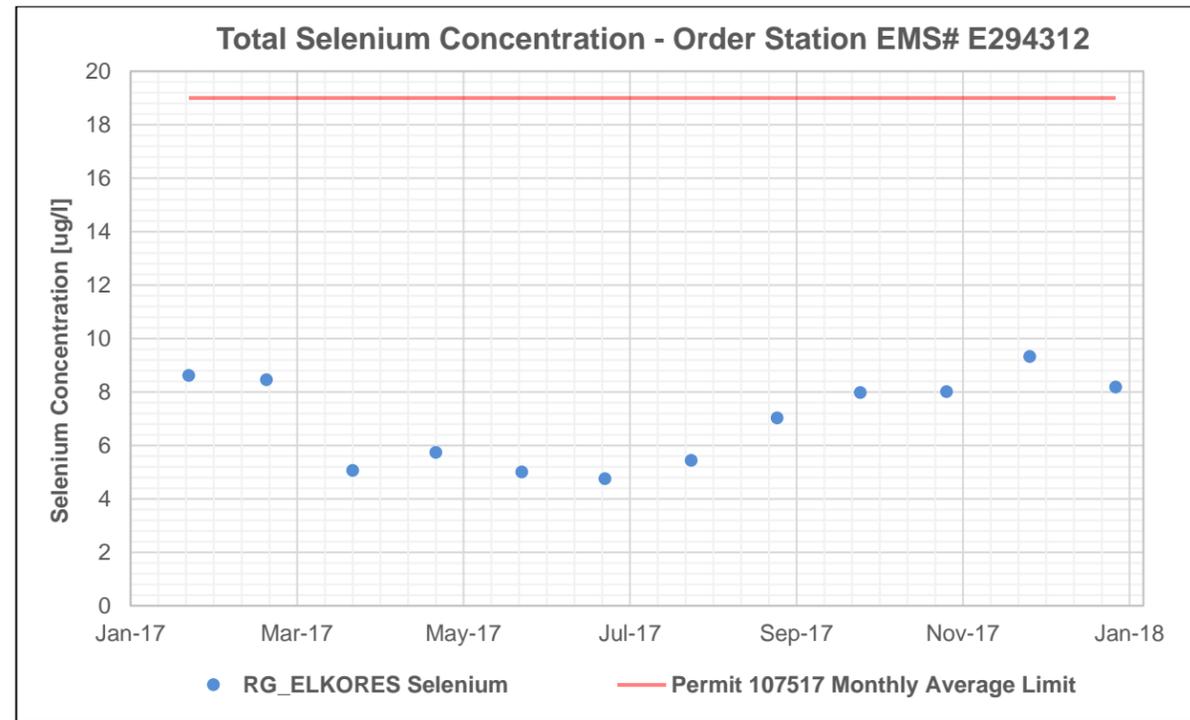


Figure 28. Plot of monthly average total selenium, nitrate-N, sulphate, and dissolved cadmium concentrations relative to site performance objectives recorded at Order Station E294312 (RG_ELKORES). Individual data points are illustrated.

Order Station E300230 (RG_DSELK)

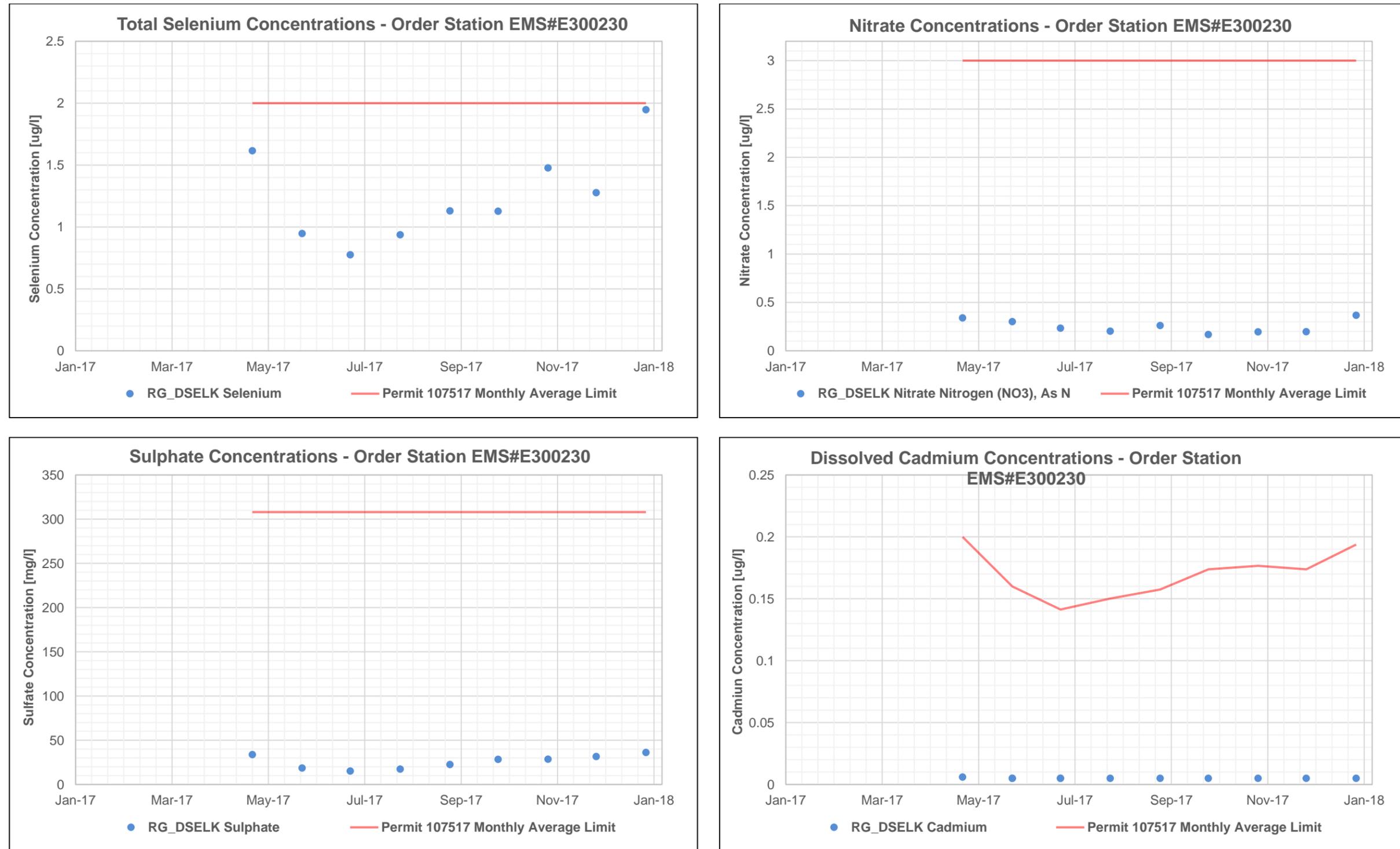


Figure 29. Plot of monthly average total selenium, nitrate-N, sulphate, and dissolved cadmium concentrations relative to site performance objectives recorded at Order Station E300230 (RG_DSELK).

Note: Samples in January, February and March of 2017 were unattainable due to ice conditions on the Koochanusa Reservoir.

2.3 Non-Compliances

Permit non-compliances in 2017 are grouped under the following categories for ease of interpretation; category 1) Compliance Point exceedances, category 2) discharge location acute toxicity failures, category 3) missed sample collection, category 4) administrative non-compliances, (i.e., late reporting or failure to upload data to ENV EMS database), and category 5) hold time exceedances.

2.3.1 Compliance Point/Order Station Limit/SPO Exceedances (Category 1)

In 2017, compliance limit exceedances were recorded for selenium, sulphate and/or nitrate at three Compliance Points, E300071 (FR_FRCP1), E297110 (LC_LCDSSLCC), and E258937 (CM_MC2). At these three locations, 74 results had selenium, sulphate or nitrate concentrations that were higher than the limits, which constitutes a total of 9.8% of all samples taken for parameters with compliance limits as identified in section 2.0 of Permit 107517. In total, 755 samples were collected in 2017 at Compliance Points with 681 (90.2%) below permit limits. A summary of exceedances by analyte is shown in Figure 30 and a summary by location is shown in Table 13.

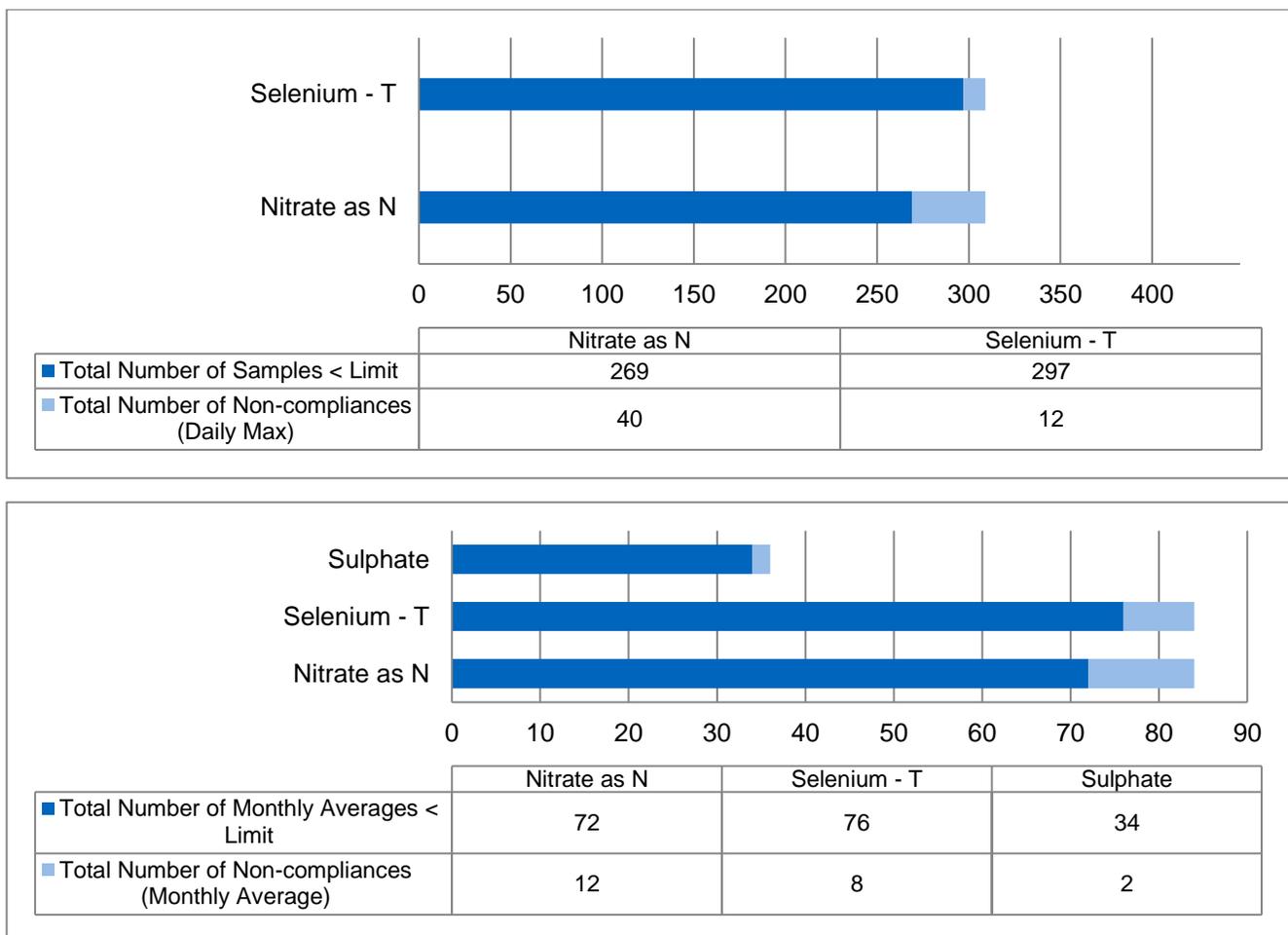


Figure 30. Summary of daily maximum (top panel) and monthly average (bottom panel) compliance limit exceedances by analyte compared to total samples taken and total monthly averages at Compliance Points in 2017.

Table 13. Summary of 2017 exceedances at Compliance Points.

EMS ID	Site ID	Permitted Constituent and Limit	Recorded Concentrations	Date of Exceedance	% of Samples Collected Above Permit Limits
E258937	CM_MC2	Monthly Average – (NO ₃) = 5 mg/L as N	6.0	January	8%
E300071	FR_FRCP1	Daily Maximum – (Se) = 155 µg/L	312	7-Mar	14%
		Daily Maximum – (Se) = 155 µg/L	180	4-Dec	
		Daily Maximum – (Se) = 155 µg/L	178	6-Dec	
		Daily Maximum – (Se) = 155 µg/L	274	12-Dec	
		Daily Maximum – (Se) = 155 µg/L	214	28-Dec	
		Monthly Average – (Se) = 130 µg/L	152	February	42%
		Monthly Average – (Se) = 130 µg/L	155	March	
		Monthly Average – (Se) = 130 µg/L	134	September	
		Monthly Average – (Se) = 130 µg/L	149	November	
		Monthly Average – (Se) = 130 µg/L	212	December	
		Monthly Average – (SO ₄ ²⁻) = 580 mg/L	593	March	17%
		Monthly Average – (SO ₄ ²⁻) = 580 mg/L	728	December	
E297110	LC_LCDSSLCC	Daily Maximum – (Se) = 58 µg/L	62.7	17-Oct	11%
		Daily Maximum – (Se) = 58 µg/L	61.7	27-Dec	
		Daily Maximum – (Se) = 58 µg/L	61.0	24-Oct	
		Daily Maximum – (Se) = 58 µg/L	61.0	4-Dec	
		Daily Maximum – (Se) = 58 µg/L	60.8	18-Dec	
		Daily Maximum – (Se) = 58 µg/L	60.6	14-Nov	
		Daily Maximum – (Se) = 58 µg/L	60.6	21-Nov	
		Daily Maximum – (NO ₃) = 9 mg/l	11.7	2-Jan	63%
		Daily Maximum – (NO ₃) = 9 mg/l	11.1	9-Jan	
		Daily Maximum – (NO ₃) = 9 mg/l	11.1	16-Jan	
		Daily Maximum – (NO ₃) = 9 mg/l	11.4	23-Jan	
		Daily Maximum – (NO ₃) = 9 mg/l	11.3	31-Jan	
		Daily Maximum – (NO ₃) = 9 mg/l	10.2	7-Feb	
		Daily Maximum – (NO ₃) = 9 mg/l	11.2	14-Feb	
		Daily Maximum – (NO ₃) = 9 mg/l	12.0	21-Feb	
		Daily Maximum – (NO ₃) = 9 mg/l	11.8	27-Feb	
		Daily Maximum – (NO ₃) = 9 mg/l	11.7	6-Mar	
		Daily Maximum – (NO ₃) = 9 mg/l	11.3	13-Mar	
		Daily Maximum – (NO ₃) = 9 mg/l	12.3	20-Mar	
		Daily Maximum – (NO ₃) = 9 mg/l	13.3	27-Mar	
		Daily Maximum – (NO ₃) = 9 mg/l	14.0	3-Apr	
		Daily Maximum – (NO ₃) = 9 mg/l	15.0	10-Apr	
		Daily Maximum – (NO ₃) = 9 mg/l	13.9	18-Apr	
		Daily Maximum – (NO ₃) = 9 mg/l	14.6	25-Apr	
		Daily Maximum – (NO ₃) = 9 mg/l	15.7	2-May	
		Daily Maximum – (NO ₃) = 9 mg/l	10.1	25-Jul	

EMS ID	Site ID	Permitted Constituent and Limit	Recorded Concentrations	Date of Exceedance	% of Samples Collected Above Permit Limits
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	10.3	2-Aug	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	10.7	8-Aug	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	9.1	15-Aug	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	9.4	21-Aug	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	9.3	30-Aug	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	10.2	20-Sep	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	10.1	25-Sep	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	9.6	2-Oct	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	9.9	10-Oct	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	11.6	17-Oct	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	11.6	24-Oct	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	12.1	31-Oct	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	12.0	8-Nov	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	11.7	10-Nov	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	11.8	14-Nov	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	11.7	21-Nov	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	12.1	28-Nov	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	13.8	4-Dec	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	12.9	12-Dec	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	13.3	18-Dec	
		Daily Maximum – (NO ₃ ⁻) = 9 mg/l	12.3	27-Dec	
		Monthly Average – (NO ₃ ⁻) = 7 mg/L as N	11.3	January	92%
		Monthly Average – (NO ₃ ⁻) = 7 mg/L as N	11.3	February	
		Monthly Average – (NO ₃ ⁻) = 7 mg/L as N	12.2	March	
		Monthly Average – (NO ₃ ⁻) = 7 mg/L as N	14.4	April	
		Monthly Average – (NO ₃ ⁻) = 7 mg/L as N	7.7	May	
		Monthly Average – (NO ₃ ⁻) = 7 mg/L as N	9.1	July	
		Monthly Average – (NO ₃ ⁻) = 7 mg/L as N	9.8	August	
		Monthly Average – (NO ₃ ⁻) = 7 mg/L as N	9.5	September	
		Monthly Average – (NO ₃ ⁻) = 7 mg/L as N	10.9	October	
		Monthly Average – (NO ₃ ⁻) = 7 mg/L as N	11.9	November	
		Monthly Average – (NO ₃ ⁻) = 7 mg/L as N	13.1	December	
		Monthly Average – (Se) = 50 µg/L	51.0	October	
		Monthly Average – (Se) = 50 µg/L	58.0	November	
		Monthly Average – (Se) = 50 µg/L	60.0	December	

LC_LCDSSLCC – EMS # E297110

As outlined within Table 13, the majority of the 74 non-compliances (61 of the 74 exceedances) were associated with Compliance Point LC_LCDSSLCC.

With respect to the selenium non-compliances, Teck has been working to address a challenge in the performance of our West Line Creek Active Water Treatment Facility (WLC AWTF) related to compounds of selenium in discharge water. Teck reduced the flow rate of the WLC AWTF from 5,500 m³/day to 2,500 m³/day on October 17th, 2017, limiting the amount of selenium that is removed from Line Creek. This change in treatment volume increased selenium concentrations downstream in Line Creek, resulting in exceedances at the LCO Compliance Point. This is explained in further detail under Section 6.4 which discusses the Active Water Treatment process performance in 2017.

On September 14, 2017, Teck submitted a Compliance Action Plan (CAP) which outlines the path forward to support permit compliance with nitrate limits in Line Creek. The CAP was approved on January 9, 2018 and was developed with input from ENV and the Ktunaxa Nation Council (KNC), the approved CAP identifies objectives, key performance indicators (KPIs), and actions that Teck has taken and will take to reduce nitrate concentrations at this Compliance Point. The CAP will be updated as required to incorporate learnings from monitoring results and the 2017 RWQM update. This information will be used to make adjustments to the objectives and KPIs (including additional measurable metrics) to support reduction of nitrate concentrations in Line Creek. The CAP also supports Teck's commitment to continue with the implementation of the EVWQP to improve water quality in Line Creek and the Elk River watershed. Reporting on the progress and status of the CAP occurs quarterly.

Compliance limits for nitrate at LC_LCDSSLCC were initially defined based on modelling the limited data that was available at this location at the time of developing the EVWQP and commissioning schedule for the West Line Creek Active Water Treatment Facility. Since that time, additional monitoring data indicates that the Regional Water Quality Model (RWQM) was not adequately projecting the nitrate loading in Line Creek. The 2017 RWQM update included revised geochemical source terms and an updated conceptual model of waste rock hydrology which is numerically represented by the incorporation of a lag between waste rock placement and the appearance of mining related constituents in the receiving environment. These updates to the RWQM resulted in improved calibration of modelled historical nitrate concentrations to historical monitoring data in Line Creek and changed the magnitude and patterns of the projected concentrations in Line Creek. The updated Regional Water Quality Model projections show concentrations of nitrate continuing to increase in Line Creek until 2023 at which point they will start to decrease. These projections do not consider recent improvements to blasting practices and additional activities associated with the LCO Compliance Action Plan which are expected to decrease concentrations of nitrate in Line Creek. Concentrations of nitrate at the first downstream Order Station in the Fording River (FR5, LC_LC5) have remained below the SPO.

FR_FRCP1 – EMS# E300071

Compliance Points are intended to monitor fully mixed conditions in the receiving environment (i.e., main stem river) of all or most of the direct or indirect discharges from one mine operation. Water quality and quantity monitoring data have indicated that surface water at FR_FRCP1 is predominantly discharge water from the mine-impacted Cataract Creek during low flow months. At Compliance Point FR_FRCP1, permit limits were exceeded during low flow periods in 2017; however, monitoring data and additional analysis by ENV confirmed that isolated surface water flow at the Compliance Point is predominantly discharge water from Cataract Creek during low flow.

Teck is currently working on an adjustment to the EVWQP implementation plan and is advancing design for the FRO-S AWTF which is planned to treat water from Cataract, Swift and Kilmarnock creeks and directly reduce concentrations of selenium and nitrate at the Compliance Point. Teck is also compiling the information requested by ENV to support the submission of an application to amend Permit 107517 and move the Fording River Compliance Point to a location that is more suitable for assessing compliance with Permit 107517.

CM_MC2 – EMS# E258397

In January 2017, a non-compliance occurred at the CMO Compliance Point, CM_MC2. Pit dewatering activities in January were similar to other months (i.e., pumping rates and concentrations) but creek flows decreased which resulted in an exceedance of the nitrate permit limit. Pumping rates were immediately adjusted to bring nitrate concentrations back within permit limit. Concentrations for the remainder of the year remained within permit limits.

2.3.2 Acute Toxicity Failures (Category 2)

In addition to non-compliances resulting from water quality concentrations exceeding permit limits, 10 non-compliances due to failed *Daphnia magna* (water flea) acute toxicity tests were recorded in 2017. A total of 235 *Daphnia magna* acute toxicity tests were completed in 2017 associated with Permit 107517 locations resulting in a failure rate of 4.3%. Of the 210 samples collected for Rainbow Trout acute toxicity tests, there were no toxicity failures in 2017. These results are discussed in more detail in Section 5.3 of this report.

2.3.3 Missed Samples (Category 3)

Missed samples were the result of failed field equipment, scheduling errors and/or lab error. A chronological summary of 2017 missed sample non-compliances are provided in Table 14. Missed sample data represent about 27 of 213,788 or 0.01% of surface water data points collected at Permit 107517 locations in 2017 and are not expected to affect the quality of data analysis. Although non-compliances for missed samples represent only a fraction of the monitoring program, Teck continues to implement new and updated management practices to further reduce instances of missed samples. These include, updated database programming to assist in creation of sample plans, improved data management practices and QA/QC measures to indicate when a sample is missed as to allow for re-

sampling to be scheduled with in the sampling session, and improved communications with laboratories to identify sample analysis issues that will also allow for resampling.

Table 14. Summary of 2017 missed samples for Permit 107517.

Date	EMS ID	Location Code	Parameters	Reason
1/17/2017	E258937	CM_MC2	Flow	In the Q2 EMS data upload, flow was not provided for this location.
2/23/2017	E298592	EV_BLM2	Dissolved ultra-trace mercury	Samples were not filtered by the laboratory before being preserved.
2/23/2017	E102681	EV_SM1	Dissolved ultra-trace mercury	Samples were not filtered by the laboratory before being preserved.
2/23/2017	E296311	EV_SP1	Dissolved ultra-trace mercury	Samples were not filtered by the laboratory before being preserved.
2/23/2017	E208057	EV_MG1	Dissolved ultra-trace mercury	Samples were not filtered by the laboratory before being preserved.
2/23/2017	E298594	EV_SPR2	Dissolved ultra-trace mercury	Samples were not filtered by the laboratory before being preserved.
2/23/2017	E200097	EV_EC1	Dissolved ultra-trace mercury	Samples were not filtered by the laboratory before being preserved.
3/15/2017	E200209	CM_CC1	All field parameters	Teck's internal data management system was not updated from field notes taken at the time of sample collection. The field notebook is now unattainable.
4/5/2017	200393	EV_ER1	Dissolved oxygen	Incorrect value was recorded in the field. This was not noticed until the next sample session.
5/2/2017	E298733	CM_PC2	Missing select lab parameters	The chain of custody parameters were selected incorrectly therefore were not included in the analysis.
5/9/2017	E102709	GH_GH1	Flow	A flow measurement was attempted however; an authorized fish barrier was obstructing the measurement.
5/23/2017	0200385	GH_PC1	Flow	A flow measurement was attempted; however, the sampling crew felt it was unsafe to proceed due to high water velocity.
5/29/2017	E216778	FR_HC1	TSS & turbidity	Sample analysis omission during log-in procedure at lab.
6/6/2017	E298733	CM_PC2	Missing select lab parameters	The chain of custody parameters were selected incorrectly therefore were not included in the analysis.
6/21/2017	E258937	CM_MC2	Dissolved oxygen	Dissolved oxygen was collected at the time however the measurement was incorrect (113.7 mg/L).
Q3	E298733	CM_PC2	Acute toxicity	Not sampled on July 5, which was the only week within the quarter when flow was present.
7/4/2017	E206439	CM_SEW	Turbidity	Turbidity was not analyzed by Lab due to COC naming convention error.
8/2/2017	E282149	LC_SLC	BOD	Sampling conducted on 8/2/2017 and all other parameters were collected. However the chain of custody did not have BOD listed as a requested analysis for this sample location.

2.3.4 Administrative Non-Compliances (Category 4)

There were three non-compliances in 2017 for failure to upload monitoring data to the ENV EMS database. The permit states that the Permittee must submit the results of the discharge and receiving environment water sampling program directly into the ENV EMS database using the appropriate EMS site identification numbers within 30 days of the end of the quarter in which the samples were collected. Upon discovery of these non-compliances, the data were immediately uploaded and additional training and clarification of the permit requirements was provided to staff to prevent future instances.

2.3.5 Hold Time Exceedances (Category 5)

Parameter hold times were exceeded on multiple samples in 2017 (549 out of 213,557 analysis or 0.26% of all analysis completed in 2017). This was an improvement from 2016 in which there were 884 hold time exceedances, resulting in a reduction of 335 instances in 2017. These were generally time-sensitive water quality parameters such as nitrate-N, nitrite-N, turbidity, phosphorous, and total suspended solids. Exceeding hold times may affect the reliability of the sample result in different ways depending on environmental conditions and contents of the sample. A complete list of all hold time exceedances can be found in Appendix D with a more detailed summary provided in Section 3.3, QA/QC issues. It should be noted that the total number of hold time exceedances (549 in 2017) does not equate to 549 non-compliances. Many of these parameters were resampled during the sampling session and therefore met all requirements of the permit. Several others were due to laboratory QA/QC procedures, in which case, the original sample was analyzed within hold times but failed QA/QC. In these instances, the sample is re-run but the second analysis was conducted outside of the hold time. Standard laboratory procedure is to report the data that passed QA/QC but failed the hold time rather than reporting the original result that failed QA/QC.

In 2017, Teck conducted an internal investigation in consultation with the sample shipping contractors and analytical laboratories. The exceedances were a result of several factors including inadequate communication regarding laboratory equipment malfunction, shipping delays, miscommunication between Teck and laboratories, and limited laboratory resources. These factors caused final laboratory result reporting delays in which Teck was not notified of hold time exceedances until after the monthly sampling session was over and re-sampling could not be conducted within the required permit sampling frequency.

The following practices and procedures have been implemented in order to reduce hold time exceedances and expedite the laboratory reporting in the event that there are unpreventable hold times but will allow for re-sampling to be conducted within the sampling session to meet the compliance requirement for that time period.

- Five business days after sample receipt by the Lab, Teck will receive either:
 - The final report containing all data. This is the primary goal.
- or

- A preliminary report containing data that has complete analysis and hold time notifications as well as reasoning as to why there is a delay in the remaining data.

This process will allow for resampling due to hold-time exceedance to be conducted within the sampling session. Additional program improvements include:

- The shipping contractor will send email notification of late deliveries, which will allow Teck to follow up specifically on individual shipments.
- Parameters that have prolonged analysis and cause a delay in reporting will be submitted to the lab on a separate chain of custody (COC). Analysis on select parameters can delay reporting by up to 3 weeks. Having these samples on their own COC will allow for all other data and exceedances to be reported on time.

2.4 Unattainable Sample Data

During the course of the calendar year there are a number of circumstances that prevent the collection of water samples from permitted sampling sites. Such circumstances are generally out of Teck's control and include, but are not necessarily limited to, unsafe sampling conditions for personnel, no flow due to frozen conditions, or cessation of discharge activities. Although such circumstances prevent Teck from collecting water samples at specified EMS sites and/or at the frequencies outlined in Tables 9 through 24 of Appendix 2 in Permit 107517, these unattainable samples do not result in non-compliances, but rather are recorded as unattainable data.

The most common unattainable data parameter is flow. During winter months when there is significant snow accumulation and ice cover it may be unsafe or unrealistic to clear the entire channel to collect an accurate flow measurement or staff gauge reading. The following protocols are implemented where practical to reduce likelihood of unattainable samples.

If the ice and snow cannot be safely cleared to collect an accurate flow and flow is the only parameter that is missed (all other water quality parameters were collected):

- This is not considered a non-compliance nor a missed sample. All other lab and field data are uploaded to ENV EMS database with a comment indicating that flow was not collected due to ice cover and safety concerns.
- Returning to the location later in the sampling period to attempt to collect flow is not required (if water quality parameters were collected during initial visit). Collecting spikes in flow during winter months is not required for the purpose of modeling or determining base winter flows. The flow data that is collected before and after freeze up will be used to estimate winter flows for that location.

There are additional circumstances in which a monthly flow measurement must be collected at certain locations if it is safe to do so. Stations that have continuous flow monitoring requirements and freeze over in the winter do require a manual flow measurement to be collected monthly in order to maintain a continuous record of flow during times when continuous monitoring is not available. This will result in an "estimated" data grade but will maintain compliance with the continuous flow requirement.

There are also several sample sites that have been identified in the Regional Surface Flow Monitoring Plan as critical locations for collecting low flow data in order to improve local scale modelling, design criteria for active water treatment facilities, as well as to provide data for the update to the RWQM as required by Permit 107517. Measurements are required to capture the minimum annual flow at these locations to provide appropriate data that will support the internal Teck data uses as well as permit requirements outlined in the Regional Surface Flow Monitoring Plan.

If a flow measurement as required on either a continuous or monthly/weekly basis cannot be collected due to safety or ice buildup, the proper documentation must be collected to prove that reasonable effort was made to collect the sample. This should include but is not limited to, specific reasons as to why the flow measurement is not available, alternative flow measurement methods considered, and photo documentation. The site must be visited as per the sampling requirements outlined in the permit to collect this information. If these steps are followed and reasonable effort to collect the sample has clearly been displayed, this will be considered compliant with the monitoring requirements for flow as it meets the objectives of the Regional Surface Flow Monitoring Plan.

Teck's priority is worker safety and accepts that samples are not always attainable. A summary of all unattained samples is presented in Appendix A.

3 Surface Water Monitoring Program

As outlined in Permit 107517, water samples are regularly collected from authorized discharges and receiving environment sampling sites. In addition to evaluating compliance as discussed in Section 2, water sampling sites and associated data are used to evaluate overall water quality at point source discharges and within the receiving environment. The following section summarizes water quality/quantity monitoring requirements, methodologies employed in data collection, and quality assurance/quality control (QA/QC) activities.

3.1 Surface Water Monitoring Program

Surface water sampling activities are carried out over a range of frequencies throughout the calendar year (e.g., weekly, monthly, quarterly etc.), with samples analyzed for a number of water quality parameters including:

- **Field Parameters** - water temperature, specific conductance, dissolved oxygen, pH, flow.
- **Conventional Parameters** - specific conductance, total dissolved solids, total suspended solids, hardness, alkalinity, dissolved organic carbon, total organic carbon, turbidity, BOD.
- **Major Ions** - bromide, fluoride, calcium, chloride, magnesium, potassium, sodium, sulphate, sulphide.
- **Nutrients** - ammonia, nitrate, nitrite, TKN, orthophosphate, total phosphorus.
- **Dissolved Metals** - aluminum, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, chromium, cobalt, copper, iron, lead, lithium, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, thallium, tin, titanium, uranium, vanadium, and zinc.

- **Total Metals** - aluminum, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, chromium, cobalt, copper, iron, lead, lithium, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, thallium, tin, titanium, uranium, vanadium, and zinc.

Note that not all parameters are collected at all locations or at the same frequency. For specific sampling requirements and frequency related to each monitoring location please refer to Appendix B. Surface water flows and toxicity tests (acute and chronic) are also routinely conducted at a number of sampling sites as per Permit 107517 and the approved Regional Surface Flow Monitoring Plan. All monitoring data collected in 2017 have been tabulated and is included in Appendix I.

3.2 Quality Assurance/Quality Control Program

A QA/QC program has been established to promote consistency in field protocols and methodologies, and the collection of high quality environmental data. Sampling activities are not only carried out to meet the requirements of the monitoring program, in terms of location and frequency, but to collect representative samples and minimize the potential for deterioration and/or contamination prior to laboratory analysis.

Teck conducts and manages a multitude of environmental monitoring programs and depends on data generated by those programs to support environmental protection, inform decisions, and allow for effective management activities. It is imperative that Teck's data quality objectives (DQOs) are implemented and utilized as the driver for all data collection programs and quality assurance and control objectives. The minimum DQO applied to all environmental data is described below.

3.2.1 Teck Data Quality Objectives

Teck Coal has developed standard DQOs that are primarily driven by permit requirements or dictated by provincial and federal legislation. DQOs establish standards on how data are collected, analyzed, managed and stored in a manner that will provide complete and dependable data.

Typically, data can be categorized by the following criteria:

Category 1. Data of Known Quality. Category 1 data are of known quality and are considered to be acceptable for use in decision making. There is sufficient information on these data sets to confidently verify that the data, along with associated data qualifiers, accurately represent chemical concentrations present at the location at the time of sampling.

Category 2. Data of Partially Known Quality. Category 2 data have a limited body of supporting QA/QC information. Although not sufficient to be considered Category 1, the level of quality information is considered suitable for qualitative use. These data sets may be considered for further evaluation based on project - specific DQOs and intended end uses.

Category 3. Data of Unknown Quality. Category 3 data include sample concentration information, but lack an adequate level of supporting QA/QC information. These data sets are not considered suitable for detailed project uses. However, considering the reputability of the data sources, these

data sets may be used on a limited or provisional basis for qualitative comparisons with Category 1 and Category 2 data sets.

Teck's DQO is to collect and produce Category 1 and 2 data at all times. If data are categorized as data of unknown quality (Category 3), it is not suitable for use. The DQOs are met by developing and implementing sampling and data management procedures in accordance with provincial standards. The 2013 Edition of the British Columbia Field Sampling Manual (Clark, M.J.R. (editor). 2002²) is utilized to meet this standard for sampling associated with this permit.

3.2.2 Quantifying DQOs

In order to evaluate and therefore categorize data as outlined above, Teck conducts standard QA/QC duplicate sampling and utilizes relative percent difference (RPD) calculations in order to determine the validity or category of each data point. Teck utilizes the precision criteria outlined in the BC Field Sampling Manual. Additional requirements or more stringent RPD criteria may be developed in the DQO generation process at the onset of individual data collection programs.

Teck's internal database software, EQUiS, is configured to run RPD reports and results are tabulated and assessed. RPD results are assigned a pass/fail grade with multiple levels associated with a passing grade. These correlate to the categories as described above.

In comparing two sets of results, RPD is calculated as the arithmetic difference divided by the mean of the two samples then multiplied by one hundred to express the result as a percentage:

$$\text{RPD} = (\text{Difference}/\text{Mean}) \times 100\%$$

Or, shown differently:

$$\text{RPD} = \left(\frac{(a - b)}{(a + b) / 2} \right) \times 100\%$$

RPD results are described below including follow up actions required by the Data Manager when reviewing RPD data.

- RPD of <20% = Pass, Category 1
 - No action required. Data point is considered validated.
- RPD of >20% with results < 5 times the detection limit = Pass, Category 1
 - No action required. Measurement is not considered quantitatively meaningful.
- RPD of >20% and <50% with results >5 times the detection limit = Pass, Category 2

² Clark, M.J.R. (editor). 2002. British Columbia Field Sampling Manual. Water, Air and Climate Change Branch, Ministry of Water, Land and Air Protection, Victoria, BC, Canada. 312 pp.

- Data point is validated but does have reasonable variance.
- This analyte should be monitored in future RPD analysis to determine trend of variance.
- If variance of 20% to 50% persists, the lab should be notified and requested to investigate.

- RPD of >50% with results >5 times the detection limit = Fail, Category 3
 - Data point is not validated and is not suitable for quantitative use.
 - Data point should be flagged in EQulS.
 - If variance > 50% persists, the lab should be notified and requested to investigate.
 - If required, by the DQOs each analyte that fails RPD can be requested for re-analysis by the laboratory. The Data Manager will direct any re-analysis required

To confirm that field activities are conducted in a manner that meets the overall DQOs of the QA/QC program, sampling activities are conducted in accordance with the British Columbia Field Sampling Manual. Environmental personal are trained using on-site SP&Ps as detailed in the *Teck Field Sampling Manual*.

Third-party analysis of water quality was conducted by ALS Laboratory Group, Nautilus Environmental Company, and Brooks Applied Labs.

In addition to the QA/QC program that is incorporated into Teck's surface water sampling program, quality control samples and procedures specified in analytical method protocols are completed by respective analytical laboratories and include the following (as applicable to each analysis):

- Initial calibration
- Initial calibration verification
- Continuing calibration
- Calibration or instrument blanks
- Method blanks
- Laboratory control samples
- Internal standards (including certified reference material)
- Serial dilutions
- Matrix spikes
- Laboratory duplicates

The analytical laboratory determines a Method Detection Limit (MDL) for each analyte. MDLs are statistically derived and reflect the concentration at which an analyte can be detected in a clean matrix with 99 percent confidence that a false positive result has not been reported. The analytical laboratory establishes Method Reporting Limits (MRLs) at levels above the MDLs for respective parameters. These values are based on the laboratory's experience analyzing environmental samples and reflect the typical sensitivity obtained by the analytical system; they represent the level of analyte above which concentrations are accurately quantified.

The laboratory quantifies parameters at concentrations above the MRL. Parameters detected at concentrations between the MDL and MRL are flagged with a "J" qualifier to indicate that the value is an estimate (i.e., the analyte concentration is greater than or equal to the MDL and less than the

MRL). Parameters that are not detected are reported as the MDL, and are flagged with a “U” qualifier. MDLs can be adjusted by the laboratory to reflect sample dilution and/or matrix interference.

Representativeness is the degree to which data represent a characteristic of an environmental condition. In the field, representativeness is addressed by collecting samples at the permitted water sampling sites and adhering to sample collection procedures. In the laboratory, representativeness is achieved by the proper handling and storage of samples, the use of standard performance-based methods, and initiation of analyses within hold times.

Comparability is the qualitative similarity of one data set to another (i.e., the extent to which different data sets can be combined for use). Comparability is addressed through the use of field and laboratory methods that are consistent standardized procedures.

Despite the considerable level of effort and management system tools employed to achieve high quality water data, there are instances where data quality issues occurred. A summary of instances and associated issues are discussed in Section 3.3 below.

A summary of the QA/QC program associated with water quantity (i.e., flows) measurements is presented in Appendix C.

3.3 QA/QC Issues

Data quality issues encountered in 2017 were largely the result of hold time exceedances for time-sensitive water quality parameters such as nitrate-N, nitrite-N, ortho-phosphate, turbidity, and total suspended solids. A summary of data quality issues per parameter affected by hold time exceedances is listed below, with a detailed summary per water sampling site presented in Appendix D:

- Nitrate-N: 99 of 2286 data points affected (4.3%)
- Nitrite-N: 90 of 1692 data points affected (5.3%)
- Turbidity: 229 of 3411 data points affected (6.7%)
- Total suspended solids: 7 of 3423 data points affected (0.2%)
- Total dissolved solids: 6 of 1604 data points affected (0.4%)
- Ortho-phosphate: 84 of 1615 data points affected (5.2%)
- Alkalinity, total (As CaCO_3), lab measured: 15 of 1610 data points affected (0.9%)
- Conductivity, lab: 1 of 1555 data points affected (0.06%)
- Mercury: 18 of 1631 data points affected (1.1%)

In addition to the above-listed issues, the precision of laboratory results were evaluated using field duplicate samples. RDP calculations as described in Section 3.2 were performed on all duplicate samples taken. Throughout 2017 there were a total of 438 duplicate samples collected, resulting in 34,039 parameters being evaluated for RPD. Of the 34,039 parameters that were evaluated, 301 did not meet acceptable RPD assessment criteria. This represents 0.88% of the RPD analyses completed. Figure 31 below indicates the parameters that failed RPD analysis and the frequency of occurrence.

A summary of all 2017 RPD field duplicate samples is presented in Appendix D.

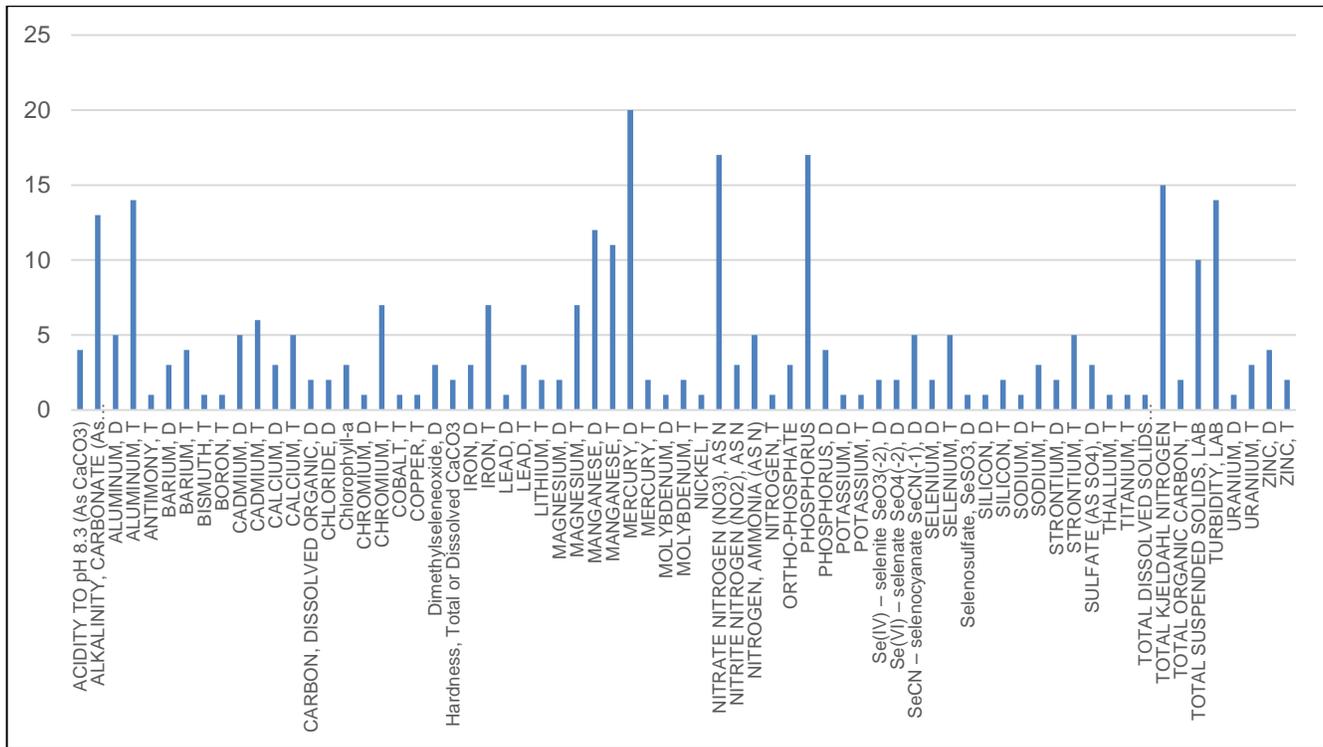


Figure 31. Summary of RPD failure by parameter.

Field blank samples were also collected in 2017 as a method to determine sample contamination during the bottle storage and sample collection, handling, and analysis process. The results of this QA/QC activity indicated several instances of potential sample contamination for multiple parameters.

Of all the parameters that had detection, there were 13 (including turbidity, total suspended solids and organic carbon) that occurred at all Teck operations associated with this permit. Results suggest that there is potential bottle contamination from sources that are common at each site and relative to the mining industry. Results also suggest that contamination is not due to sample collection or handling error by Teck staff as many different employees and contractors collect water samples across the 5 operations. In discussion with ALS Laboratories it was indicated that analytical variability can impact results of blank samples with very low detection limits as even the slightest variability (to 1/100th of a decimal place) can result in false detection. It was recommended that immediate follow up with the laboratory be conducted to confirm blank detect results and determine if they are a result of this low detection limits. Teck will implement a procedure in 2018 for review of blank results and initiate follow up with the lab to confirm results and/or determine the potential cause(s) of sample contamination such as, but not limited to, analytical variability.

A total of 27,218 parameters were analyzed for potential contamination in blank samples and of those, 888 had results above detection limits (3.2%). Of the total 888 parameters, 388 were collected from the discharge of the West Line Creek Active Water Treatment Facility. Blank detection results in samples collected from the treatment plant are discussed in Section 5.4.

The remaining blank detect results were from samples collected at discharge and receiving environment locations at the operations. Figure 32 and Table 15 below summarize the blank detect results by parameter and by operation respectively. Tracking this data by location and parameter will allow Teck to determine if the blank detection is consistent across all operations or if it is a specific issue is related to one area or a deviation from standard sampling and analysis practices. It will also allow for improvements to be monitored once new procedures and practices are implemented.

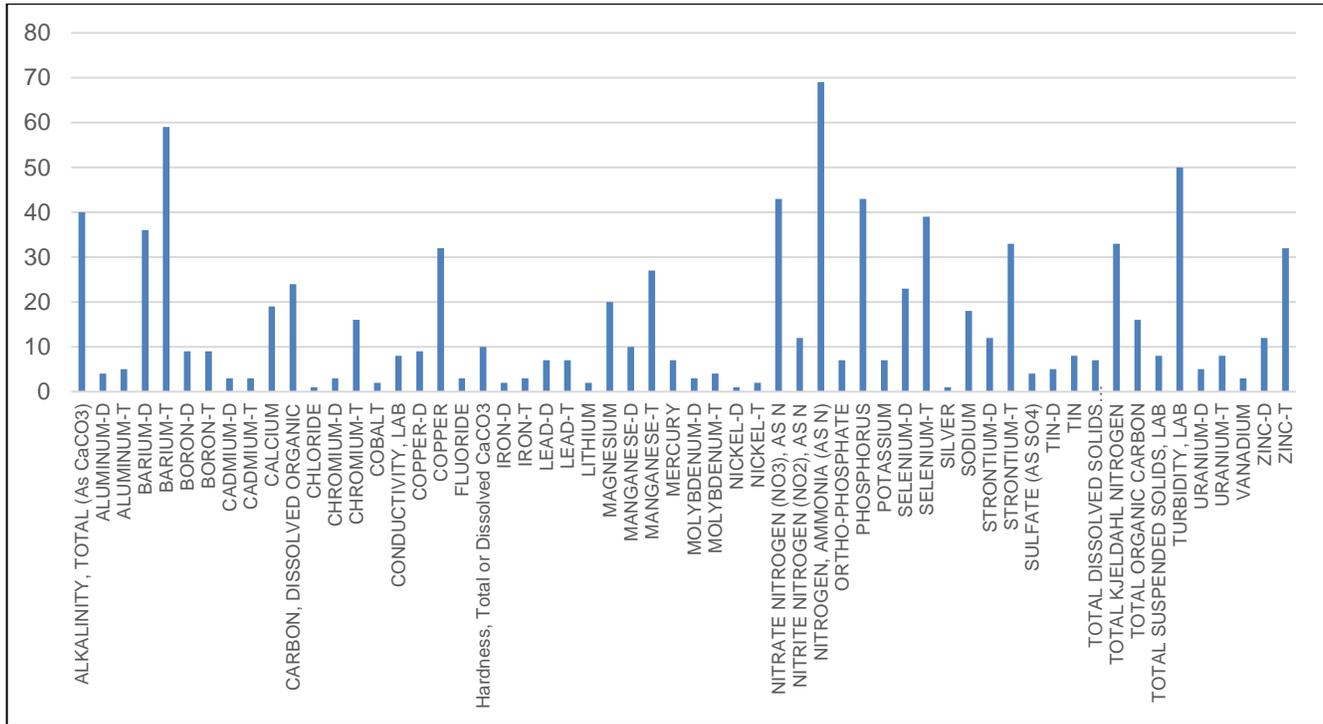


Figure 32. Summary of blank sample detect results by parameter.

Table 15. Blank detect samples by operation.

Operation	Blank Samples Collected	Number of Detect Results	% Of Total by Operation
Fording River	2,263	57	2.5%
Greenhills	4,478	65	1.5%
Line Creek	6,568	188	2.9%
Elkview	5,781	78	1.3%
Coal Mountain	1,406	52	3.7%
Regional	3,153	60	1.9%
West Line Creek Active Water Treatment	4,069	388	9.5%
Totals	27,718	888	3.2%

There were 5 samples in 2017 when the method detection limits for sulfide was elevated above the BCWQG at receiving environment monitoring LC_LC3 – EMS #0200337. This occurred due to a

temporary constraint at the primary lab in which the sulfide analysis was sent to an alternate ALS lab for completion. This secondary lab did not have the equipment with sufficient precision to complete the analysis with the required detection limit. Teck has since communicated with the laboratory the need for all analysis to be completed at the lowest possible detection that will allow for comparison to appropriate BCWQGs.

There were an additional 9 samples in 2017 when mercury detection limits were elevated above the BCWQG. Teck continues to implement procedures for ultra-trace mercury analysis with a method detection limit of 0.00050 µg/L in place of the standard mercury analysis.

In addition to the above QA/QC issues, there were several instances when issues with calibration and/or function of field equipment occurred. A summary of issues with field equipment is provided below in table 16.

Table 16. Summary of field equipment issues recorded in 2017.

Date	EMS ID	Location Code	Issue	Reason
2/16/2017	E302170	EV_AQ6	pH, Field	Suspected faulty pH probe as corresponding lab pH results were significantly different. The field probe calibrated correctly in Teck's lab and recorded the same results as a different calibrated YSI but field results were variable.
2/16/2017	E208043	EV_GC2	pH, Field	
2/20/2017	E258135	EV_LC1	pH, Field	
2/20/2017	E102679	EV_OC1	pH, Field	
2/20/2017	200393	EV_ER1	pH, Field	
2/21/2017	E300091	EV_MC2	pH, Field	
2/21/2017	E298590	EV_DC1	pH, Field	
2/21/2017	E102682	EV_HC1	pH, Field	
2/21/2017	200027	EV_ER4	pH, Field	
3/6/2017	200027	EV_ER4	pH, Field	
3/6/2017	200111	EV_ER2	pH, Field	
3/6/2017	E102681	EV_SM1	pH, Field	
6/21/2017	E258937	CM_MC2	Dissolved oxygen	Dissolved oxygen was collected at the time however the measurement was incorrect (113.7 mg/L).

3.4 Toxicity Testing Program

Toxicity testing is carried out at a number of sampling sites on a quarterly basis. Biological test methods routinely employed include:

- Acute lethality test using Rainbow Trout; universal method: EPS 1/RM/9
- Acute lethality test using *Daphnia* spp.; universal method: EPS 1/RM/11
- Toxicity Tests using early life stages of salmonid fish (Rainbow Trout); universal method EPS 1/RM/28-1E)
- Growth inhibition test using a freshwater alga; report EPS 1/RM/25
- Test of reproduction and survival using the cladoceran *Ceriodaphnia dubia*; report EPS 1/RM21

- Fathead Minnow, *Pimephales promelas*, larval survival and growth test; U.S. Environmental Protection Agency (EPA) Method 1000.0

In addition to the above-listed standard methods, a modified 28-day water-only test with the amphipod, *Hyalella azteca* is also completed. This test is not a standard test but rather has been modified from “Methods for measuring the toxicity and bioaccumulation of sediment-associated contaminants with freshwater invertebrates (second edition)”, EPA/600/R-99/064.

Section 10.3 of Permit 107517 requires that Teck report annually on the Chronic Toxicity program. This report is submitted to the Director under separate cover by April 30th of each year following the data collection calendar year. Chronic toxicity tests were completed in 2017 in accordance with Section 9.8 of Permit 107517.

Acute toxicity tests and associated QA/QC measures are completed in accordance with the above-listed methods by the testing laboratory and are detailed in testing reports. A summary of all test results and reports are included in Appendix G and H respectively.

4 Spills and Incidents

There were a total of 221 reportable spills recorded at Teck’s operations in the Elk Valley in 2017. Table 17 below shows a summary of spills by operation. The most common substance spilled was fuels/lubricants.

Over the past 5 years, Teck operations has implemented a Hydrocarbon Management Program in an attempt to improve equipment reliability by reducing the quantity and frequency of hydrocarbon leaks. The program has three main objectives, Accurately Measure Hydrocarbons to our Assets, Take Action quickly on assets that consume abnormal quantities of hydrocarbons, and improve our Maintenance Strategies to prevent leaks from occurring. Each site has installed hydrocarbon metering devices on mobile assets. The meters enable our sites to collect hydrocarbon dispensing data which is analyzed in real time by a specialized computer program. This software automatically flags any abnormal or unexpected dispensing events and sends the event information to the shop supervisor so action can be taken. Lastly, each site has reliability engineers focusing on developing hydrocarbon hose exchange programs for the assets and improving overall hydrocarbon practices on site. As a result of this program, the coal business unit has reduced the quantity of hydrocarbons used at our sites significantly. Due to the success of the program, it is now being implemented in other business units including Copper and Zinc.

Appendix J contains a detailed list of all spills that occurred in 2017 including a reference to the Emergency Management British Columbia (EMBC) report number. All spills were responded to as per Teck’s spill response procedures. For more information on the remedial actions associated with spills refer to the reported information associated with the incident numbers referenced in Appendix J and to the annual effluent reports from each operation, submitted under separate cover.

Table 17. Summary of spills that occurred at Teck's mines in the Elk Valley in 2017.

Site	Number of Spills
FRO	59
GHO	46
LCO	49
EVO	50
CMO	17

5 Monitoring Results

Water sampling results are used for a wide range of analyses. This includes, for example, to evaluate compliance (refer to Section 2), for research and development, effects assessments, baseline data collection, geochemical source term derivation, to evaluate key receiving environment sampling sites in relation to SPOs and/or applicable approved/working water quality guidelines. The following section summarizes receiving environment monitoring results in relation to British Columbia approved/working water quality guidelines (BCWQG). In addition and as outlined in Section 10.2.4 of Permit 107517, the following section evaluates trends for Order-defined constituents of interest (selenium, nitrate-N, sulphate, and dissolved cadmium) at significant source sites (i.e., dormant and active waste rock dumps), and key receiving environment sites (Order stations). Because selenium, nitrate-N, sulphate, and cadmium have permitted limits (refer to Section 2), they are not compared to the BCWQGs. A summary of surface water quantity monitoring results is provided in Appendix C.

5.1 Surface Water Quality – Receiving Environment

In 2017 a total of 43,697 analyses were conducted from receiving environment water samples as required under Permit 107517 and compared to BC WQGs (excluding parameters with specified limits or SPOs as identified in the EVWQP, i.e., selenium, nitrate-N, sulphate, and dissolved cadmium). Of those, 690 (1.6 percent) were identified as having concentrations above a BC WQG at a site designated as a receiving environment monitoring location in Permit 107517. The presentation of data and interpretation below excludes Order constituents as these were previously discussed in Section 2 for selenium, nitrate-N, sulphate, and dissolved cadmium. Figure 33 shows a summary of these instances compared to total samples taken by parameter for total cobalt, nitrite, dissolved aluminum, total uranium, total mercury, and total iron. These parameters are also discussed in further detail below.

There were other instances where beryllium (20x), silver (1x), zinc (4x), copper (4x), and arsenic (1x) were also elevated above BCWQGs; however, with the exception of beryllium, there were very few occurrences and results are just slightly over the BCWQG. Because of the low frequency and proximity of results to the BCWQG, these are not further discussed in this report. Beryllium was above the BCWQG in 20 samples but each result was marginally over the guideline of 0.13 µg/L with an average result of 0.16 µg/L. These parameters will continue to be monitored should an increasing trend become apparent. A graphical representation of beryllium results compared to the BCWQG is shown in Figure 41.

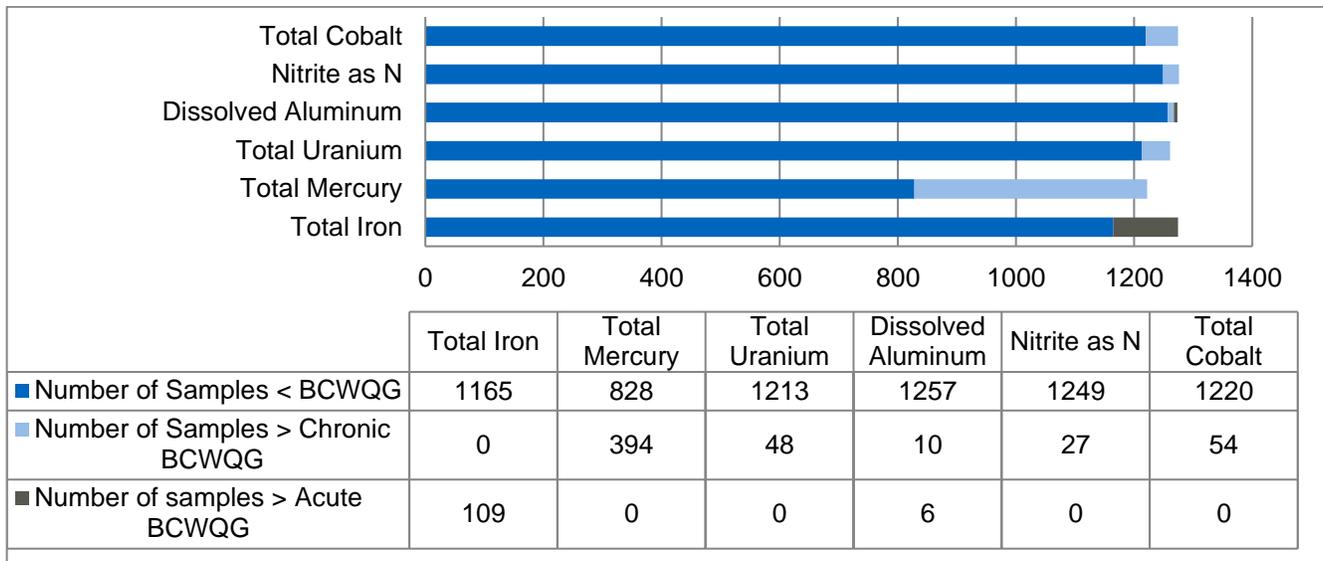


Figure 33. Summary of the majority of instances of concentrations measured above BC WQG at receiving environment monitoring locations compared to total number of samples taken by parameter.

A summary of the majority of parameters and associated sampling locations in which a detected analytical concentration was measured above a BC WQG is presented in Table 18, with a complete detailed list of all parameters, excluding Order defined parameters, presented in Appendix F.

Table 18. Summary of receiving environment water sampling sites where concentrations were measured above a British Columbia Approved or Working Water Quality Guideline in 2017.

EMS ID	Location Code	Parameter	Number of Instances
0200209	CM_CC1	Total Cobalt	40
		Total Mercury - Ultra Trace	4
		Nitrite Nitrogen (No2), As N	25
E258175	CM_MC1	Total Mercury - Ultra Trace	6
E258937	CM_MC2	Total Cobalt	14
		Total Iron	3
		Total Mercury - Ultra Trace	20
		Nitrite Nitrogen (No2), As N	2
E298592	EV_BLM2	Total Iron	2
		Total Mercury - Ultra Trace	2
200389	EV_ER1	Total Iron	3
		Total Mercury - Ultra Trace	11
0200111	EV_ER2	Total Iron	1
		Total Mercury - Ultra Trace	1
0200027	EV_ER4	Total Iron	2
		Total Mercury - Ultra Trace	10
E298591	EV_FC1	Total Iron	2
		Total Mercury - Ultra Trace	5

EMS ID	Location Code	Parameter	Number of Instances
E258937	EV_MC2	Total Iron	2
		Total Mercury - Ultra Trace	22
E310168	EV_MC2A	Total Mercury - Ultra Trace	11
0200203	EV_MC3	Total Iron	4
		Total Mercury - Ultra Trace	20
E298594	EV_SPR2	Total Mercury - Ultra Trace	2
E298593	EV_TC1	Total Mercury - Ultra Trace	4
0200201	FR_FR2	Total Iron	1
		Total Mercury - Ultra Trace	15
E300071	FR_FRCP1	Total Iron	1
		Total Mercury - Ultra Trace	10
E300097	FR_FRRD	Dissolved Aluminum	3
		Total Mercury - Ultra Trace	4
E216777	FR_UFR1	Total Mercury - Ultra Trace	7
E287437	GH_BR_F	Total Mercury - Ultra Trace	4
E287432	GH_COUGAR	Total Mercury - Ultra Trace	4
0200378	GH_ER1	Total Iron	4
		Total Mercury - Ultra Trace	8
E305876	GH_ER1A	Total Iron	1
		Total Mercury - Ultra Trace	2
200389	GH_ER2	Total Iron	3
		Total Mercury - Ultra Trace	9
E300090	GH_ERC	Total Iron	3
		Total Mercury - Ultra Trace	8
E305877	GH_ERSC2	Dissolved Aluminum	3
		Total Mercury - Ultra Trace	6
E305878	GH_ERSC4	Total Iron	1
		Total Mercury - Ultra Trace	1
0200378	GH_FR1	Total Mercury - Ultra Trace	7
E309911	GH_GH2	Total Iron	1
		Total Mercury - Ultra Trace	6
		Total Uranium	2
E305875	GH_NNC	Total Mercury - Ultra Trace	3
E102714	GH_TC1	Total Mercury - Ultra Trace	3
0200337	LC_LC3	Total Mercury - Ultra Trace	11
0200044	LC_LC4	Total Mercury - Ultra Trace	7
0200028	LC_LC5	Total Iron	2
		Total Mercury - Ultra Trace	7
E293369	LC_LCUSWLC	Total Mercury - Ultra Trace	4
E261958	LC_WLC	Total Mercury - Ultra Trace	6
		Total Uranium	43

EMS ID	Location Code	Parameter	Number of Instances
E300094	RG_BORDER	Dissolved Aluminum	9
		Total Iron	22
		Total Mercury - Ultra Trace	38
E300230	RG_DSELK	Total Iron	14
		Total Mercury - Ultra Trace	24
E294312	RG_ELKORES	Dissolved Aluminum	1
		Total Iron	4
		Total Mercury - Ultra Trace	20
E300092	RG_GRASMERE	Total Iron	11
		Total Mercury - Ultra Trace	25
E300095	RG_KERRRD	Total Iron	9
		Total Mercury - Ultra Trace	19
E300093	RG_USGOLD	Total Iron	13
		Total Mercury - Ultra Trace	27

5.1.1 Mercury Results Above BC WQGs

The majority of instances where concentrations were measured above BC WQGs in 2017 were for total mercury. The BC WQG for mercury is based on the percent of methyl mercury present, in which the lower the percentage of methyl mercury, the higher the BC WQG. For the purposes of revising Teck's monitoring protocol for mercury sampling and interpretation of mercury results, Teck is sampling for methyl mercury in order to quantify the methyl mercury percentage of total mercury and therefore be in a better position to identify if this is a result of mining operations and/or if there are any associated risks to the receiving environment. In 2017, 217 samples were collected from receiving and discharge streams with only 27 of those results above detection for methyl mercury. All calculations completed indicate that the methyl mercury percentage of total mercury is between 0.77 and 7.95 %.

Concurrent methyl mercury samples were not available with all of the mercury samples. These samples, as shown in Figure 33, were compared to the most conservative guideline of 0.00125 µ/L (red line on Figure 33) which assumes > 8% methyl mercury.

In 2017, methyl mercury was represented less than 8% of total mercury for all samples, indicating that a BC WQG of 0.01 µ/L is more appropriate for comparison. If this guideline was applied to all samples as it was to those with corresponding methyl mercury results in 2017, there would be 13 exceedances rather than 394. Teck continues to collect additional methyl mercury data to help identify the applicable guideline for future comparisons and revise sampling procedures. Figure 34 below shows the 2017 ultra-trace mercury data and demonstrates the three guidelines calculated based on the percent methyl mercury. The green triangles represent methyl mercury samples that were collected in conjunction with total mercury and their percentage of the total mercury. It should be noted that for this purpose, the data in the figure are grab samples and not monthly averages.

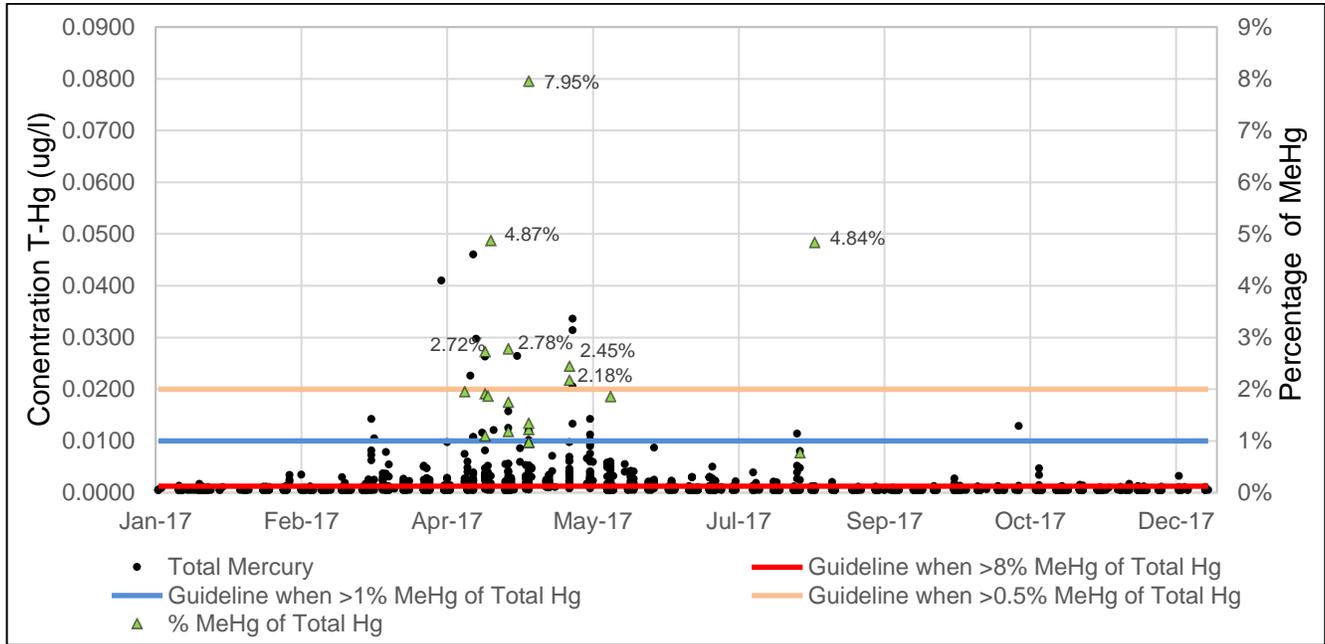


Figure 34. Methyl mercury percentage of total mercury and applicable guidelines.

5.1.2 Uranium Results Above BC WQGs

Total uranium concentrations were measured above the working BC WQG (8.5 µg/L) in 2017. Of the 45 observed concentrations above the Canadian Council of Ministers of the Environment (CCME) long term guideline for uranium (15 µg/L) in the receiving environment, 43 (96%) were recorded at E261958 (LC_WLC) with the remaining 2 (4%) recorded at E309911 (GH_GH2).

For additional context and comparative purposes, total uranium concentrations are also compared to the short- and long-term CCME guidelines (Figure 35). However, it should be noted that, the CCME guideline was developed using the species sensitivity distribution (SSD) method which has not been adopted by BC and therefore the lower fiducial limit of the SSD 5th percentile is adopted as the BC WQG (working guideline).

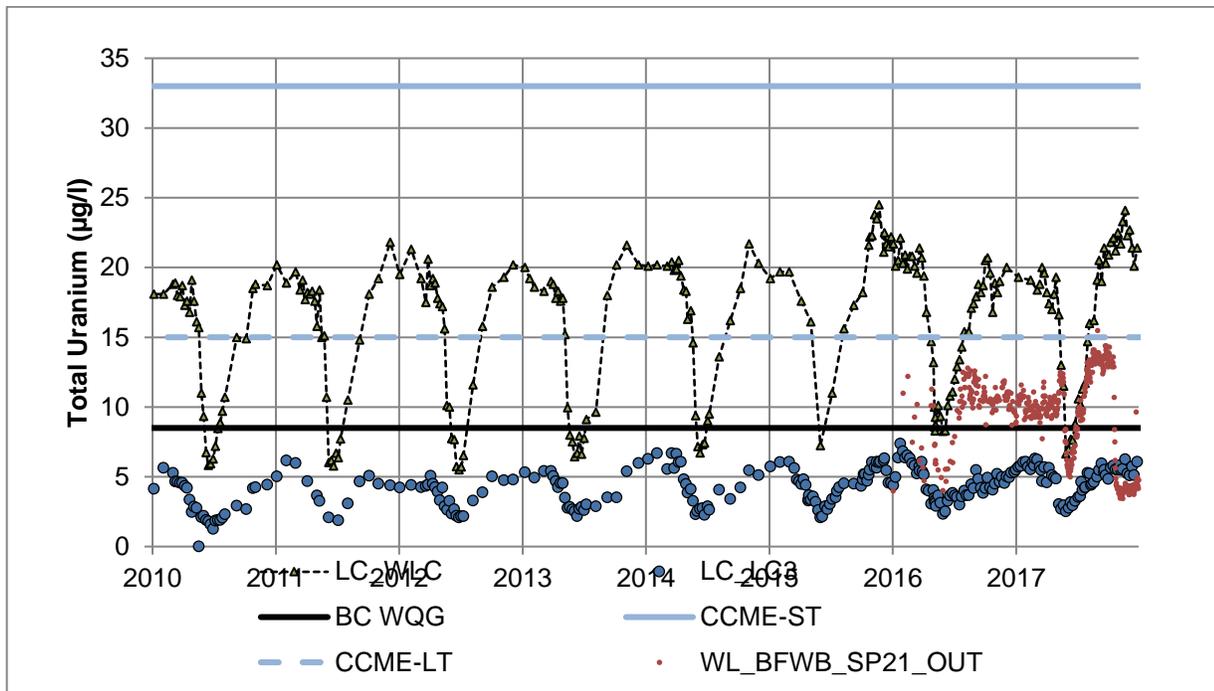


Figure 35. Total uranium concentrations recorded at water sampling site E261958 (LC_WLC).

Note: Total uranium concentrations are plotted in relation to the CCME short-term (33 ug/L; solid grey line CCME-ST) and long-term (15 ug/L; dashed grey line CCME-LT), and the BC WQG working guideline (8.5 ug/L; solid black line).

As illustrated within Figure 35, uranium concentrations recorded at E261958 (LC_WLC) are routinely above the BC WQG, and during low-flow periods, the CCME long-term water quality guideline while always remaining below the CCME short-term water quality guideline. Despite the fact that uranium concentrations at E261958 (LC_WLC), which is non fish bearing, are elevated relative to water quality guidelines, concentrations at hydrologically down-gradient receiving environment sampling sites (i.e., 0200337 (LC_LC3)) remain below BC WQG. Additional monitoring and evaluation of biota downstream of this area is detailed in the Line Creek Local Aquatic Effects Monitoring Program submitted under separate cover.

It should also be noted that although LC_WLC is considered a receiving environment location in the permit, during the months of August to May (flow dependant) 100% of West Line Creek (WLC) is treated in the WLC Active Water Treatment Facility (AWTF) and discharged to the receiving environment via WL_BFWB_OUT_SP21. During the remaining months of the year, June and July, flows are at peak levels and uranium concentrations are below the BC WQG of 0.085 mg/l. The red dots in Figure 35 indicate uranium concentrations entering the receiving environment from the AWTF are all below the CCME long-term water quality guideline and are more indicative of the uranium concentrations from LC_WLC.

The potential effects of uranium concentrations and other water quality constituents on aquatic life in the Fording River will be evaluated in the Regional Aquatic Effects Monitoring Program (RAEMP) and the Fording River Local Aquatic Effects Monitoring Program. Teck also has an ongoing chronic toxicity

program in the Fording River which will provide an indication of potential effects of water quality constituents on aquatic life.

5.1.3 Iron Results Above BC WQGs

Concentrations of total iron above the BC WQG were also observed in 2017; the majority of total iron exceedances occurred at four locations on the Elk River, two on Michel Creek and at most of the regional sampling locations downstream of all mining operations. Concentrations of total iron above the BC WQG (1 mg/L) primarily occurred in the spring. These elevated levels coincide with increased turbidity both upstream and downstream of Teck mines indicating that the measured iron concentrations were from iron in suspended solids. Similar to mercury samples, elevated total iron at regional sampling locations downstream of mining operations coincided with elevated concentrations upstream of mining operations (points identified with triangles). Figure 36 shows total iron concentrations in the Elk River, Michel Creek, and at regional locations downstream of mining operations. There were no observations of exceedances of the total iron guideline in the Fording River.

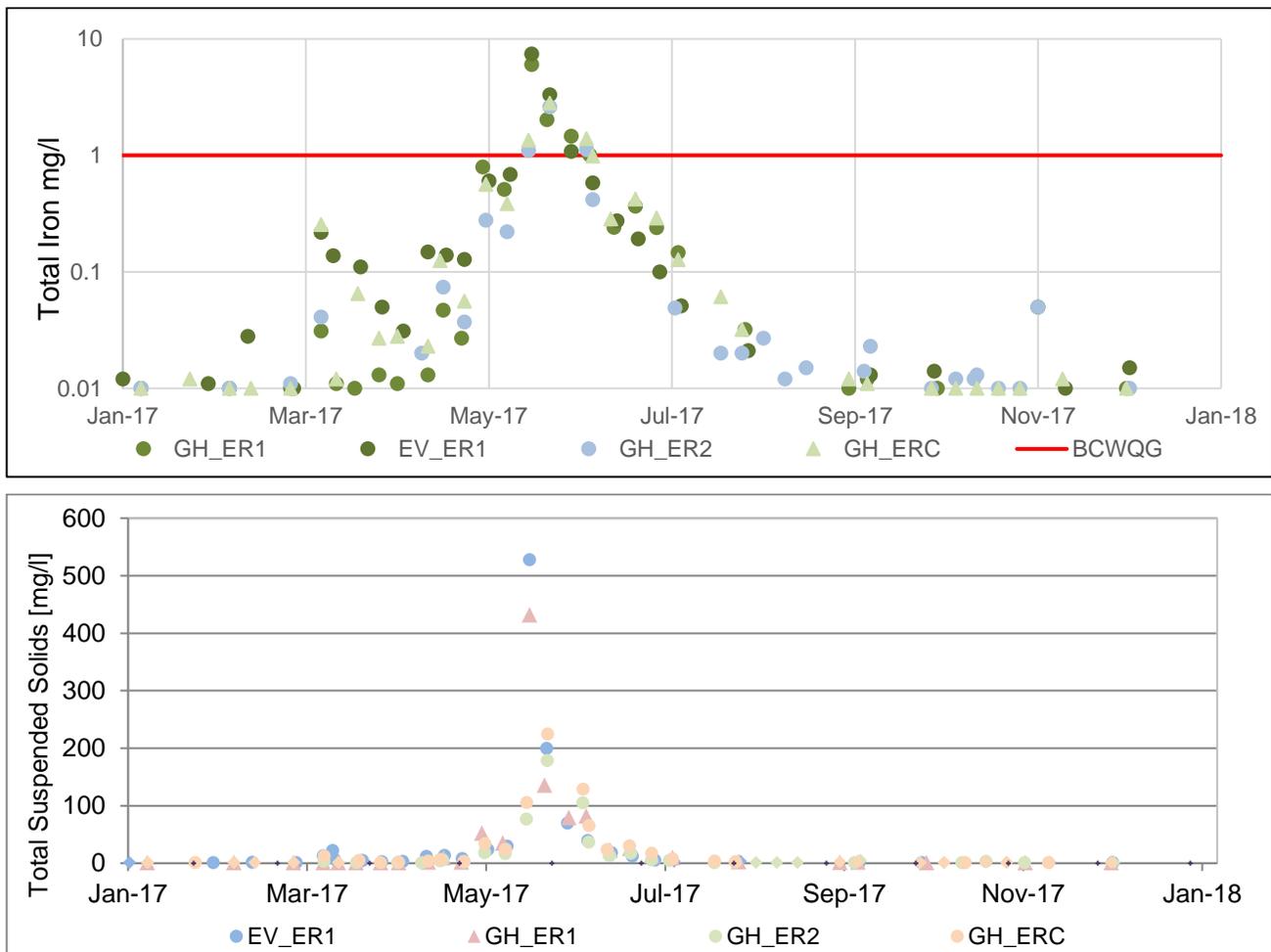


Figure 36. Iron concentrations and corresponding TSS concentrations in the Elk River. Triangle markers represent monitoring locations upstream of mining activities.

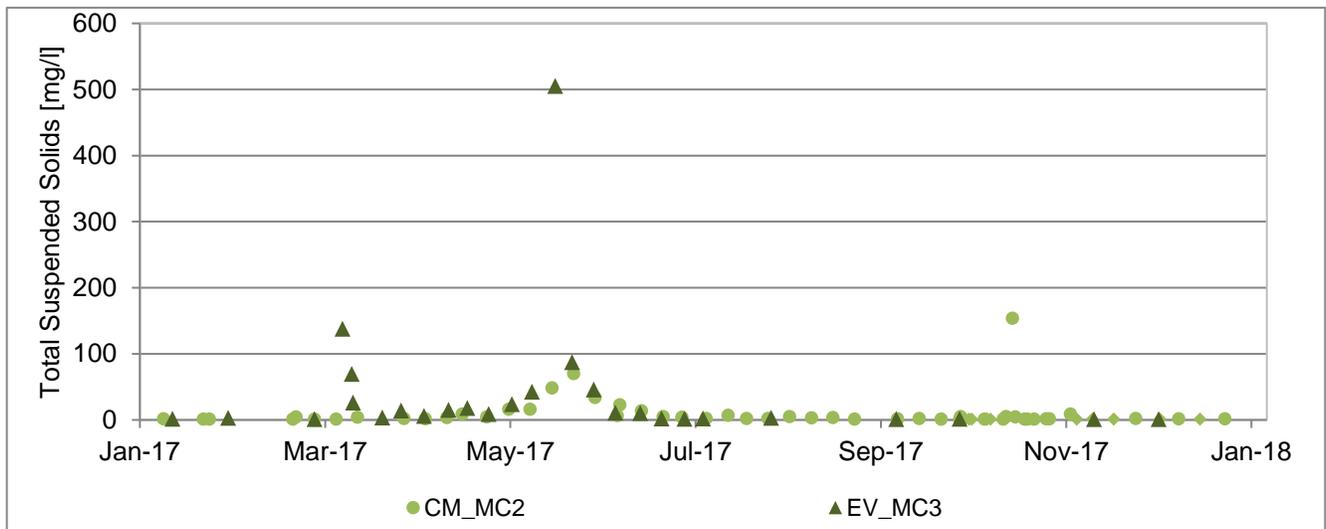
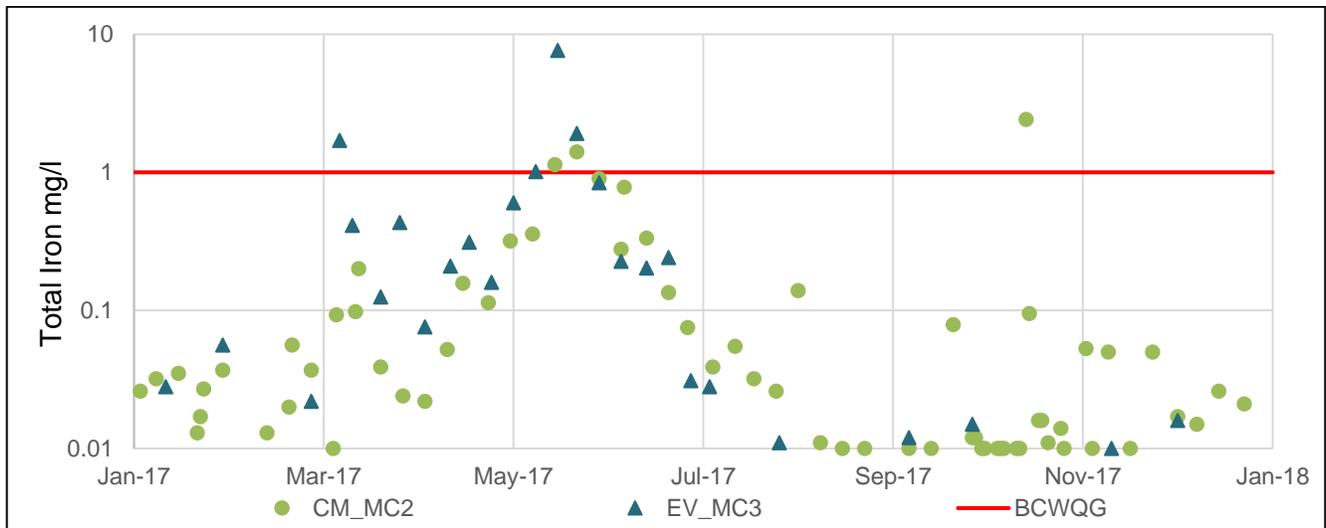


Figure 37. Iron concentrations and corresponding TSS concentrations in the Michel. Triangle markers represent monitoring locations upstream of mining activities.

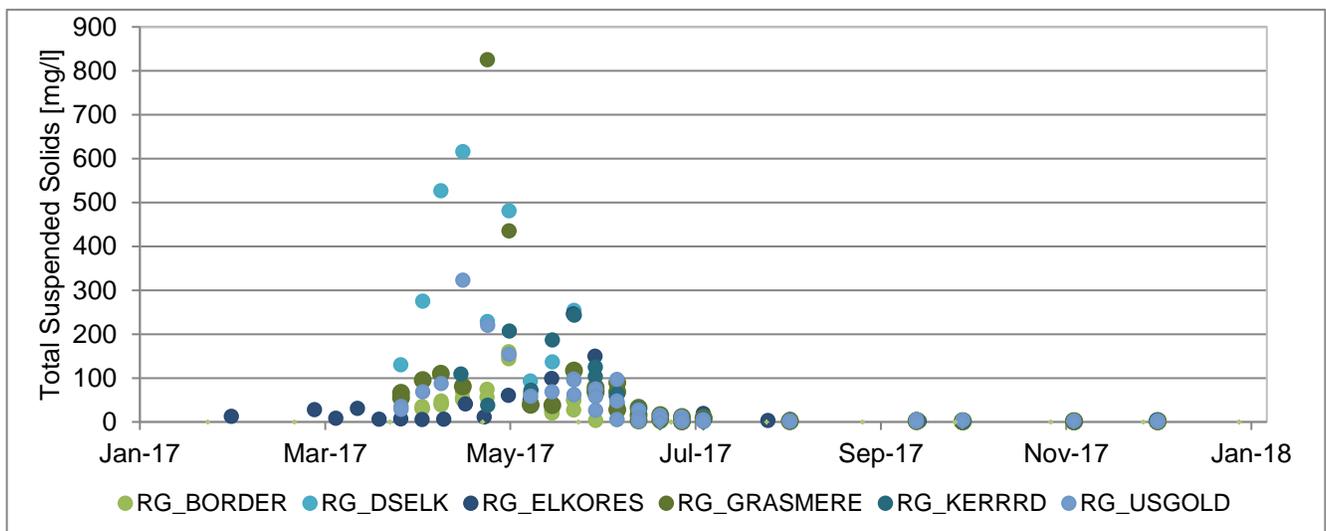
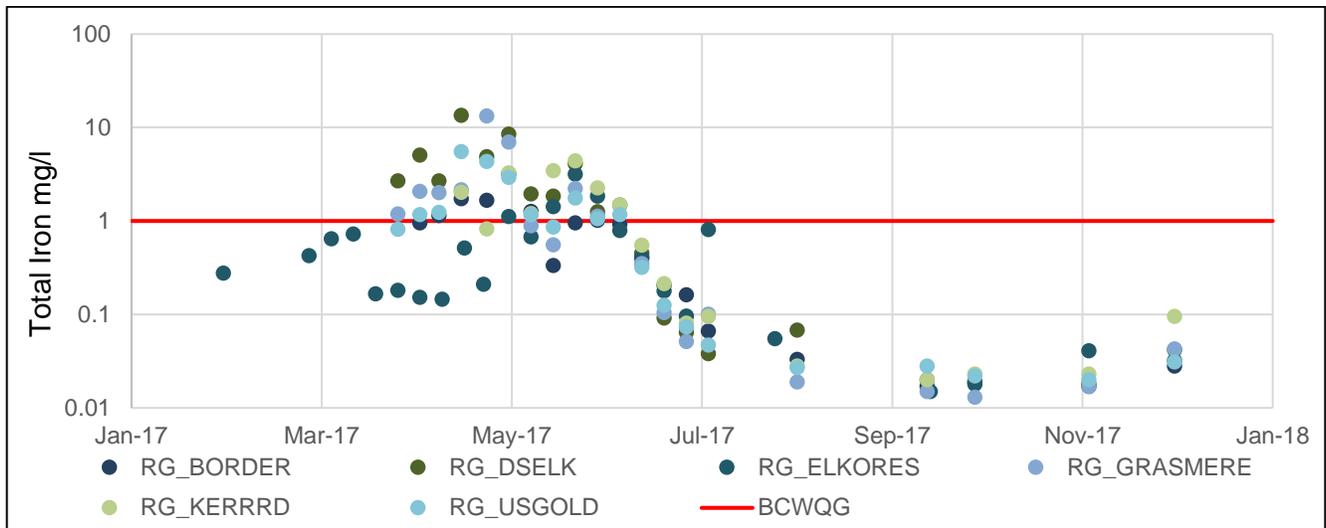


Figure 38. Iron concentrations and corresponding TSS concentrations in Regional Samples. Triangle markers represent monitoring locations upstream of mining activities.

5.1.4 Cobalt Results Above BC WQGs

Elevated cobalt levels were observed downstream of Coal Mountain Operation (CMO) at Compliance Point E258937 (CM_MC2). As shown in Figure 37, cobalt concentrations were occasionally above the 30 day average BC WQG of 4 ug/L at the Compliance Point but were never above the maximum BC WQG of 110 ug/L. The main sources of cobalt at CMO are the 14 Pit horizontal drain discharge and 34 Pit dewatering. These sources discharge to the main sedimentation ponds system (CM_SPD) which decants to Corbin Creek 0200209 (CM_CC1). Although not required by Permit 107517, CMO has implemented a pit dewatering monitoring plan under the local effluent permit and data collected from this plan is submitted to the ENV in quarterly reports.

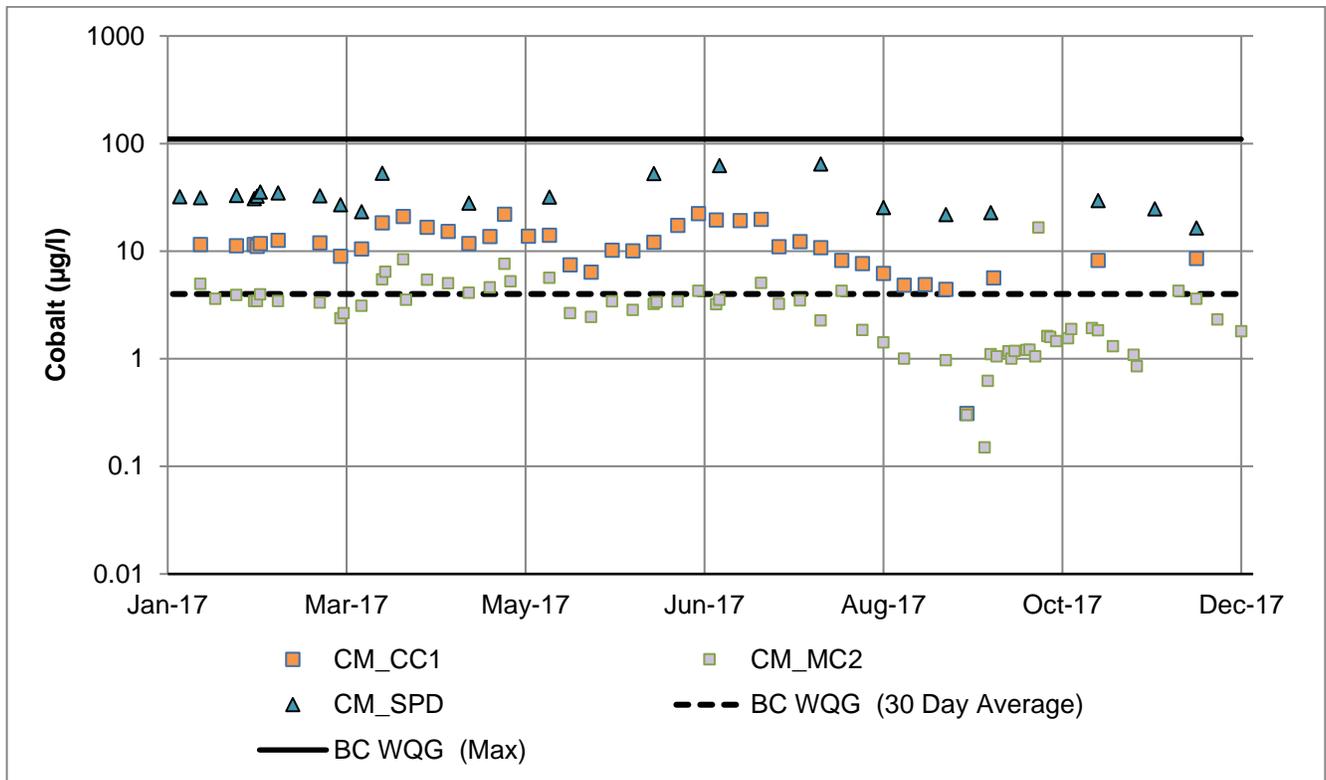


Figure 39. Cobalt concentrations at discharge E102488 (CM_SPD) and receiving stations 0200209 (CM_CC1), E25937 (CM_MC2) at Coal Mountain Operation. (Note the log scale on the y-axis).

5.1.5 Nitrite Results Above BC WQGs

Elevated nitrite concentrations were also observed downstream of CMO in 2017 (Figure 38). There was apparent changes to the range of nitrite concentrations observed in 2017 compared to concentrations measured in 2016. Concentrations at CMO’s Compliance Point were occasionally above the 30 day average BC WQG during periods of low flow but did not exceed the maximum BC WQG. The main sources of nitrite are pit dewatering activities which are captured in water quality samples collected at CM_SPD as shown below in Figure 38.

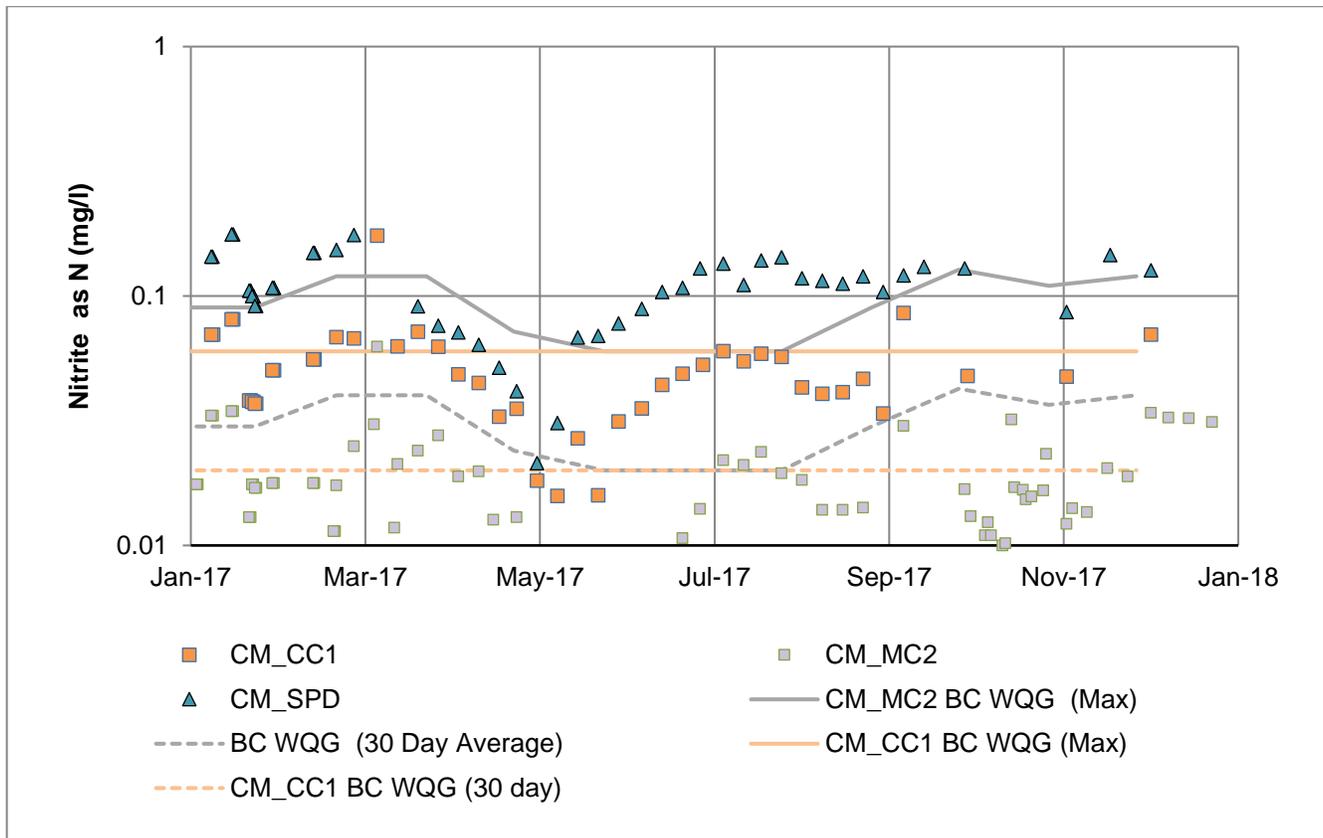


Figure 40. Nitrite concentrations at discharge E102488 (CM_SPD) and receiving stations 0200209 (CM_CC1), E25937 (CM_MC2) at Coal Mountain Operation.

Note: The BC WQG for nitrite is chloride dependent. The guidelines plotted above reflect chloride concentrations at CM_CC1 and CM_MC2. Nitrite concentrations are on a logarithmic scale.

Teck has developed a Care and Maintenance (C&M) Integrated Water Management Plan (IWMP) for CMO which was submitted to EMPR in December of 2017. The overarching water management goals at CMO are to identify and manage water related risks, maintain compliance with permit limits, and continually improve water quality by reducing sediment and mine-related constituent loads. These goals remain unchanged for the C&M period. Measures to achieve these goals include incorporating water management into mine and closure planning, identifying upgrades to current drainage systems, and implementing measures proven through research and development, monitoring, evaluating and adjusting existing programs. The purpose of the C&M IWMP is to describe how water will be

managed to meet CMO’s objectives and performance criteria, provide direction and strategy to address water management risks and challenges, and to establish how water management infrastructure performance will be monitored and reviewed.

5.1.6 Beryllium Results Above BC WQGs

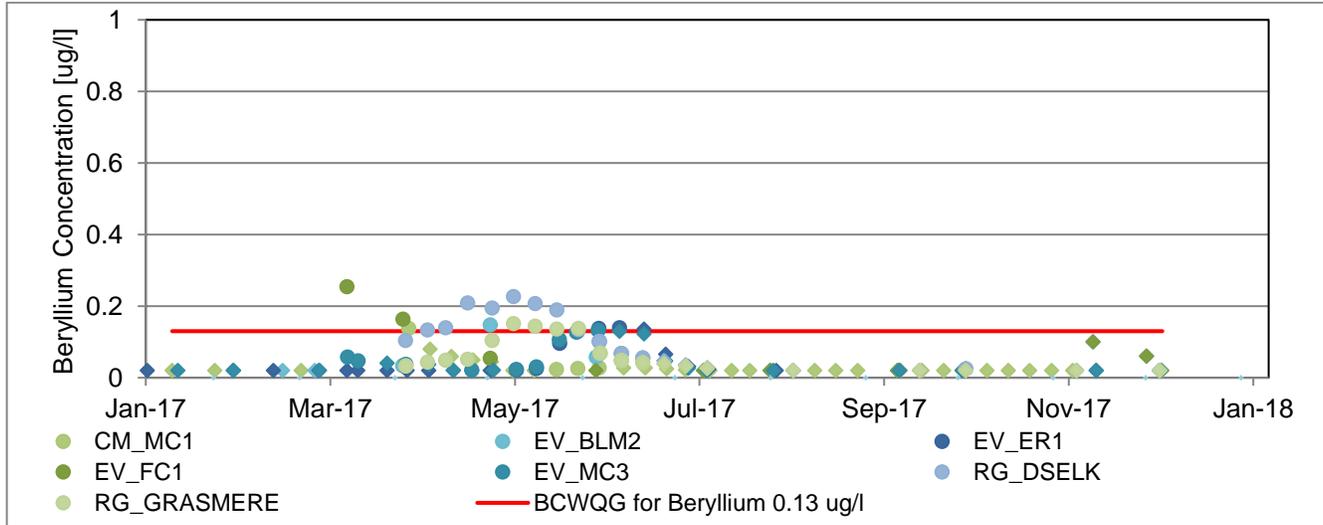


Figure 41. Beryllium results above BCWQGs in 2017.

5.1.7 Field Parameters Results Above BC WQGs

In addition to the parameters mentioned above, there were 97 recorded data points for individual field parameters above BC WQGs (i.e., pH, temperature, and dissolved oxygen). A summary of field parameters and associated sampling locations in which a concentration was identified as being above a BC WQG is presented in Table 19, with a detailed list presented in Appendix E.

Table 19. Summary of field measurements that exceeded BC FAL WQG in 2017.

EMS ID	Location Code	Parameter	Number of Instances
0200027	EV_ER4	pH, Field	2
0200111	EV_ER2	pH, Field	1
0200209	CM_CC1	Temperature, Field	1
200251	FR_FR1	Dissolved Oxygen, Field	1
206661	GH_ER1	Dissolved Oxygen, Field	1
200393	EV_ER1	pH, Field	1
200389	GH_ER2	Dissolved Oxygen, Field	1
E102714	GH_TC1	Temperature, Field	4
E258175	CM_MC1	pH, Field	3
E258937	CM_MC2	Temperature, Field	1
E287437	GH_BR_F	Temperature, Field	1
E294312	RG_ELKORES	Dissolved Oxygen, Field	1

EMS ID	Location Code	Parameter	Number of Instances
E298594	EV_SPR2	Dissolved Oxygen, Field	5
E300090	GH_ERC	Dissolved Oxygen, Field	3
E300091	EV_MC2	pH, Field	1
E300092	RG_GRASMERE	Dissolved Oxygen, Field	13
E300093	RG_USGOLD	Dissolved Oxygen, Field	6
		Temperature, Field	13
E300094	RG_BORDER	Temperature, Field	10
E300095	RG_KERRRD	Temperature, Field	12
E300230	RG_DSELK	Temperature, Field	13
E309911	GH_GH2	Dissolved Oxygen, Field	1
		Temperature, Field	2

With the exception of temperature, field measurements rely on equipment calibration. As noted in Section 3.3, there were calibration issues associated with field measurements and as such, pH measurements identified as being outside the guideline range should be considered with that context. Similarly, although instantaneous measurements of dissolved oxygen were recorded to be less than the long-term BC WQG (8.0 mg/L), they were consistently above the instantaneous minimum BC WQG value of 5.0 mg/L.

BC WQG's for temperature were exceeded the most in 2017 of all field parameters, (67 of 97) due to extremely high summer temperatures and very limited precipitation resulting in low flow and increased warming of water retained in settling ponds. Of the 67 exceedances, 61 occurred in the Kooconusa Reservoir, which has higher than normal temperatures due to the nature of reservoirs that retain water to allow for extended periods of warming.

5.2 Three Year Trend Analysis of SPOs at Order Stations

The following section provides an overview of the three year trend in monitoring data collected at Order Stations in relation to SPOs since the implementation of Permit 107517 in 2015, as required in Section 3.2.2. of Permit 107517 which states that:

After 3 years of data collection the Permittee must undertake trend analysis at each of the site performance objective locations and submit the trend analysis with the next annual report. The first annual report is due in 2018. The Permittee must use the trend analysis to predict expected concentrations for the next 3 year period. If after consideration of planned mitigation measure any of the site performance objective locations are expected to exceed the maximum concentrations listed in Section 3.1, the Permittee must:

- 1) Immediately notify the Director of the potential future exceedance;
- 2) Reassess discharge sources and determine appropriate limits for the compliance points detailed in Section 2, or new compliance points based on reassessment of discharge sources; and

3) Provide to the Director an application for an amendment of this permit with new or revised Section 2 limits within 3 months.

Linear trends in selenium, nitrate, sulphate, and cadmium were projected for each Order Stations for the next three-year period (2018 to 2020) using at least three years of the most recent historic data, extended back to 2010 where possible (some locations have a data record that does not extend back to 2010). For these locations, all available data was used. Monthly averages were used in the trend analysis at each Order Station to account for increased monitoring during freshet, which can overweight this time period of high flows and lower concentrations. This also coincides with how water quality results are compared to SPOs, which are monthly averages for each constituent at each Order Station. Figures 39 through 66 presented below reflect the trends of SPOs at Order Stations.

The purpose of the analysis was to evaluate whether SPOs may be expected to exceed the maximum concentrations listed in Section 3.1 of the Permit. The projected trends are one line of evidence, but do not account for future mining or water management activity. To provide that context, the projected results of the three year linear trends analyses were compared to the projections from the 2017 Elk Valley Regional Water Quality Model (RWQM). The 2017 RWQM was used to assess how concentrations of nitrate, selenium, sulphate and other constituents may change over time with continuing mine development and implementation of planned water quality mitigation. The initial implementation plan, as incorporated in the 2017 RWQM, reflects the EVWQP and Permit 107517 with some adjustments:

- Changes to the forecasted operational date for the Fording River South Active Water Treatment Facility (AWTF) and the Elkview Operations Phase 1 AWTF to reflect their current schedule status and;
- Modelled start dates for remaining treatment facilities shifted from the operational dates in the permit (i.e. the date at which the facility is seeded with biology), to reflect the subsequent commissioning and ramp-up time (up to 12 months) for a facility to reach fully effective operating capacity. Teck is in the process of adjusting the implementation plan in consultation with regulators and the KNC. The objective of the adjustment will be to maintain a plan that will meet long term SPOs at Order Stations.

The water quality projections generated in the 2017 RWQM take into account the a range of flow conditions, the current understanding of constituent release from waste rock spoils, planned water management and mitigation and mine plans. The three year trend analysis method does not consider the complexities captured in the RWQM, nor the implementation of water treatment.

Interpretation of the three year linear trends analyses considered the following:

- Results of the 2017 RWQM
- Existing and future planned mitigation (e.g., AWTF)
- Operational activities that occurred in 2017 that may have affected water quality but are not anticipated to occur in 2018 to 2020 (e.g., changes to pit dewatering activities)

Based on the trend analysis, sulphate and cadmium SPOs are expected to be met at all Order Stations over the next three-year period. The results of the three year trends analysis are consistent

with the RWQM, which also projected sulphate and cadmium concentrations below SPOs for the next three-year period.

Although nitrate concentrations represented by the linear trend projected for 2018 – 2020 are below the SPOs, visual inspection of historical data indicates that nitrate concentrations may seasonally exceed SPOs for some sites. The 2017 RWQM projections are seasonally above the nitrate SPOs at the Order Stations GH_FR1, EV_ER4, and EV_ER1 in the near term (before the FRO South AWTF is fully effective). The projected concentrations above the SPOs occur during with winter low flow conditions. Visual inspection of historical variability and projected linear trend indicate that nitrate concentrations may be above the SPOs on a seasonal basis for GH_FR1, EV_ER4, and EV_ER1, which is consistent with the results of the 2017 RWQM. For all other Order stations, both the linear trend and 2017 RWQM projections indicate nitrate concentrations are expected to be below SPOs.

Selenium concentrations represented by the linear trend projected for 2018-2020 are below the SPOs, but similar to nitrate, visual inspection of the historical data indicates that concentrations may seasonally exceed the SPOs for some sites. The RWQM also indicates that in the near-term (before the FRO South AWTF is fully effective by the end of 2021) selenium concentrations are projected to approach or exceed the SPOs at GH_FR1, LC_LC5, EV_ER4, and RG_DSELK. Visual inspection of historical variability and the projected linear trend indicate that selenium concentrations may be above the SPO on a seasonal basis for GH_FR1, LC_LC5, EV_ER4, and RG_DSELK, which agrees with the results of the 2017 RWQM. Based on the trends analysis and historical variability in the data, maximum selenium concentrations may approach but not exceed the SPO at EV_ER1 within the next three years, although there greater uncertainty in the trends analysis results compared to the RWQM predictions.

Moving forwards Teck will continue to utilize the implementation of the EVWQP and updates to the RWQM to interpret the results of the three year trends analysis and evaluate compliance with SPOs at Order-defined monitoring locations. Greater weight will placed on the water quality predictions developed using the RWQM as this model can account for planned mitigation.

Through recent discussion on both delays in water treatment and the Regional Water Quality Model updated projections, ENV was notified of potential exceedances of SPOs in the near term. At this time, no application for an amendment of this permit for revised limits/SPOs has been submitted as Teck continues to work through the Implementation Plan Adjustment with regulators and KNC.

5.2.1 Selenium Trends

The following graphs represent linear trends of total selenium at Order Stations from 2010 to 2020 where data is available.

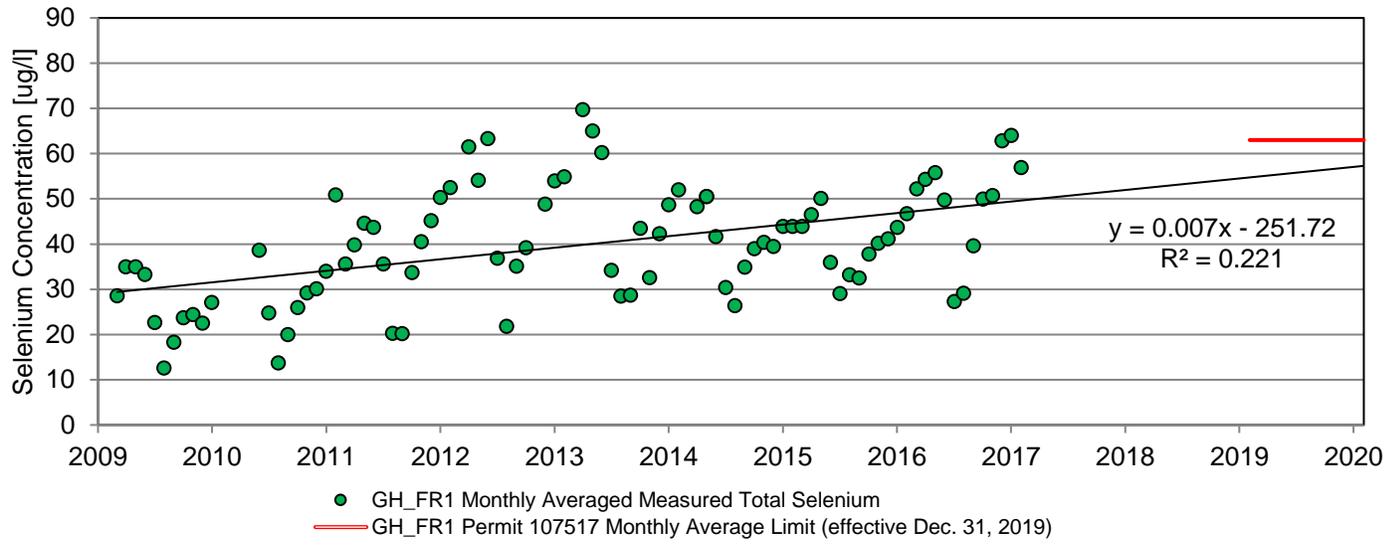


Figure 42. Selenium trend analysis 0200387 (GH_FR1).

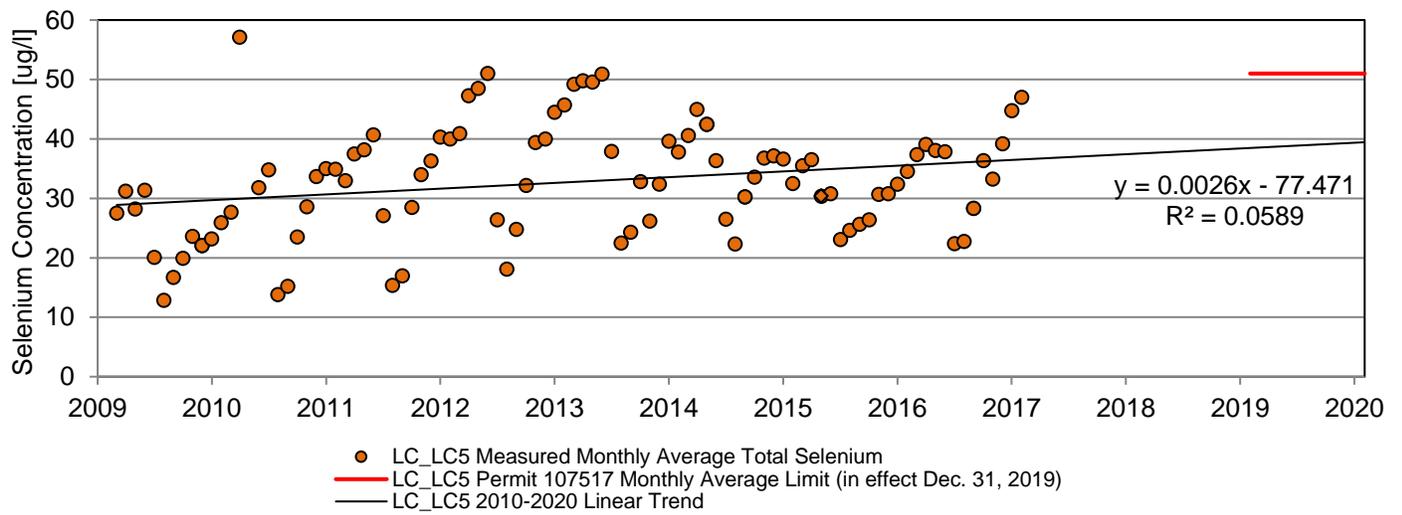


Figure 43. Selenium trend analysis 200028 (LC_LC5).

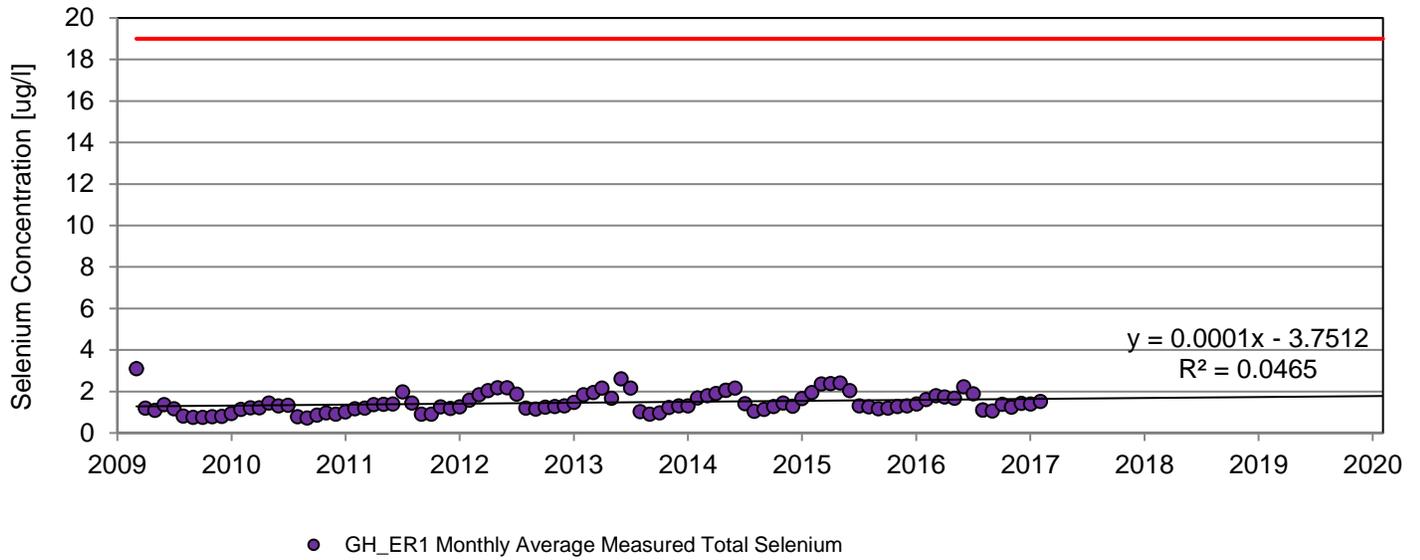


Figure 44. Selenium trend analysis 206661 (GH_ER1).

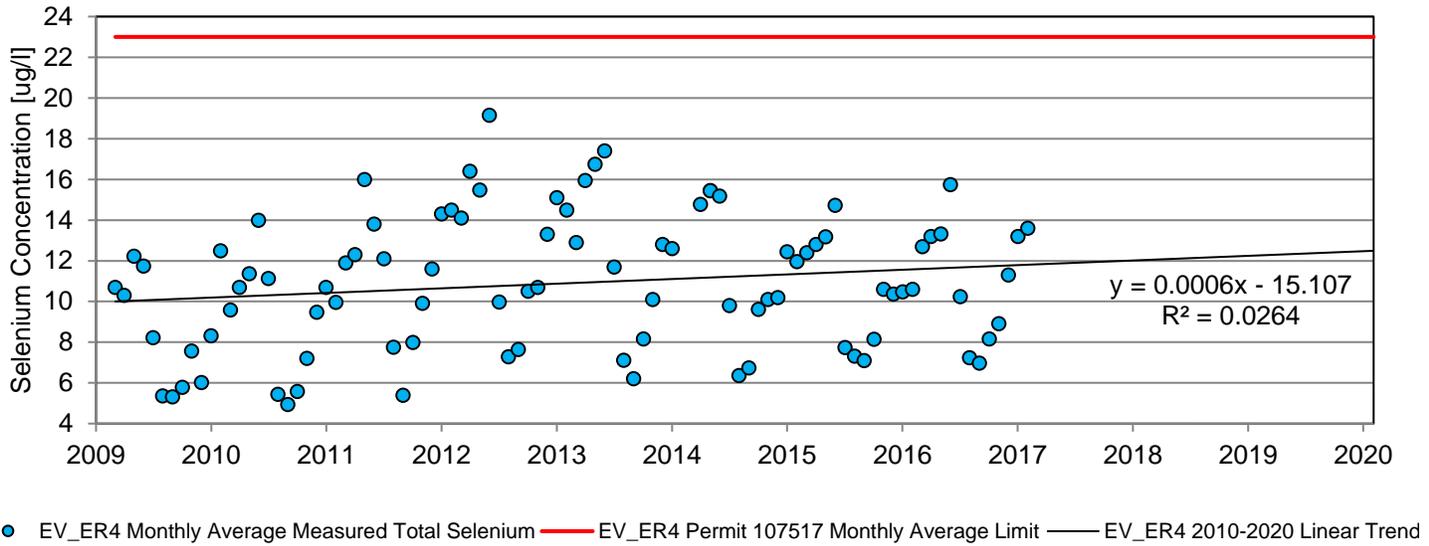


Figure 45. Selenium trend analysis 0200027 (EV_ER4).

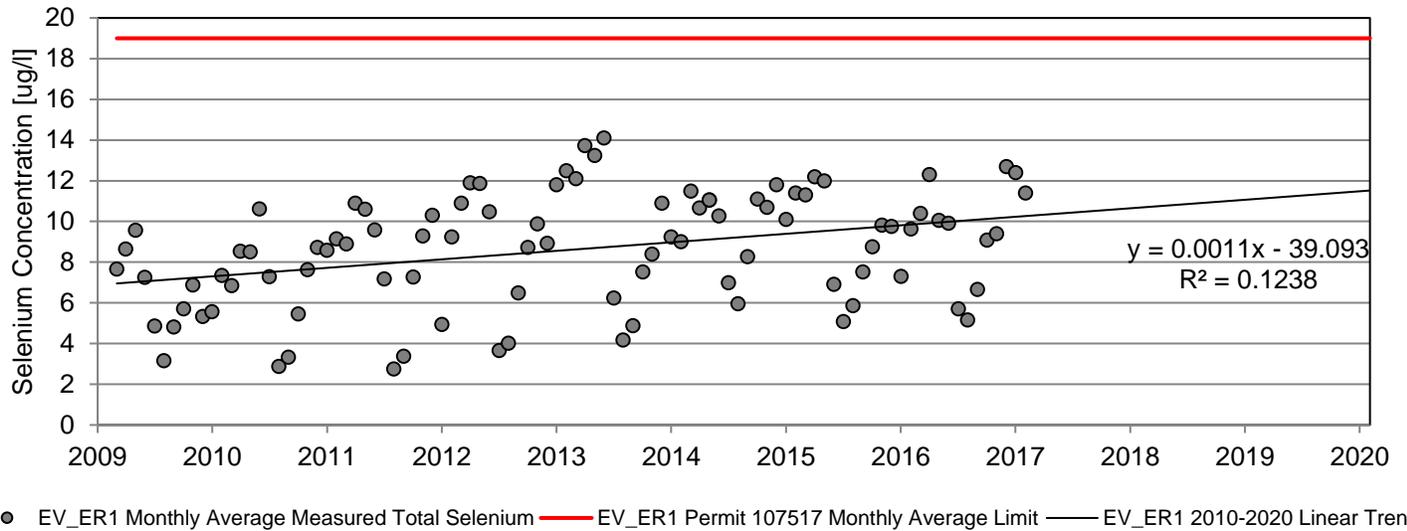


Figure 46. Selenium trend analysis 200393 (EV_ER1).

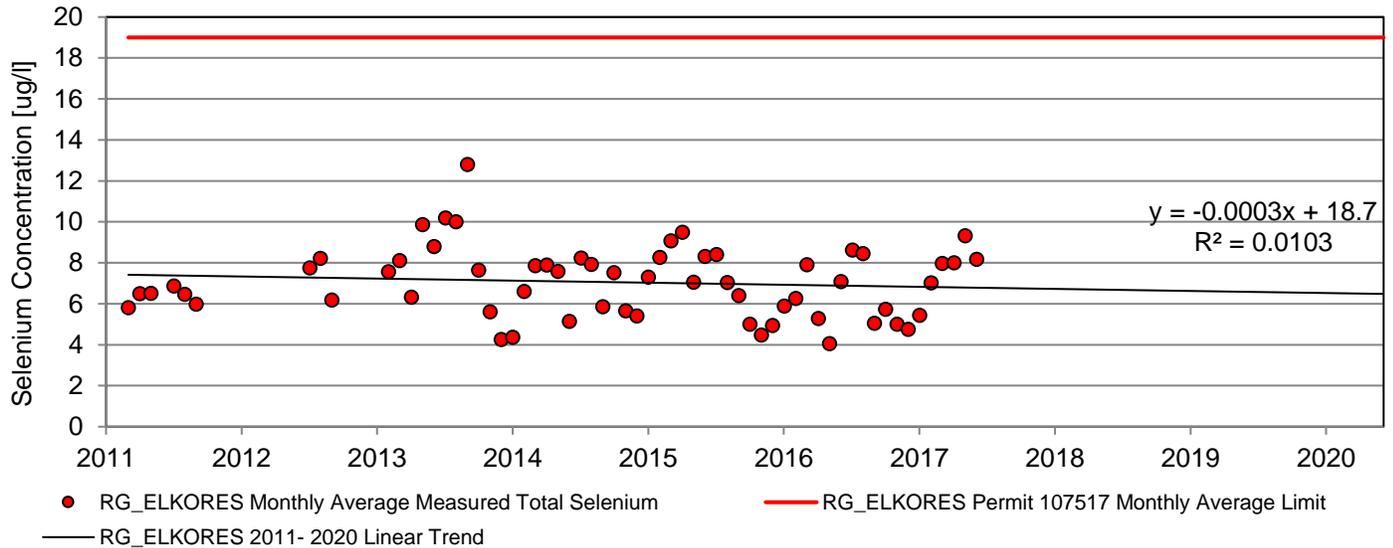


Figure 47. Selenium trend analysis E294312 (RG_ELKORES).

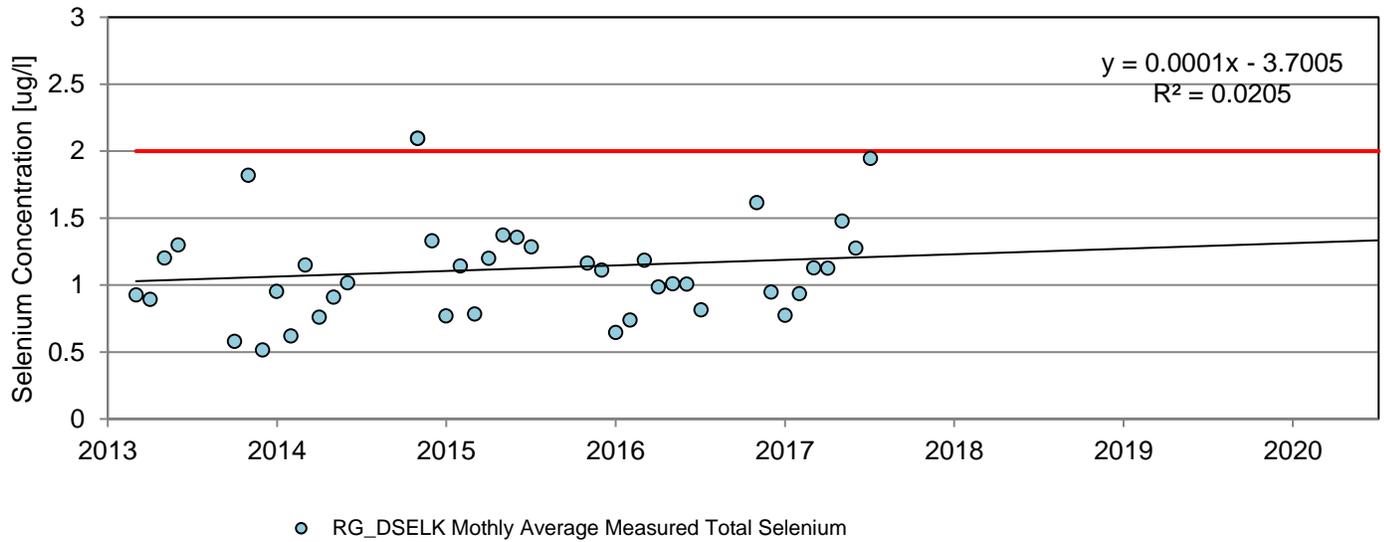


Figure 48. Selenium trend analysis E300230 (RG_DSELK).

5.2.2 Nitrate Nitrogen (as NO3) Trends

The following graphs represent linear trends of nitrate nitrogen (as NO3) at Order Stations from 2010 to 2020 where data is available.

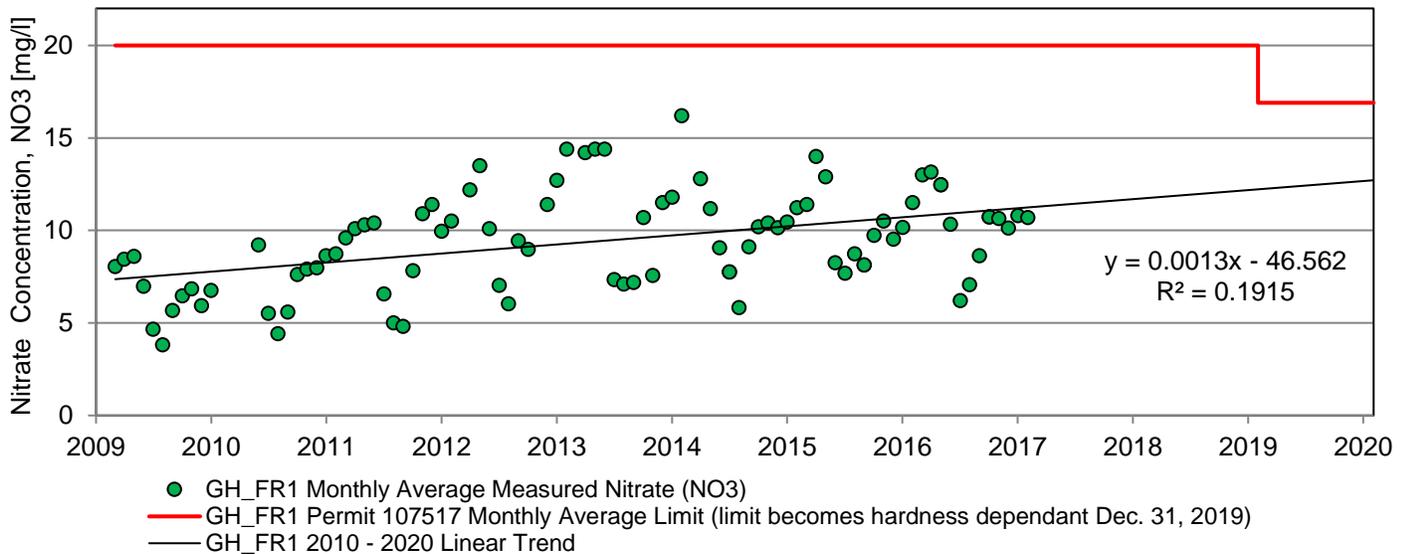


Figure 49. Nitrate (NO3) trend analysis 0200387 (GH_FR1).

Note: The SPO at GH_FR1 becomes hardness dependant in 2019 the projected hardness values incorporated into the RWQM update are utilized to portray the predicted compliance limit.

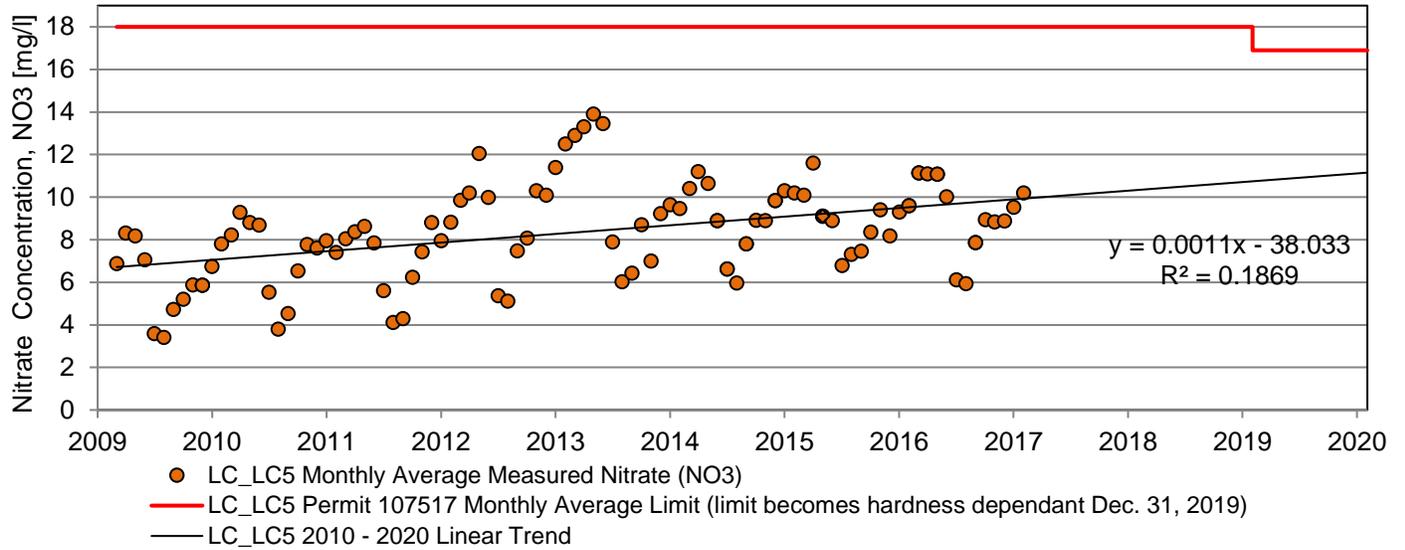


Figure 50. Nitrate (NO3) trend analysis 200028 (LC_LC5).

Note: The SPO at LC_LC5 becomes hardness dependant in 2019 and the projected hardness values incorporated into the RWQM update are utilized to portray the predicted compliance limit.

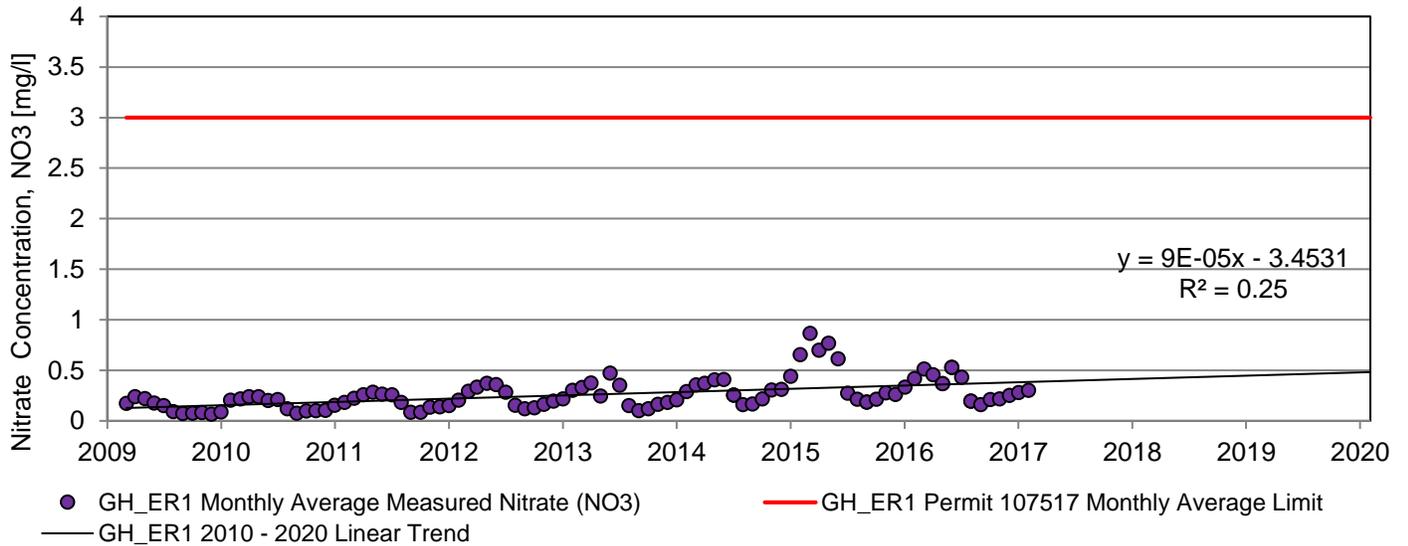


Figure 51. Nitrate (NO3) trend analysis 206661 (GH_ER1).

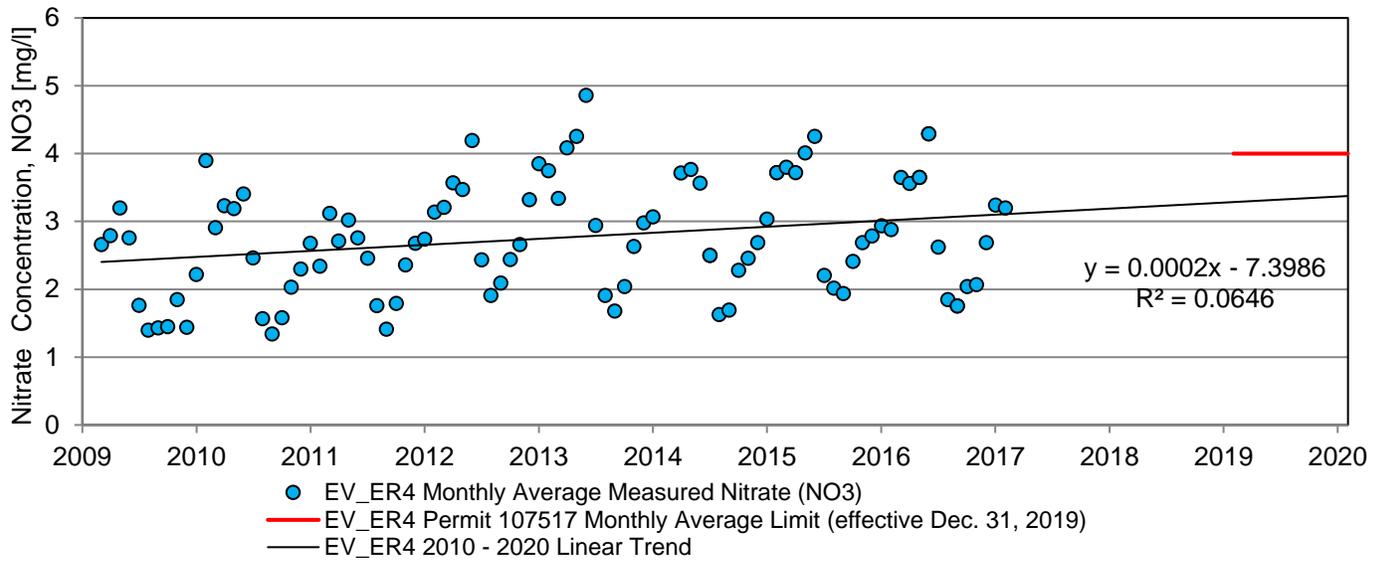


Figure 52. Nitrate (NO₃) trend analysis 0200027 (EV_ER4).

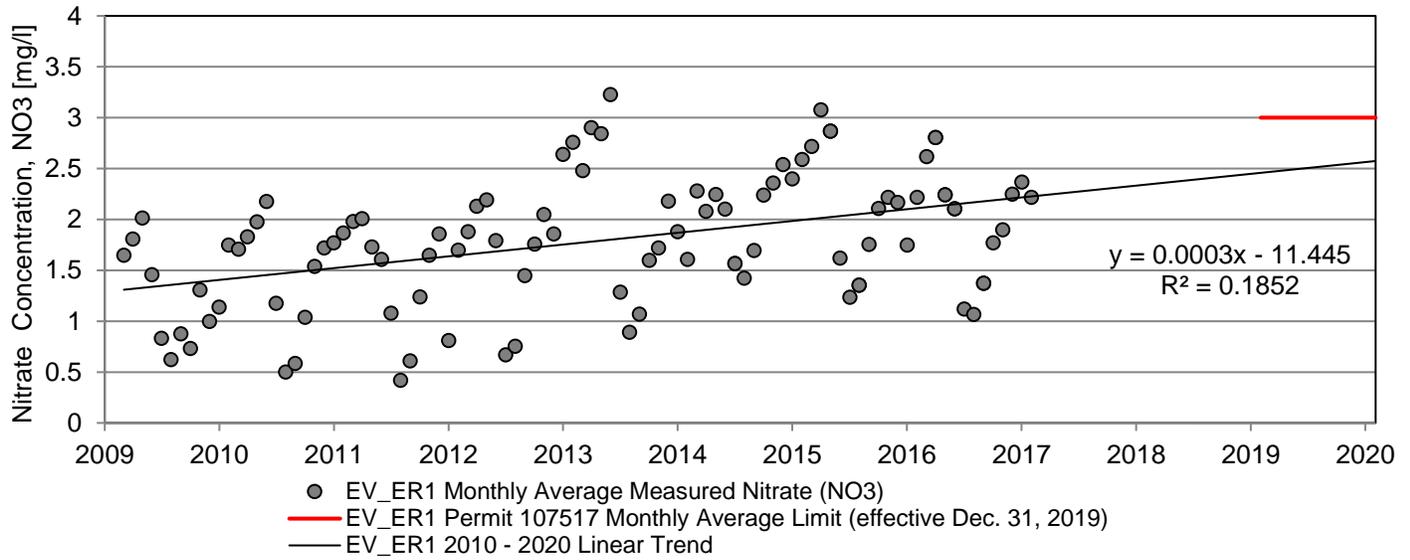


Figure 53. Nitrate (NO₃) trend analysis 200393 (EV_ER1).

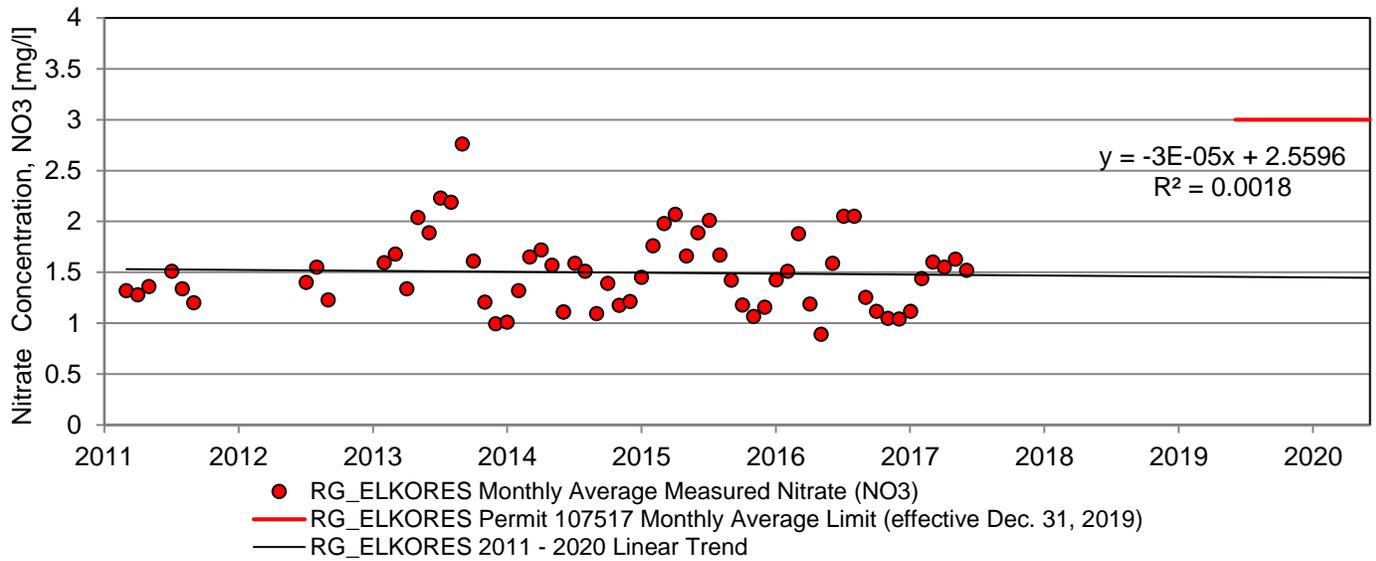


Figure 54. Nitrate (NO3) trend analysis E294312 (RG_ELKORES).

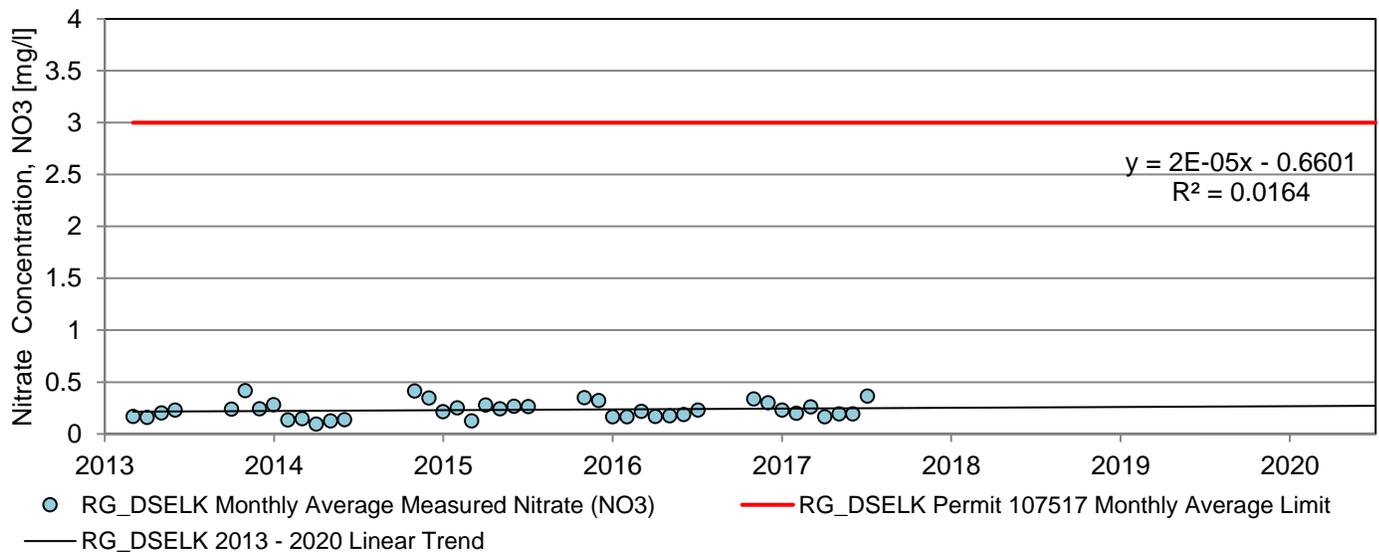


Figure 55. Nitrate (NO3) trend analysis E300230 (RG_DSELK).

5.2.3 Sulphate (SO4) Trends

The following graphs represent linear trends of dissolved sulphate (SO4) at Order Stations from 2010 to 2020 where data is available.

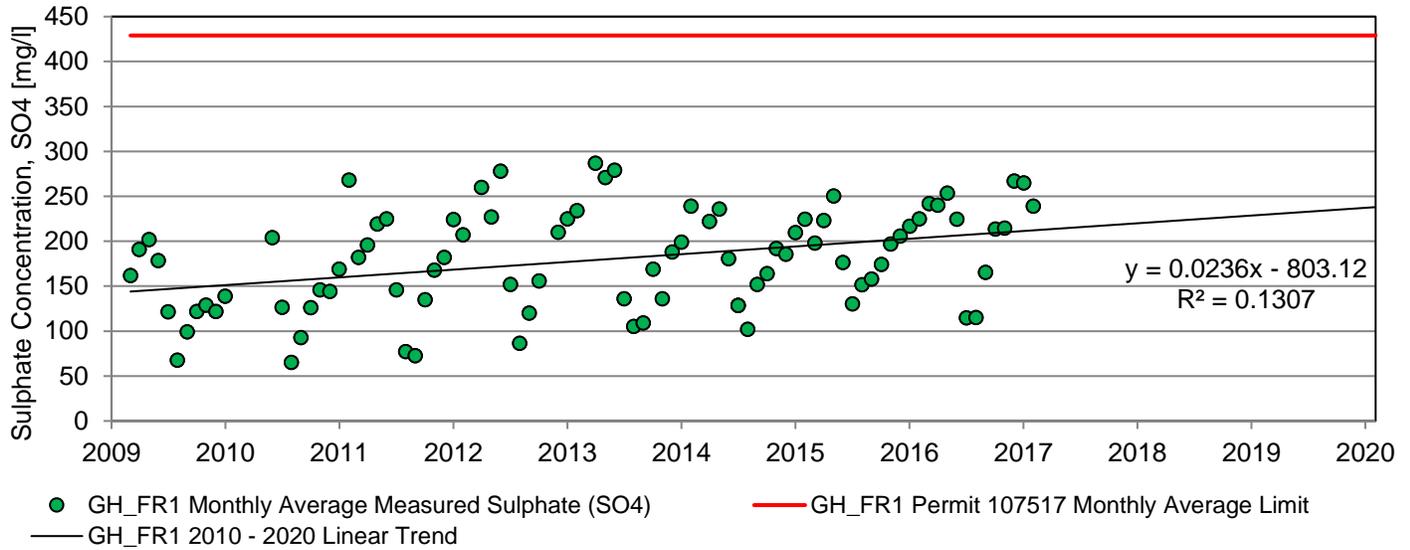


Figure 56. Sulphate (SO4) trend analysis 0200387 (GH_FR1).

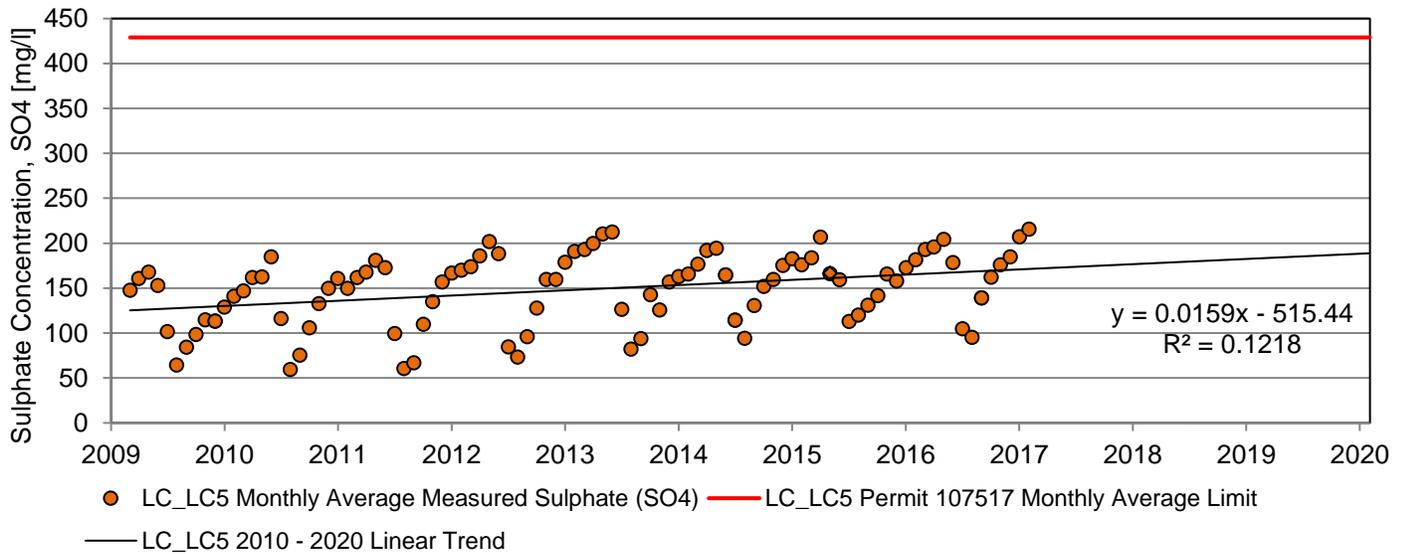


Figure 57. Sulphate (SO4) trend analysis 200028 (LC_LC5).

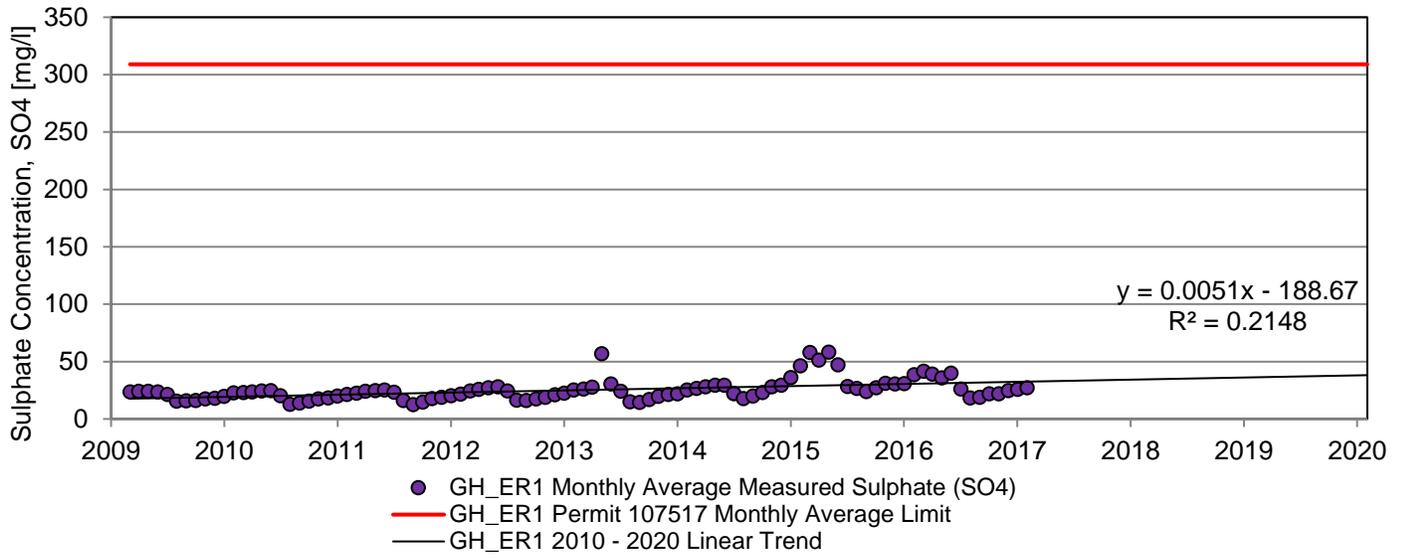


Figure 58. Sulphate (SO4) trend analysis 206661 (GH_ER1).

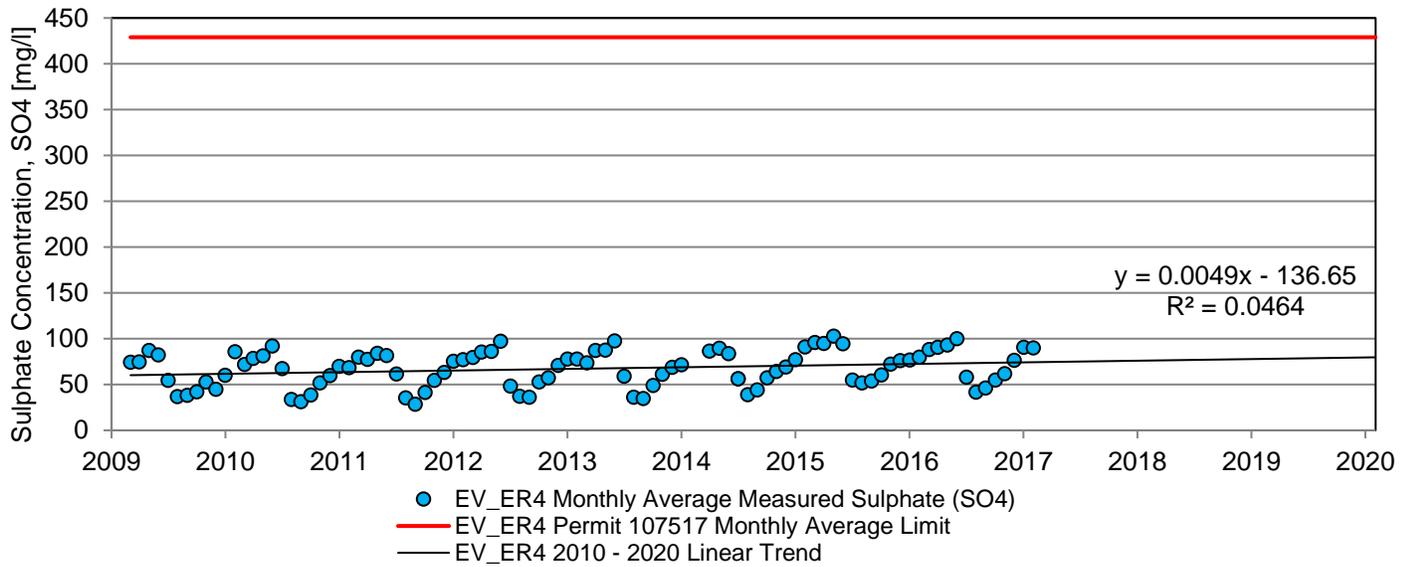


Figure 59. Sulphate (SO4) trend analysis 0200027 (EV_ER4).

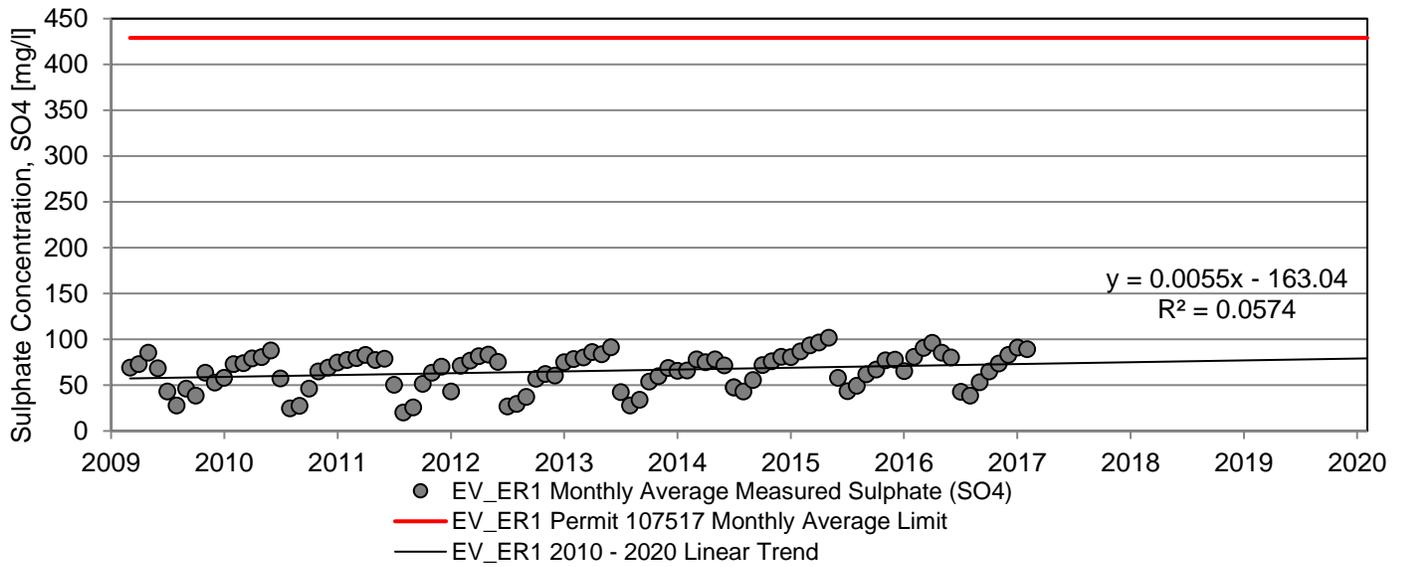


Figure 60. Sulphate (SO4) trend analysis 200393 (EV_ER1).

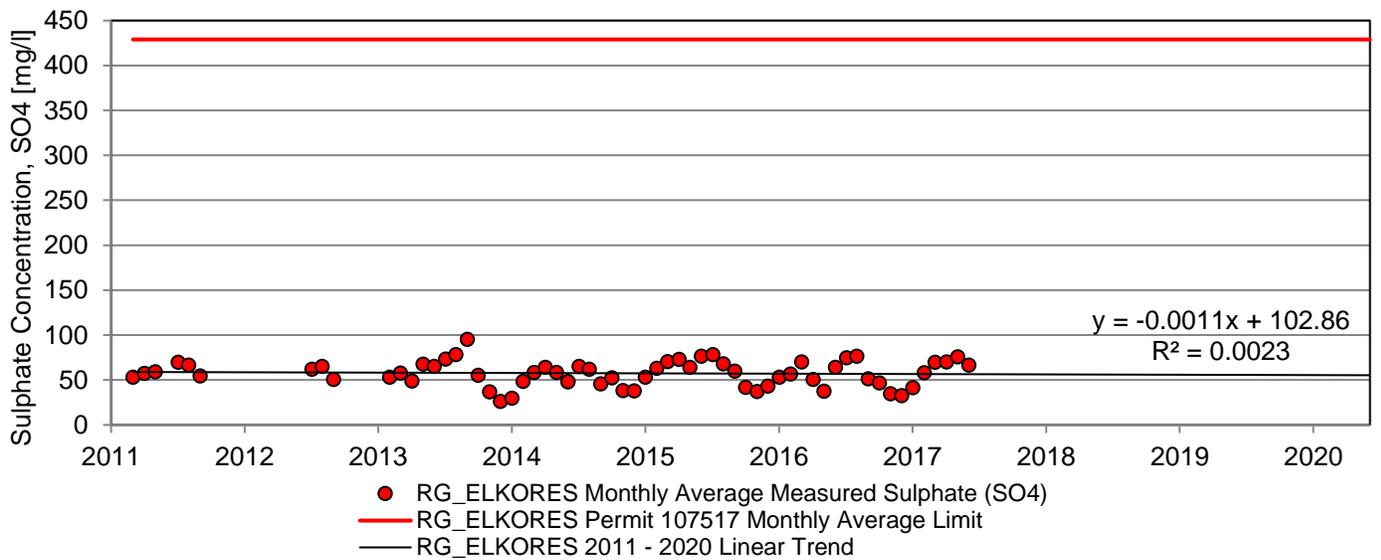


Figure 61. Sulphate (SO4) trend analysis E294312 (RG_ELKORES).

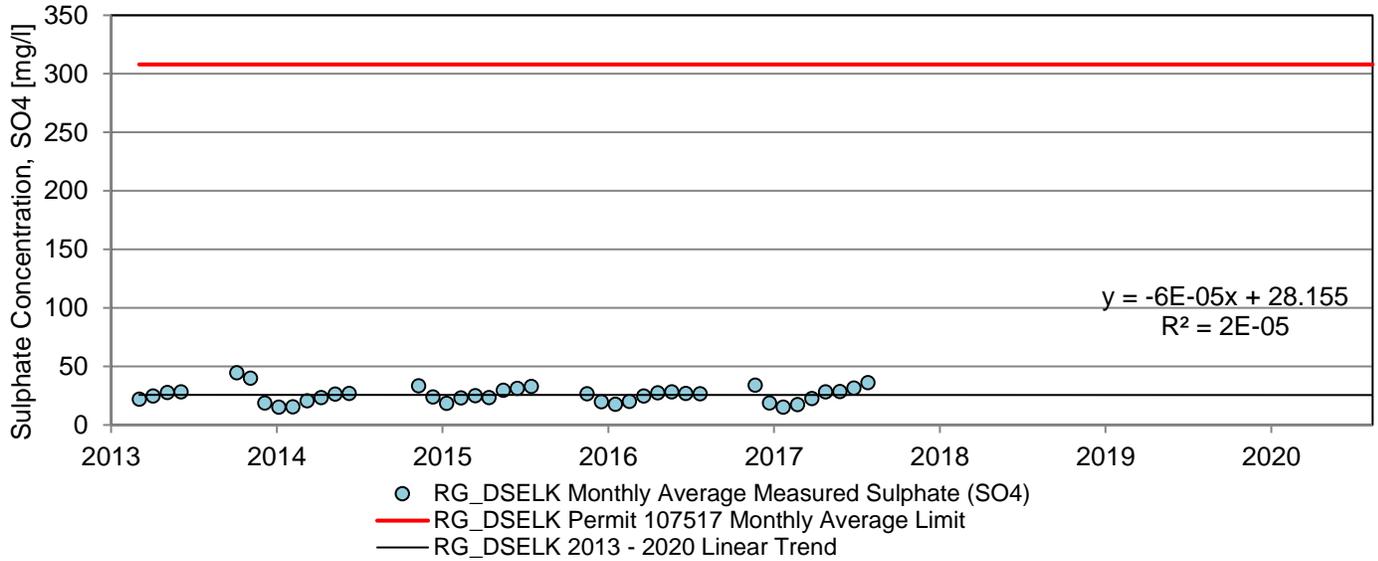


Figure 62. Sulphate (SO4) trend analysis E300230 (RG_DSELK).

5.2.4 Cadmium Trends

The following graphs represent linear trends of dissolved cadmium at Order Stations from 2010 – 2020 where data is available. The cadmium SPO is calculated based on hardness so for the purpose of this exercise, the 107517 permit limit has been extended out to 2020 by using the projected permit limit that was calculated in the development of the RWQM update..

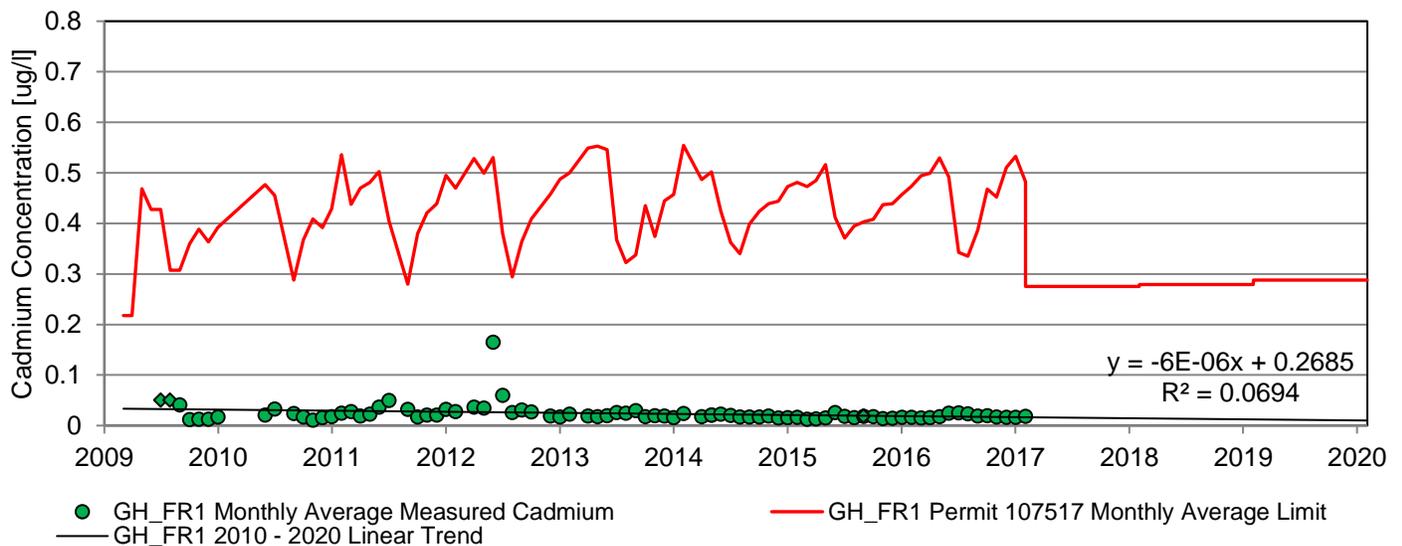


Figure 63. Cadmium trend analysis 0200387 (GH_FR1).

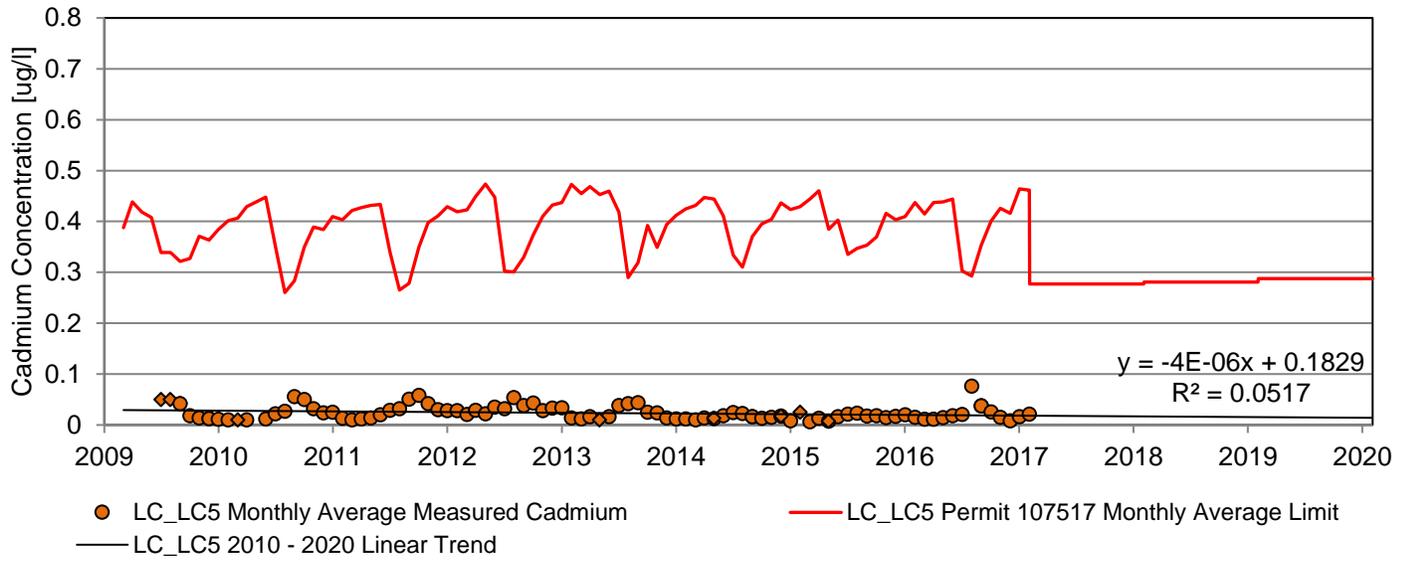


Figure 64. Cadmium trend analysis 200028 (LC_LC5).

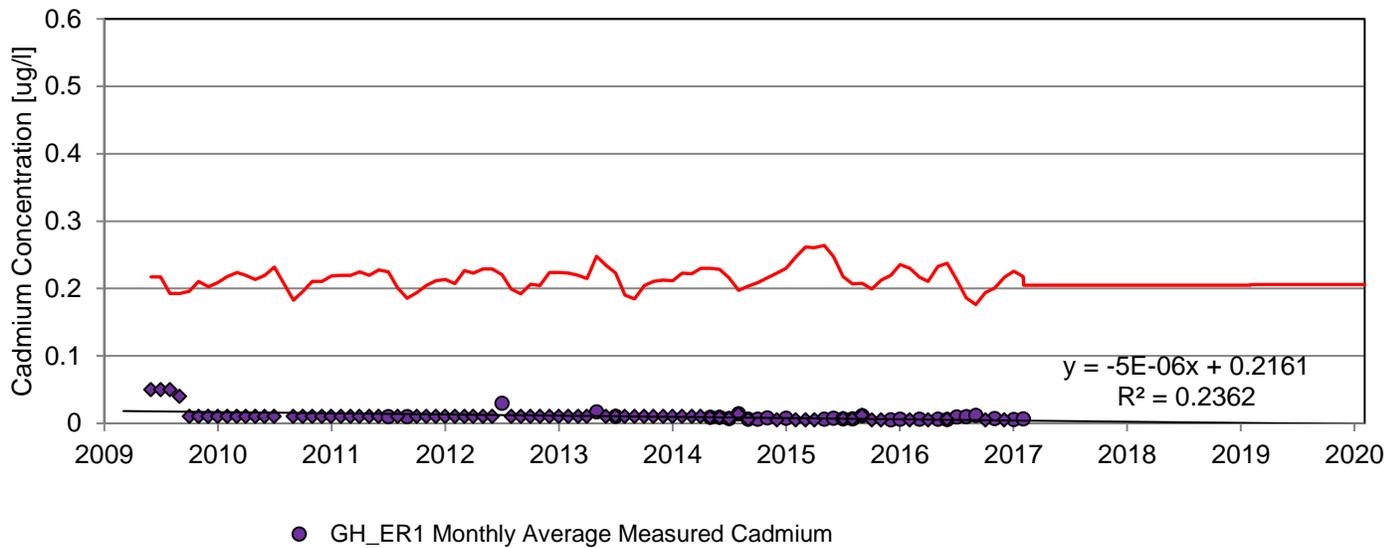


Figure 65. Cadmium trend analysis 206661 (GH_ER1).

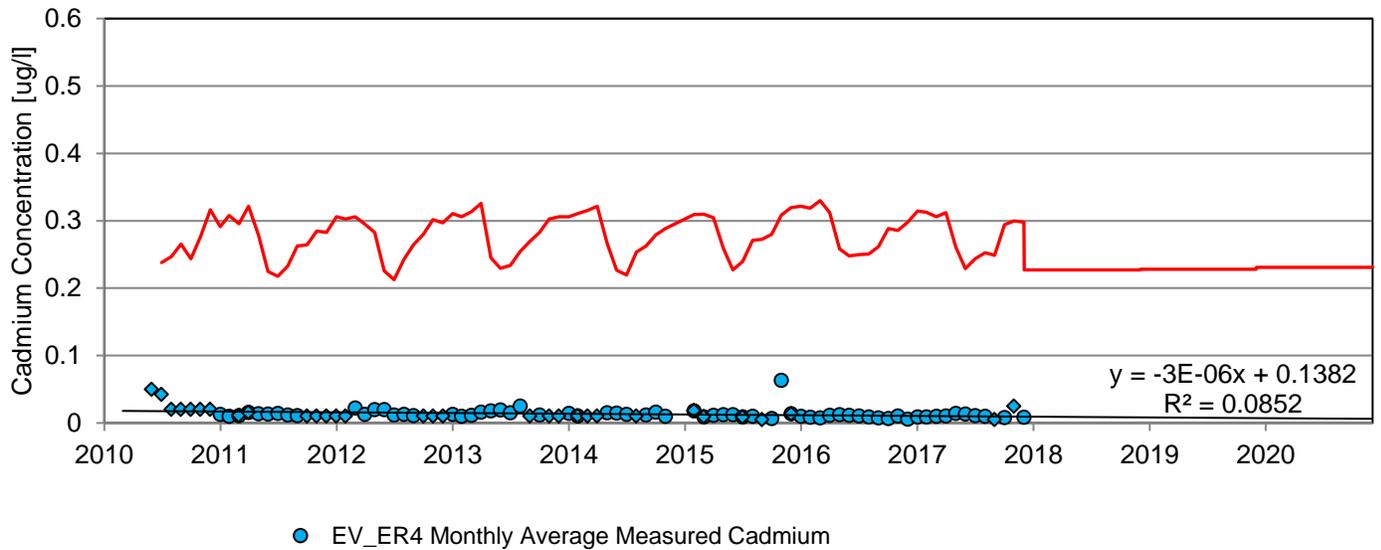


Figure 66. Cadmium trend analysis 0200027 (EV_ER4).

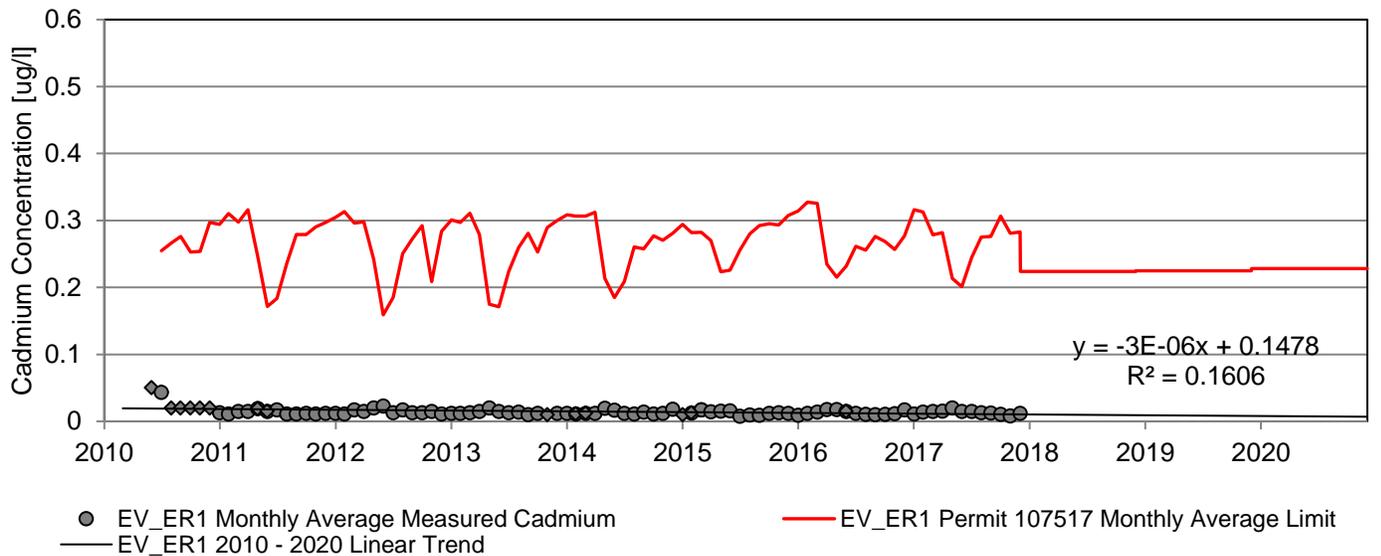


Figure 67. Cadmium trend analysis 200393 (EV_ER1).

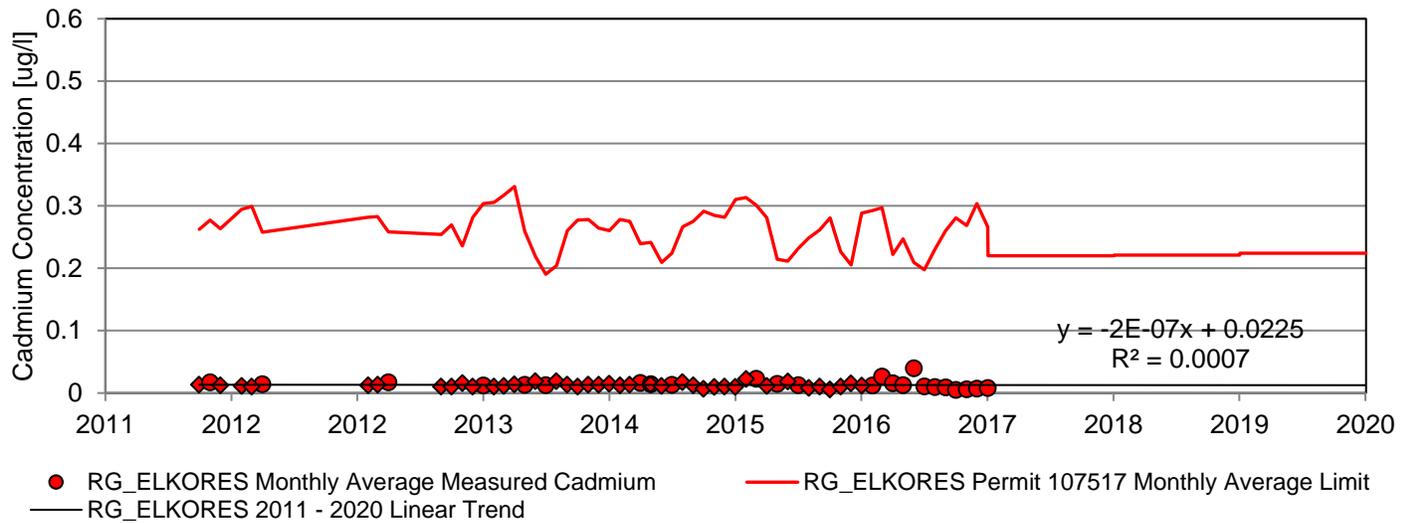


Figure 68. Cadmium trend analysis E294312 (RG_ELKORES).

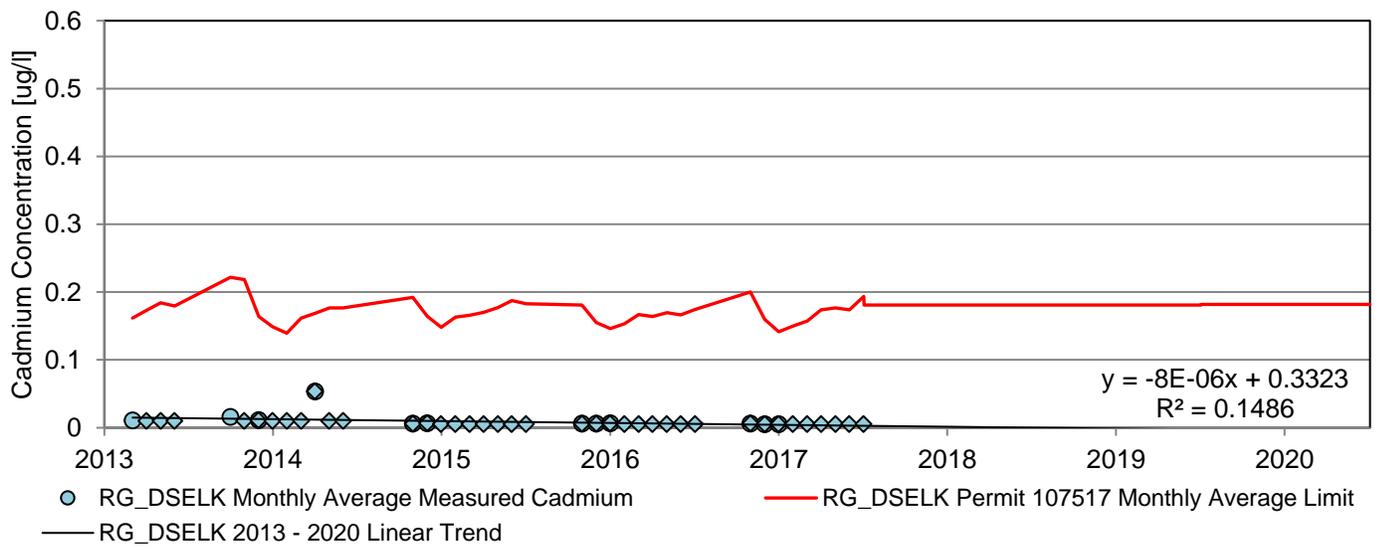


Figure 69. Cadmium trend analysis E300230 (RG_DSELK).

5.3 Source Discharges of Order-Defined Constituents of Interest

Permit 107517 takes an area based approach to authorizing and managing water quality constituents of interest, specifically selenium, nitrate, sulphate, and cadmium (i.e., the Order-constituents). The following section discusses the four Order-constituents in relation to key receiving environment sampling sites (i.e., Order Stations) and discharge locations (i.e., waste rock dumps). Unlike Section 2.2, the following section does not evaluate compliance. Similarly, given that Order-constituents are evaluated relative to SPOs, the focus is not if BC WQGs are exceeded. Rather, the focus is on temporal patterns observed in concentrations of Order-constituents and how upstream discharge sites may affect downstream water quality. As part of this evaluation, a distinction is made relative to waste rock dump status (i.e., active versus dormant) and the conceptual model for water flow through waste rock and constituent release/transport are discussed following the presentation of the data. For purposes herein, a dormant waste rock dump is defined as not having any new waste deposited for a period of ≥ 1 year; while an active waste rock dump is defined as receiving or having received waste rock within the past year (i.e., < 1 year).

5.3.1 Selenium

Total selenium concentrations within the Valley have been increasing since the 1990's and based on data collected by Environment Canada and its partners at long-term water quality monitoring station BC08NK0003 in the Elk River (at Highway 93 bridge South of Elko, BC), concentrations have been above the BC WQG (2 $\mu\text{g/L}$) since approximately 1993 (Figure 45). Selenium concentrations at BC08NK0003 have steadily increased over time, reaching a peak concentration (11.2 $\mu\text{g/L}$) in November of 2017. Similar temporal patterns can be seen at upstream Order Stations (Figures 68-70).

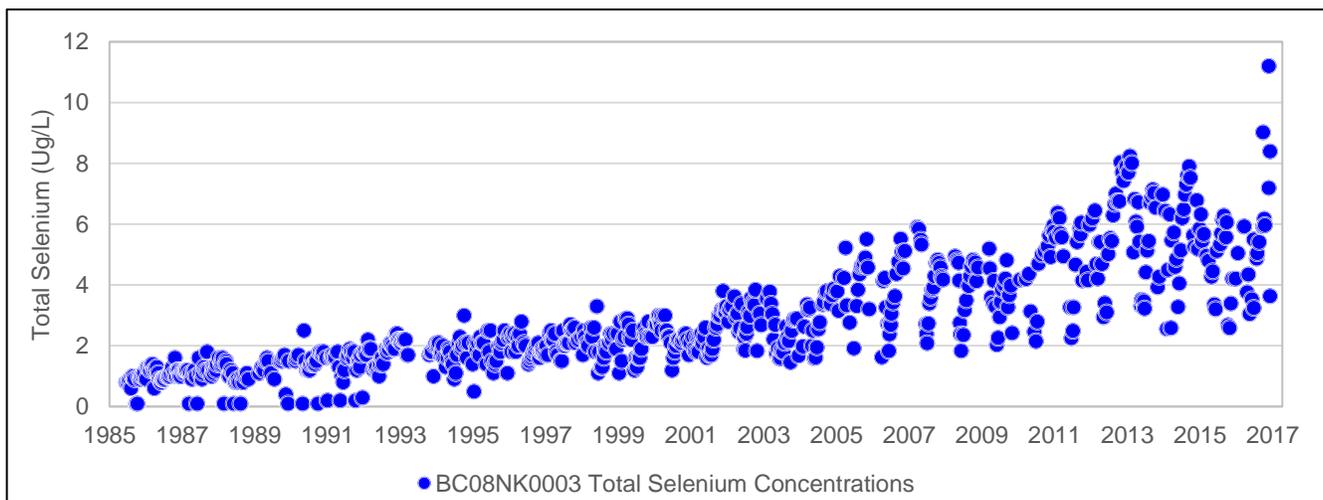


Figure 70. Total selenium concentrations recorded at water quality surveillance monitoring station BC08NK0003 in the Elk River.

Note: Data were accessed from <http://www.ec.gc.ca/eaudouce-freshwater/default.asp?lang=En&n=EFDA57C6-1>

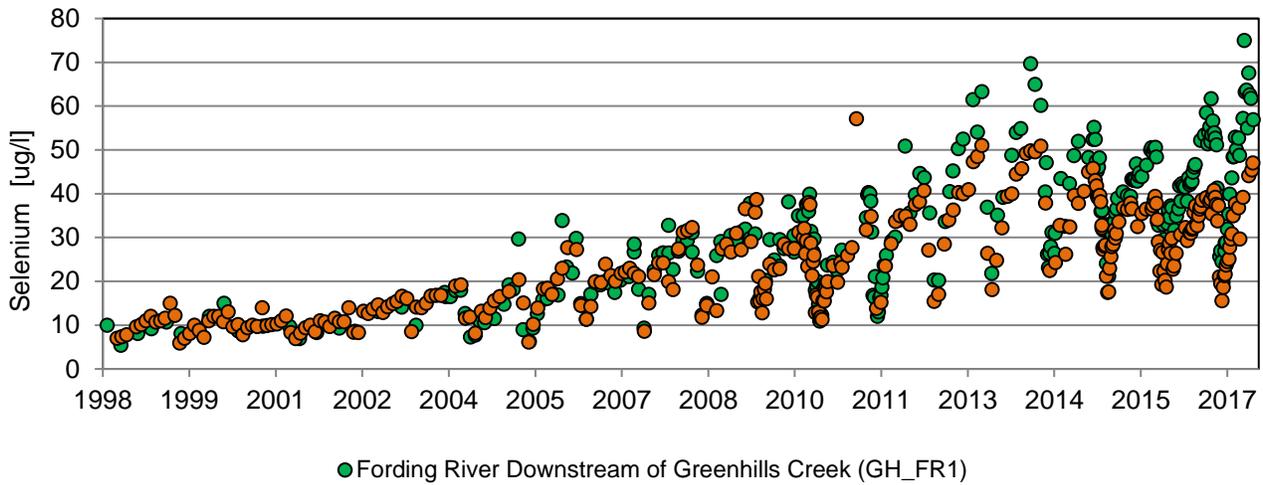


Figure 71. Historical selenium concentrations at Order Stations GH_FR1 and LC_LC5.

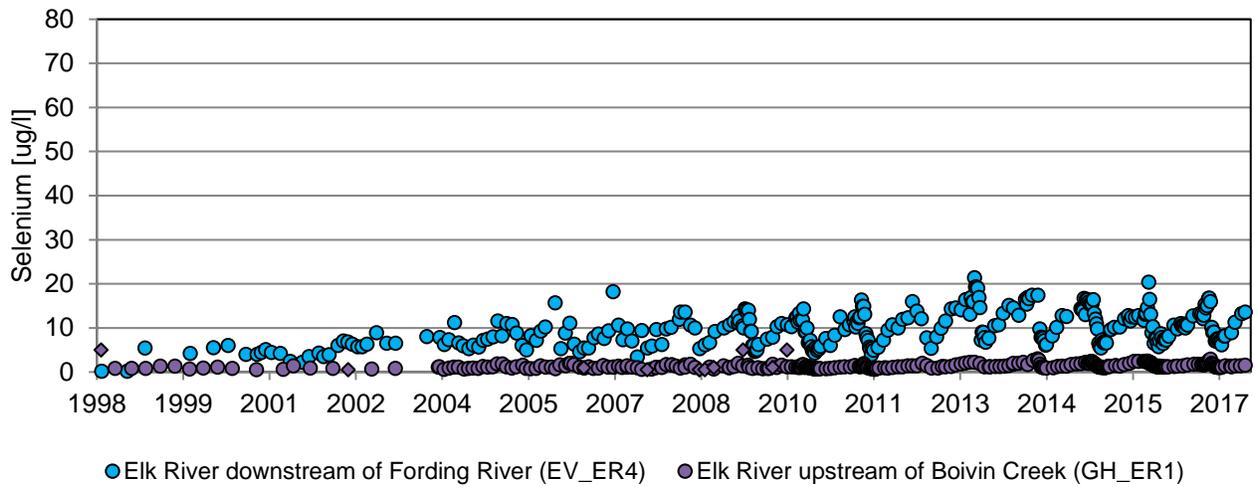


Figure 72. Historical selenium concentrations at EV_ER4 and GH_ER1.

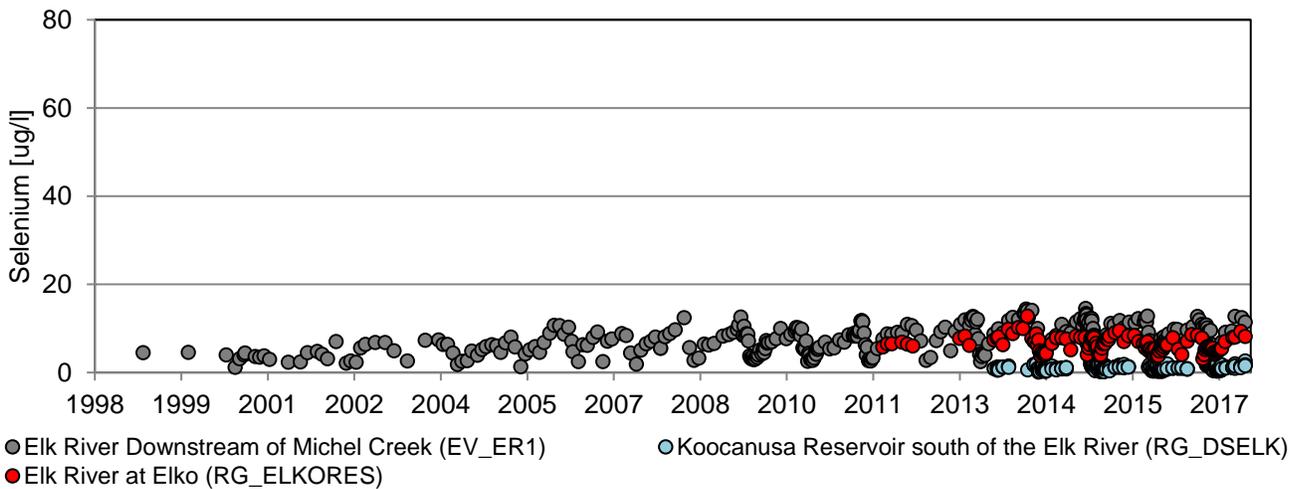


Figure 73. Historical selenium concentrations at EV_ER1, RG_DSELK, and RG_ELKORES

Selenium temporal patterns expressed at Order Stations are influenced by patterns observed at water sampling sites associated with waste rock dumps (i.e., discharge sources). Figure 46 is comprised of four quadrants which illustrate total selenium concentrations recorded at water sampling sites associated with the waste rock dumps compared to concentrations at relevant Compliance Points and Order stations. Water sampling sites in the upper Fording River (upstream of 0200378 (GH_FR1)) are shown in on the upper left. Water sampling sites associated with the lower Fording River (upstream of 0200028 (LC_LC5)) are shown on the upper right. Water sampling sites associated with the Elk River (upstream of 0200027 (EV_ER2)) are shown on the lower left. Water sampling sites associated with the Michel Creek (upstream of E300091 (EV_MC2)) are shown on the lower right. For purposes of illustration, discharge stations with active waste rock dumps have been illustrated using a triangle, discharge stations with dormant waste rock dumps using a square, and receiving environment stations a circle.

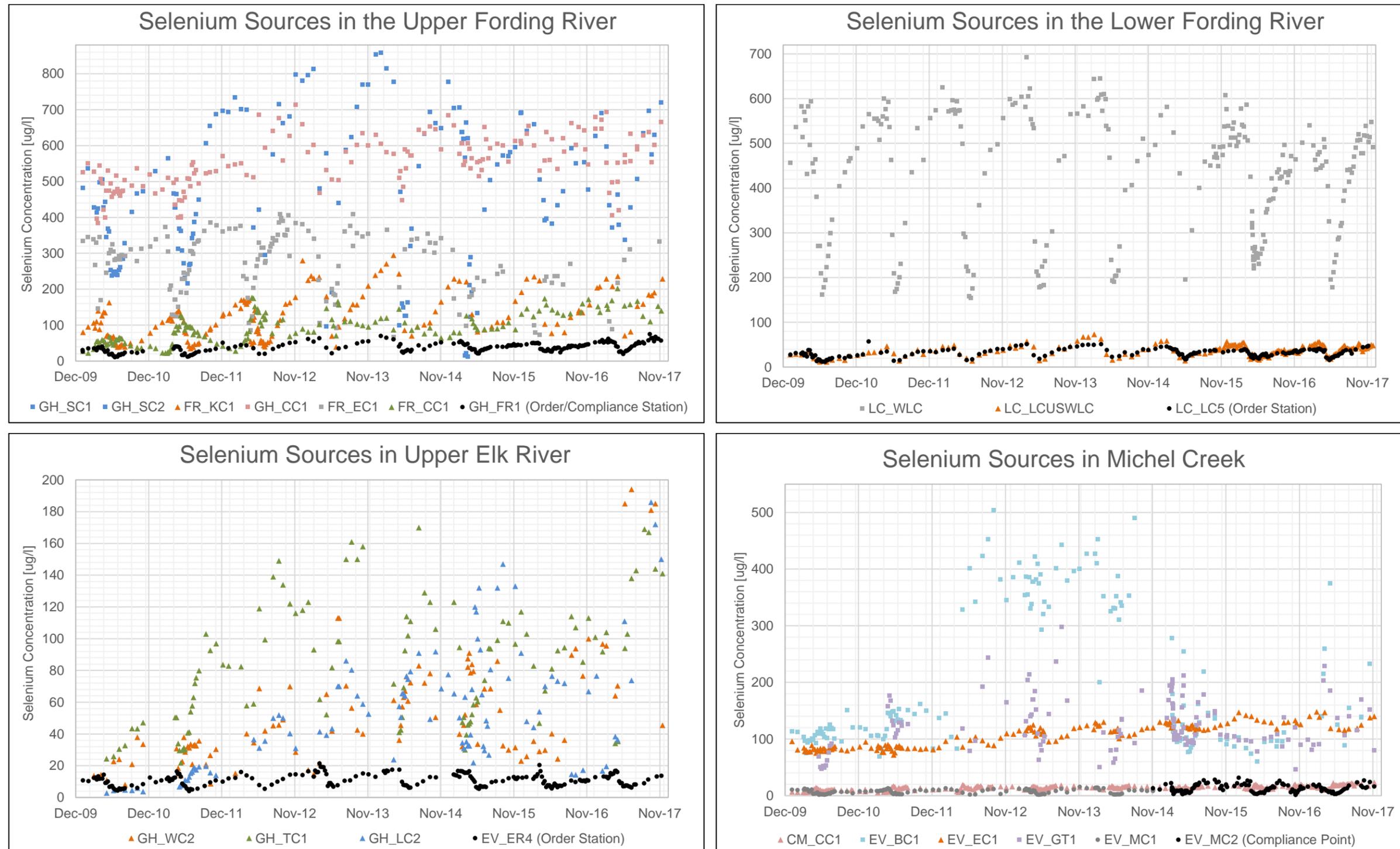


Figure 74. Total selenium concentrations at key source sites in the upper Fording River (top Left), lower Fording River (top right), upper Elk River (bottom left) and Michel Creek (bottom right) compared to relevant Order stations.

Note: Active waste rock dumps are depicted using triangles, dormant waste rock dumps with squares, and downstream monitoring locations with circles.

Monitoring at GH_LC2 and GH_WC2 is not required under 107517, however data are included from these stations instead of GH_LC1 (E257796) and GH_WC1 (E257795) to show long term trends at Leask and Wolfram creeks.

Data from EV_MC1 were included for this analysis in Michel Creek as it was discontinued when EV_MC2 was implemented further upstream as part of the implementation of Permit 107517 in 2014. This change was made to exclude and potential surface water sources or dilution between sites.

Based on data collected to date, it does not appear that waste rock dump status (active vs. dormant) directly influences surface water selenium concentrations. However, and as illustrated within Figure 45, selenium concentrations from some upstream sources have a direct correlation with the patterns of selenium concentrations observed in downstream receiving environments which peak in low flow months and have the lowest concentrations in freshet.

5.3.2 Nitrate-N

Similar to selenium, nitrate-N concentrations have increased within the Elk Valley watershed over time. Data collected by Environment Canada and its partners at long-term water quality surveillance monitoring station BC08NK0003 show that nitrate concentrations (Figure 72) follow a similar pattern observed for selenium at this station (refer to Figure 67). Nitrate-N data collected and presented for monitoring station BC08NK0003 is for [nitrate + nitrite]-N and as such, slightly over-estimates actual nitrate concentrations. However, for purposes of illustrating the overall trend to date it represents the oldest and most consistent data set.

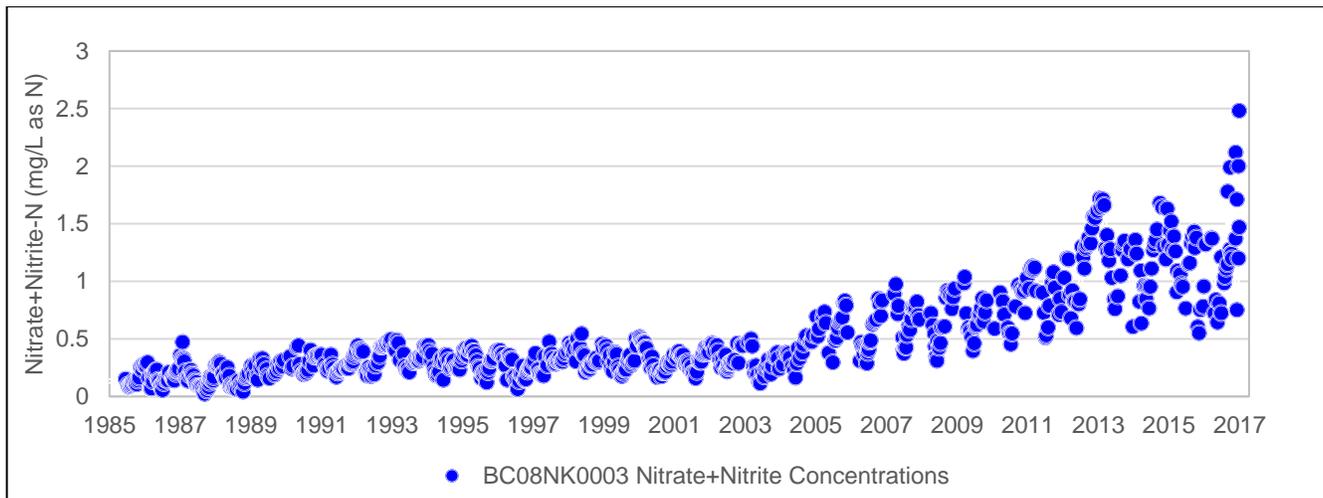


Figure 75. [Nitrate + Nitrite]-N concentrations recorded at water quality surveillance monitoring station BC08NK0003 in the Elk River.

Note: Data were accessed from <http://www.ec.gc.ca/eaudouce-freshwater/default.asp?lang=En&n=EFDA57C6>

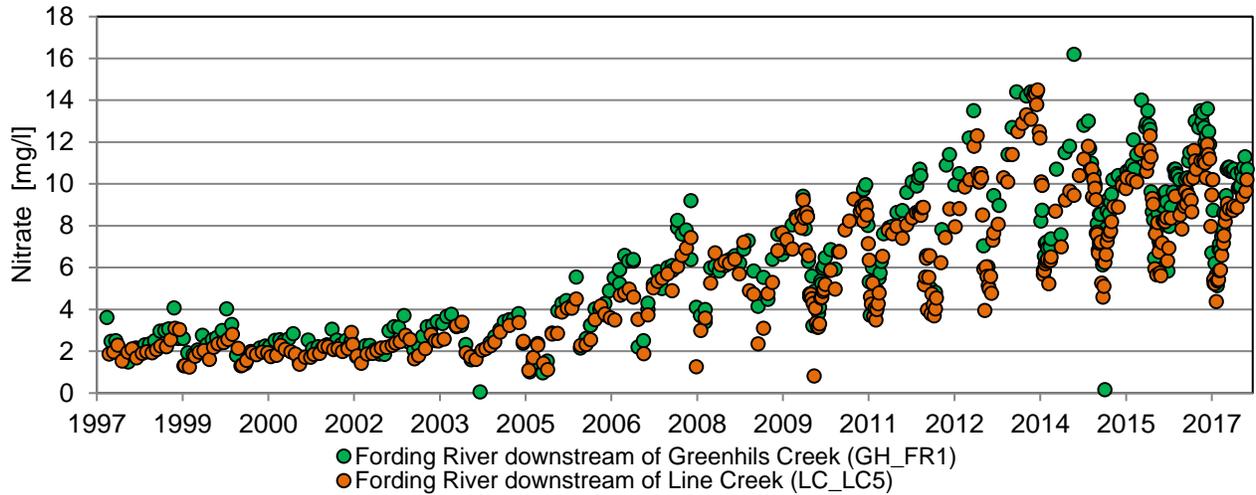


Figure 76. Historical Nitrate concentrations at GH_FR1 and LC_LC5.

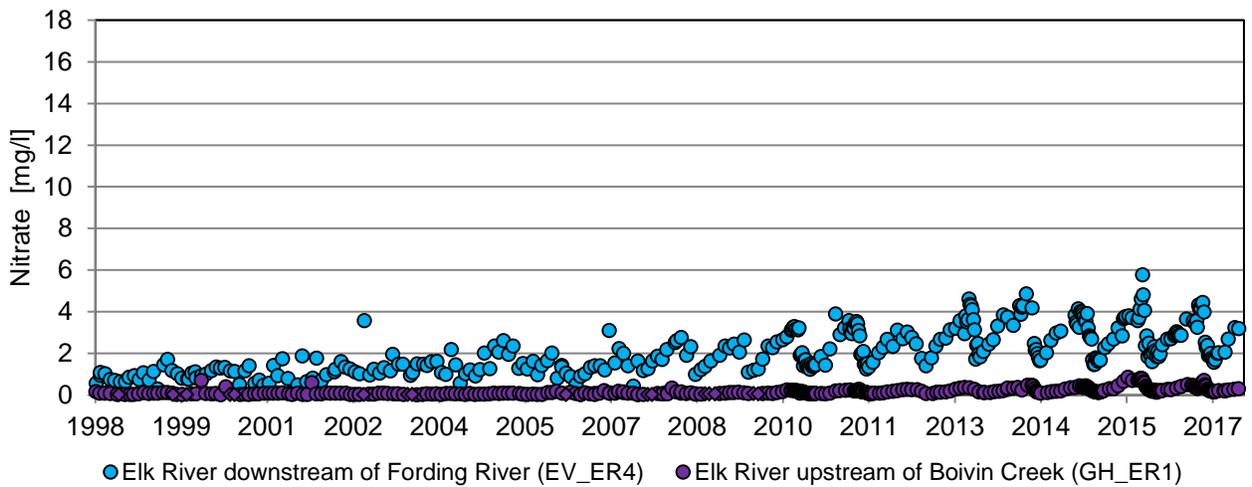


Figure 77. Historical nitrate concentrations at EV_ER4 and GH_ER1.

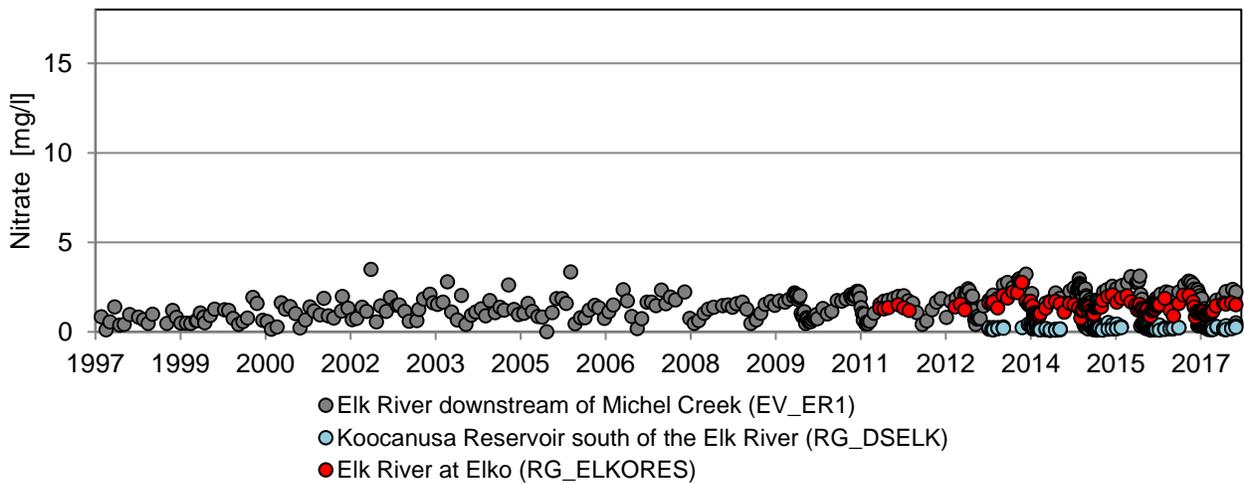


Figure 78. Historical nitrate concentrations at EV_ER1, RG_DSELK, and RG_ELKORES.

Temporal variability observed in (nitrate + nitrite)-N data at BC08NK0003 tracks very closely to that observed in the selenium data. Similar temporal patterns can also be seen at upstream Order Stations.

Based on data collected to date by Teck, nitrate-N concentrations at 0200378 (GH_FR1) and 0200028 (LC_LC5) the highest concentration was measured in 2014 (16.2 mg/l at GH_FR1 and 14.5 mg/l at LC_LC5, Figure 73).

Like selenium, nitrate-N temporal patterns expressed at Order Stations are associated with concentrations observed at some waste rock dumps (Figure 76). Consistent with selenium data plots, water sampling sites in the upper Fording River (upstream of 0200378 (GH_FR1)) are shown in on the upper left. Water sampling sites associated with the lower Fording River (upstream of 0200028 (LC_LC5)) are shown on the upper right while water sampling sites associated with the Elk River (upstream of 0200027 (EV_ER2)) are shown on the lower left. Water sampling sites associated with the Michel Creek (upstream of E300091 (EV_MC2)) are shown on the lower right. Active waste rock dumps are depicted using triangles, dormant waste rock dumps with squares, and Order Stations with circles.

A key difference from the selenium data above is that nitrate-N concentrations associated with some dormant waste rock dumps appear to have a decreasing trend or have remained fairly constant. This is consistent with the conceptual model for nitrate release which attributes elevated nitrate concentrations in watercourses downstream of Teck's waste rock spoils to residual nitrogen compounds from explosives used during mining. This residual is rinsed over time and concentrations decrease.

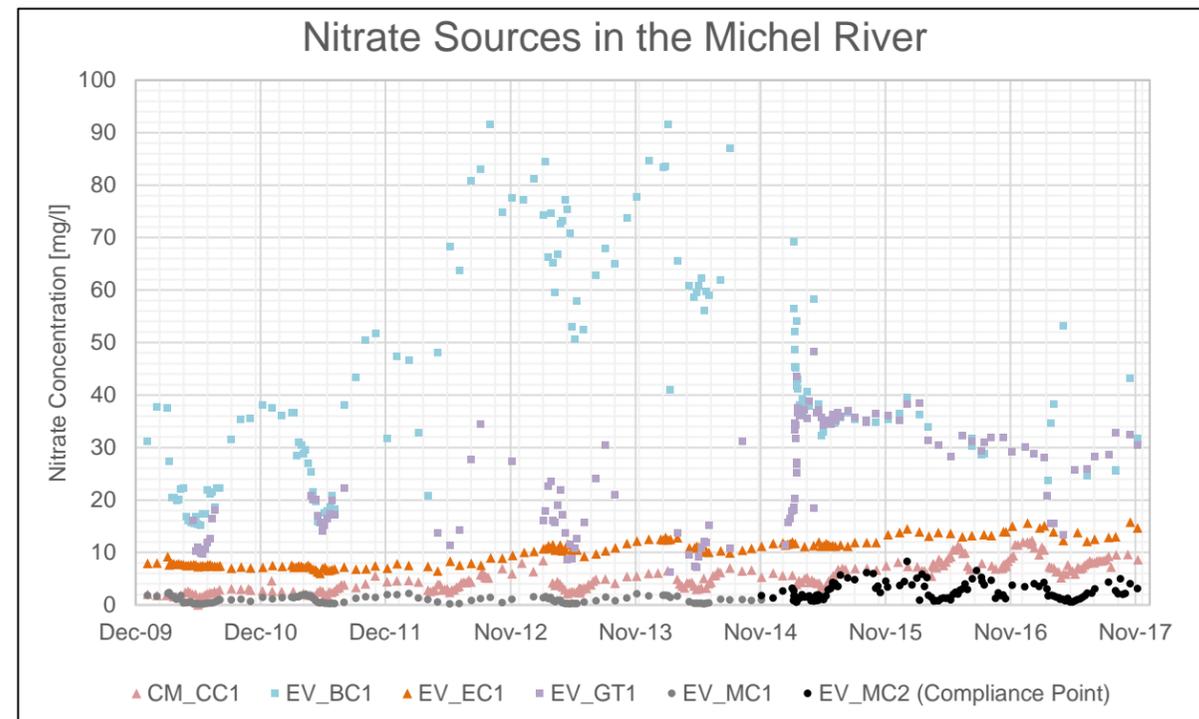
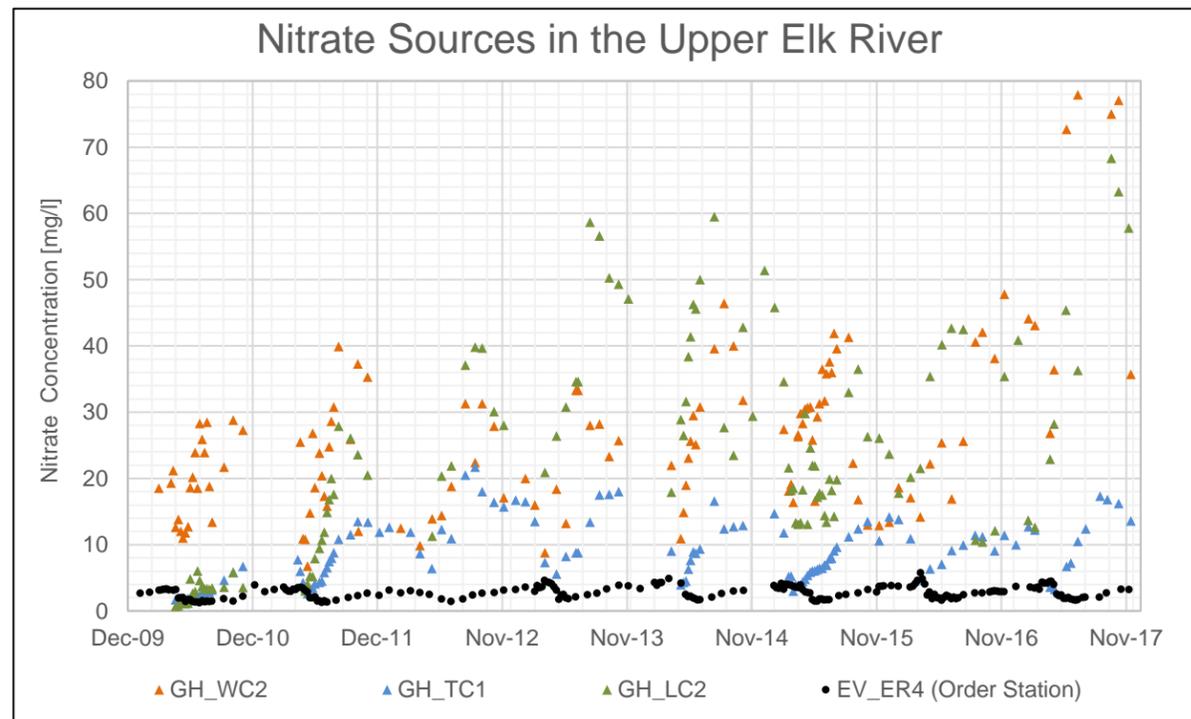
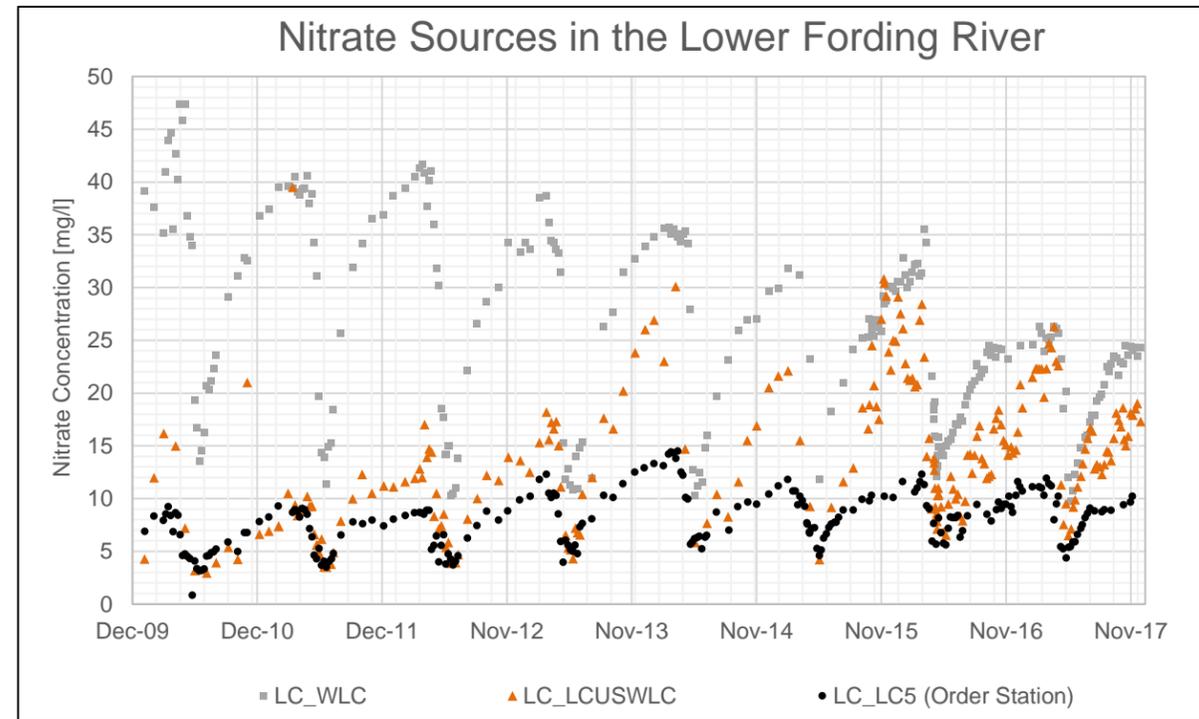
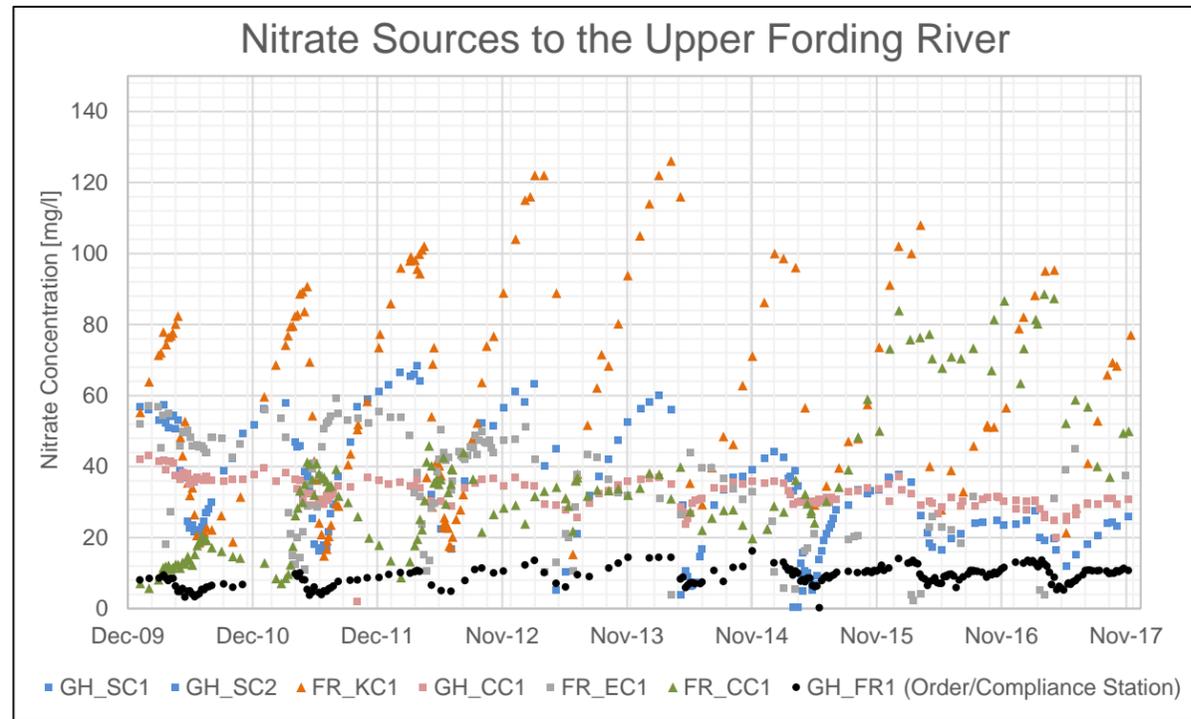


Figure 79. Nitrate- N concentrations at key source sites in the upper Fording River (top Left), lower Fording River (top right), upper Elk River (bottom left) and Michel Creek (bottom right) compared to relevant Order stations.

Note: Active waste rock dumps are depicted using triangles, dormant waste rock dumps with squares, and downstream monitoring Locations with circles.

Monitoring at GH_LC2 and GH_WC2 is not required under 107517, however data are included from these stations instead of GH_LC1 (E257796) and GH_WC1 (E257795) to show long term trends at Leask and Wolfram creeks. Data from EV_MC1 were used for this analysis in Michel Creek as it was discontinued when EV_MC2 was implemented further upstream as part of the implementation of Permit 107517 in 2014. This change was made to exclude and potential surface water sources or dilution between sites.

5.3.3 Sulphate and Cadmium

Concentrations of both sulphate and cadmium are below the thresholds for which treatment would be required under the Elk Valley Water Quality Plan, as such; no treatment is planned for sulphate and cadmium. There are spatial and temporal patterns observed in sulphate data that mirror those of selenium; these patterns reflect the oxidation of sulfur-bearing minerals within the waste rock dumps (e.g., pyrite). Based on data collected to date, sulphate concentrations recorded at Order Stations show an increasing trend peaking in and then maintaining a fairly constant seasonal pattern (Figure 78-80) with the exception of GH_FR1 in which the upward trend is continuing, peaking in 2017 at 313 mg/L. Figure 81 shows temporal trends in sulphate concentrations at upper and lower Fording River, Elk River, and Michel Creek. Like selenium, sulphate temporal patterns expressed at Order Stations are associated with concentrations observed at key waste rock dumps (Figure 81).

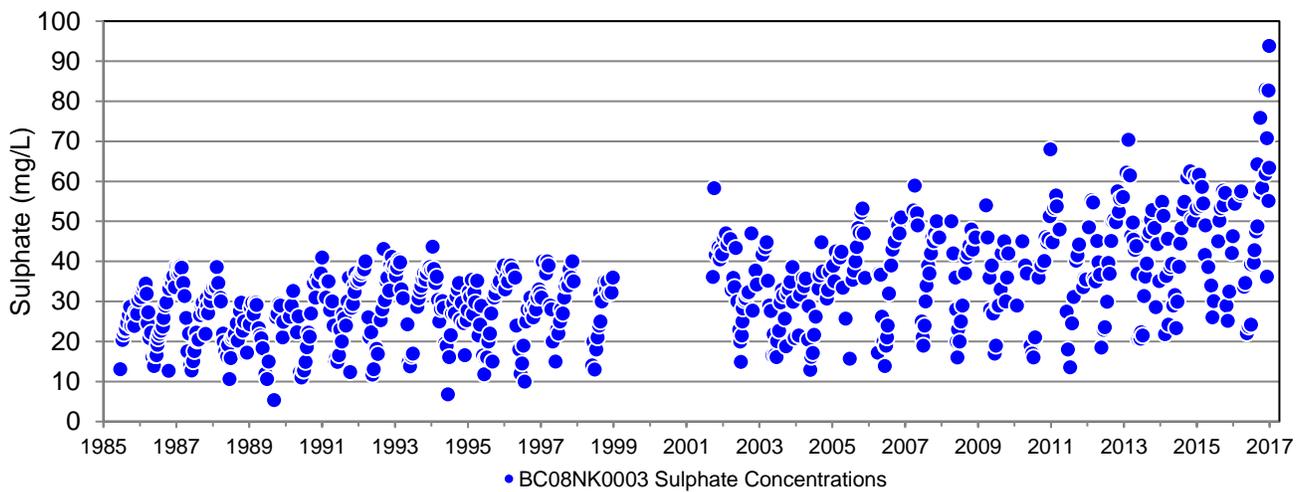


Figure 80. Sulphate concentrations recorded at water quality surveillance monitoring station BC08NK0003 in the Elk River.

Note: Data were accessed from <http://www.ec.gc.ca/eaudouce-freshwater/default.asp?lang=En&n=EFDA57C6>

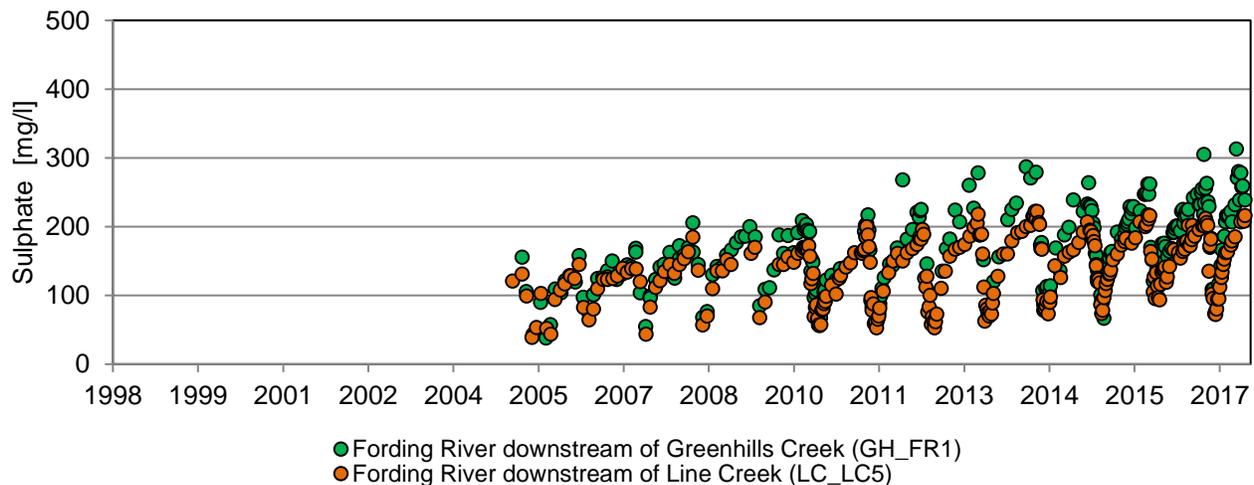


Figure 81. Historical sulphate concentrations at GH_FR1 and LC_LC5.

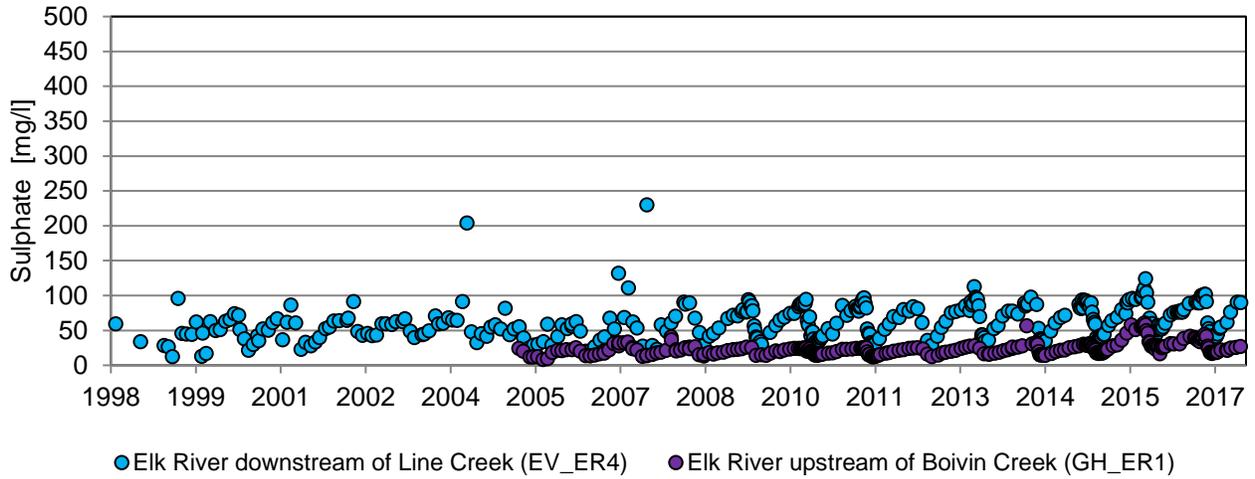


Figure 82. Historical sulphate concentrations at EV_ER4 and GH_ER1.

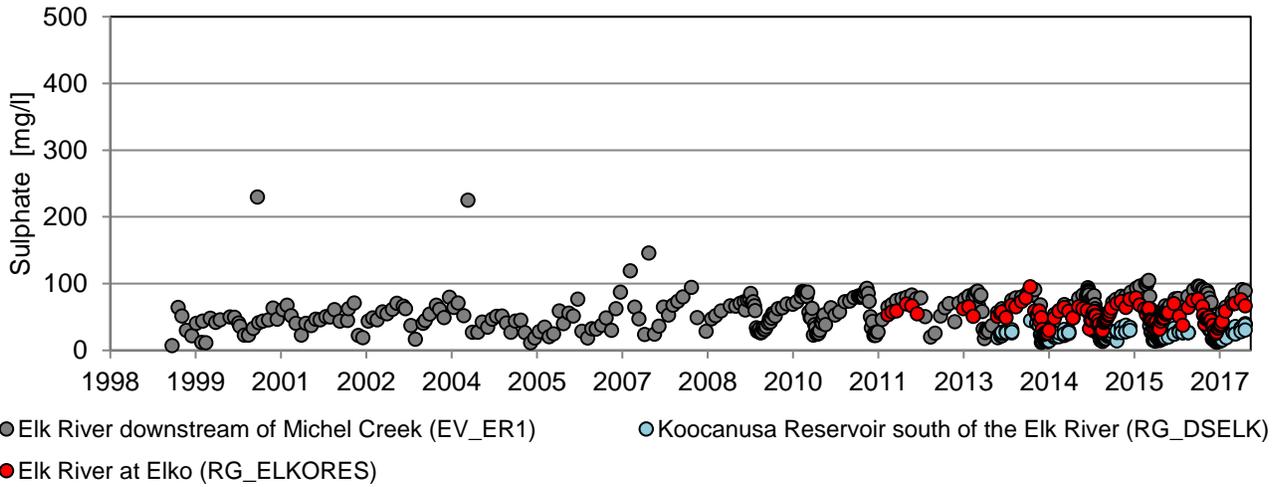


Figure 83. Historical sulphate concentrations at EV_ER1, RG_DSELK, and RG_ELKORES.

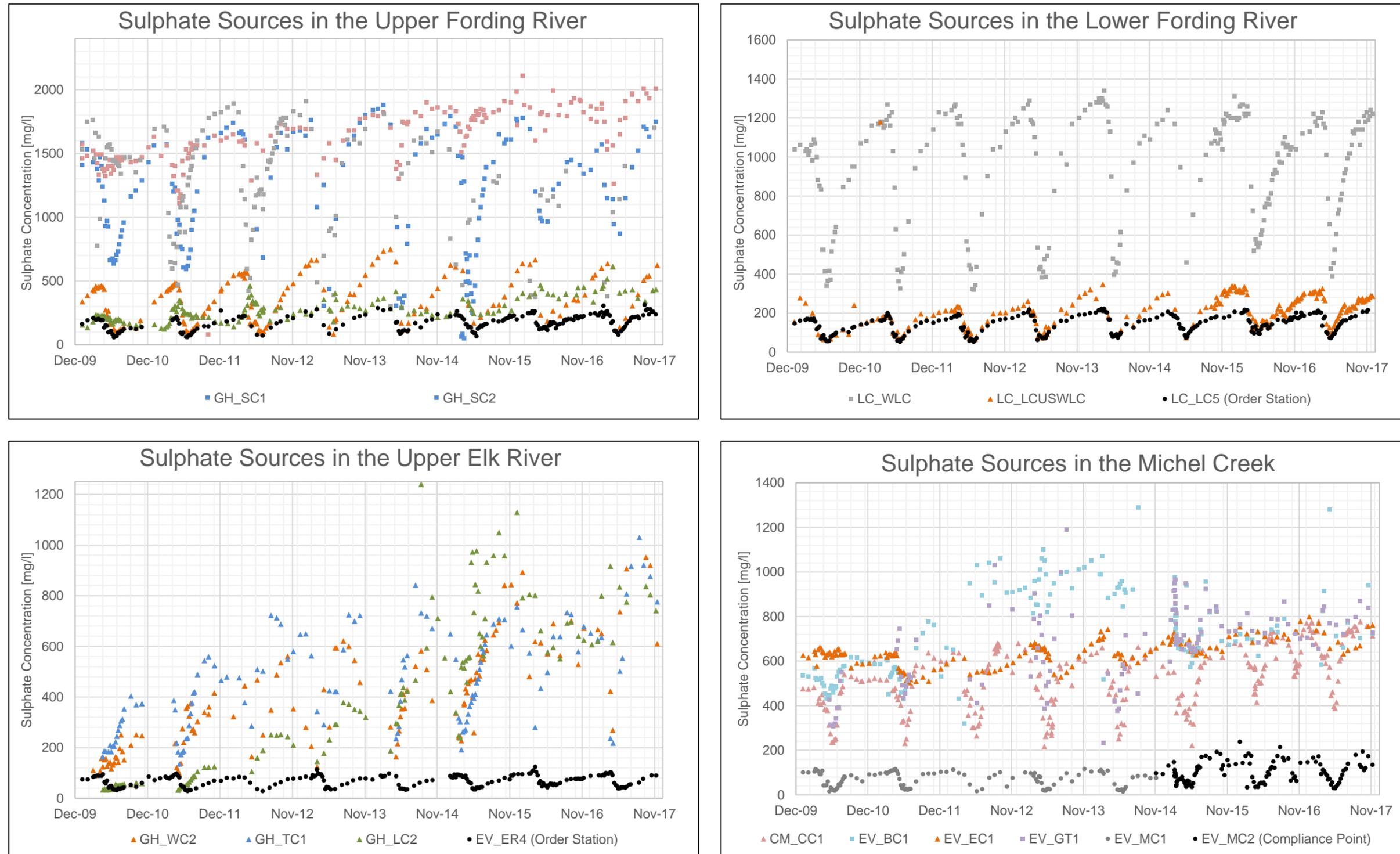


Figure 84. Sulphate concentrations at key source sites in the upper Fording River (top Left), lower Fording River (top right), upper Elk River (bottom left) and Michel Creek (bottom right) compared to relevant Order stations.

Note: Active waste rock dumps are depicted using triangles, dormant waste rock dumps with squares, and Order Stations within the Fording River with circles.

Monitoring at GH_LC2 and GH_WC2 is not required under 107517, however data are included from these station instead of GH_LC1 (E257796) and GH_WC1 (E257795) to show long term trends at Leask and Wolfram creeks.

Data from EV_MC1 were used for this analysis in Michel Creek as it was discontinued when EV_MC2 was implemented further upstream as part of the implementation of Permit 107517 in 2014. This change was made to exclude and potential surface water sources or dilution between sites.

Unlike other Order-defined constituents of interest, temporal and spatial trends in cadmium data are less apparent (Figure 51). As noted in the EVWQP seasonal cadmium trends within the receiving environment appear to be driven by background conditions. Elevated cadmium concentrations have been observed locally in some tributaries in the valley; however, concentrations in the receiving environment have remained below SPOs. Cadmium data at Order Stations is presented below however, source data is not presented for cadmium as there are no apparent trends or patterns to speak of. Continued surface water monitoring for cadmium will help improve clarity and ability to discern relationships and patterns.

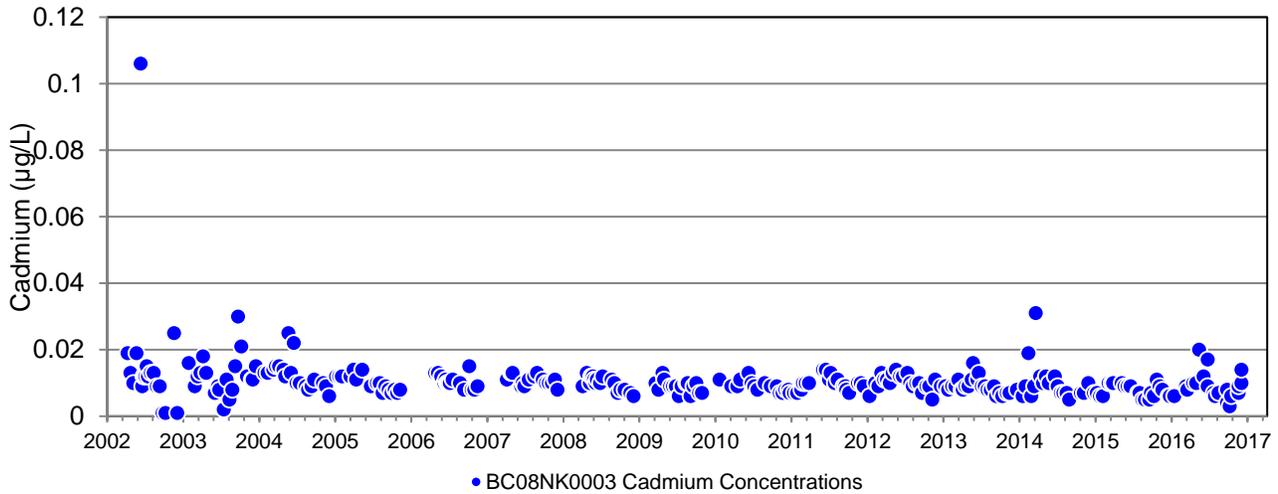


Figure 85. Cadmium concentrations recorded at water quality surveillance monitoring station BC08NK0003 in the Elk River.

Note: Data were accessed from <http://www.ec.gc.ca/eaudouce-freshwater/default.asp?lang=En&n=EFDA57C6>

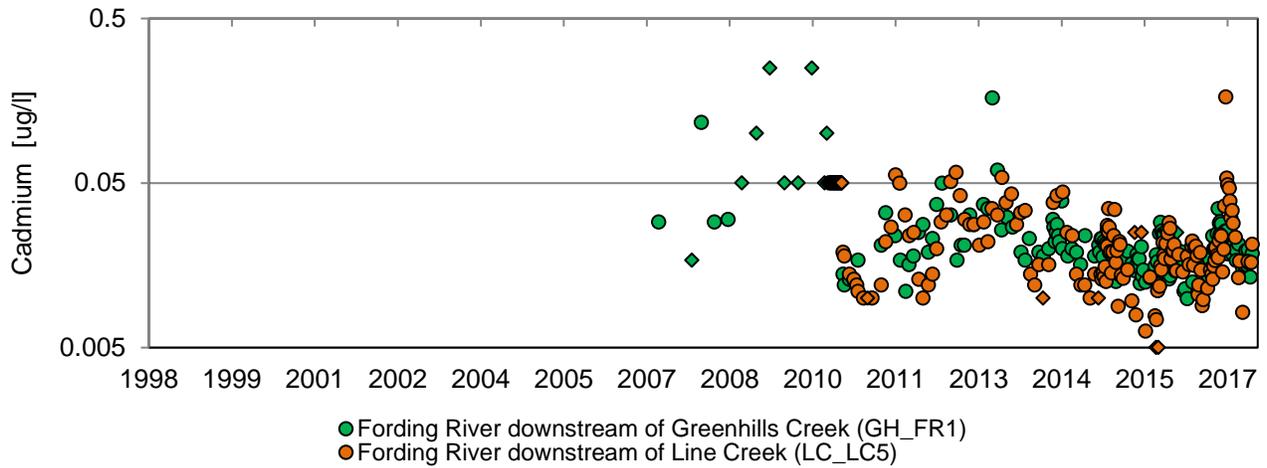


Figure 86. Historical cadmium concentrations at GH_FR1 and LC_LC5.

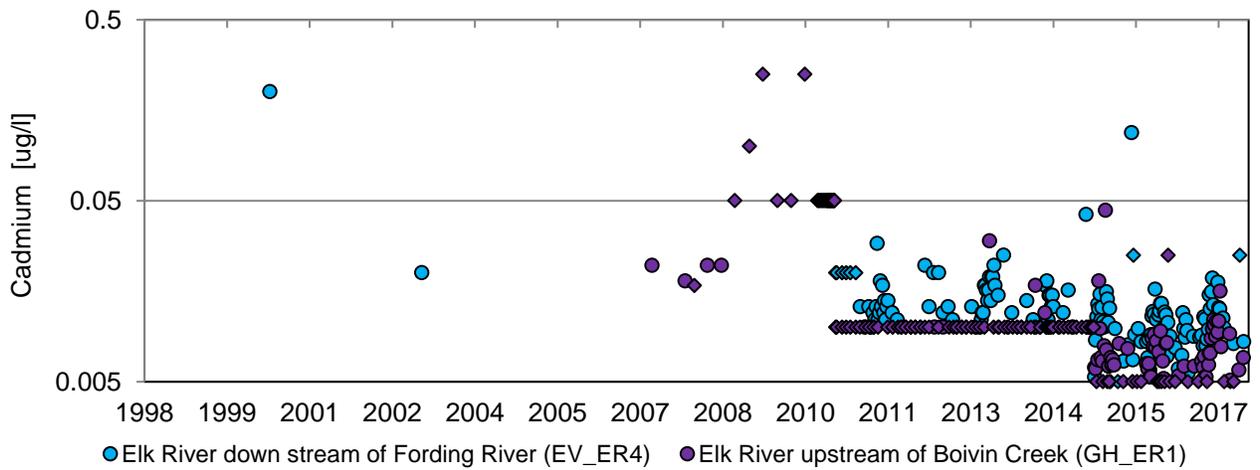


Figure 87. Historical cadmium concentrations at EV_ER4 and GH_ER1.

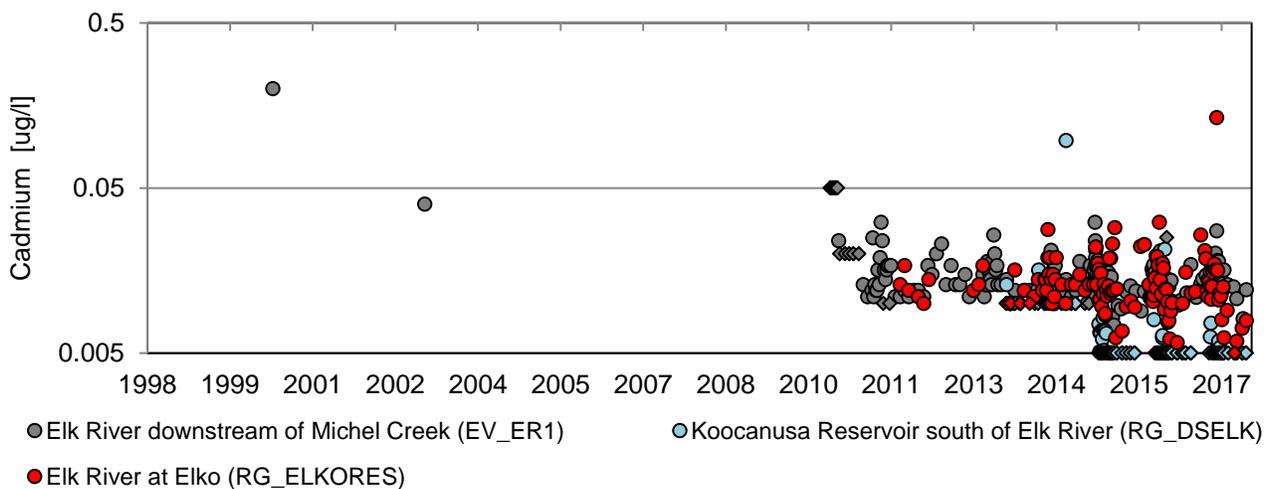


Figure 88. Historical cadmium concentrations at EV_ER1, RG_DSELK, and RG_ELKORES.

5.3.4 Conceptual Model for Water Flow Through Waste Rock and Constituent Release³

The waste rock hydrology conceptual model is linked closely with conceptual models of water quality constituent release. Several field studies and associated publications have been completed and contributed to the understanding of water flow within waste rock. Field studies have been conducted at Teck sites by researchers at the University of Saskatchewan and McMaster University on the subject of waste rock hydrology. Literature on instrumented test dumps completed at the Key Lake Uranium mine (Saskatchewan), the Diavik Diamond mine (North West Territories), and the Antamina metals mine (Peru) has also been reviewed. Observations and learnings from these studies are incorporated into the conceptual model described below.

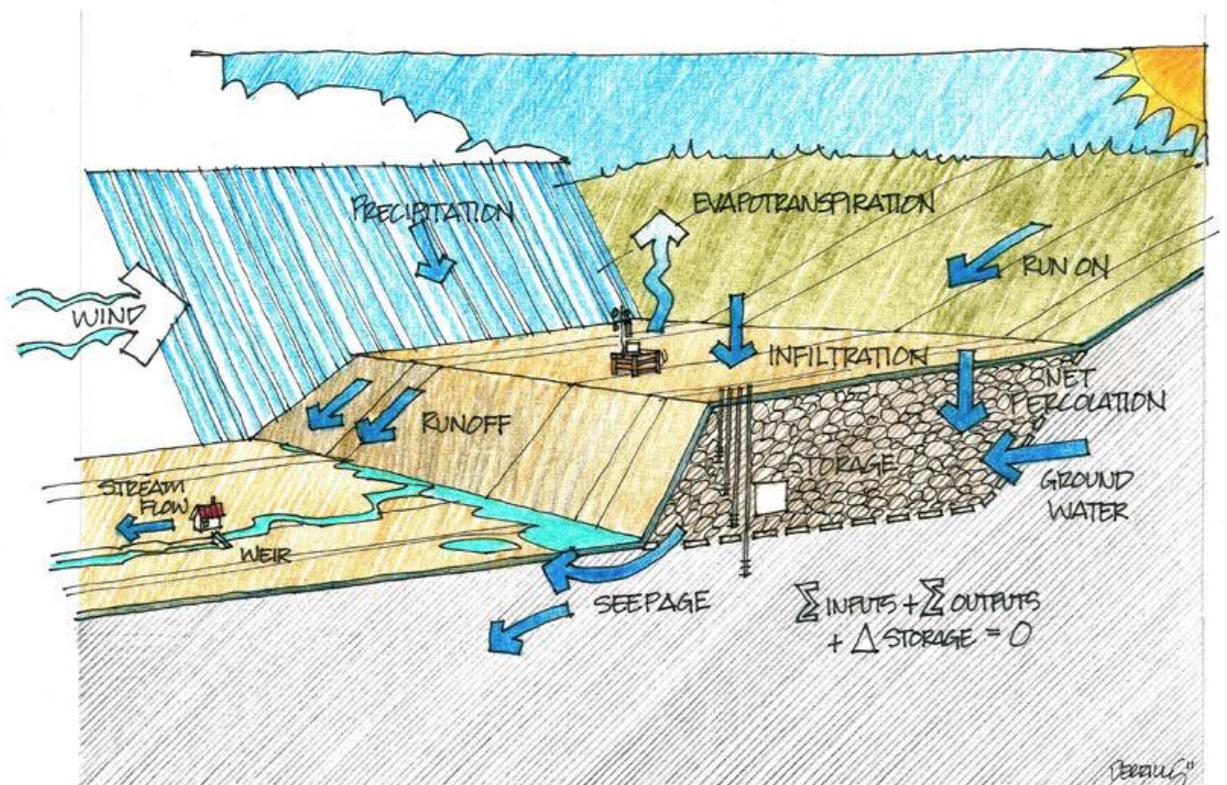


Figure 89. Waste rock conceptual water balance.

The conceptual understanding of the water balance of a waste rock dump is illustrated on Figure 52. The terms illustrated on Figure 52 are highlighted as ***bold italics*** text through this section, as each component is described. Surface ***runoff*** is limited on active waste rock dumps (unreclaimed) due to the porous nature of the media. The primary factor that influences water movement through a waste rock dump is ***infiltration***. ***Infiltration*** rates are primarily influenced by the surface conditions (vegetation cover versus bare rock) and can be influenced seasonally, with infiltration limited during winter conditions. The waste rock dumps are unsaturated although storage occurs in pore spaces.

³ Section 5.3.4 was reproduced from Teck 2017

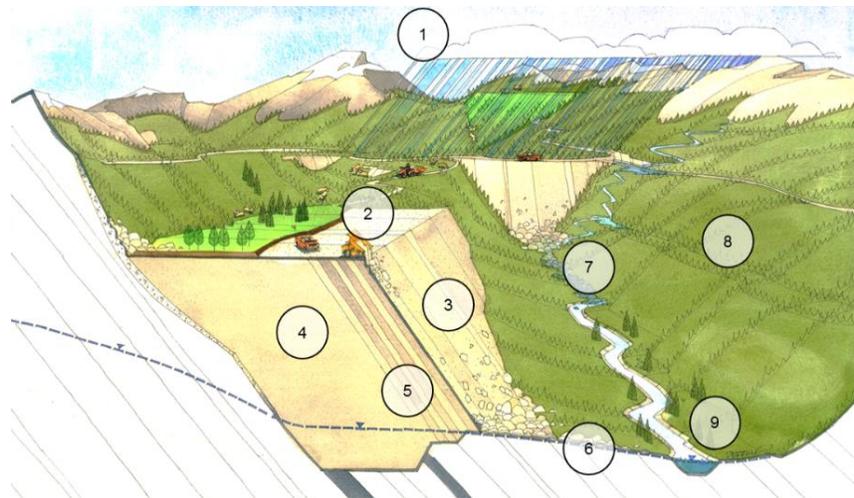
Waste rock is typically placed with very low water content (similar to *in situ* rock water content) and a portion of infiltrating water is typically sequestered by the rock during a period described as “wetting up”. The amount of time required to wet up is dependent on many factors such as dump height, dump construction methods, and climate. **Net percolation** is the term used to describe the water that passes through the waste rock dump.

Water flow through the waste rock dumps is highly variable, both spatially and temporally, due to the textural heterogeneity of the waste rock (Nichol et.al. 2005). The textural variability can be influenced by the dump construction methods. The majority of Teck’s waste rock dumps in the Elk Valley are constructed through end dumping, which results in gravity segregation of the dumped materials. Larger particles, such as boulders and cobbles, tend to roll down the dump face and settle at the bottom, whereas smaller sand, gravel, and silt sized particles remain at the top of the dump face. Near surface flow rates can be high during periods of rapid snow melt or intense precipitation, which can influence the development of preferential flow pathways. Waste rock dumps in the Elk Valley are on average 100 m to 200 m thick with some as thick as 300 m. The large thickness of waste rock dumps dampens the effects of episodic recharge events so that at the base of waste rock dumps studied in the Elk Valley, **net percolation** is relatively constant throughout the year (Barbour et. al. 2016).

Run-on (run off from up-gradient natural catchment areas) is understood to dominantly flow through the coarse rubble zone at the base of the dump (also referred to as rock drains) and has little interaction with the bulk of the overlying waste rock materials, though some saturation of the base of the dump may occur seasonally during high flow periods (Villeneuve et. al. 2017). Run-on from natural drainage is highly seasonal and this natural drainage, when combined with the **seepage** from the overlying waste rock mass can result in strong seasonal variation in the water quality that emerges from the base of the waste rock dumps. **Groundwater** flow systems or near surface flow pathways underlying waste rock are conceptually understood on a site-by-site basis. Groundwater discharging into the base of a waste rock dump (along buried creek channels) are likely to flow through the same rock drains as run-on and have little interaction with the overlying mass. **Seepage** is often difficult to characterize on its own due to mixing with the run-on and groundwater at points of measurement at the base of the waste rock dump or further downstream at long-term monitoring locations.

The factors presented in the waste rock hydrology conceptual model support the understanding that flow through a waste rock dump is not an instantaneous process, and that there is a hydrologically controlled delay (lag) between the placement of waste rock and the appearance of load in the receiving environment. The length of that lag is dependent up on the waste rock dump specific factors and local climate factors, among others.

The conceptual model for water quality constituent release and transport is focused primarily on unsaturated waste rock, building upon the concepts in the conceptual model for waste rock hydrology. The conceptual model for water quality constituent release and transport in unsaturated waste rock is illustrated and described in Figure 53.



1	<p>Net Percolation</p> <ul style="list-style-type: none"> The amount of water that enters from the surface of the waste piles is a function of precipitation and snowmelt minus evaporation, transpiration and sublimation. Run-off from the unsaturated waste rock is negligible
2	<p>Rock placement and physical conditions</p> <ul style="list-style-type: none"> Waste placement is tracked as bank cubic metres (BCM) of waste placed per year and is a primary factor in source term development. The method of construction can influence the flowpaths that constituents of interest (CIs) travel to exit the waste piles.
3	<p>Leaching of explosives residuals contributes inorganic nitrogen (e.g., nitrate) to contact waters</p> <ul style="list-style-type: none"> Leaching of explosives residuals are expected to diminish with time since a finite amount of explosives are introduced during mining and nitrogen forms are not expected to be generated significantly by rock weathering. The amount of NO₃ present is a function of placed waste rock, powder factor, management practices, wet/dry holes, blast utilization and is present dominantly as NO₃.
4	<p>Geochemical weathering processes under oxygenated conditions</p> <ul style="list-style-type: none"> Oxidation of pyrite results in release of soluble components of pyrite, mainly sulphate, but also traces of elements including selenium and other metals. Dissolution of acid-neutralizing minerals and release of soluble components of those minerals, mainly base cations (calcium, magnesium). Throughout the unsaturated waste rock, it is assumed that pyrite oxidation is not oxygen limited. There is a strong regional correlation of selenium to sulphate. The interaction of reactive surfaces (e.g. iron oxides) may attenuate elements, e.g. cadmium, and precipitation of secondary minerals such as gypsum may control sulphate concentrations. Waste rock may break down over time, exposing new surface areas as a result of compaction, physical weathering etc.
5	<p>Hydrological processes that may influence release of CIs from waste rock</p> <ul style="list-style-type: none"> There are leaching inefficiencies within the waste piles that are difficult to quantify whereby not all pore spaces are leached by infiltrating waters. This can be influenced by dump height, grain size etc. When waste rock piles are disturbed (e.g. during rehandling), pore spaces not previously leached may leach. Travel time through the waste rock pile is believed to be largely a function of lift height and net percolation.
6	<p>Transport of CIs via seepage, run-off and groundwater pathways</p> <ul style="list-style-type: none"> Water carrying CIs from the dump exit the dump as surface water and groundwater. Negligible run-off occurs and groundwater pathways are expected to be minimal on a regional scale reporting ultimately to the Elk River. Where groundwater pathways occur, there is a potential for load bypass at specific monitoring stations and sub-oxic reduction of Se and NO₃.
7	<p>In-stream precipitation processes</p> <ul style="list-style-type: none"> As seepage with high partial pressure of CO₂ exits the waste rock pile and equilibrates with the atmosphere, calcite becomes supersaturated and precipitates within the streams. Trace metals such as cobalt and cadmium (among others) have been shown to co-precipitate with calcite when this occurs. The precipitation of calcite is affected by seasonal changes in flow whereby during high flows and spring freshet, streams are diluted and calcite does not precipitate. During this period some trace metals concentrations (e.g. Co) tend to parallel sulphate trends in the receiving environment.
8	<p>Undisturbed area influences</p> <ul style="list-style-type: none"> Dilution from undisturbed areas varies by drainage and influences the monitoring station flow and water quality. A load is associated with this undisturbed area, and the relative proportion varies by constituent.
9	<p>Monitoring location and data record</p> <ul style="list-style-type: none"> Source term development requires data for flow and water chemistry. The extent of monitoring record varies across the region. Some stations have robust data sets while others are limited. Recent data (<10 years) tends to be more complete, while older data are sometimes limited.

Figure 90. Geochemical conceptual model for unsaturated waste rock (modified from source: SRK 2017).

5.4 Toxicity

5.4.1 Acute Toxicity

Two hundred and ten (210) 96-h rainbow trout 100% (single concentration) acute lethality toxicity tests and 235 48-h *Daphnia magna* 100% (single concentration) acute lethality toxicity tests were conducted in 2017 as a requirement of Permit 107517. Of the 235 *D. magna* acute toxicity tests, ten (4.3%) exhibited >50% mortality and as such were considered failed test results based on Permit 107517 criteria. There were no failures of rainbow trout toxicity tests in 2017 (i.e., mortality was ≤50% for all 2017 rainbow trout acute toxicity tests). A summary table of acute toxicity test results is provided in Appendix G. Failed toxicity testing results are listed below in Table 20.

In response to the failed toxicity testing results, Teck followed the requirements of Permit 107517 Section 10.2.2 with respect to confirmatory testing (i.e., LC₅₀ follow-up tests), took immediate corrective action where possible, and provided follow-up test information to applicable regulators and KNC when it became available. Teck also completed additional investigative testing (e.g., testing at 10 and 20°C as well as other Toxicity Identification Evaluation [TIE] investigations) to aid in identifying the cause(s) of toxicity.

Table 20. Failed 48-hour *Daphnia magna* acute toxicity tests and results.

EMS	Site ID	Date	48-h <i>Daphnia magna</i> (single concentration) Units of % Mortality	Field Temperature (°C) Measured in Samples for Acute Toxicity Tests
0200384	GH_CC1	03/21/2017	90	1.9
E3E06924	FR_LMP1	04/21/2017	93	2.2
0200384	GH_CC1	05/08/2017	100	3
E291569	WL_BFWB_OUT_SP21	07/10/2017	100	11.3
E293371	WL_WLCI_SP01	07/14/2017	83	4.7
E291569	WL_BFWB_OUT_SP21	08/08/2017	87	12.3
0200384	GH_CC1	08/08/2017	67	7.1
E291569	WL_BFWB_OUT_SP21	09/18/2017	100	9.3
0200384	GH_CC1	11/01/2017	100	1.9
E221329	GH_SC1	11/01/2017	93	3.2

Teck currently hypothesizes, based on the results of additional investigative studies and recent scientific literature (e.g., Bogart et al. 2016), that the formation of one or more mineral precipitates (including but not necessarily limited to calcite) was responsible for adverse effects observed in most or all of the failed *D. magna* tests. Evidence supporting this hypothesis includes:

- Laboratory staff noted precipitate consistent with calcite on the surfaces of the test vessels and *D. magna* carapaces during acute toxicity tests in which adverse effects on survival were observed. These observations are consistent with precipitate-related test mortalities in *D. magna* (Bogart et al. 2016).

- In the TIE studies, treatments that reduced precipitate formation, including treatments with antiscalant and treatments that reduced calcium and/or carbonate in solution (i.e., the components of calcite), substantially reduced or eliminated toxicity and precipitate formation.
- *D. magna* acute toxicity tests conducted at 10°C showed reduced toxicity compared to tests run at 20°C per Environment Canada guidelines. Because calcite solubility decreases with increasing temperature, the standard test protocol of warming samples to 20°C has the potential to enhance precipitation during the test in samples in which calcium and carbonate are super-saturated at 20°C.
- Treatment of effluent samples with antiscalant during pilot testing for advanced oxidation process at the active water treatment reduced or removed acute toxicity to *D. magna*.
- Tests completed with extended hold times showed reduced toxicity, consistent with giving time for precipitate to form prior to the addition of *D. magna*
- Effluent chemistry and TIE results did not identify other potential causes of toxicity (e.g., metals or TDS concentrations).

For acute toxicity test failures in 2017, tests conducted at the lower temperature (10°C) were generally more representative of temperature conditions in the field during the time of collection (1.9 – 12.3°C). At mainstem Fording River sites upstream (FR_FR4) and downstream (FR_FRCP1) from GH_CC1, temperatures in 2017 ranged from -0.1 to 14.5°C; temperatures at these sites measured on or around the 2017 dates of the acute toxicity test failures observed at GH_CC1 ranged from 0.3 to 14.5°C. Temperatures measured downstream of the WLC AWTF at LC_LC3 (i.e., downstream of WL_BFWB_OUT_SP3) ranged from 6.6 to 8.5°C on or around the dates of the acute toxicity failures observed in 2017 at WL_BFWB_OUT_SP21; the maximum daily temperature observed in 2017 at LC_LC3 was 9.3°C. The maximum daily temperature observed in 2017 was 7.4°C (May 31) at GH_CC1 and 14.8°C at WL_BFWB_OUT_SP21 (July 21). The association of test failures with relatively cool field temperatures (typically <10°C) is consistent with the hypothesis that warming the samples to 20°C for testing contributed to adverse effects by promoting precipitate formation.

In 2012 to 2015 near the northern portions of Teck's operations, the mainstem Fording River had maximum temperatures of ~15-19°C (Cope et al. 2016). Test failures were not observed in 2017 under such relatively warm field conditions. For example, in 2017, the two highest temperatures at WL_BFWB_OUT_SP21 (14.8 and 13.5°C) were observed on July 16 and 17; acute *D. magna* tests passed on July 17 with <50% mortality, although variability in *D. magna* response was observed between the two laboratories conducting the tests. Acute *D. magna* toxicity test failures that occurred in 2016 at GH_CC1 were observed when field temperatures of Cataract Creek were <10°C. The results of the acute toxicity tests conducted at 10 and 20°C are useful in evaluating risk of acute toxicity to invertebrates under actual environmental conditions. Results of the acute toxicity tests should be interpreted within the context of the temperatures and water quality in the effluent and receiving environments at the time of a failure.

Trace element concentrations in water samples associated with acute toxicity test failures were generally below Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Aquatic Life (CCME 1999). In TIE testing, chelation with EDTA (a treatment to remove metal toxicity) did not reduce toxicity but antiscalant treatment reduced or removed toxicity without reducing concentrations of total dissolved solids (TDS). These results indicated that other trace elements or TDS were not causing the observed toxicity.

In one instance in which a single failure of the *D. magna* acute toxicity test occurred at FR_LMP1 in 2017, toxicity did not appear to be caused by calcite; however, acute toxicity was not observed in subsequent TIE investigations (i.e., the toxicity dissipated in between the initial test and when the TIE investigation was conducted). Total aluminum and iron concentrations were noted to be elevated in the FR_LMP1 sample but dissolved concentrations were below BC WQG. It is possible that precipitation in the FR_LMP1 effluent occurred during sample storage, which may have reduced the toxicity of the effluent. Laboratory staff noted precipitate on the bottom of the test vessel during the original *D. magna* single concentration acute toxicity test. The cause of toxicity could not be definitively determined in this sample.

In 2017, failures of *D. magna* acute toxicity tests were most commonly observed at GH_CC1 (no active water treatment) and WL_BFWB_OUT_SP21 (active water treatment). Active water treatment at Cataract Creek (GH_CC1) is planned as part of the Fording River South AWTF. Results of follow-up studies conducted at 10°C, with antiscalant treatment, as well as other TIE investigations and acute toxicity tests repeated in multiple laboratories for these two locations generally supported the hypothesis that a mineral precipitate (e.g., calcite) is responsible for the *D. magna* acute toxicity. Adverse effects in *D. magna* were typically reduced or eliminated when acute toxicity tests were conducted at lower temperatures or with addition of antiscalant, and under TIE conditions that reduced toxicity associated with carbonate precipitation, although results of some of the TIE tests were inconclusive as the original acute toxicity was not observed during the follow-up investigations. Acute toxicity and TIE laboratory reports are provided in Appendix H.

Teck is currently drafting a Compliance Action Plan that identifies short-term actions and Key Performance Indicators to support the goals of 1) identifying the cause(s) of *D. magna* acute toxicity failures and 2) meeting the Permit 107517 requirement that effluent must not be acutely toxic. As calcite is suspected to be responsible for adverse effects on *D. magna*, it is necessary to understand what factors may favour precipitate formation and determine if these factors are due to laboratory conditions. The draft Compliance Action Plan will identify additional laboratory tests that will help determine which factors may be contributing to observed *D. magna* toxicity and under what conditions toxicity may occur. Because differences in laboratory effluent handling procedures and testing protocols may have contributed to the observed variability in *D. magna* response, the draft Compliance Action Plan will also include an objective to develop and implement standardized laboratory testing protocols for use during acute toxicity testing.

In addition to laboratory studies, the results of calcite monitoring programs at sites throughout the Elk Valley will support Teck's understanding of the potential for calcite toxicity in future tests and the implications of these results for conditions in the receiving environment. Treatment designed to prevent calcite formation in AWTF effluent prior to discharge into the receiving environment is being considered meet the acute toxicity requirement in the Permit. The Compliance Action Plan will identify actions and Key Performance Indicators associated with a reduction of calcite formation. The Compliance Action Plan will support Teck's ongoing commitment to the implementation of the EVWQP to improve water quality in the Elk River watershed and meet the conditions detailed in Permit 107517.

5.4.2 Chronic Toxicity

Section 10.3 of Permit 107517 requires that Teck report annually on the Chronic Toxicity program. Chronic toxicity tests were completed in 2017 in accordance with Section 9.8 of Permit 107517. A detailed summary of test results and associated laboratory reports will be prepared and submitted under separate cover by April 30, 2018.

5.5 West Line Creek Active Water Treatment Facility

The West Line Creek Active Water Treatment Facility (WLC AWTF) treats flow from West Line Creek (WLC) and augments flows as necessary with Line Creek, reducing both total selenium and nitrate in the receiving environment in accordance with Permit 107517. In 2017, approximately 1,681,473 m³ of creek water was treated in the plant and 486 kg of selenium and 33,942 kg of nitrate as nitrogen (NO₃-N) were removed.

5.5.1 Selenium Speciation

Teck has continued efforts to address a challenge in the performance of the WLC AWTF related to selenium speciation in the discharge water. Selenate is the dominant form of selenium in surface waters downstream from Teck's coal mines. At the WLC AWTF, selenium is removed via uptake into microorganisms within the treatment system. One outcome from treatment is that some of the selenium in the treated water is being transformed into different forms of selenium that can be accumulated into the base of the food web more readily than selenate. As a result, although the WLC AWTF has been reducing total selenium loads to Line Creek, recent test results directly downstream of the facility show elevated selenium concentrations in tissues of biota.

In the summer of 2017, Teck completed the successful piloting of an advanced oxidation process (AOP) system that has been identified as a solution to the selenium speciation challenge. The commissioning and operation of a full-scale AOP system at WLC AWTF is planned for August 2018. After the AOP pilot was completed, Teck reduced the flow through the WLC AWTF to 2,500 m³/day and switched from the WLC intake structure over to the Line Creek intake structure in order to minimize potential effects on the receiving environment. These changes resulted in a significant reduction in the total selenium and selenium species concentrations in the effluent. As a result of the reduced treatment, concentrations of selenium and nitrate at the Line Creek Compliance point increased.

On November 29, 2017, Teck submitted an application to temporarily take the WLC AWTF offline in response to the monitoring results that showed a higher proportion of reduced selenium species present in the AWTF effluent and elevated selenium concentrations in aquatic biota collected near the WLC AWTF outfall. This application was based upon an evaluation of the effects of operating the treatment facility in its current state (without AOP) on selenium concentrations in biota, as well as an evaluation of scenarios for operation of the treatment facility during the interim period before the AOP system is brought online. Teck received approval to bypass the WLC AWTF on February 26, 2018 and commenced the temporary shutdown of the WLC AWTF on February 28th, 2018.

Data from the Line Creek Local Aquatic Effects Monitoring Program will continue to be collected and evaluated to understand biological productivity and tissue selenium accumulation downstream from the treatment facility discharge. Learnings from work on this issue will be incorporated into ongoing water treatment activities as the EVWQP continues to be implemented, consistent with an adaptive management approach.

5.5.2 Blank Detection Results

Field blank samples are collected as a method to determine sample contamination during the bottle storage and sample collection/handling process. The results of the WLC AWTF QA/QC program indicated several instances of sample contamination for multiple parameters. WLC AWTF collected 4,069 blank samples, 388 of which had detect results. To identify the source of contamination and reduce the occurrence of blank detection results, WLC AWTF conducted an internal investigation.

To determine the source of contamination effectively, WLC AWTF systematically worked through the potential contamination sources. The following were identified as potential sources of contamination:

- Distilled water used for field blanks lacking sufficient purity
- External lab equipment and/or practices
- Sample handling and processing
- Sample supplies storage

Multiple sets of blanks were taken at WLC AWTF that controlled for potential sources of contamination to identify the source of the contamination. ALS Calgary and ALS Burnaby performed various tests confirming that the quality of water produced at the onsite WLC AWTF lab was not of high enough purity to measure below the detection limits at their labs. This testing also confirmed that there was no contamination occurring at the external lab.

The WLC AWTF lab technician collected multiple sets of blanks eliminating a suspected source of contamination with each set. Blanks were collected using distilled water provided by ALS in the field and in the lab.

The following sampling scenarios were completed to identify potential sources of contamination:

- Filtering using disposable, one-time-use filtering equipment
- Filtering use a re-usable apparatus
- Acid washing the re-usable filtering apparatus before filtering and sampling
- Sampling using bottles stored in different locations (i.e., the WLC AWTF plant and mine site)

Results of the blank detection contamination investigation showed detect results in all blank samples except for the samples that were collected in bottles that had not been stored in the WLC AWTF. Samples were then collected to determine if the contamination occurred only inside the treatment plant or if it extended into the administrative building of the WLC AWTF. The results showed that the contamination of the bottles was isolated to the WLC AWTF.

The location for sample supply storage has been moved from inside of the WLC AWTF to a storage unit outside in an effort to reduce the number of blank detects observed in WLC AWTF field blanks.

6 Linkages to the Adaptive Management Plan

As introduced in Section 1, Teck has developed an Adaptive Management Plan (AMP) to support implementation of the EVWQP, to achieve water quality targets including calcite targets, confirm that human health and the environment are protected, and where necessary, restored, and to facilitate continuous improvement of water quality in the Elk Valley. The following section contains details on how information captured in the surface water monitoring program will be utilized to help re-evaluate the answer to Management Questions 1 and 5 in future AMP reports. Although surface water monitoring is explicitly identified as an input into answering Management Questions 1 and 5, the program contributes information to all Management Questions of the AMP. This section also contains a brief summary of progress made towards developing Early Warning Triggers (EWT) for surface water quality that are being developed as part of the 2018 AMP update process.

Management Question 1 (worded in the 2016 AMP as “Will water quality limits and Site Performance Objectives be met for selenium, sulphate, nitrate and cadmium?”) will be re-evaluated through periodic review of RWQM projections and surface water quality monitoring data. This process is illustrated in Figure 91 below. This report presents a summary of the surface water monitoring program on an annual basis and identifies results of water quality monitoring at Compliance Points and Order Stations with comparison to SPOs, provincial and federal water quality guidelines, and long term trends.

Surface water monitoring will continue as required in permit approvals, furthering information collection regarding the achievement of SPOs in relation to the EVWQP implementation plan and thus supporting the reevaluation of Management Question 1 under the AMP.

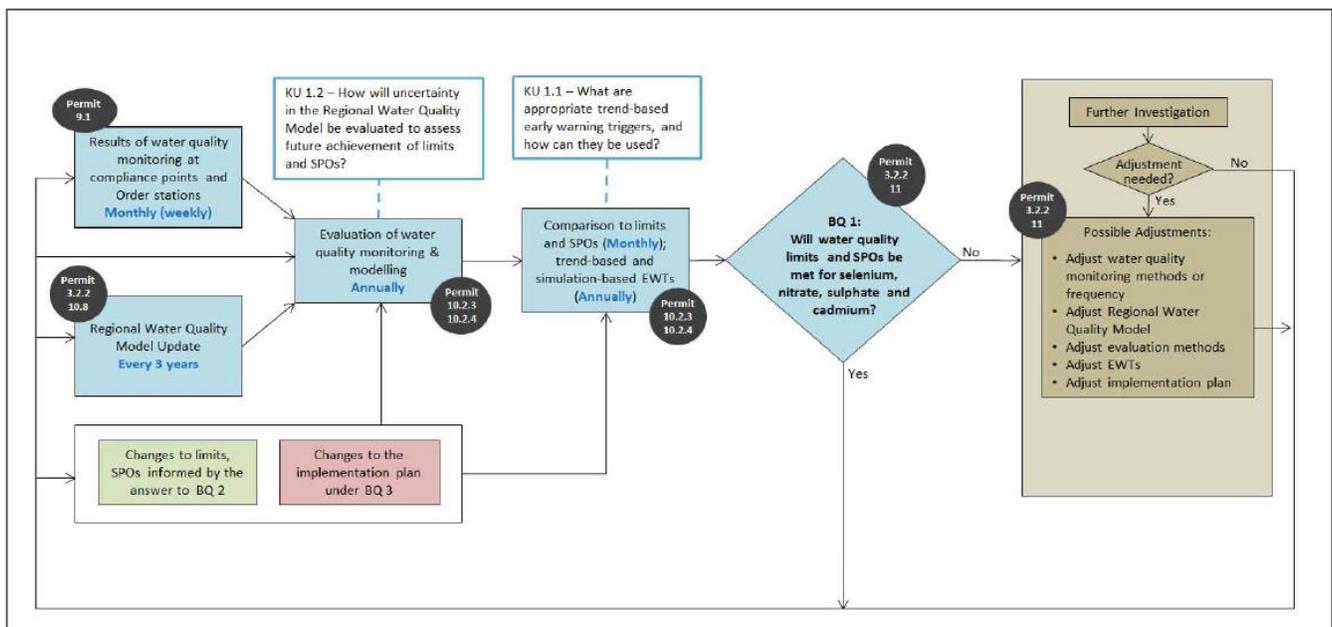


Figure 91. The process for re-evaluating the answer to Management Question 1 (Teck 2016, AMP Figure 6).

Related to Management Question 1, is Key Uncertainty 1.1 (worded in the 2016 AMP as “What are appropriate trend-based early warning triggers, and how can they be applied?”). Key Uncertainties were identified in the 2016 AMP as a means of capturing unknowns or gaps that, once reduced, will improve Teck’s ability to answer a Management Question. Teck has been working with the EMC on developing water quality EWT since the early stages of AMP development. As identified in the 2018 AMP update work, the AMP needs to identify/document key measurement endpoints and relevant screening criteria/trigger levels from existing monitoring programs. Triggers are simply described as a value or criterion for a measurement endpoint which, if reached, instigates action under the AMP Response Framework. In the case of water quality, EWT are being developed to aid in the identification of conditions that are not as expected, with sufficient lead time to allow for management response activities. Through discussions with the EMC, water quality EWT will be developed for the four order constituents (selenium, nitrate, sulphate, and cadmium) where management actions are not already in place or planned and for a list of other identified mine-related parameters (cobalt, lithium, nickel, nitrite, total dissolved solids, uranium, alkalinity, antimony, barium, boron, manganese, molybdenum, and zinc). Development, testing and documentation of water quality EWT are currently in progress. Finalized water quality EWT will be documented in the 2018 AMP update submission and will be evaluated and reported on starting in 2019.

The surface water quality monitoring program as required by Permit 107517 Section 9 provides important supporting information for Teck’s biological monitoring programs. A holistic assessment of Teck’s biological monitoring programs is captured under AMP Management Question 5 (worded in the 2016 AMP as “Does monitoring for mine-related effects indicate that the aquatic ecosystem is healthy?”). The process for evaluating the question is outlined below in Figure 92. Within this process, surface water monitoring data is evaluated with biological monitoring information to determine potential causal effects. If through this process, the answer to Management Question 5 is “No” or “Uncertain”, further investigation is triggered. Similar to surface water, the work related to the 2018 AMP update is also focusing on developing triggers related to biological monitoring information.

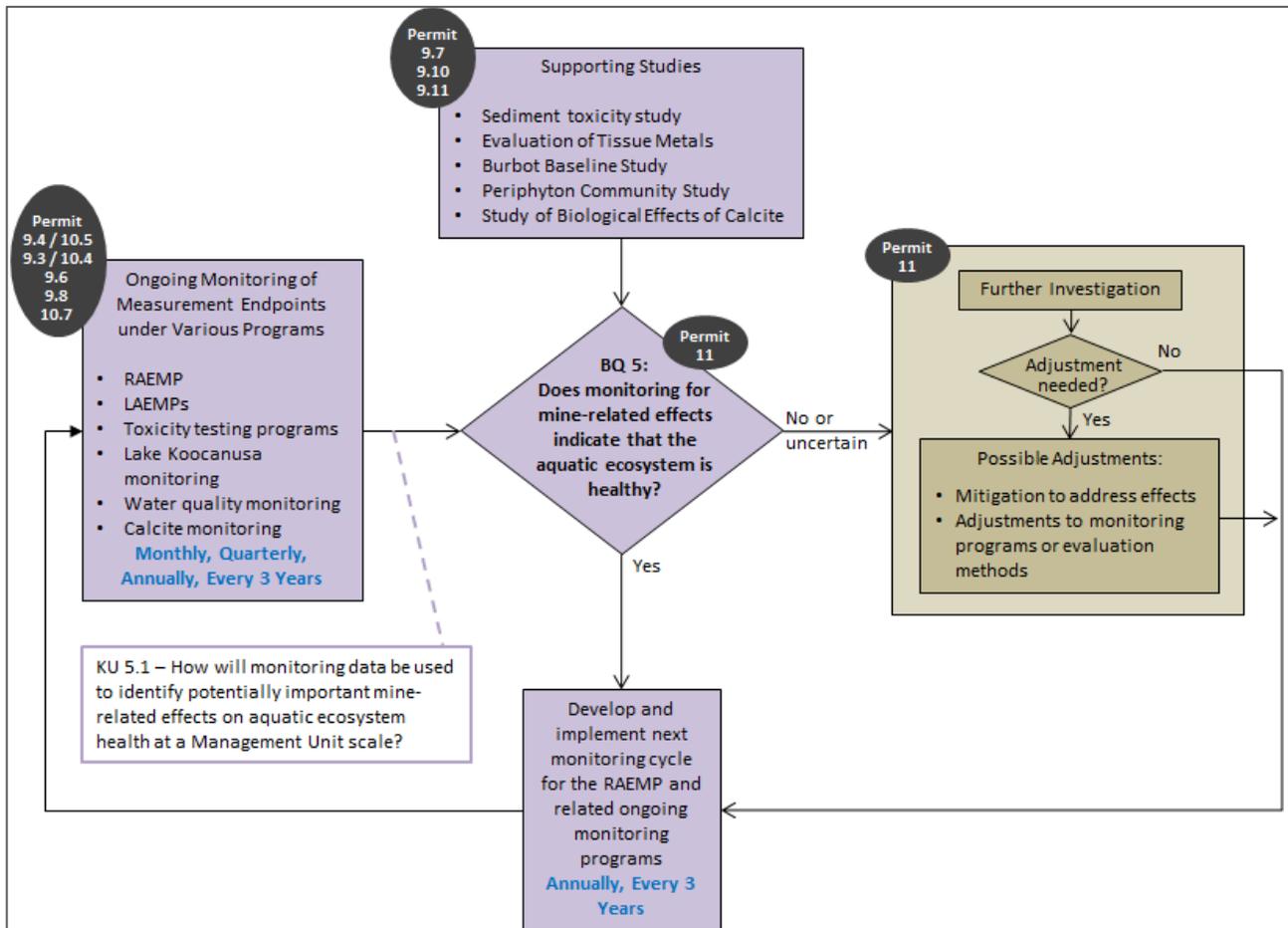


Figure 92. The process for re-evaluating the answer to Management Question 5 (Teck 2016, AMP Figure 18).

7 Discussion

Permit 107517 takes an area based approach to authorizing and managing water quality constituents of interest originating from current and historical mining activities in the Elk Valley. The area based approach requires an extensive surface water monitoring program that includes authorized discharges, receiving environment and other sampling sites, including authorized discharge Compliance Points and Order Stations for which compliance limits or SPOs have been established. These permitted sampling locations are used to evaluate compliance and are a means of tracking effective progression of the EVWQP. The above report is submitted in fulfillment of Section 10.2.4 of Permit 107517 and summarizes the following results from the 2017 calendar year:

- Non-compliances
- Water quality/quantity measurements relative to appropriate compliance limits, SPOs and/or approved and working water quality guidelines
- Toxicity tests
- QA/QC results and issues

There were non-compliances in 2017 associated with Compliance Points E300071 (FR_FRCP1), E297110 (LC_LCDSSLCC), and E258937 (CM_MC2). Permit limit exceedances recorded at Fording River Operations' Compliance Point FR_FRCP1 were for selenium and sulphate. Water quality and quantity monitoring data indicated that surface water at FR_FRCP1 is predominantly discharge water from the mine-influenced Cataract Creek during low flow months. Teck is currently compiling information requested by ENV to support the submission of an application to amend Permit 107517 to move the Fording River Compliance Point to a location that is more suitable for assessing compliance. Submission of the amendment application is targeted for the first quarter of 2018.

Non-compliances associated with Line Creek Compliance Point LC_LCDSSLCC were for selenium and nitrate. As stated in the 2016 annual water quality report, the LCO Compliance Point limits for nitrate were reduced from 14 mg/L (monthly average) and 20 mg/L (daily maximum) to 7 mg/L (monthly average) and 9 mg/L (daily maximum). These changes in limits were initially defined based on modelling that included limited data at this location. Since this time, additional monitoring data indicate that the RWQM did not adequately represent nitrate loadings in Line Creek. In order to improve water quality, Teck has since developed and received approval from the ENV for a nitrate Compliance Action Plan (CAP), which outlines the path forward to support permit compliance for nitrate concentrations in Line Creek. Developed with input from ENV and KNC, the approved CAP identifies objectives, key performance indicators (KPIs), and actions that Teck has taken and will take to reduce nitrate concentrations to support compliance with Permit 107517. The CAP will be updated as required to incorporate learnings from monitoring results and the RWQM update. Despite higher than projected nitrate concentrations in Line Creek as measured at the LCO Compliance Point, nitrate concentrations at the Order Station downstream of Line Creek in the Fording River (FR5, LC_LC5) have remained below the SPO during all periods to date. The selenium non-compliances are a result of Teck reducing the flow rate of the WLC AWTF from 5,500 m³/day to 2,500 m³/day in October 2017 and subsequently limiting the amount of selenium that is removed from Line Creek. Once the AOP is implemented in August 2018, the WLC AWTF will be recommissioned and selenium removal will continue.

The one non-compliance in January of 2017 at the Coal Mountain Compliance Point, CM_MC2, was due to a pit dewatering activity and low winter flows in the discharge and receiving environment. Pumping rates were immediately adjusted to bring nitrate levels back within permit limit. All samples collected since this one incident have been below permit levels.

Non-compliances were also recorded in 2017 associated with *D. magna* acute toxicity testing. Additional investigative studies including TIE indicate that a mineral precipitate forming during lab testing may be causing reduced survival of *D. magna*. The two locations that account for the majority of *D. magna* toxicity test failures in 2017 have treatment (West Line Creek) or are planned for treatment (Cataract Creek) to improve water quality and additional mitigation specific to calcite is being evaluated. Teck is also committed to addressing the issue of precipitate/calcite management in the valley. Identification of priority tributaries for calcite management is complete as per Permit requirements and calcite management permitting is underway.

Other non-compliances were related to missed samples, administrative non-compliances, and hold time exceedances. Improvements in planning (e.g., scheduling of sample collection and shipping

around statutory holidays), internal and external communications (e.g., timely reporting), and following standard protocols are anticipated to reduce future non-compliances.

In consideration of the extensive surface water monitoring program required under Permit 107517, in conjunction with all other active monitoring programs, no additional monitoring is proposed at this time. Data will continue to be evaluated so this monitoring program continues to provide information required to support Teck's AMP.

8 References

Barbour, S. L., Hendry, M. J., & Carey, S. K. 2016. *High-resolution profiling of the stable isotopes of water in unsaturated coal waste rock*. doi:<http://dx.doi.org/10.1016/j.jhydrol.2016.01.053>

Bogart S, Woodman S, Steinkey D, Meays C, Pyle G. 2016. *Rapid changes in water hardness and alkalinity: Calcite formation is lethal to Daphnia magna*. *Science of the Total Environment* 559:182-191.

Canadian Council of Ministers of the Environment (CCME). 2018. *Canadian water quality guidelines for the protection of aquatic life: Summary Table*. Available at: <http://sts.ccme.ca/en/index.html>. Accessed March 2018.

Cope, S., Schwartz, C.J., Prince, A., Bisset, J. 2016. *Upper Fording River Westslope Cutthroat Trout Population Assessment and Telemetry Project: Final Report*. Prepared for Teck Coal Limited, Sparwood, BC. Prepared by Westslope Fisheries Ltd., Cranbrook, BC. 266 p.

Nichol, C., Smith, L., and Beckie, R. (2005). *Field-scale experiments of unsaturated flow and solute transport in a heterogeneous porous medium*. *Water Resources Research* 41. <http://dx.doi.org/10.1029/2004WR003035>

SRK 2017. *Geochemical Source Term Methods and Inputs for the 2017 Update of the Elk Valley Regional Water Quality Model [Annex A]*. Report prepared for Teck Coal Limited. October 2017.

Teck 2017. *2017 Regional Water Quality Model Update – Overview Report*. October 31 2017.

United States Environmental Protection Agency (USEPA). 1991. *Methods for Aquatic Toxicity Identification Evaluation: Phase I Toxicity Characterization Procedures*. Second edition. EPA/600/6-91/003. United States Environmental Protection Agency, Environmental Research Laboratory. Duluth, MN. 87 pp.

Villeneuue, S.A., Barbour, S.L., Hendry, M.J., Carey, S.K. 2017. *Estimates of water and solute release from a coal waste rock dump in the Elk Valley, British Columbia, Canada (In draft)*.

9 List of Appendices

Appendix A – Unattainable Samples

Appendix B – Sample Requirements

Appendix C – Hydrology Report

Appendix D – 2017 RPD Results

Appendix E – Hold Time Exceedance Summary

Appendix F – BCWQG Exceedances

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Appendix H – Acute Toxicity Laboratory Results (COAs)

Appendix I – 2017 Monitoring Data

Appendix J – Spill Report Summary

Appendix K – Maps

Appendix L – LCO Nitrates Compliance Action Plan (CAP) 2017 Report

Appendix A – Unattainable Samples

Unattainable Data

Location Type/Operation	Date	EMS ID	Location Code	Parameters	Reason
Coal Mountain Operations	01/06/2016	E298733	CM_PC2	Water Quality	CM_PC2 was visited on additional days during the quarter but there was no observable flow due to colder temperatures and lack of rainfall.
Coal Mountain Operations	02/03/2016	E298733	CM_PC2	Water Quality	CM_PC2 was visited on additional days during the quarter but there was no observable flow due to colder temperatures and lack of rainfall.
Coal Mountain Operations	03/02/2016	E298733	CM_PC2	Water Quality	CM_PC2 was visited on additional days during the quarter but there was no observable flow due to colder temperatures and lack of rainfall.
Coal Mountain Operations	7/12/2017	E298733	CM_PC2	Water Quality	No flow present
Coal Mountain Operations	7/17/2017	E298733	CM_PC2	Water Quality	No flow present
Coal Mountain Operations	7/25/2017	E298733	CM_PC2	Water Quality	No flow present
Coal Mountain Operations	August 2017	E298733	CM_PC2	Water Quality	No flow present
Coal Mountain Operations	September 2017	E298733	CM_PC2	Water Quality	No flow present
Coal Mountain Operations	October	E298733	PC2	All	Zero Flow
Coal Mountain Operations	December	E298733	PC2	All	Zero Flow
Compliance Point	01/10/2017	E300091	EV_MC2	Flow	Unsafe ice jam upstream prevented a safe manual flow. Staff gauge unreliable due to excessive ice build up
Compliance Point	01/31/2017	E300091	EV_MC2	Flow	Unsafe ice jam upstream prevented a safe manual flow. Staff gauge unreliable due to excessive ice build up
Compliance Point	02/07/2017	E300091	EV_MC2	Flow	Unsafe ice jam upstream prevented a safe manual flow. Staff gauge unreliable due to excessive ice build up
Compliance Point	02/21/2017	E300091	EV_MC2	Flow	Unsafe ice jam upstream prevented a safe manual flow. Staff gauge unreliable due to excessive ice build up

Location Type/Operation	Date	EMS ID	Location Code	Parameters	Reason
Compliance Point	03/07/2017	E300091	EV_MC2	Flow	Unsafe ice jam upstream prevented a safe manual flow. Staff gauge unreliable due to excessive ice build up
Compliance Point	01/07/2017	E105060	FR_FRCP1	Water Quality	Zero flow
Compliance Point	02/21/2017	E105060	FR_FRCP1	Flow	Partially frozen – flow measurement not possible
Compliance Point	02/28/2017	E105060	FR_FRCP1	Flow	Partially frozen – flow measurement not possible
Compliance Point	03/07/2017	E105060	FR_FRCP1	Flow	Partially frozen – flow measurement not possible
Compliance Point	03/14/2017	E105060	FR_FRCP1	Flow	Partially frozen – flow measurement not possible
Compliance Point	03/17/2017	E291569	WL_BFWB_OUT_SP21	TSS and all field parameters	No flow present
Compliance Point	03/18/2017	E291569	WL_BFWB_OUT_SP21	TSS and all field parameters	No flow present
Compliance Point	03/19/2017	E291569	WL_BFWB_OUT_SP21	TSS and all field parameters	No flow present
Compliance Point	5/23/2017	E300071	FR_FRCP1	Flow	Field measurement unsafe due to flow intensity during freshet
Compliance Point	5/30/2017	E300071	FR_FRCP1	Flow	Field measurement unsafe due to flow intensity during freshet
Compliance Point	6/6/2017	E300071	FR_FRCP1	Flow	Field measurement unsafe due to flow intensity during freshet
Compliance Point	6/13/2017	E300071	FR_FRCP1	Flow	Field measurement unsafe due to flow intensity during freshet
Compliance Point	6/21/2017	E2951569	WL_BFWB_OUT_SP21	TSS, Turbidity	WLC AWTF was in recirculation for scheduled maintenance. There was no flow/decant at this location during the maintenance period.
Compliance Point	July 15, 2017	E2951569	WL_BFWB_OUT_SP21	TSS, Turbidity	WLC AWTF was put into recirculation and there was no flow/decant at this location during this period.
Compliance Point	July 16, 2017	E2951569	WL_BFWB_OUT_SP21	TSS, Turbidity	WLC AWTF was put into recirculation and there was no flow/decant at this location during this period.
Compliance Point	10/17/2017	E2951569	WL_BFWB_OUT_SP21	TSS, Turbidity	WLC AWTF was put into recirculation and there was no flow/decant at this location.
Compliance Point	12/5/2017	E300071	FR_FRCP1	Flow	Unable to obtain flows due to ice buildup on channel

Location Type/Operation	Date	EMS ID	Location Code	Parameters	Reason
Compliance Point	12/12/2017	E300071	FR_FRCP1	Flow	Unable to obtain flows due to ice buildup on channel.
Compliance Point	12/28/2017	E300071	FR_FRCP1	Flow	Unable to obtain flows due to ice buildup on channel.
Compliance Point	December 2017	0200251	FR_FR1	Water Quality	Zero Flow
Compliance Point	12/21/2017	E300096	FR_HC3	Flow	Unable to obtain flows due to ice buildup on channel
Compliance Point	October 2017	E306924	FR_LMP1	Water Quality	Zero Flow
Compliance Point	October 2017	E304835	FR_LP1	Water Quality	Zero Flow
Elkview Operations	1/10/2017	E210369	EV_AQ1	Flow and Water Quality	No Flow. No Decant
Elkview Operations	2/8/2017	E210369	EV_AQ1	Flow and Water Quality	No Flow. No Decant
Elkview Operations	2/16/2017	E302170	EV_AQ6	Flow	Flow was not attainable due to ice build-up in weir box which prevented a staff gauge reading from being taken. A manual flow was not possible due to field staff not being able to safely walk out on potentially unsafe ice to collect a manual flow
Elkview Operations	1/10/2017	E102685	EV_BC1	Flow and Water Quality	No Flow. No Decant
Elkview Operations	2/7/2017	E102685	EV_BC1	Flow and Water Quality	No Flow. No Decant
Elkview Operations	3/16/2017	E102685	EV_BC1	TSS/Turbidity and Flow	No Flow. No Decant
Elkview Operations	1/9/2017	E298591	EV_FC1	Flow and Water Quality	No Flow. No Decant
Elkview Operations	2/19/2017	E298591	EV_FC1	Flow and Water Quality	No Flow. No Decant
Elkview Operations	1/18/2017	E298593	EV_TC1	Flow and Water Quality	No Flow. No Decant
Elkview Operations	2/23/2017	E298593	EV_TC1	Flow and Water Quality	No Flow. No Decant
Elkview Operations	4/4/2017	E302170	EV_AQ6	Flow	Excessive ice buildup in the weir box resulted in an unreliable flow measurement.
Elkview Operations	4/26/2017	E102685	EV_BC1	TSS/Flow	No Flow. No Decant
Elkview Operations	6/28/2017	E298593	EV_TC1	TSS	No Flow. No Decant
Elkview Operations	Q3	E298593	EV_TC1	All parameters	No Flow. No Decant
Elkview Operations	9/12/2017	E102685	EV_BC1	All parameters	No Flow. No Decant
Elkview Operations	10/3/2017	E298593	EV_TC1	All	No Flow. No Decant
Elkview Operations	11/15/2017	E298593	EV_TC1	All	No Flow. No Decant

Location Type/Operation	Date	EMS ID	Location Code	Parameters	Reason
Elkview Operations	12/6/2017	E298593	EV_TC1	All	No Flow. No Decant
Fording River Operations	January 2017	E102480	FR_EC1	Water Quality	Zero Flow
Fording River Operations	February 2017	E102480	FR_EC1	Water Quality	Zero Flow
Fording River Operations	03/13/2017	E102480	FR_EC1	Water Quality	Zero Flow
Fording River Operations	01/19/2017	E105060	FR_NGD1	Flow	Partially frozen – flow measurement not possible
Fording River Operations	02/15/2017	E105060	FR_NGD1	Flow	Partially frozen – flow measurement not possible
Fording River Operations	January 2017	E102476	FR_NL1	Water Quality	Zero Flow
Fording River Operations	February 2017	E102476	FR_NL1	Water Quality	Zero Flow
Fording River Operations	January 2017	0200251	FR_FR1	Water Quality	Zero Flow
Fording River Operations	February 2017	0200251	FR_FR1	Water Quality	Zero Flow
Fording River Operations	03/27/2017	0200251	FR_FR1	Flow	Partially frozen – flow measurement not possible
Fording River Operations	January 2017	0200201	FR_FR2	Flow	Partially frozen – flow measurement not possible
Fording River Operations	February 2017	0200201	FR_FR2	Flow	Partially frozen – flow measurement not possible
Fording River Operations	03/09/2017	0200201	FR_FR2	Flow	Partially frozen – flow measurement not possible
Fording River Operations	January 2017	E296351	FR_WWC1	Water Quality	Zero Flow
Fording River Operations	February 2017	E296351	FR_WWC1	Water Quality	Zero Flow
Fording River Operations	Q-1	E217403	FR_3PIT	Water Quality	Zero Flow
Fording River Operations	Q-1	E216781	FR_HP1	Water Quality	Zero Flow
Fording River Operations	Q-1	E102478	FR_MS1	Water Quality	Zero Flow
Fording River Operations	Q-1	E208394	FR_SKP1	Water Quality	Zero Flow
Fording River Operations	Q-1	E208395	FR_SKP2	Water Quality	Zero Flow
Fording River Operations	Q-1	E102475	FR_TP1	Water Quality	Zero Flow
Fording River Operations	1/16/2017	E295214	RG_CH1	Flow	Partially frozen, measurement unattainable
Fording River Operations	2/1/2017	E295214	RG_CH1	Flow	Partially frozen, measurement unattainable
Fording River Operations	3/2/2017	E295214	RG_CH1	Flow	Partially frozen, measurement unattainable
Fording River Operations	4/3/2017	E208395	FR_SKP2	Water Quality	No discharge
Fording River Operations	4/10/2017	E208395	FR_SKP2	Water Quality	No discharge
Fording River Operations	4/17/2017	E208395	FR_SKP2	Water Quality	No discharge

Location Type/Operation	Date	EMS ID	Location Code	Parameters	Reason
Fording River Operations	4/24/2017	E208395	FR_SKP2	Water Quality	No discharge
Fording River Operations	5/2/2017	E208395	FR_SKP2	Water Quality	No discharge
Fording River Operations	5/9/2017	E208395	FR_SKP2	Water Quality	No discharge
Fording River Operations	5/16/2017	E208395	FR_SKP2	Water Quality	No discharge
Fording River Operations	5/23/2017	E208395	FR_SKP2	Water Quality	No discharge
Fording River Operations	6/27/2017	E208395	FR_SKP2	Water Quality	No discharge
Fording River Operations	4/18/2017	E102476	FR_NL1	Water Quality	No discharge
Fording River Operations	4/25/2017	E102476	FR_NL1	Water Quality	No discharge
Fording River Operations	5/1/2017	E102476	FR_NL1	Water Quality	No discharge
Fording River Operations	5/8/2017	E102476	FR_NL1	Water Quality	No discharge
Fording River Operations	5/17/2017	E102476	FR_NL1	Water Quality	No discharge
Fording River Operations	5/25/2017	E102476	FR_NL1	Water Quality	No discharge
Fording River Operations	5/29/2017	E102476	FR_NL1	Water Quality	No discharge
Fording River Operations	6/5/2017	E102476	FR_NL1	Water Quality	No discharge
Fording River Operations	6/16/2017	E102476	FR_NL1	Water Quality	No discharge
Fording River Operations	6/22/2017	E102476	FR_NL1	Water Quality	No discharge
Fording River Operations	6/26/2017	E102476	FR_NL1	Water Quality	No discharge
Fording River Operations	Q-2	E208394	FR_SKP1	Water Quality	No discharge
Fording River Operations	Q-2	E102478	FR_MS1	Water Quality	No discharge
Fording River Operations	Q-2	E216781	FR_HP1	Water Quality	No active pumping
Fording River Operations	Q-2	E217403	FR_3Pit	Water Quality	No active pumping
Fording River Operations	Q-2	E102475	FR_TP1	Water Quality	No active pumping
Fording River Operations	8/7/2017	E296351	FR_WWC1	Water Quality	No discharge
Fording River Operations	8/7/2017	E102480	FR_EC1	Water Quality	No discharge
Fording River Operations	9/25/2017	E102480	FR_EC1	Water Quality	No discharge
Fording River Operations	9/25/2017	E304835	FR_LP1	Water Quality	No discharge
Fording River Operations	Q-3	E102478	FR_MS1	Water Quality	No discharge
Fording River Operations	Q-3	E102476	FR_NL1	Water Quality	No discharge
Fording River Operations	Q-3	E208394	FR_SKP1	Water Quality	No discharge
Fording River Operations	Q-3	E208395	FR_SKP2	Water Quality	No discharge

Location Type/Operation	Date	EMS ID	Location Code	Parameters	Reason
Fording River Operations	Q-3	E102475	FR_TP1	Water Quality	No active pumping
Fording River Operations	Q-3	E216781	FR_HP1	Water Quality	No active pumping
Fording River Operations	Q-3	E217403	FR_3Pit	Water Quality	No active pumping
Fording River Operations	October 2017	E102480	FR_EC1	Water Quality	Zero Flow
Fording River Operations	October 2017	E102476	FR_NL1	Water Quality	Zero Flow
Fording River Operations	11/7/2017	0200201	FR_UFR1	Flow	Unable to obtain flows due to ice buildup on channel
Fording River Operations	12/21/2017	0200201	FR_UFR1	Flow	Unable to obtain flows due to ice buildup on channel
Fording River Operations	October 2017	E296351	FR_WWC1	Water Quality	Zero Flow
Fording River Operations	December 2017	E296351	FR_WWC1	Water Quality	Zero Flow
Fording River Operations	Q4	E102478	FR_MS1	Water Quality	Zero Flow
Fording River Operations	Q4	E208394	FR_SKP1	Water Quality	Zero Flow
Fording River Operations	Q4	E208395	FR_SKP2	Water Quality	Zero Flow
Fording River Operations	Q4	E102475	FR_TP1	Water Quality	Zero Flow
Fording River Operations	Q4	E216781	FR_HP1	Water Quality	Zero Flow
Fording River Operations	Q4	E217403	FR_3Pit	Water Quality	Zero Flow
Greenhills Operations	01/10/2017	E102714	GH_TC1	Flow	Ice buildup in culvert did not allow for an accurate flow measurement
Greenhills Operations	01/16/2017	E305878	GH_ERSC4	Flow	Flow unattainable due to thick ice buildup on open channel
Greenhills Operations	01/16/2017	E305876	GH_ER1A	Flow	Flow unattainable due to thick ice buildup on open channel
Greenhills Operations	02/15/2017	E305876	GH_ER1A	Flow	Flow unattainable due to thick ice buildup on open channel
Greenhills Operations	02/15/2017	E305878	GH_ERSC4	Flow	Flow unattainable due to thick ice buildup on open channel
Greenhills Operations	02/15/2017	E102714	GH_TC1	Flow	Ice buildup in culvert did not allow for an accurate flow measurement
Greenhills Operations	03/06/2017	E102714	GH_TC1	Flow	Ice buildup in culvert did not allow for an accurate flow measurement
Greenhills Operations	03/16/2017	E102714	GH_TC1	Flow	Ice buildup in culvert did not allow for an accurate flow measurement
Greenhills Operations	03/21/2017	E102714	GH_TC1	Flow	Ice buildup in culvert did not allow for an accurate flow measurement

Location Type/Operation	Date	EMS ID	Location Code	Parameters	Reason
Greenhills Operations	4/4/2017	E305876	GH_ER1A	Flow	Flow unattainable due to excessive ice.
Greenhills Operations	4/10/2017	E305876	GH_ER1A	Flow	Thick ice on bank, unsafe to enter stream
Greenhills Operations	4/10/2017	E305878	GH_ERSC4	Flow	Flow unattainable due to excessive ice.
Greenhills Operations	5/10/2017	E305878	GH_ERSC4	Flow	Water level too high, unsafe to take flow.
Greenhills Operations	5/15/2017	E305876	GH_ER1A	Flow	Water level too high, unsafe to take flow.
Greenhills Operations	5/15/2017	E305878	GH_ERSC4	Flow	Water level too high, unsafe to take flow.
Greenhills Operations	5/24/2017	E305876	GH_ER1A	Flow	Water level too high, unsafe to take flow.
Greenhills Operations	5/24/2017	E305877	GH_ERSC2	Flow	Unable to take flow due to high water level, water flowing above channel and through forest.
Greenhills Operations	5/24/2017	E305878	GH_ERSC4	Flow	Water level too high, unsafe to take flow.
Greenhills Operations	5/29/2017	E305876	GH_ER1A	Flow	Water level too high, unsafe to take flow.
Greenhills Operations	5/29/2017	E305877	GH_ERSC2	Flow	Unable to take flow due to high water level, water flowing above channel and through forest.
Greenhills Operations	5/29/2017	E305878	GH_ERSC4	Flow	Water level too high, unsafe to take flow.
Greenhills Operations	6/6/2017	E305878	GH_ERSC4	Flow	Water level too high, unsafe to take flow.
Greenhills Operations	6/6/2017	E305876	GH_ER1A	Flow	Water level too high, unsafe to take flow.
Greenhills Operations	6/7/2017	E305877	GH_ERSC2	Flow	Unable to take flow due to high water level, water flowing above channel and through forest.
Greenhills Operations	6/12/2017	E305876	GH_ER1A	Flow	Water level too high, unsafe to take flow.
Greenhills Operations	6/12/2017	E305877	GH_ERSC2	Flow	Water flowing through forest, not contained in channel.
Greenhills Operations	6/12/2017	E305878	GH_ERSC4	Flow	Unable to take flow due to high water level, water flowing above channel and through forest.
Greenhills Operations	6/19/2017	E305876	GH_ER1A	Flow	Water level too high, unsafe to take flow.
Greenhills Operations	6/19/2017	E305877	GH_ERSC2	Flow	Water flowing through forest, not contained in channel.
Greenhills Operations	6/19/2017	E305878	GH_ERSC4	Flow	Unable to take flow due to high water level, water flowing above channel and through forest.
Greenhills Operations	6/27/2017	E305876	GH_ER1A	Flow	Water level too high, unsafe to take flow.

Location Type/Operation	Date	EMS ID	Location Code	Parameters	Reason
Greenhills Operations	6/27/2017	E305878	GH_ERSC4	Flow	Unable to take flow due to high water level, water flowing above channel and through forest.
Greenhills Operations	4/5/2017	E295214	RG_CH1	Flow	Partially Frozen, measurement unattainable
Greenhills Operations	7/4/2017	E305876	GH_ER1A	Flow	Water level too high, unsafe to access area to take flow.
Greenhills Operations	7/4/2017	E305878	GH_ERSC4	Flow	Water level too high, unsafe to access area to take flow.
Greenhills Operations	7/10/2017	E305878	GH_ERSC4	Flow	Water level too high, unsafe to access area to take flow.
Greenhills Operations	7/11/2017	E305876	GH_ER1A	Flow	Water level too high, unsafe to access area to take flow.
Greenhills Operations	12/12/2017	E305878	GH_ERSC4	Flow	Unable to obtain flows due to ice buildup in the channel.
Greenhills Operations	12/12/2017	E102714	GH_TC1	Flow	Unable to obtain flows due to ice buildup in the channel.
Greenhills Operations	11/28/2017	E305876	GH_ER1A	Flow	Unable to obtain flows due to ice buildup in the channel.
Line Creek Operations	1/9/2017	E216144	LC_LC7	Water Quality	Zero Flow
Line Creek Operations	1/9/2017	E221268	LC_LC9	Water Quality	Zero Flow
Line Creek Operations	2/14/2017	E216144	LC_LC7	Water Quality	Zero Flow
Line Creek Operations	2/14/2017	E221268	LC_LC9	Water Quality	Zero Flow
Line Creek Operations	Q1	E219411	LC_LC8	Water Quality	Zero Flow
Line Creek Operations	Q1	E293369	LC_LC1	Water Quality	Zero Flow
Line Creek Operations	Q1	E223240	LC_LC12	Water Quality	Zero Flow
Line Creek Operations	03/17/2017	E293370	WL_LCI_SP02	TSS and all field parameters	No flow present
Line Creek Operations	03/17/2017	E293371	WL_WLCI_SP01	TSS and all field parameters	No flow present
Line Creek Operations	03/18/2017	E293370	WL_LCI_SP02	TSS and all field parameters	No flow present
Line Creek Operations	03/18/2017	E293371	WL_WLCI_SP01	TSS and all field parameters	No flow present
Line Creek Operations	03/19/2017	E293370	WL_LCI_SP02	TSS and all field parameters	No flow present
Line Creek Operations	03/19/2017	E293371	WL_WLCI_SP01	TSS and all field parameters	No flow present
Line Creek Operations	1/10/2017	E295213	LC_UC	Water Quality	Zero flow
Line Creek Operations	2/15/2017	E295213	LC_UC	Flow	Ice buildup in culvert did not allow for an accurate flow measurement

Location Type/Operation	Date	EMS ID	Location Code	Parameters	Reason
Line Creek Operations	3/7/2017	E295213	LC_UC	Flow	Ice buildup in culvert did not allow for an accurate flow measurement
Line Creek Operations	April	E223240	LC_LC12	Water Quality	Zero Flow
Line Creek Operations	5/1/2017	E223240	LC_LC12	Water Quality	Zero Flow
Line Creek Operations	4/5/2017	E293369	LC_LC1	Water Quality	Zero Flow
Line Creek Operations	4/11/2017	E293369	LC_LC1	Water Quality	Zero Flow
Line Creek Operations	4/20/2017	E293369	LC_LC1	Water Quality	Zero Flow
Line Creek Operations	Q2	E219411	LC_LC8	Water Quality	Zero Flow
Line Creek Operations	4/11/2017	E221268	LC_LC9	Water Quality	Zero Flow
Line Creek Operations	4/18/2017	E221268	LC_LC9	Water Quality	Zero Flow
Line Creek Operations	4/25/2017	E221268	LC_LC9	Water Quality	Zero Flow
Line Creek Operations	May	E221268	LC_LC9	Water Quality	Zero Flow
Line Creek Operations	June	E221268	LC_LC9	Water Quality	Zero Flow
Line Creek Operations	6/20/2017	E293371	WL_WCLI_SP01	TSS, Turbidity	Plant was down for scheduled maintenance.
Line Creek Operations	6/20/2017	E293370	WL_LCI_SP02	TSS, Turbidity	Plant was down for scheduled maintenance.
Line Creek Operations	6/21/2017	E293371	WL_WCLI_SP01	TSS, Turbidity	Plant was down for scheduled maintenance.
Line Creek Operations	6/21/2017	E293370	WL_LCI_SP02	TSS, Turbidity	Plant was down for scheduled maintenance.
Line Creek Operations	August	E223240	LC_LC12	Water Quality	Zero Flow
Line Creek Operations	September	E223240	LC_LC12	Water Quality	Zero Flow
Line Creek Operations	Q3	E219411	LC_LC8	Water Quality/Acute Toxicity	Zero Flow
Line Creek Operations	Q3	E221268	LC_LC9	Water Quality/Acute Toxicity	Zero Flow
Line Creek Operations	September	E288269	LC_SBPIN	Water Quality	Zero Flow
Line Creek Operations	15-Jul-17	E293371	WL_WCLI_SP01	TSS, Turbidity	WLC AWTF was put into recirculation and there was no flow/decant at this location.
Line Creek Operations	15-Jul-17	E293370	WL_LCI_SP02	TSS, Turbidity	WLC AWTF was put into recirculation and there was no flow/decant at this location.
Line Creek Operations	16-Jul-17	E293371	WL_WCLI_SP01	TSS, Turbidity	WLC AWTF was put into recirculation and there was no flow/decant at this location.

Location Type/Operation	Date	EMS ID	Location Code	Parameters	Reason
Line Creek Operations	16-Jul-17	E293370	WL_LCI_SP02	TSS, Turbidity	WLC AWTF was put into recirculation and there was no flow/decant at this location.
Line Creek Operations	Q4 2017	E223240	LC_LC12	Water Quality	Zero Flow
Line Creek Operations	Q4 2017	E219411	LC_LC8	Water Quality	Zero Flow
Line Creek Operations	Q4 2017	E221268	LC_LC9	Water Quality / Acute Toxicity	Zero Flow
Line Creek Operations	Q4 2017	E288269	LC_SBPIN	Water Quality	Zero Flow
Order Station	Q1	E300230	RG_DSELK	All	Ice unsafe, no access to site
Regional	Q1	E300094	RG_BORDER	All	Ice unsafe no access to site
Regional	Q1	E300092	RG_GRASMERE	All	Ice unsafe no access to site
Regional	Q1	E300095	RG_KERRRD	All	Ice unsafe no access to site
Regional	Q1	E300093	RG_USGOLD	All	Ice unsafe no access to site

Appendix B – Sample Requirements

Table B-7. Summary of Surface Water Monitoring Program for Compliance Stations.

MONITORING SITES – COMPLIANCE POINTS							
Site ID	FR_FRCPI	GH_FR1	GH_ERC	LC_LCDSSLCC	EV_HC1	EV_MC2	CM_MC2
<i>EMS Number</i>	<i>E300071</i>	<i>0200378</i>	<i>E300090</i>	<i>E297110</i>	<i>E102682</i>	<i>E300091</i>	<i>E258937</i>
MONITORING FREQUENCY							
Field Parameters ^(a)	W/M	W/M	W/M	W/M	W/M	W/M	W/M
Conventional Parameters ^(b)	W/M	W/M	W/M	W/M	W/M	W/M	W/M
Major Ions ^(c)	W/M	W/M	W/M	W/M	W/M	W/M	W/M
Nutrients ^(d)	W/M	W/M	W/M	W/M	W/M	W/M	W/M
Total and Dissolved Metals Scans ^(e)	W/M	W/M	W/M	W/M	W/M	W/M	W/M
BOD	-	-	-	M	-	-	-
Flow ^(f)	C	W/M	W/M	See foot note 2	W/M	C	W/M
Chlorophyll- <i>a</i>	-	-	-	Three times annually, between July 15 & Sept 30 annually	-	-	-
Total Phosphorus	-	-	-	Every two weeks beginning Jun 15 through Sept 30, annually	-	-	-
7 day <i>Ceriodaphnia dubia</i> chronic toxicity (EPSI/RM/21) water-only endpoints: survival, reproduction	Q	Q	Q	Q	Q	Q	Q
72 Hr <i>Pseudokichneriella subcapitata</i> (EPSI/RM/25) endpoints: growth, inhibition	Q	Q	Q	Q	Q	Q	Q
30-day early life-stage test - rainbow trout (<i>Oncorhynchus mykiss</i> ; EPSI/RM/28) using <24-hour post-fertilization eggs; endpoints: survival, hatching, growth, deformity, behaviour	2 times per year – once in Spring and once in Fall	2 times per year – once in Spring and once in Fall	2 times per year – once in Spring and once in Fall	2 times per year – once in Spring and once in Fall	2 times per year – once in Spring and once in Fall	2 times per year – once in Spring and once in Fall	2 times per year – once in Spring and once in Fall
30-day early life-stage test with the fathead minnow (<i>Pimephales promelas</i> ; USEPA 1996) using <24-hour post-fertilization eggs; endpoints: survival, hatching, growth, deformity	Q	Q	-	-	-	-	Q
28-day water-only test with amphipod, <i>Hyalella Azteca</i> (adapted from USEPA 2000) endpoints: survival, growth	Q	Q	-	-	-	-	Q

Table B-8. Summary of Surface Water Monitoring Program for Order Stations.

MONITORING SITES – ORDER STATIONS							
Site ID	GH_FR1 FR4	FR5 LC_LC5	ER1 GH_ER1	ER2 EV_ER4	ER3 EV_ER1	ER4 RG_ELKORES	LK2 RG_DSELK
<i>EMS Number</i>	0200378	0200028	E206661	0200027	0200393	E294912	E300230
MONITORING FREQUENCY							
Field Parameters ^(a)	W/M	W/M	W/M	W/M	W/M	W/M	M
Conventional Parameters ^(b)	W/M	W/M	W/M	W/M	W/M	W/M	M/EH
Major Ions ^(c)	W/M	W/M	W/M	W/M	W/M	W/M	M/EH
Nutrients ^(d)	W/M	W/M	W/M	W/M	W/M	W/M	M/EH
Total and Dissolved Metals Scan ^(e)	W/M	W/M	W/M	W/M	W/M	W/M	M/EH
Flow ^(f)	W/M	W/M	W/M	W/M	W/M	-	-
Secchi depth and chlorophyll-a	-	-	-	-	-	-	M

Table B-9. Summary of Surface Water Monitoring Program for Kooconusa Reservoir Receiving Environment Stations.

MONITORING SITES – KOOCANUSA RESERVOIR				
Site ID	RG_KERRRD	RG_GRASMERE	RG_USGOLD	RG_BORDER
<i>EMS Number</i>	E300095	E300092	E300093	E300094
MONITORING FREQUENCY				
Field Parameters ^(a)	M	M	M	M
Conventional Parameters ^(b)	M/EH	M/EH	M/EH	M
Major Ions ^(c)	M/EH	M/EH	M/EH	M
Nutrients ^(d)	M/EH	M/EH	M/EH	M
Total and Dissolved Metals Scan ^(e)	M/EH	M/EH	M/EH	M
Secchi depth and chlorophyll-a	M	M	M	M

Table B-10a. Summary of Surface Water Monitoring Program for Fording River Operations.

MINE SURFACE WATER DISCHARGE AND OTHER MONITORING SITES																	
Site ID	TP1	TP3	NL1	MS1	EC1	FR_CC1	SKP1	SKP2	HP1	SP1	3PIT	SC1	SC2	GH_CC1	LP1	PP1	LMP1
<i>EMS Number</i>	<i>E102475</i>	<i>E206660</i>	<i>E102476</i>	<i>E102478</i>	<i>E102480</i>	<i>E102481</i>	<i>E208394</i>	<i>E208395</i>	<i>E216781</i>	<i>E261897</i>	<i>E217403</i>	<i>E221329</i>	<i>E105061</i>	<i>E0200384</i>	<i>E304835</i>	<i>E304750</i>	<i>E306924</i>
MONITORING FREQUENCY																	
Field Parameters (a)	-	-	M	M	M	M	M	M	M	M	M	M	Ma	M	M	M	M
Conventional Parameters (b)	SA	SA	M	M	M	M	M	M	M	M	M	M	Ma	M	M	M	M
Major Ions (c)	SA	SA	M	M	M	M	M	M	M	M	M	M	Ma	M	M	M	M
Nutrients (d)	SA	SA	M	M	M	M	M	M	M	M	M	M	Ma	M	M	M	M
Total and Dissolved Metals Scan (e)	SA	SA	M	M	M	M	M	M	M	M	M	M	Ma	M	M	M	M
96 hour Rainbow Trout single concentration toxicity test (g)	-	-	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	-	Q	Q	-	Q
48 hour <i>Daphnia magna</i> single concentration toxicity (g)	-	-	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	-	Q	Q	-	Q

Table B-10b. Summary of Surface Water Monitoring Program for Fording River Operations.

MINE RECEIVING ENVIRONMENT MONITORING SITES					OTHER STATION MONITORING			
Site ID	FR2	FR1	UFR1	HC1	HC3	FRRD	KC1	FRNTP
<i>EMS Number</i>	<i>0200201</i>	<i>0200251</i>	<i>E216777</i>	<i>E216778</i>	<i>E300096</i>	<i>E300097</i>	<i>0200252</i>	-
MONITORING FREQUENCY								
Field Parameters (a)	W/M	M	M	W/M	M	M	M	-
Conventional Parameters (b)	W/M	M	M	W/M	M	M	M	-
Major Ions (c)	W/M	M	M	W/M	M	M	M	-
Nutrients (d)	W/M	M	M	W/M	M	M	M	-
Total and Dissolved Metals Scan (e)	W/M	M	M	W/M	M	M	M	-
Flow (f)	W/M	C	C	C	M	M	C	C

Table B-11a. Summary of Surface Water Monitoring Program for Greenhills Operations.

MINE SURFACE WATER DISCHARGE MONITORING SITES											
Site ID	TPS	GH1	TC2	PC1	WC1	LC1	RLP	MC1	WADE	WOLF_SP1	WILLOW_SP1
EMS Number	<i>E287438</i>	<i>E102709</i>	<i>E207436</i>	<i>0200385</i>	<i>E257795</i>	<i>E257796</i>	<i>E207437</i>	<i>0200388</i>	<i>E287433</i>	<i>E305855</i>	<i>E305854</i>
MONITORING FREQUENCY											
Field Parameters (a)	-	M	M	M	M	M	M	M	M	M	M
Conventional Parameters (b)	SA	M	M	M	M	M	M	M	M	M	M
Major Ions (c)	SA	M	M	M	M	M	M	M	M	M	M
Nutrients (d)	SA	M	M	M	M	M	M	M	M	M	M
Total and Dissolved Metals Scan (e)	SA	M	M	M	M	M	M	M	M	M	M
96 hour Rainbow Trout single concentration toxicity test	-	Q	Q	Q	Q	Q	-	-	Q	Q	Q
48 hour <i>Daphnia magna</i> single concentration toxicity	-	Q	Q	Q	Q	Q	-	-	Q	Q	Q
Flow(f)	-	C	-	-	-	-	-	-	-	-	-

Table B-11b. Summary of Surface Water Monitoring Program for Greenhills Operations.

RECEIVING ENVIRONMENT MONITORING SITES									
Site ID	ER2	TC1	COUGAR	BR_F	NNC	ER1A	ERSC2	ERSC4	GH2
EMS Number	0200389	<i>E102714</i>	<i>E287432</i>	<i>E287437</i>	<i>E305875</i>	<i>E305876</i>	<i>E305877</i>	<i>E305878</i>	E309911
MONITORING FREQUENCY									
Field Parameters(a)	M	M	M	M	M	M	M	M	M
Conventional Parameters (b)	M	M	M	M	M	M	M	M	M
Major Ions (c)	M	M	M	M	M	M	M	M	M
Nutrients (d)	M	M	M	M	M	M	M	M	M
Total and Dissolved Metals Scan (e)	M	M	M	M	M	M	M	M	M
96 hour Rainbow Trout single concentration	-	Q	-	-	-	-	-	-	Q
48 hour <i>Daphnia magna</i> single concentration	-	Q	-	-	-	-	-	-	Q
Flow (f)	-	-	-	-	-	-	-	-	-

Table B-12a. Summary of Surface Water Monitoring Program for Line Creek Operations.

MINE SURFACE WATER DISCHARGE MONITORING SITES			
Site ID	LC9	LC7	LC8
<i>EMS Number</i>	<i>E221268</i>	<i>E216144</i>	<i>E219411</i>
MONITORING FREQUENCY			
Field Parameters (a)	M	M	M
Conventional Parameters (b)	M	M	M
Major Ions (c)	M	M	M
Nutrients (d)	M	M	M
Total and Dissolved Metals Scan (e)	M	M	M
96 hour Rainbow Trout single concentration toxicity test (g)	Q	Q	-
48 hour <i>Daphnia magna</i> single concentration toxicity (g)	Q	Q	-

Table B-12b. Summary of Surface Water Monitoring Program for Line Creek Operations.

MINE SURFACE WATER DISCHARGE MONITORING SITES			
Site ID	WL_WLCL_SP01	WL_LCL_SP01	WL_BFWB_OUT_SP21
<i>EMS Number</i>	<i>E293371</i>	<i>E293370</i>	<i>E291569</i>
MONITORING FREQUENCY			
TSS & Turbidity (field parameters) 3	D	D	D
BOD	-	-	3X/W
Total Selenium	-	-	3X/W
Selenium Speciation (selenate and selenite)	-	-	M
Field Parameters (a)	D	D	D
Conventional Parameters (b)	M	M	M
Major Ions (c)	M	M	M
Nutrients (d)	M	M	M
Nitrate (Teck Internal Lab Results for this line only)	W	W	W
Sulphide	-	-	M
Total and Dissolved Metals Scan (e)	M	M	M
Flow (f)	C	C	C
96 hour Rainbow Trout single concentration toxicity test (g)	-	-	Q*
48 hour <i>Daphnia magna</i> single concentration toxicity (g)	-	-	Q*

Table B-12c. Summary of Surface Water Monitoring Program for Line Creek Operations.

RECEIVING ENVIRONMENT MONITORING SITES								
Site ID	LC4	LC3	LC2	LCUSWLC	LC1	SLC	WLC	LC12
<i>EMS Number</i>	<i>0200044</i>	<i>0200337</i>	<i>0200335</i>	<i>E293369</i>	<i>E216142</i>	<i>E282149</i>	<i>E261958</i>	<i>E223240</i>
MONITORING FREQUENCY								
Field Parameters ^(a)	W/M	W/M	M	M	M	M	M	M
Conventional Parameters ^(b)	W/M	W/M	M	M	M	M	M	M
Major Ions ^(c)	W/M	W/M	M	M	M	M	M	M
Nutrients ^(d)	W/M	W/M	M	M	M	M	M	M
Nitrate	-	-	-	W	-	-	W	-
Total and Dissolved Metals Scan ^(e)	W/M	W/M	M	M	M	M	M	M
BOD	-	W/M	M	M	-	M	-	-
Sulphide	-	W/M	-	-	-	-	-	-
Flow ^(f)	C*	C	C	-	-	M	C	-

Table B-13a. Summary of Surface Water Monitoring Program for Elkview Operations.

MINE SURFACE WATER DISCHARGE MONITORING SITES							
Site ID	GH1	EC1	SP1	MG1	GT1	BC1	AQ6
EMS Number	<i>E296310</i>	<i>0200097</i>	<i>E296311</i>	<i>E208057</i>	<i>E206231</i>	<i>E102685</i>	<i>E302170</i>
MONITORING FREQUENCY							
Field Parameters (a)	SA	M	M	M	M	M	M
Conventional Parameters (b)	SA	M	M	M	M	M	M
Major Ions (c)	SA	M	M	M	M	M	M
Nutrients (d)	SA	M	M	M	M	M	M
Total and Dissolved Metals Scan (e)	SA	M	M	M	M	M	M
96 hour Rainbow Trout single concentration toxicity test (g)	-	Q	Q	Q	Q	Q	Q
48 hour <i>Daphnia magna</i> single concentration toxicity (g)	-	Q	Q	Q	Q	Q	Q
Flow (f)	-	W	C	-	-	-	-

Table B-13b. Summary of Surface Water Monitoring Program for Elkview Operations.

MINE SURFACE WATER DISCHARGE MONITORING SITES					
Site ID	OC1	GC2	LC1	DC1	SM1
EMS Number	<i>E102679</i>	<i>E208043</i>	<i>E258135</i>	<i>E298590</i>	<i>E102681</i>
MONITORING FREQUENCY					
Field Parameters (a)	M	M	M	M	M
Conventional Parameters (b)	M	M	M	M	M
Major Ions (c)	M	M	M	M	M
Nutrients (d)	M	M	M	M	M
Total and Dissolved Metals Scan (e)	M	M	M	M	M
96 hour Rainbow Trout single concentration toxicity test (g)	Q	Q	Q	Q	Q
48 hour <i>Daphnia magna</i> single concentration toxicity (g)	Q	Q	Q	Q	Q
Flow (f)	-	-	-	C	-

Table B-13c. Summary of Surface Water Monitoring Program for Elkview Operations.

RECEIVING ENVIRONMENT MONITORING SITES				OTHER STATION MONITORING		
Site ID	MC3	ER2	BLM2	FC1	SPR2	TC1
EMS Number	<i>0200203</i>	<i>0200111</i>	<i>E298592</i>	<i>E298591</i>	<i>E298594</i>	<i>E298593</i>
MONITORING FREQUENCY						
Field Parameters(a)	W/M	M	M	M	M	M
Conventional Parameters (b)	W/M	M	M	M	M	M
Major Ions (c)	W/M	M	M	M	M	M
Nutrients (d)	W/M	M	M	M	M	M
Total and Dissolved Metals Scan (e)	W/M	M	M	M	M	M
Flow (f)	-	-	M	M	M	M

Table B-14. Summary of Surface Water Monitoring Program for Coal Mountain Operations.

MINE SURFACE WATER DISCHARGE MONITORING SITES				
Site ID	SPD	CCPD	PC2	SOW
<i>EMS Number</i>	E102488	E206438	E298733	E298734
MONITORING FREQUENCY				
Field Parameters (a)	M	M	M	M
Conventional Parameters (b)	M	M	M	M
Major Ions (c)	M	M	M	M
Nutrients (d)	M	M	M	M
Total Metals Scan (e)	M	M	M	M
96 hour Rainbow Trout single concentration toxicity test (g)	Q	Q	Q	-
48 hour LT ₅₀ <i>Daphnia magna</i> single concentration toxicity test (g)	Q	Q	Q	-

Table B-15. Summary of Surface Water Monitoring Program for Coal Mountain Operations.

RECEIVING ENVIRONMENT MONITORING SITES		
Site ID	MC1	CC1
<i>EMS Number</i>	E258175	0200209
MONITORING FREQUENCY		
Field Parameters(a)	M	W/M
Conventional Parameters (b)	M	W/M
Major Ions (c)	M	W/M
Nutrients (d)	M	W/M
Total Metals Scan (e)	M	W/M

Table B-16. Monitoring Program Notes and Explanations.

Abbreviations for Surface Water Monitoring Program	
3X/W	Sampling three times per week
C	Continuous Monitoring refer to (f) Table 25
D	Daily frequency
M	Monthly frequency
Ma	Monthly alternative sample location for Swift Creek Sed Pond. Either E221329 or E105061 is sampled, not both.
M/EH	Monthly frequency of one epilimnetic composite of water sampled from three depths (e.g. 1m, 5m,10m) and another hypolimnetic composite of water sampled from three depths (e.g. 20m,32m,45m)
Q	Quarterly frequency
Q*	Toxicity testing done weekly until one year after commissioning is completed, at which time testing must be done quarterly.
SA	Semi-Annual frequency (twice per year), SA sampling schedules must coincide with the monthly sampling schedule for sampling locations where both sampling frequencies are required.
W/M	Weekly frequency March 15 – July 15, monthly during the rest of the year.
BOD	5-day Biochemical Oxygen Demand
EPH	Extractable Petroleum Hydrocarbons, a combination of HEPH (C19-32) & LEPH (C10-19)
TSS	Total Suspended Solids

Table B-17. Monitoring Program Notes and Explanations.

Surface Water Monitoring Program: Explanatory Notes	
a	Field Parameters must include water temperature, specific conductance, dissolved oxygen, pH; for Koocanusa Reservoir locations this includes vertical profiles of dissolved oxygen and temperature
b	Conventional Parameters must include specific conductance, total dissolved solids, total suspended solids, hardness, alkalinity, dissolved organic carbon, total organic carbon, turbidity.
c	Major Ions must include bromide, fluoride, calcium, chloride, magnesium, potassium, sodium, sulphate.
d	Nutrients must include ammonia, nitrate, nitrite, TKN, orthophosphate, total phosphorus.
e	Dissolved Metals Scan must include aluminum, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, chromium, cobalt, copper, iron, lead, lithium, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, thallium, tin, titanium, uranium, vanadium, and zinc. Total Metals Scan must include aluminum, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, chromium, cobalt, copper, iron, lead, lithium, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, thallium, tin, titanium, uranium, vanadium, and zinc.
f	Flow monitoring locations may be changed through approved flow monitoring plan and must follow latest approved plan. Flow measurements must be taken in accordance with Section 9.1.2.2 or in accordance with an approved Flow Monitoring Plan.
g	Acute and chronic toxicity tests must coincide with water quality sampling and must be implemented in accordance with the toxicity testing program approved by the Director. Teck shall collect samples when ponds are decanting within the permitted sampling frequency
h	If the discharge point is not decanting to the receiving environment, water quality samples must be taken just inside the decant point for all parameters, with the exception of toxicity.
l (LCO)	Nitrate must be sampled 3 times per week.
m (LCO)	Total Selenium must be sampled 3 times per week.
o (LCO)	Water temperature, dissolved oxygen, pH must be continuously monitored.
r (LCO)	To be sampled only when in use.

Appendix C – Hydrology Report



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Permit 107515

2017 Annual Hydrometric Report

Final Report
March 27, 2018
KWL Project No. 2628.042-300

Prepared for:
Teck Coal Limited

Teck



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Appendices

Appendix A: Compliance Point Annual Hydrometric Summaries
Appendix B: Order Stations Annual Hydrometric Summaries
Appendix C: Fording River Operation Annual Hydrometric Summaries
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Appendix E: Elkview Operation Annual Hydrometric Summaries
Appendix F: Coal Mountain Annual Hydrometric Summaries
Appendix G: Greenhills Operation Annual Hydrometric Summaries
Appendix H: West Line Creek Annual Hydrometric Summaries



1. Introduction

Permit 107517 issued to Teck Coal Limited (Teck) requires that Teck monitor and record surface water discharge values at 36 monitoring locations (Figures 1-5) in the Elk Valley of southeastern British Columbia. Teck records discharge at these stations using multiple approved methods as follows:

- Manual discharge measurements performed by the individual Teck Operations;
- Continuous hydrometric monitoring by the individual Teck Operations;
- Utilizing available Water Survey of Canada (WSC) station discharge data, and
- Calculating discharge values using a combination of WSC and Teck hydrometric station data and scaling the data by drainage area and/or adding/subtracting data.

Kerr Wood Leidal Associates Ltd. (KWL) has been contracted by Teck to review the recorded data, assign grades to the dataset and produce a report documenting the 2017 program.

This report provides an analysis of the 2017 flow year as compared to long term flow records at two Water Survey of Canada maintained hydrometric stations and summarizes instantaneous, continuous and calculated flow data compiled in 2017 to fulfill the Permit 107517 reporting requirements.



2. 2017 Flow Year Context

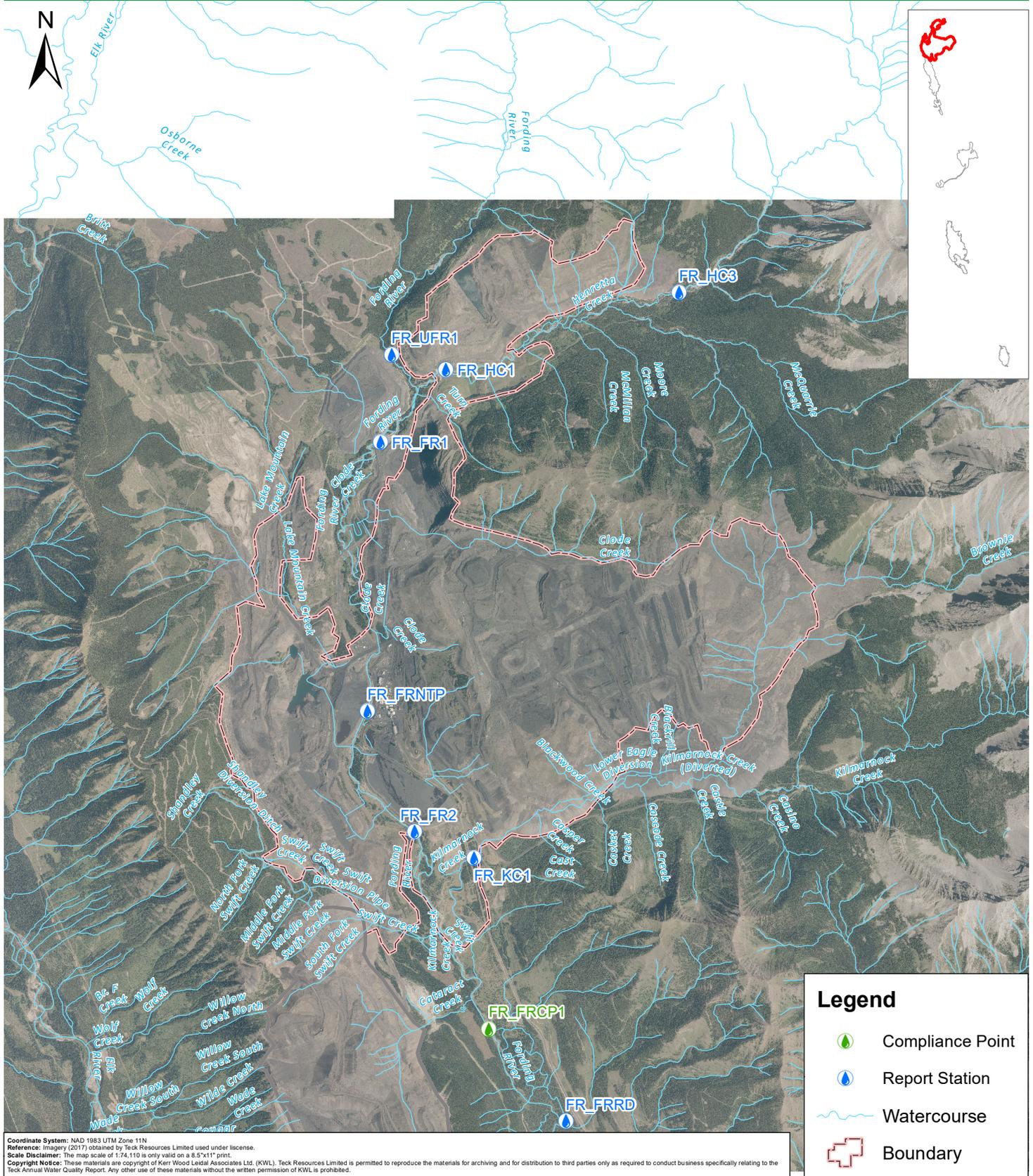
To understand the Teck 2017 flow monitoring year results in the context of the greater Elk Valley hydrology, KWL has compared the 2017 WSC and Environment Canada Elk Valley Station data to historical datasets; the results follow in Sections 2.1 and 2.2.

2.1 Hydrology

The WSC operates two hydrometric stations in the Upper Elk Valley that both have long term historical data records; Elk River at Natal - 08NK016 (1950 -present) and Fording River at the Mouth - 08NK018 (1970 - present). Preliminary 2017 hydrometric data (subject to revision by WSC before final data publication in June 2018) for these two stations were provided to Teck by WSC, and subsequently provided to KWL for analysis.

The 2017 datasets from both WSC stations are compared to the historical data records in Figure 6 and Figure 7. The 2017 data were compared to the historical monthly maximum, minimum and mean for the duration of the record; 2017 data were plotted against the historical monthly averages with the historical maximum and minimums presented as whisker values.

At 08NK016, the winter and spring 2017 discharge data were close to or slightly above the historical mean monthly values and the timing of the 2017 freshet data were close to that of the historical dataset. The 2017 summer and fall monthly average data were well below historical means, close to the historical minimums.



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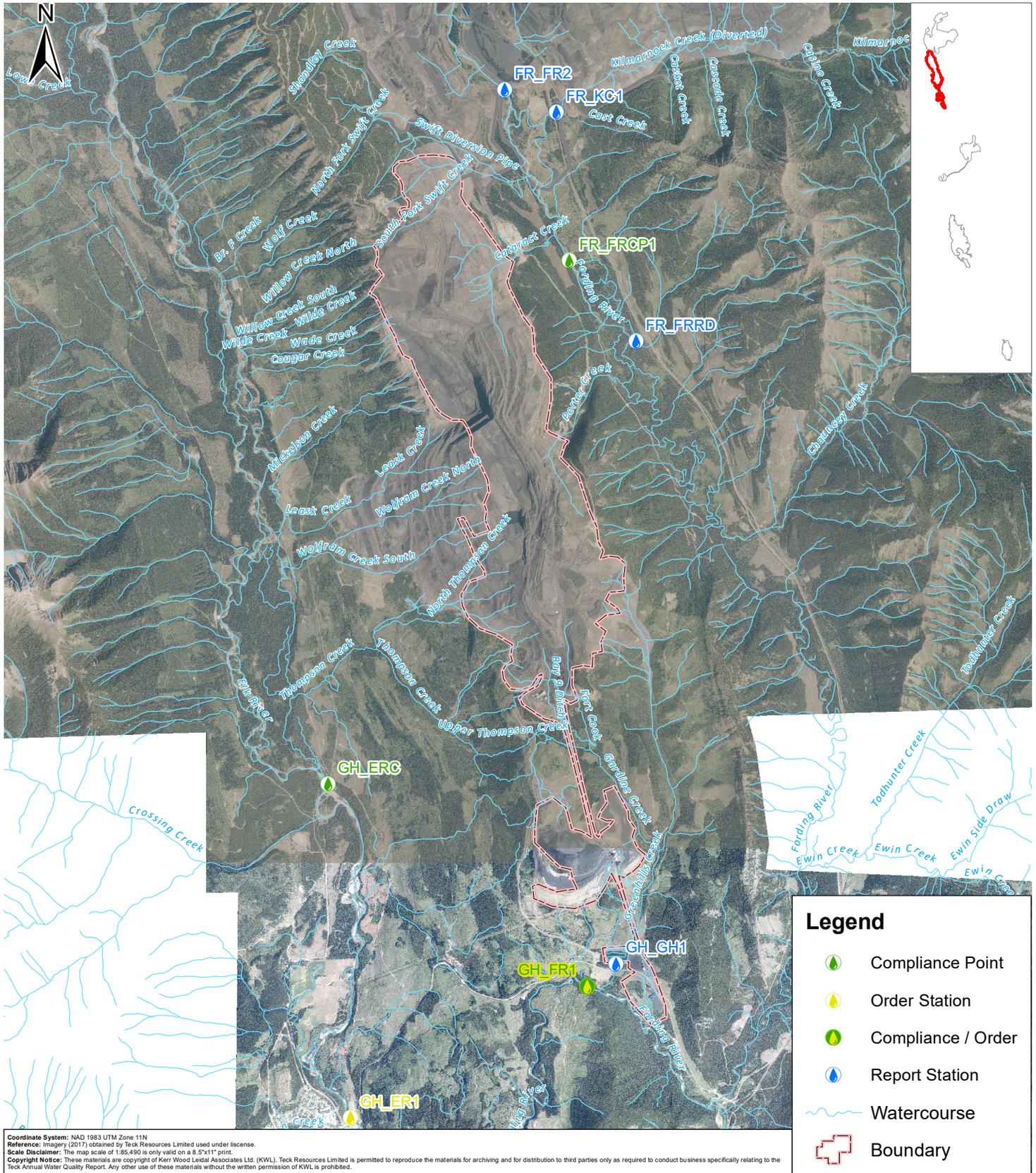
- Compliance Point
- Report Station
- Watercourse
- Boundary

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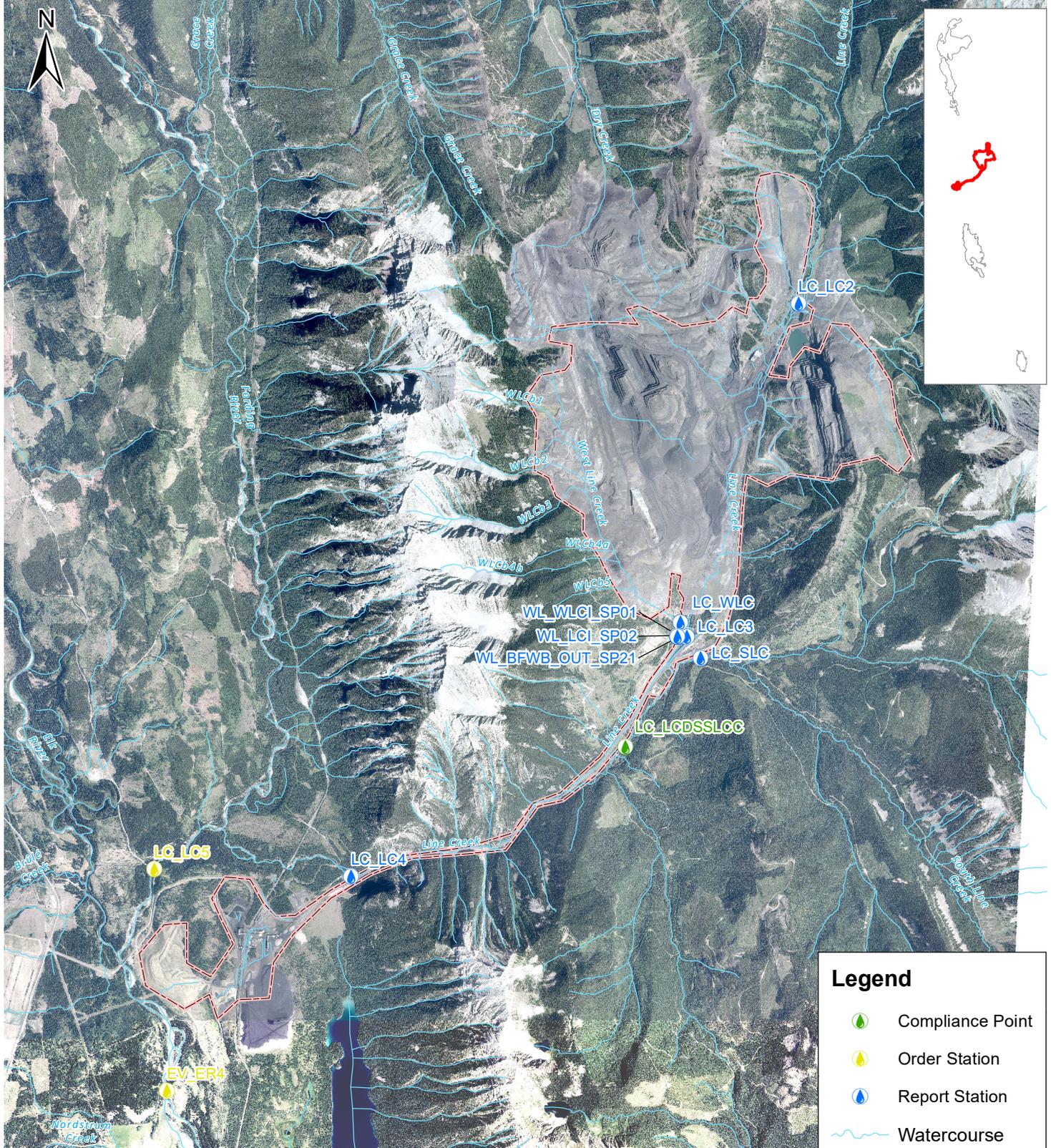
Teck Permit 107517 Annual Reporting

Figure 1

Teck Resources Limited
 Teck Annual Flow Monitoring Report (Greenhills)



Teck Resources Limited
 Teck Annual Flow Monitoring Report (Line Creek)



Legend

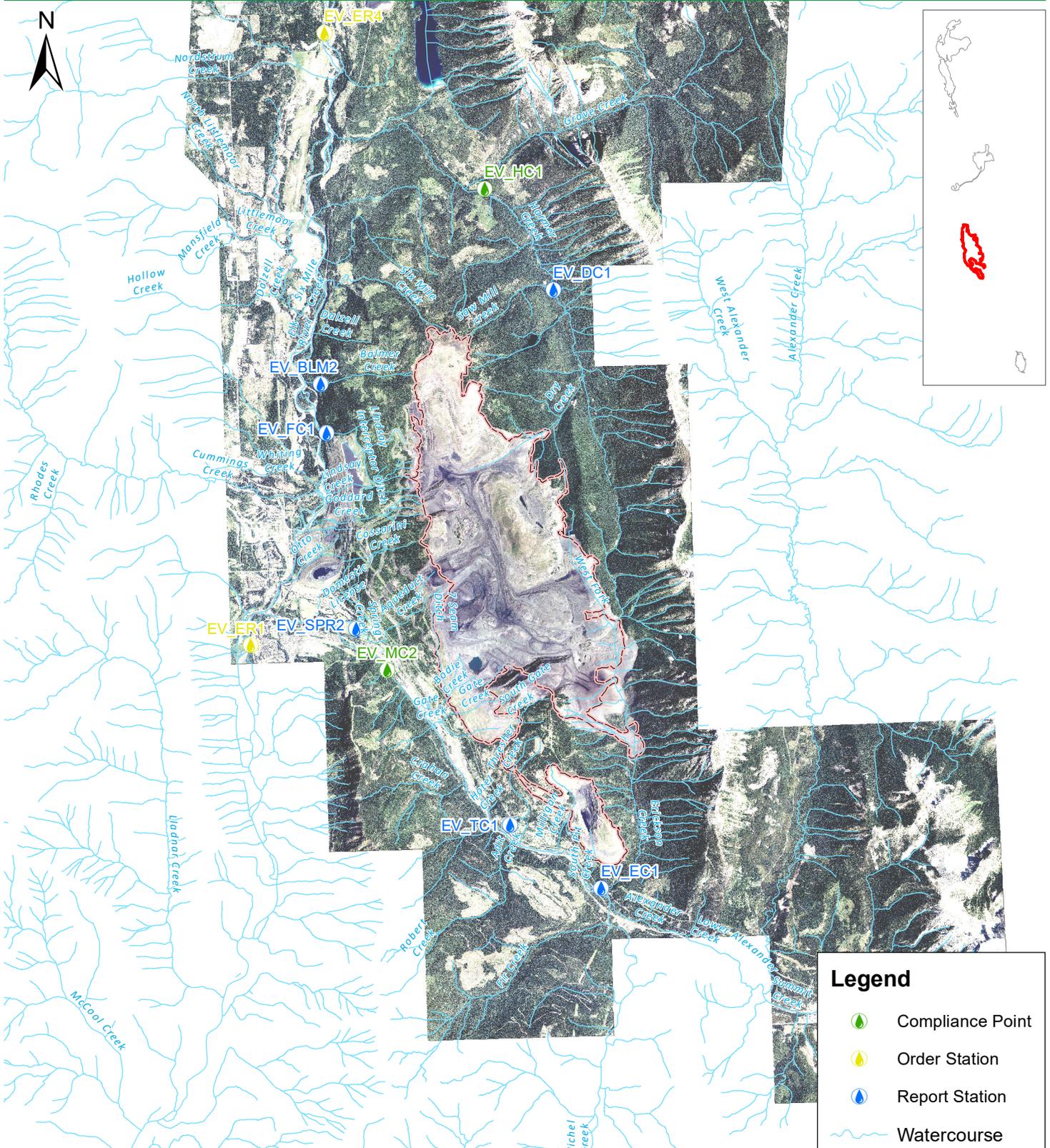
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- Watercourse
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Figure 3



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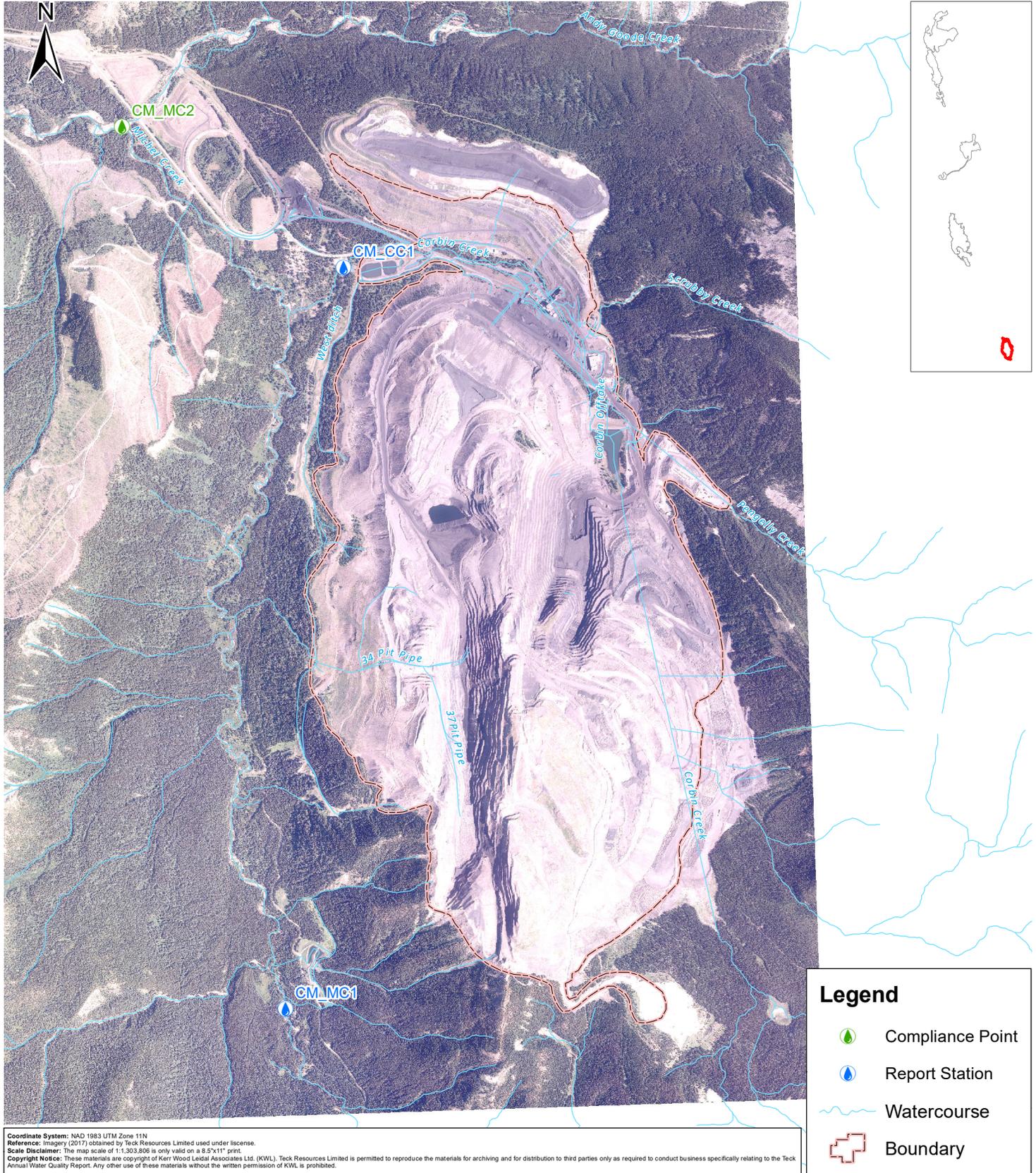
- Compliance Point
- Order Station
- Report Station
- Watercourse
- Boundary

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Teck Permit 107517 Annual Reporting

Figure 4

Teck Resources Limited
Teck Annual Flow Monitoring Report (Coal Mountain)



Project No. 2628-042
Date March 2018
Scale 1:31,960

Teck Permit 107517 Annual Reporting

Figure 5



The 2017 data at 08NK018 exhibited a similar pattern to the 08NK016 dataset, although the summer and fall data, while below the historical means, were not as low as the 08NK016 data. The freshet timing at 08NK016 was close to the historical dataset timing.

The 2017 hydrometric year would be characterized as follows:

- January through the start of freshet would be characterized as near normal;
- Freshet would be characterized as near normal (magnitude and timing);
- July through October would be characterized as dry to very dry, and
- November and December would be characterized as near normal.

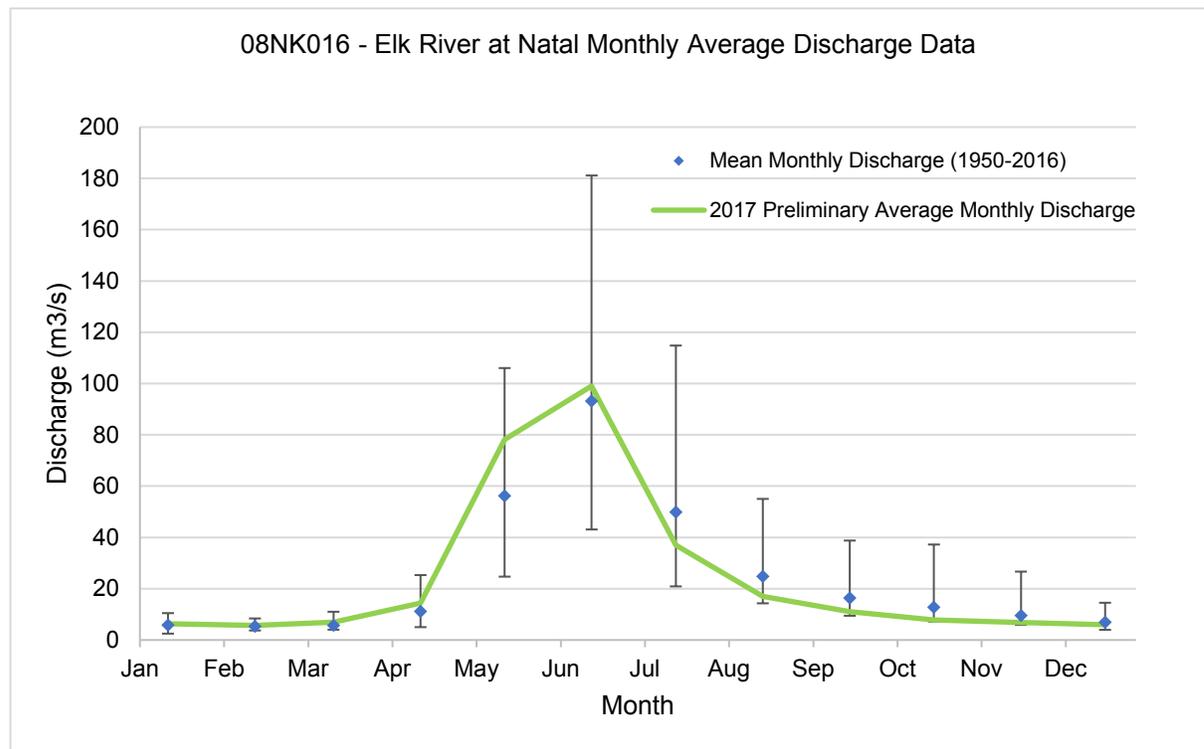


Figure 6: Comparison of 2017 Monthly Average Discharge Values to Historical Elk River at Natal (08NK016) Dataset

(The whiskers on the historical dataset represent the historical mean monthly maximum and minimum values.)

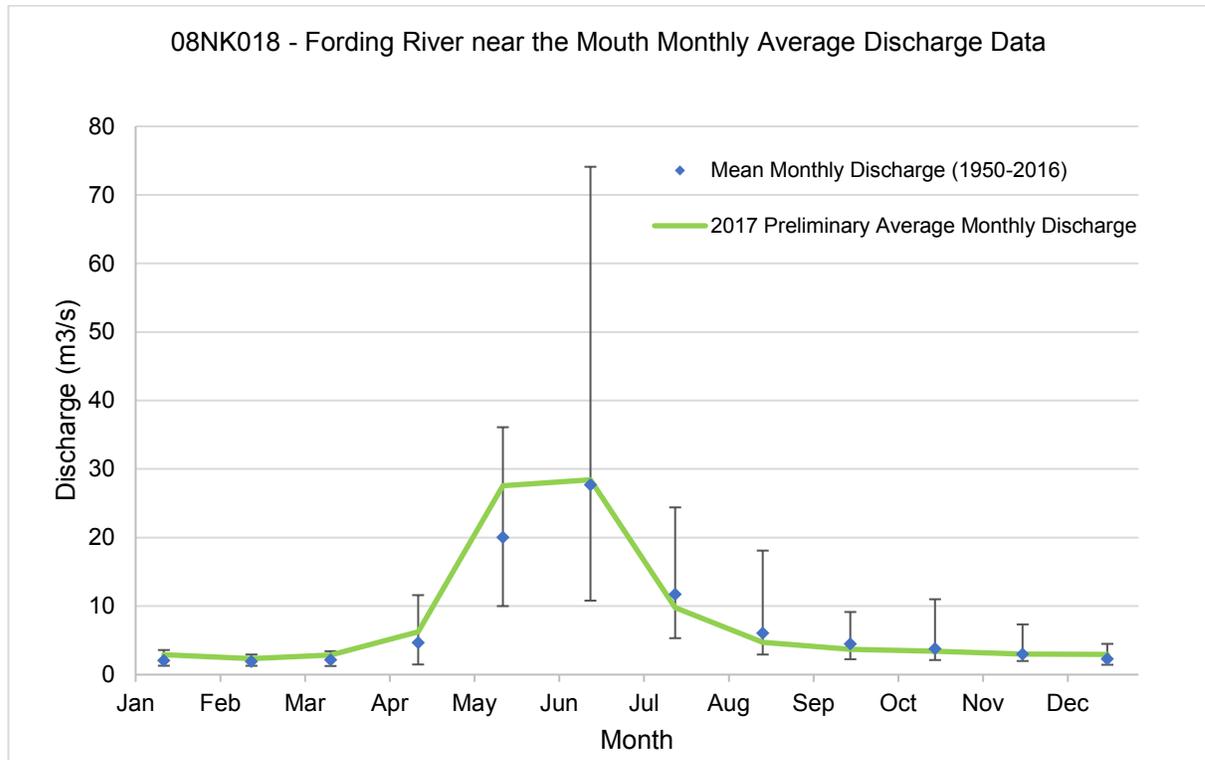


Figure 7: Comparison of 2017 Monthly Average Discharge Values to Historical Fording River at the Mouth (08NK018) Dataset

(The whiskers on the historical dataset represent the historical mean monthly maximum and minimum values.)

2.2 Climate

Environment Canada has operated a climate station at Sparwood, British Columbia since 1980. The historical 1980-2016 dataset was compared with the 2017 dataset, which was downloaded off the Environmental Canada website. The 2017 dataset did not include any recorded precipitation data in January through March and December of 2017 and it is our opinion that this is due to an issue with the station/precipitation sensor rather than at true representation of the 2017 conditions. (This is verified by comparison with the datasets of local Teck climate stations).

Figure 8 presents the 2017 mean monthly precipitation along with the historical dataset. As discussed above, the 2017 dataset does not include precipitation data from January through March and December, therefore this period should not be evaluated. The comparison of the rest of 2017 is as follows:

- April through June 2017 monthly means were below the historical means but above the historical minimums;
- July through September 2017 monthly means were very low, close to the historical minimums, and
- The October and November were closer to the historical mean values.

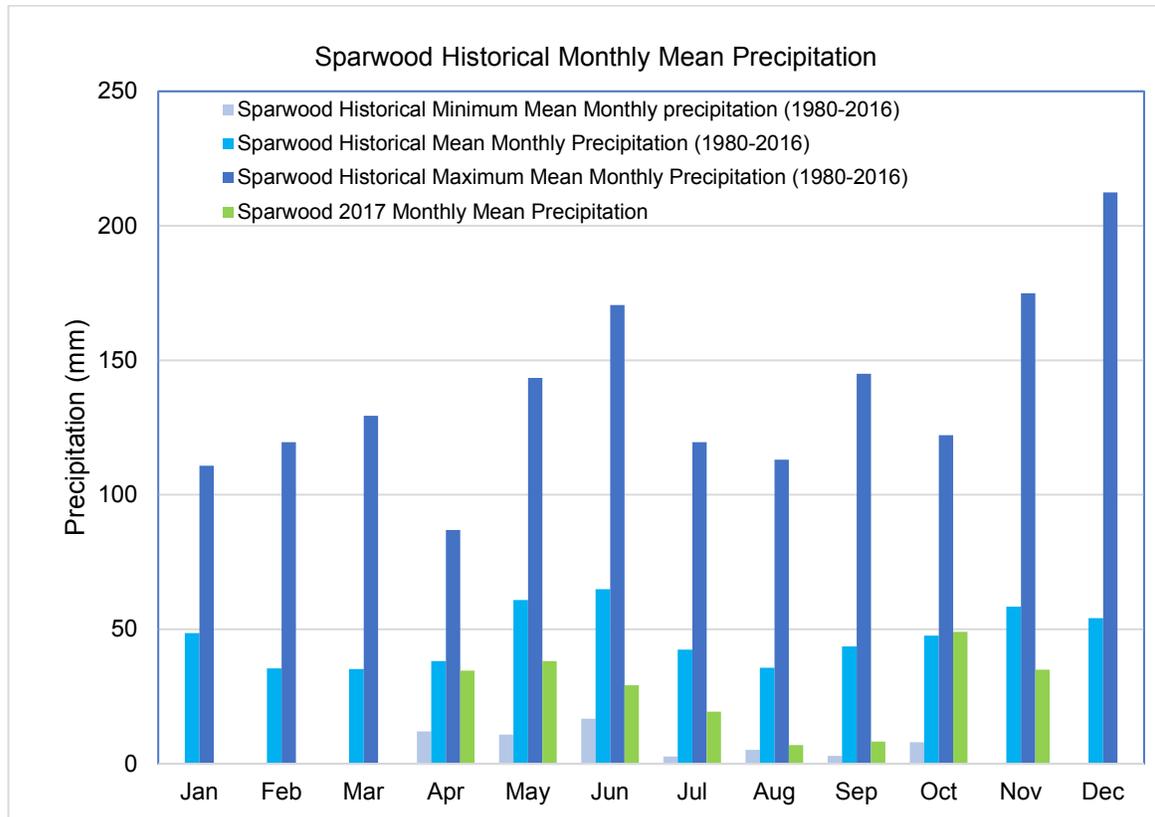


Figure 8: Comparison of the Environment Canada Sparwood Climate Station 2017 and Historical Precipitation Record

Figure 9 presents the 2017 Environment Canada Sparwood Climate station temperature data compared to the station's historical dataset. The 2017 dataset compares to the historical dataset as follows:

- January and February – below average
- March and April – average
- May through September – above average
- October and November – near average
- December – below average

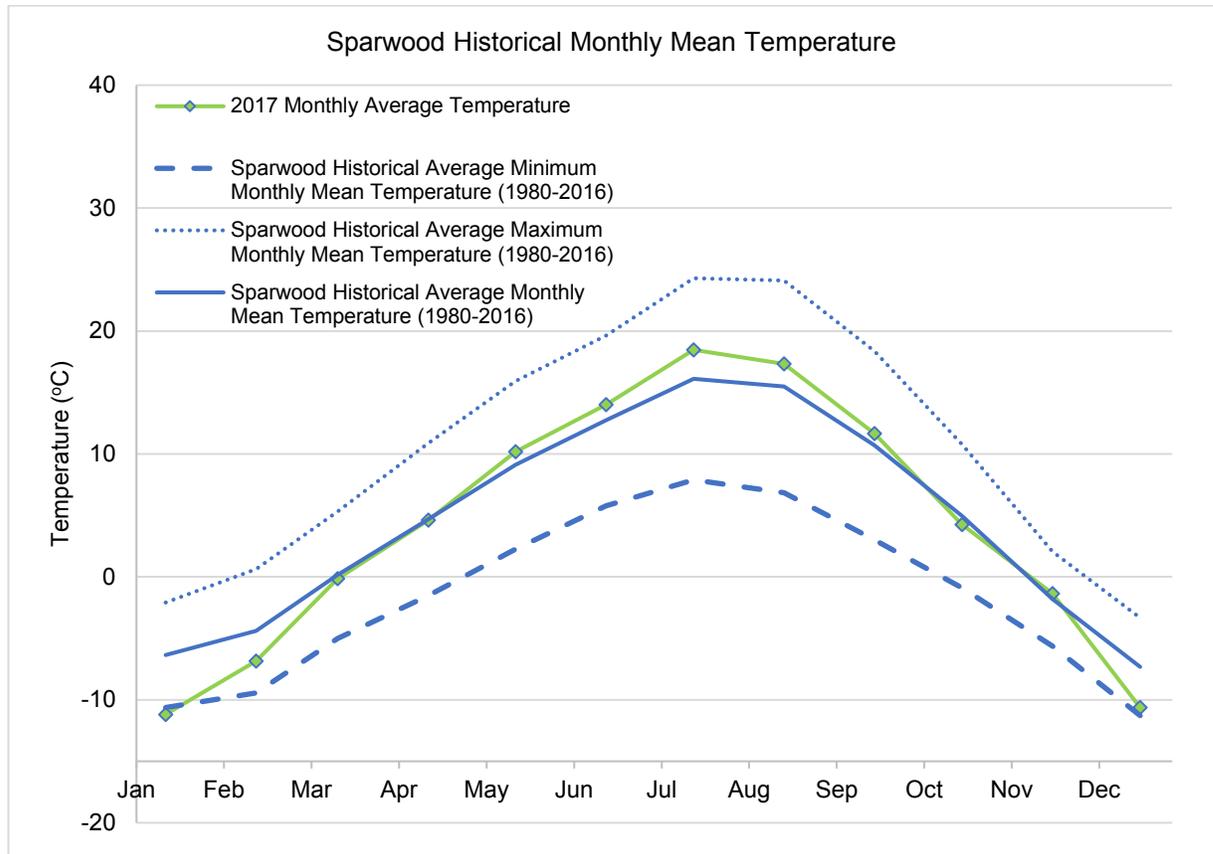


Figure 9: Comparison of the Environment Canada Sparwood Climate Station 2017 and Historical Temperature Record

2.3 Order and Compliance Stations

Teck is required to report data for seven Compliance Stations and five Order Stations; one station (GH_FR1) is included in both datasets. Table 1 presents the 11 stations and the Mean Annual Discharge values for the historical and 2017 datasets.



Table 1: Comparison of 2017 Annual Average Discharge to Mean Annual Discharge at Order and Compliance Stations

Name/Location	FR_FRCP1	GH_FR1	LC_LCDSSLCC	LC_LC5	GH_ERC	GH_ER1	EV_ER4	EV_HC1	CM_MC2	EV_MC2	EV_ER1
EMS Number	EMS E300071	EMS 0200378	EMS E297110	EMS 0200028	EMS E300090	EMS E206661	EMS 0200027	EMS E102682	EMS E258937	EMS E300091	EMS 0200393
Watershed Area (km²)	192	412	117	621	903	977	1840	37.2	67.6	637	2813
Monitoring Status	Teck Station FR_FRCP1	Ungauged (Scaled)	Teck Station LC_LCDSSLCC	Environment Canada Station 08NK018	Ungauged (Scaled)	Ungauged (Scaled)	Environment Canada Station 08NK016	Teck Station EV_HC1	Teck Station CM_MC2	Teck Station EV_MC2	Ungauged (Scaled)
Station Data Collection Method	Spot measurements	[08NK018 - 08NK022] x Ratio of Watershed Area	instantaneous flow and continuous data	WSC Monitoring Protocol	[08NK016 - 08NK018] x Ratio of Watershed Area	[08NK016 - 08NK018] x Ratio of Watershed Area	WSC Monitoring Protocol	Spot measurements	Spot measurements	instantaneous flow and continuous data	[(EV_MC2)+08NK016] x ratio of watershed areas
Period of Record for MAD	1971 to 2012 (08NK021 WSC Data) and 1995-2012 (08NK029 WSC Data)	1971 to 2012 (08NK018 and 08NK022 WSC Data)	1971 to 2012 (WSC 08NK022 Data)	1970 to 2013 (WSC 08NK 018 Data)	1970 to 2013 (WSC 08NK018 and 08NK016 Data)	1970 to 2013 (WSC 08NK018 and 08NK016 Data)	1950 to 2013 (WSC 08NK016) Data	1992 to 2017 (spot flows Teck)	1984 to 1995 (WSC 08NK028 Data)	1970 to 1994 (WSC 08NK020 Data)	1970 to 1994 (WSC 08NK020 Data)
Mean Annual Discharge (m³/s)	3.4	5.1	1.8	8.1	12.5	13.5	26.2	0.57	1.4	11	40
Mean Annual Discharge (m³/s/km²)	0.018	0.012	0.015	0.013	0.014	0.014	0.014	0.008	0.002	0.004	0.011
2017 Annual Average Flow (m³/s)	1.5 ¹	6.2	2.0 ²	8.4	13.4	14.4	26.6	1.1 ³	0.95	14.6 ⁴	57.2
2017 Annual Average Flow (m³/s/km²)	0.008 ¹	0.015	0.017 ²	0.014	0.015	0.015	0.014	0.016 ³	0.001	0.005 ⁴	0.016
¹ March through November 2017 ² January through November 2017 ³ July and August measurements only ⁴ March through December 2017											



3. Permit 107517 Flow Monitoring Requirements

Table 2 provides the list of stations with flow monitoring requirements (frequency) under Permit 107517 and where they can be found in within Appendices A to H.

Table 2: Teck Permit 107517 Reporting Requirements (Stations)

EMS ID Number	Site ID	Required Flow Monitoring Frequency	Data Summary Report - Location
Compliance Points			
E300071	FR_FRCP1	W/M ¹	Figure A-1
0200378	GH_FR1	W/M ¹	Figure A-2 and B-1
E300090	GH_ERC	W/M ¹	Figure A-3
E297110	LC_LCDSSLCC	Continuous	Figure A-4
E102682	EV_HC1	W/M ¹	Figure A-5
E300091	EV_MC2	Continuous	Figure A-6
E258937	CM_MC2	W/M ¹	Figure A-7
Order Stations			
0200378	GH_FR1	W/M ¹	Figure A-2 and B-1
0200028	LC_LC5	W/M ¹	Figure B-2
E206661	GH_ER1	W/M ¹	Figure B-3
0200027	EV_ER4	W/M ¹	Figure B-4
0200393	EV_ER1	W/M ¹	Figure B-5
Fording River Operation (FRO) Stations			
200201	FR_FR2	W/M ¹	Figure C-1
200251	FR_FR1	Continuous ²	Figure C-2
E216777	FR_UFR1	Continuous ²	Figure C-3
E216778	FR_HC1	Continuous	Figure C-4
E300096	FR_HC3	Monthly	Figure C-5
E300097	FR_FRRD	Monthly	Figure C-6
200252	FR_KC1	Continuous	Figure C-7
-	FR_FRNTP	Continuous	Figure C-8



EMS ID Number	Site ID	Required Flow Monitoring Frequency	Data Summary Report - Location
Line Creek Operation (LCO) Stations			
0200044	LC_LC4	Continuous	Figure D-1
0200337	LC_LC3	Continuous	Figure D-2
0200335	LC_LC2	Continuous	Figure D-3
E282149	LC_SLC	Monthly	Figure D-4
E261958	LC_WLC	Continuous	Figure D-5
Elk View Operations (EVO) Stations			
0200097	EV_EC1	Continuous	Figure E-1
E298590	EV_DC1	Continuous	Figure E-2
E298592	EV_BLM2	Monthly	Figure E-3
E298591	EV_FC1	Monthly	Figure E-4
E298594	EV_SPR2	Monthly	Figure E-5
E298593	EV_TC1	Monthly	Figure E-6
Coal Mountain Operation (CMO) Stations			
E258175	CM_MC1	Monthly	Figure F-1
E200209	CM_CC1	Continuous	Figure F-2
Greenhills Operations (GHO) Stations			
E102709	GH_GH1	Monthly	Figure G-1
West Line Creek (WLC) Stations			
E293370	WL_LCI_SP02	Continuous	Figure H-1
E293371	WL_WLCI_SP01	Continuous	Figure H-2
E291569	WL_BFWB_OUT_SP21	Continuous	Figure H-3
¹ W/M = Weekly (March 15 – July 31), monthly during the remainder of the year ² Flow is measured at these locations on a W/M schedule as continuous monitoring is not feasible at these locations. Flow data is collected as per the approved Regional Surface Flow Monitoring Plan at these locations.			

Permit 107517 requires that specific requirements be met when reporting on the annual flow monitoring activities. Table 3 presents the reporting requirements and where each can be found in the report.



Table 3: Permit 107517 Reporting Requirements and Subsequent Locations

Reporting Requirement	Location	Comments
A description of measurement methods, field procedures or data calculations that deviate from the information provided in the Metadata Summary.	Station Summary Report Sheets in Appendices A-H.	A section in the Station Details section of the Station Summary Report reports any deviation from the information provided in the Metadata Summary.
A summary table of the discharge measurements recorded during the year. The summary must include staff gauge measurements, calculated flow values from a stage-discharge rating curve, and manual flow measurements.	Station Summary Report Sheets in Appendices A-H.	The Summary Table of Yearly Discharge Measurements section of the Station Summary Report presents the following: <ul style="list-style-type: none"> • Date of the station visit; • Manual discharge and staff gauge reading values (as recorded); • The calculated discharge values from the stage-discharge rating curve associated with the staff reading; • The difference between the manual discharge measurement and the calculated discharge value; • The percentage difference between the manual discharge measurement and the calculated discharge value, and • A brief description of the measurement technique used.
A hydrograph(s) at a scale appropriate for visually comparing flow values between stations.	Station Summary Report Sheets in Appendices A-H.	A chart that presents the station discharge hydrograph, manual and calculated (from staff gauge readings) discharge measurements, monthly average discharge values is presented on the final sheet of each Station Summary Report.



Reporting Requirement	Location	Comments
A data quality grade for each monitoring station using the Manual of British Columbia Hydrometric Standards (ENV, 2009) methodology, and comparison of the grade to target grades as listed in the Regional Flow Monitoring Program.	Station Summary Report Sheets in Appendices A-H.	<ul style="list-style-type: none"> The target data quality grade for each station is listed in the Station Details section of the Station Summary Report. The Data Quality Assessment - Continuous Data section of the Station Summary Report presents the data grade assigned to the continuous dataset. The Summary Table of Yearly Discharge Measurements section of the Station Summary Report presents the data grade assigned to each manual measurement¹ or discharge value calculated from a staff gauge reading².
In conjunction with the submission of the annual report, final non-continuous flow data will be uploaded to the ENV EMS database while final continuous flow data records and associated rating curves will be provided in Excel format.	Stand-alone Excel file	<p>The file Permit 107517 Data - All Stations is submitted as part of the reporting package.</p> <p>Included for each station is:</p> <ul style="list-style-type: none"> Station EMS ID, Name, Site ID, The continuous dataset in daily average flow values (if applicable), and/or The active stage-discharge relationship equation (as applicable).
<p>Notes:</p> <ol style="list-style-type: none"> Individual discharge measurements are graded based on the RISC Standards for individual measurements. Discharge values calculated from staff gauge readings are graded based on the station's stage-discharge relationship. 		



4. Flow Data Summaries

Each of the stations listed in Table 1 has an Annual Hydrometric Summary Report created for it that includes the following:

- Site naming details (including EMS number, station type, data target grade and rationale etc.);
- Continuous data grade (including missing portions) and description/grade rationale;
- Manual measurement dates, values, grades and description;
- Monthly annual discharge values, and
- A hydrograph that presents all station data.

These summary sheets are presented in Appendices A through H; details of the individual summary sheet locations are found in Table 2.

4.1 Quality Control/Quality Assurance

The 2017 instantaneous flow measurements were generally collected in accordance with Teck's *Flow Monitoring Protocol*¹ (FMP). The protocol outlines standard procedures for flow monitoring and provides information on equipment, measurement approaches, calculations, documentation, and quality control.

As required by Permit 107517, Teck submitted a *Regional Surface Flow Monitoring Plan*² (RSFMP) in 2016, which was updated in 2017 and approved by the Director in February 2018. The RSFMP is an assessment of the suitability of the surface flow hydrometric network to collect the data required at the appropriate frequency and quality to support the range of data uses. This document provides a framework that can be used in the future to reassess Teck's monitoring network in the event of new proposed monitoring locations or data uses.

Most of Teck's continuous hydrometric stations are managed Teck and supported by external professionally qualified consultants. Generally, Teck attempts to collect hydrometric data consistent to the Data Grade assigned by the data use documented in the RSFMP. The individual measurements (collected by Teck and its consultants) are reviewed and then plotted to develop Stage-Discharge Relationships (SDRs) by qualified professionals. The SDRs are reviewed and/or updated annually based on manual flow measurements collected during each year. The data is summarized and submitted to the BC Ministry of Environment and Climate Change Strategy under the *Environmental Management Act*.

Teck also utilizes continuous flow data collected through the WSC hydrometric program. Data quality at these stations is maintained by WSC and the data is used as provided.

Data Grades applied to measurements and data in the summary reports follow the grading system assigned in the *Manual of British Columbia Hydrometric Standards*³ (Generally known as *RISC Standards*). In general, the physical characteristics of Teck's stations can typically support Grade B to Grade C data based on criteria listed in the RISC Standards document. As presented in the RSFMP, at many sites Teck will strive for the Grade B flow standard without adopting continuous water level monitoring (i.e., aim for the accuracy and rigour of Grade B without the installation of a year-round recorder).

¹ Kerr Wood Leidal Associates Ltd. Flow Monitoring Protocol. Report prepared for Teck Coal Limited. June 2017

² Kerr Wood Leidal Associates Ltd., et. al. Regional Surface Flow Monitoring Plan. Report prepared for Teck Coal Limited. October 2017

³ Manual of British Columbia hydrometric Standards, Ministry of Environment, Resources Information Standards Committee. March 2009



The manual measurements are graded on the number of panels included in the measurement, the maximum percentage of total discharge in any one panel, and equipment used independent of the station's overall SDR rating. It is possible for a measurement to be graded B based on the RISC Standards Criteria but plot more than 15% (assumed Grade B accuracy) off the SDR due to any number of factors that may or may not be apparent to or noted by the field staff at the time of measurement. These factors may include instream ice, aquatic vegetation growth, debris in the channel, equipment malfunction, staff gauge reading accuracy or the start of SDR change etc. Similarly, a measurement graded C or E may plot within 15% of the SDR but warrant the assigned grade based on the RISC Standards Criteria. KWL considers these factors when creating the SDR and will exclude a measurement (even if graded B) if it is likely to unduly influence the SDR generation process.

The continuous datasets are graded on more criteria such as: channel condition, the presence of ice, installed equipment accuracy and functionality, number of benchmarks, the number of benchmark checks and data review procedures, etc.

The four stations that have their daily continuous datasets calculated by scaling (by drainage area) other site datasets are all graded E.

Monthly average discharge values for the sites are calculated as follows:

- When a continuous dataset is available the value is averaged for each monthly portion (incomplete months are averaged as if a full month);
- Manual measurements are averaged by month to produce a monthly value (a single manual measurement in one month would equal the resulting monthly average discharge); and
- When a continuous dataset is available for some months it is averaged to produce a monthly value and manual measurements are averaged to produce an average monthly value for the remaining months.

4.2 Hydrometric Network Improvements

Teck has implemented some improvements to its hydrometric network as it relates to the stations identified in Permit 107517. Table 4 provides a summary of the major improvements to Teck's hydrometric network for 2017.

Table 4: Summary of Major Hydrometric Improvements for 2017

EMS ID Number	Site ID	Description of Improvement
E297110	LC_LCDSSLCC	A continuous real-time station was installed at this location in October 2016 and is operated by Teck.
0200028	LC_LC5	WSC upgraded this station with telemetry to have it accessible as a real-time station.
E102709	GH_GH1	A flowmeter was added to the culvert at this location in 2017 to record discharge data.



In addition to the above improvements, Teck is currently completing an assessment of the calculation methods used to estimate flows at GH_ERC, GH_FR1, GH_ER1 and EV_ER1. As part of this process, temporary water level monitors were installed in late 2017 and manual measurements were collected at these locations. The assessment will also require the monitors to be reinstalled for a portion of 2018 with the assessment expected to be complete by the end of 2018. The results of the assessment will provide the suitability of the calculation methods and recommendations for improvements.



5. Calculated Flow Data

Several permitted monitoring stations do not allow the operation of a traditional hydrometric monitoring station due to safety and logistical reasons. The stations that require calculated discharge values are:

- GHO Fording River Compliance Point – Upper Fording River (upstream of Josephine Falls) (EMS 0200378, GH_FR1);
- GHO Elk River Compliance Point – 220m downstream of Thompson Creek (EMS E300090, GH_ERC);
- Elk River Upstream of Boivin Creek (upstream of Fording River) (EMS E206661, GH_ER1); and
- Elk River Downstream of Michel Creek (EMS 0200393, EV_ER1).

In 2015 a protocol was developed by Golder Associates Ltd.⁴ to calculate the monthly average discharge at each of the stations by using WSC or Teck station data as surrogates. KWL has applied this protocol to each of the stations and the data are presented in the following sections.

When applying the flow scaling protocol, it was determined that the preliminary 2017 WSC data had portions of flow (particularly ice affected periods) that would not be considered accurate. Figure 10 shows the ice-affected portions of data that have been removed from the preliminary dataset at 08NK016. Additionally, 08NK022 is missing preliminary data after October 20, 2017. It is assumed that these periods of data will be corrected following the WSC winter data computation process, but that the revised data will not be available in time to include in this report. KWL removed the seemingly erroneous data from the datasets before applying the flow scaling methods.

⁴ Golder Associates Limited, Elk Valley Water Quality Plan Permit and Permit Implementation - Flow Program Support . Report prepared for Teck Coal Limited. March 2015.

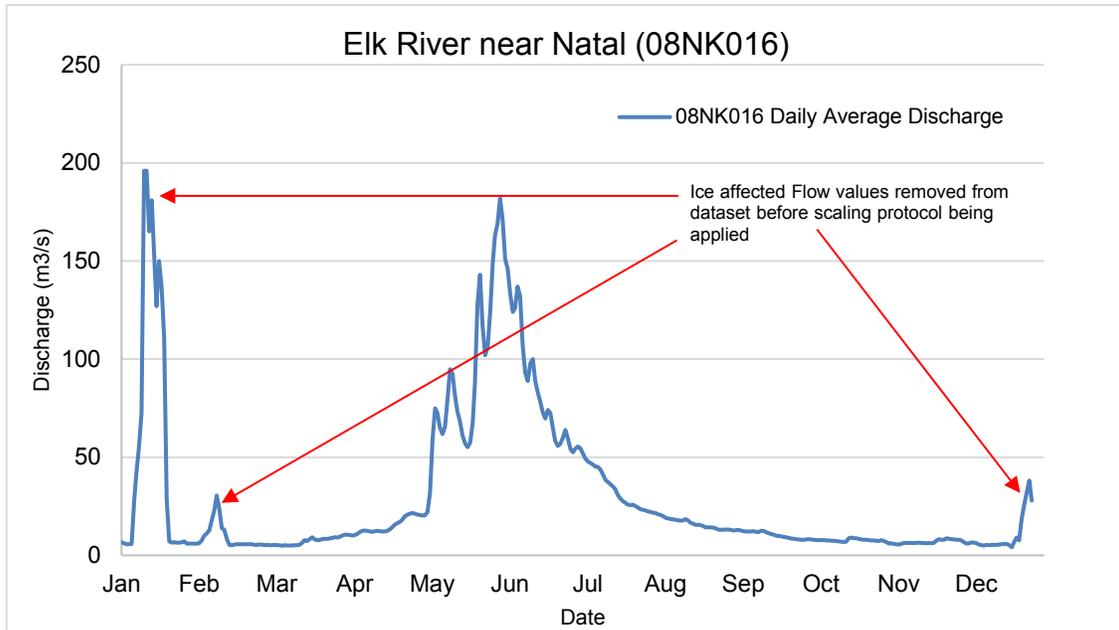


Figure 10: 08NK016 2017 Average Daily Discharge and Removed Values



5.1 GHO Fording River Compliance Point (GH_FR1)

The 2017 monthly average flows for Upper Fording River (upstream of Josephine Falls) (EMS 0200378) are estimated using WSC stations 08NK022 (Line Creek at the Mouth) and 08NK018 (Fording River at the Mouth) data, pro-rated by watershed area (see Table 5 and Figure 11).

The equation used is as follows:

$$\text{Discharge} = (\text{monthly average flow [08NK018]} - \text{monthly average flow [08NK022]}) \times (412 / [619 - 138])$$

Data for 08NK022 were not available beyond October 17, 2017 and therefore monthly average discharge could not be calculated for November and December.

Table 5: GH_FR1 2017 Monthly Average Discharge

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	1.67	1.31	1.82	4.50	17.64	17.20	5.98	2.58	2.16	2.14	-	-

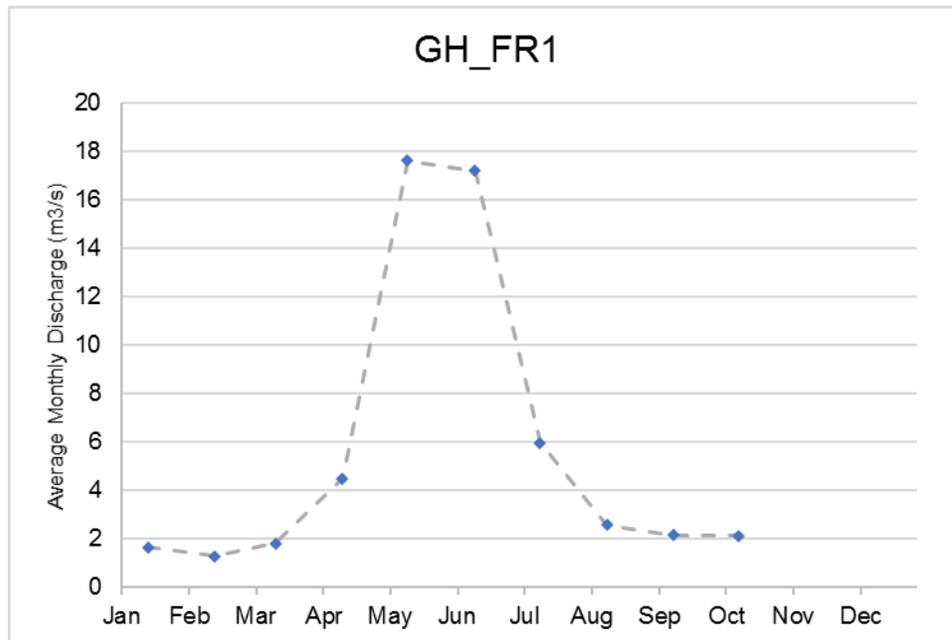


Figure 11: GH_FR1 2017 Monthly Average Discharge



5.2 GHO Elk River Compliance Point (GH_ERC)

The 2017 monthly average flows for Elk River 220 m downstream of Thompson Creek are estimated using WSC stations 08NK016 (Elk River near Natal) and 08NK018 (Fording River at the Mouth) data, pro-rated by watershed area (see Table 6 and Figure 12).

The equation used is as follows:

$$\text{Discharge} = (\text{monthly average flow [08NK016]} - \text{monthly average flow [08NK018]}) \times (903 / [1840 - 621])$$

Table 6: GH_ERC 2017 Monthly Average Discharge

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	2.59	2.38	3.02	6.02	37.48	52.30	20.16	9.09	5.43	3.26	2.82	2.41

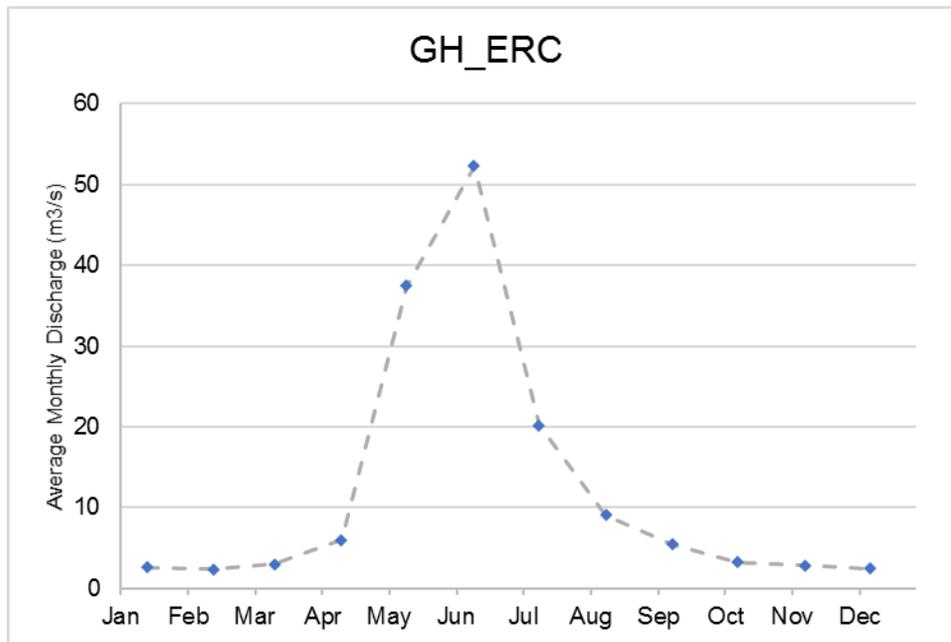


Figure 12: GH_ERC 2017 Monthly Average Discharge



5.3 Elk River Upstream of Boivin Creek (GH_ER1)

The 2017 monthly average flows for Elk River upstream of Boivin Creek are estimated using WSC stations 08NK016 (Elk River near Natal) and 08NK018 (Fording River at the Mouth) data, pro-rated by watershed area (see Table 7 and Figure 13).

The equation used is as follows:

$$\text{Discharge} = (\text{monthly average flow [08NK016]} - \text{monthly average flow [08NK018]}) \times (977 / [1840 - 621])$$

Table 7: GH_ER1 2017 Monthly Average Discharge

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	2.84	2.57	3.27	6.51	40.55	56.58	21.81	9.83	5.88	3.52	3.05	2.60

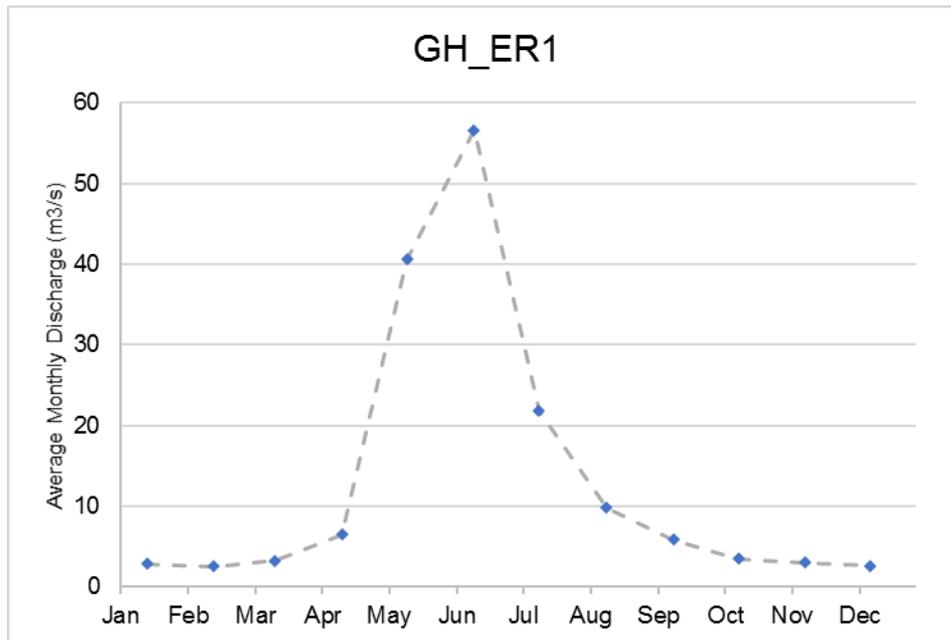


Figure 13: GH_ER1 2017 Monthly Average Discharge



5.4 Elk River Downstream of Michel Creek (EV_ER1)

The 2017 monthly average flows for Elk River Downstream of Michel Creek are estimated using WSC stations 08NK016 (Elk River near Natal) and the Teck Michel Creek at Highway 3 Bridge (EV_MC2) station data, pro-rated by watershed area (see Table 8 and Figure 14). EV_MC2 data was not available for January and February therefore, no monthly average flow was calculated for EV_ER1 during these months. It should be noted that the December monthly average flow value was calculated using only four days of data.

The equation used is as follows:

$$\text{Discharge} = (\text{monthly average flow [Michel Creek at Hwy 3 Bridge]} + \text{monthly average flow [08NK016]}) \times ([2813-637] / 1840)$$

Table 8: EV_ER1 2017 Monthly Average Discharge

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	-	-	19.68	32.27	154.18	164.67	53.22	24.19	16.14	13.40	16.30	17.19

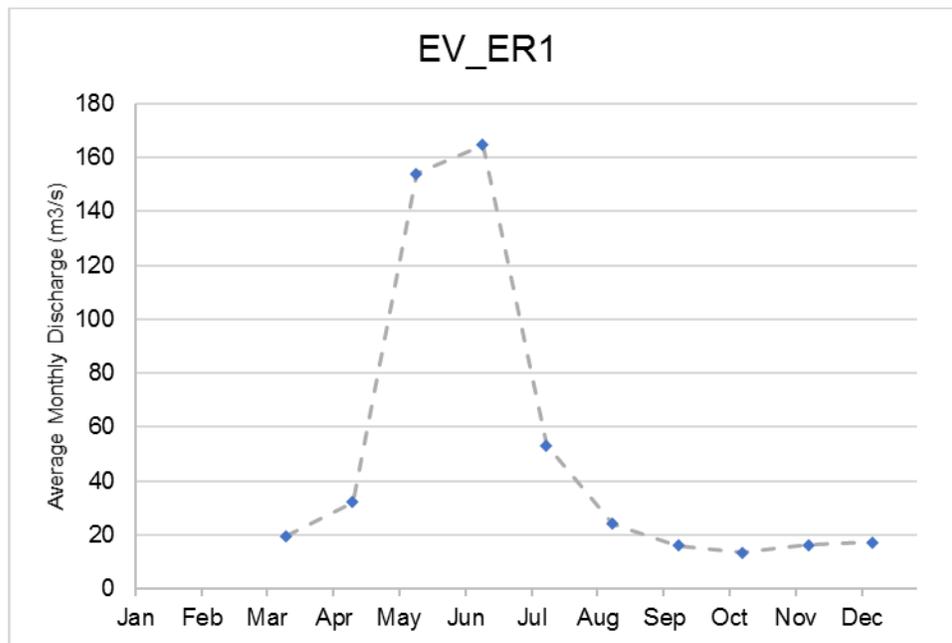


Figure 14: EV_ER1 2017 Monthly Average Discharge



5.5 Report Submission

Prepared by:

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Statement of Limitations

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Revision History

Revision #	Date	Status	Revision	Author
0	March 27, 2018	Final	Updated based on client feedback	KB/MAC
A	March 5, 2018	Draft		KB/MAC





KERR WOOD LEIDAL
consulting engineers

Appendix A

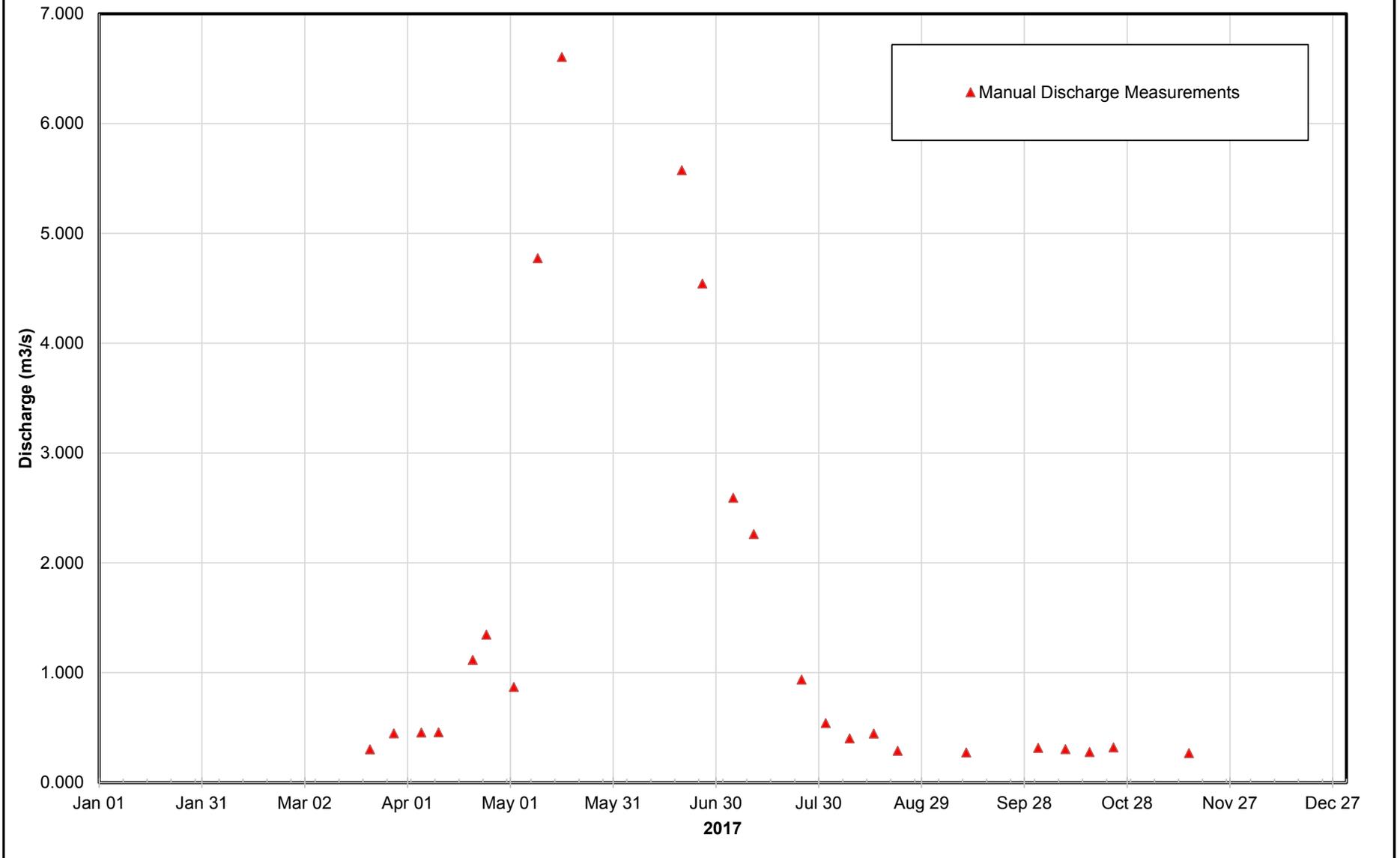
Compliance Point Annual Hydrometric Summaries

Station Details			
Station Name:	Fording River 525m downstream of Cataract Creek	Reporting Year:	2017
Site ID:	FR_FRCP1	Station Type:	Manual Measurements
EMS:	E300071	Teck Mine:	Compliance Point
Station Description:	Fording River 525m downstream of Cataract Creek		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	N/A		
Rationale for Data Grade Recommendation (RSFMP)	This current compliance point does not provide representative low flow conditions in the area. Discussions are ongoing with MOE to establish a new station, where flows can be measured accurately.		

Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
March 21, 2017	-	0.303	B	-	-	-	FRO measurement, 25 panels, max panel 7%
March 28, 2017	-	0.449	B	-	-	-	FRO measurement, 28 panels, max panel 7%
April 5, 2017	-	0.455	B	-	-	-	FRO measurement, 23 panels, max panel 8%
April 10, 2017	-	0.457	B	-	-	-	FRO measurement, 28 panels, max panel 5%
April 20, 2017	-	1.118	B	-	-	-	FRO measurement, 30 panels, max panel 6%
April 24, 2017	-	1.346	B	-	-	-	FRO measurement, 27 panels, max panel 6%
May 2, 2017	-	0.871	B	-	-	-	FRO measurement, 29 panels, max panel 6%
May 9, 2017	-	4.774	B	-	-	-	FRO measurement, 27 panels, max panel 7%
May 16, 2017	0.051	6.606	B	-	-	-	FRO measurement, 30 panels, max panel 6%
June 20, 2017	-	5.575	B	-	-	-	FRO measurement, 28 panels, max panel 6%
June 26, 2017	-	4.543	B	-	-	-	FRO measurement, 29 panels, max panel 6%
July 5, 2017	0.184	2.593	B	-	-	-	FRO measurement, 20 panels, max panel 8%
July 11, 2017	0.177	2.263	B	-	-	-	FRO measurement, 24 panels, max panel 8%
July 25, 2017	-	0.938	B	-	-	-	FRO measurement, 20 panels, max panel 10%
August 1, 2017	0.342	0.542	B	-	-	-	FRO measurement, 20 panels, max panel 10%
August 8, 2017	-	0.402	C	-	-	-	FRO measurement, 20 panels, max panel 11%

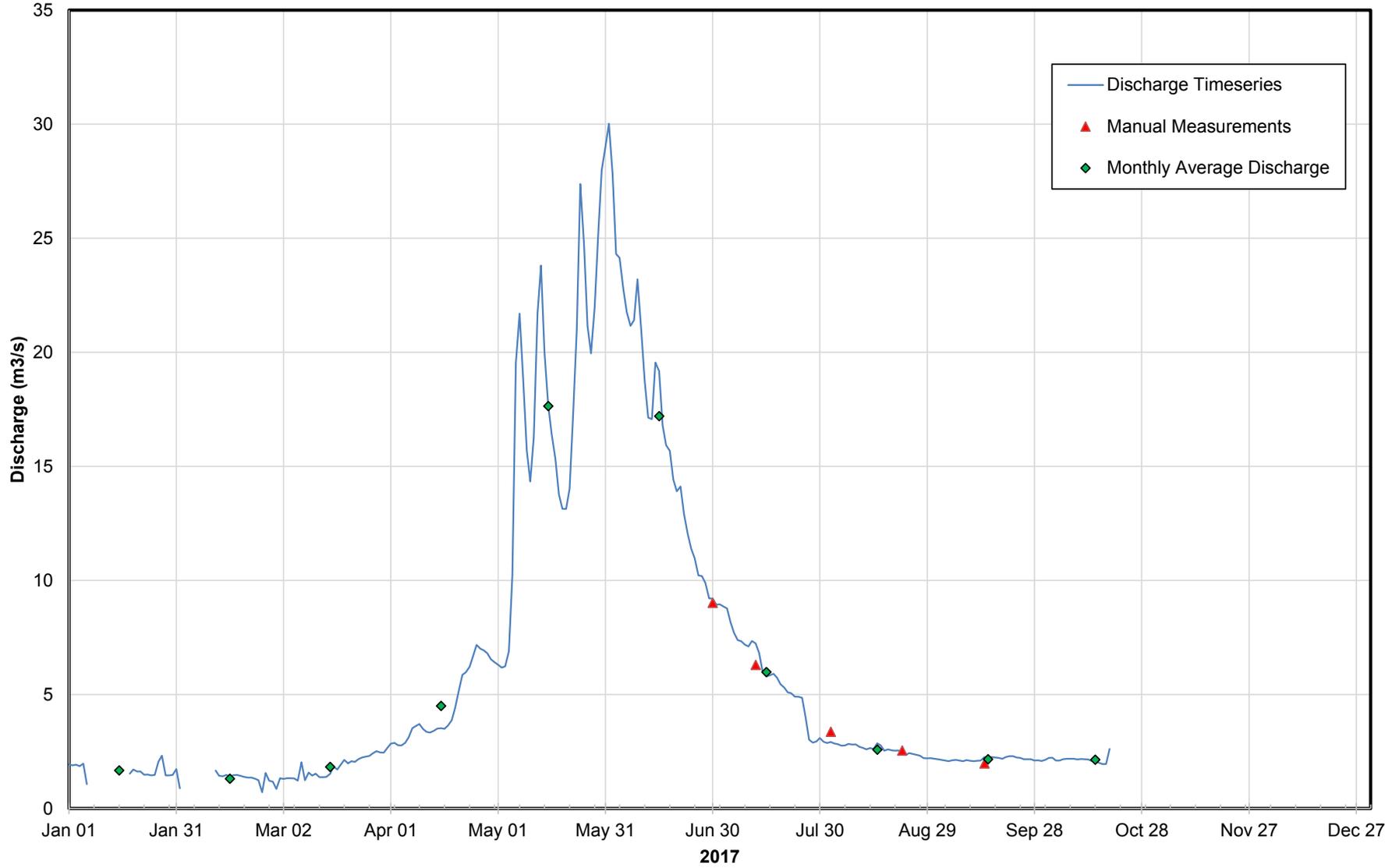
Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
#N/A	#N/A	0.38	0.84	4.08	5.06	1.93	0.42	0.27	0.30	0.27	#N/A

FR_FRCP1 2017 - Yearly Hydrograph



Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
1.67	1.31	1.82	4.50	17.64	17.20	5.98	2.58	2.16	2.14	#N/A	#N/A

GH_FR1 2017 - Yearly Hydrograph



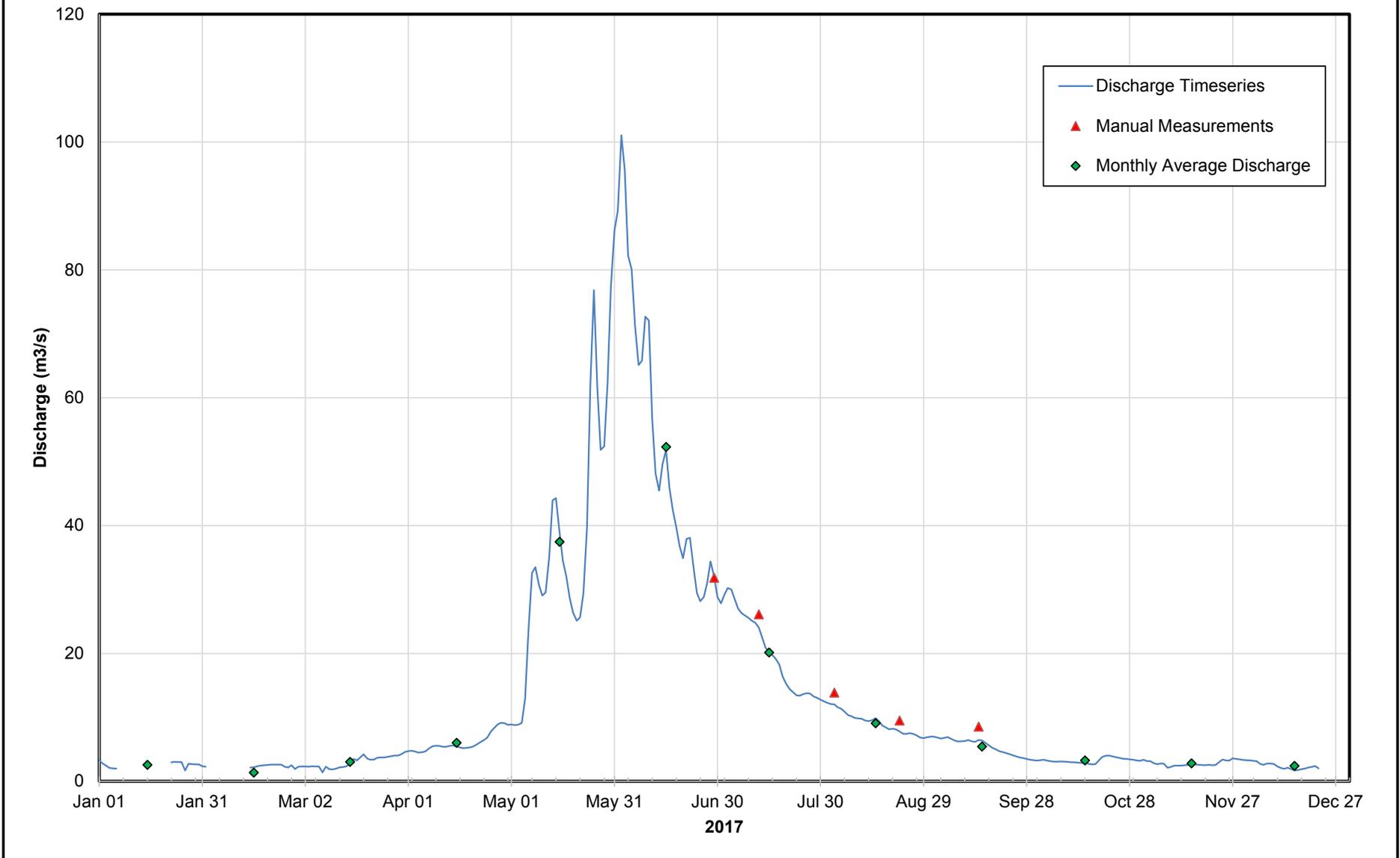
Station Details			
Station Name:	Elk River Compliance, 220 M d/s of Thompson	Reporting Year:	2017
Site ID:	GH_ERC	Station Type:	Calculation (Scaled)
EMS:	E300090	Teck Mine:	Compliance Point
Station Description:	Station data scaled using WSC data (08NK016 and 08NK018) located downstream of Thompson Creek		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	B		
Rationale for Data Grade Recommendation (RSFMP)	Governed by RWQM data use.		

Data Quality Assessment - Continuous Data		
Data Range	Data Quality Assessment Grade*	Description
January 1 - 6, 2017	E	Scaled WSC Preliminary Data
January 7 - 21, 2017	M	Unrealistic data cut from preliminary Water Survey of Canada Data
January 22 - February 1, 2017	E	Scaled WSC Preliminary Data
February 2 - 13, 2017	M	Unrealistic data cut from preliminary Water Survey of Canada Data
February 14 - December 22, 2017	E	Scaled WSC Preliminary Data
December 23 - 31, 2017	M	Unrealistic data cut from preliminary Water Survey of Canada Data

* Grades A, B, C, E and U based on the BC RISC Standards Document. Data gaps greater than 12 hours categorized as **Missing (M)**, data where ice was present in the stream is categorized as **Estimated (E)**

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
2.59	1.36	3.02	6.02	37.48	52.30	20.16	9.09	5.43	3.26	2.82	2.41

GH_ERC 2017 - Yearly Hydrograph



Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 5, 2017	0.460	0.769	B	0.617	0.152	19.7%	LCO Measurement, 23 Panels, none over 10%
January 9, 2017	0.450	-	C	0.482	-	-	Staff Gauge Reading
January 13, 2017	0.459	0.729	B	0.603	0.126	17.3%	LCO Measurement, 24 Panels, none over 10%
January 16, 2017	0.459	-	C	0.603	-	-	Staff Gauge Reading
January 18, 2017	0.457	0.710	B	0.575	0.135	19.0%	LCO Measurement, 22 Panels, none over 10%
January 23, 2017	0.446	-	C	0.432	-	-	Staff Gauge Reading
January 31, 2017	0.448	-	C	0.457	-	-	Staff Gauge Reading
February 7, 2017	0.444	-	C	0.408	-	-	Staff Gauge Reading
February 14, 2017	0.443	-	C	0.397	-	-	Staff Gauge Reading
February 21, 2017	0.436	-	C	0.318	-	-	Staff Gauge Reading
February 22, 2017	0.436	0.374	B	0.318	0.056	14.9%	LCO Measurement, 22 Panels, none over 10%
February 27, 2017	0.434	-	C	0.297	-	-	Staff Gauge Reading
March 6, 2017	0.433	-	C	0.287	-	-	Staff Gauge Reading
March 9, 2017	0.438	0.377	B	0.340	0.037	9.8%	LCO Measurement, 23 Panels, none over 10%
March 13, 2017	0.441	-	C	0.374	-	-	Staff Gauge Reading
March 20, 2017	0.467	-	C	0.720	-	-	Staff Gauge Reading
March 21, 2017	0.466	0.659	B	0.705	-0.046	-7.0%	LCO Measurement, 23 Panels, none over 10%
March 27, 2017	0.459	-	C	0.603	-	-	Staff Gauge Reading
April 3, 2017	0.463	-	C	0.660	-	-	Staff Gauge Reading
April 10, 2017	0.466	-	C	0.705	-	-	Staff Gauge Reading
April 18, 2017	0.475	-	C	0.846	-	-	Staff Gauge Reading
April 24, 2017	0.480	-	C	0.929	-	-	Staff Gauge Reading
April 27, 2017	0.483	1.341	B	0.981	0.360	26.9%	LCO Measurement, 23 Panels, none over 10%
May 5, 2017	0.526	1.878	B	1.847	0.031	1.7%	LCO Measurement, 20 Panels, none over 10%
May 9, 2017	0.616	-	C	4.379	-	-	Staff Gauge Reading
May 13, 2017	0.716	-	C	8.233	-	-	Staff Gauge Reading
May 16, 2017	0.678	-	C	6.645	-	-	Staff Gauge Reading
May 17, 2017	0.633	5.976	B	4.960	1.016	17.0%	LCO Measurement, 20 Panels, none over 10%
May 23, 2017	0.726	-	C	8.675	-	-	Staff Gauge Reading
May 30, 2017	0.788	-	C	11.636	-	-	Staff Gauge Reading
June 1, 2017	0.780	10.725	B	11.232	-0.507	-4.7%	KWL ADP Measurement, Annual Maintenance Trip
June 6, 2017	0.791	-	C	11.788	-	-	Staff Gauge Reading
June 13, 2017	0.683	-	C	6.846	-	-	Staff Gauge Reading
June 19, 2017	0.648	-	C	5.498	-	-	Staff Gauge Reading

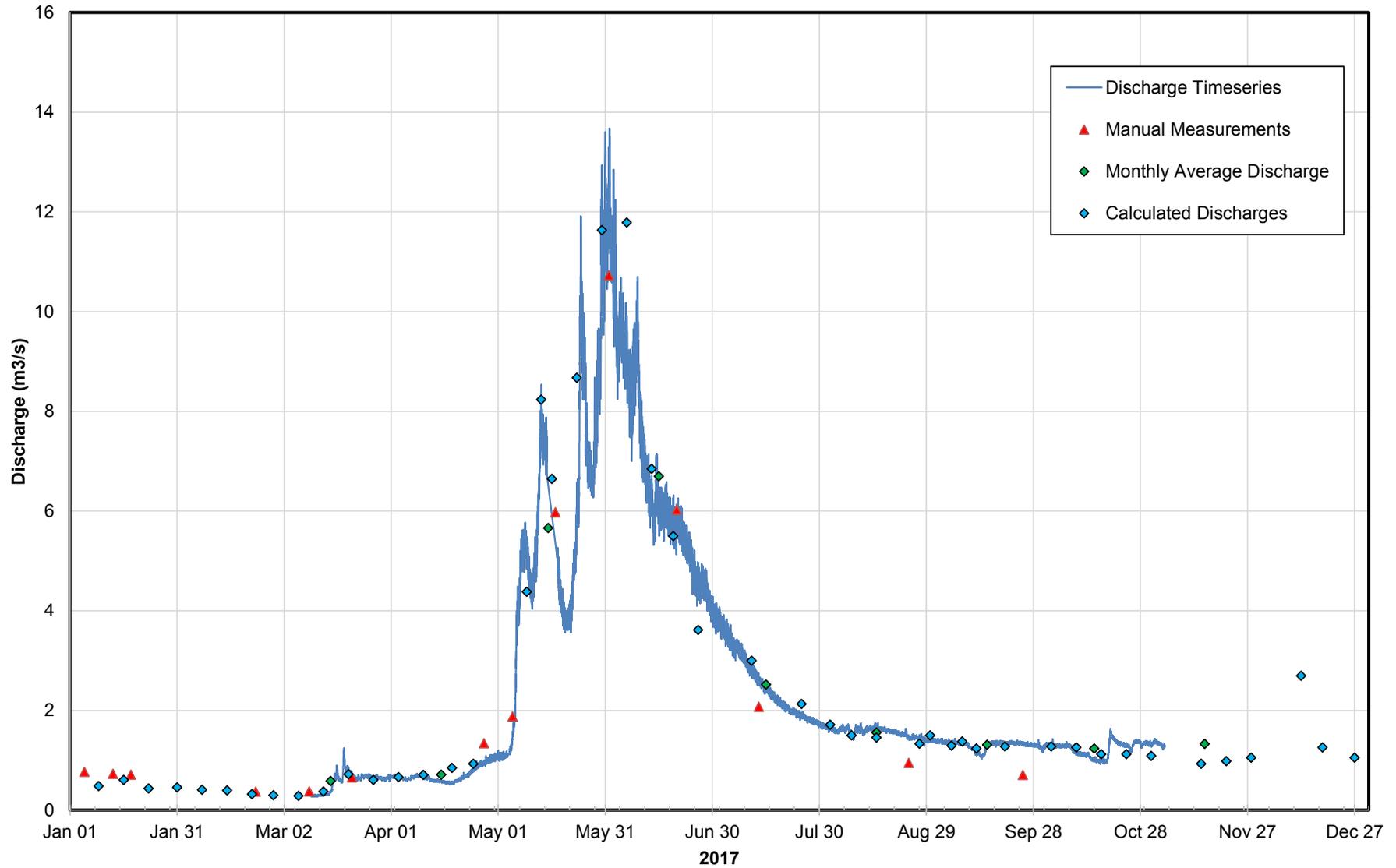
Summary Table of Yearly Discharge Measurements

Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
June 20, 2017	0.658	6.023	B	5.870	0.153	2.5%	LCO Measurement, 20 Panels, none over 10%
June 26, 2017	0.592	-	C	3.613	-	-	Staff Gauge Reading
July 11, 2017	0.571	-	C	2.996	-	-	Staff Gauge Reading
July 13, 2017	0.554	2.071	B	2.534	-0.463	-22.3%	LCO Measurement, 20 Panels, none over 10%
July 25, 2017	0.538	-	C	2.130	-	-	Staff Gauge Reading
August 2, 2017	0.520	-	C	1.712	-	-	Staff Gauge Reading
August 8, 2017	0.510	-	C	1.497	-	-	Staff Gauge Reading
August 15, 2017	0.508	-	C	1.455	-	-	Staff Gauge Reading
August 24, 2017	0.509	0.948	B	1.476	-0.528	-55.7%	LCO Measurement, 20 Panels, none over 10%
August 27, 2017	0.502	-	C	1.334	-	-	Staff Gauge Reading
August 30, 2017	0.510	-	C	1.497	-	-	Staff Gauge Reading
September 5, 2017	0.500	-	C	1.295	-	-	Staff Gauge Reading
September 8, 2017	0.504	-	C	1.374	-	-	Staff Gauge Reading
September 12, 2017	0.497	-	C	1.237	-	-	Staff Gauge Reading
September 20, 2017	0.499	-	C	1.275	-	-	Staff Gauge Reading
September 25, 2017	0.500	0.705	B	1.295	-0.590	-83.6%	LCO Measurement, 22 Panels, none over 10%
October 3, 2017	0.499	-	C	1.275	-	-	Staff Gauge Reading
October 10, 2017	0.498	-	C	1.256	-	-	Staff Gauge Reading
October 17, 2017	0.491	-	C	1.124	-	-	Staff Gauge Reading
October 24, 2017	0.491	-	C	1.124	-	-	Staff Gauge Reading
October 31, 2017	0.489	-	C	1.087	-	-	Staff Gauge Reading
November 14, 2017	0.480	-	C	0.929	-	-	Staff Gauge Reading
November 21, 2017	0.483	-	C	0.981	-	-	Staff Gauge Reading
November 28, 2017	0.487	-	C	1.051	-	-	Staff Gauge Reading
December 12, 2017	0.560	-	C	2.693	-	-	Staff Gauge Reading
December 18, 2017	0.498	-	C	1.256	-	-	Staff Gauge Reading
December 27, 2017	0.487	-	C	1.051	-	-	Staff Gauge Reading
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
#N/A	#N/A	0.58	0.71	5.66	6.70	2.52	1.55	1.31	1.24	1.33	#N/A

LC_LCDSSLCC 2017 - Yearly Hydrograph

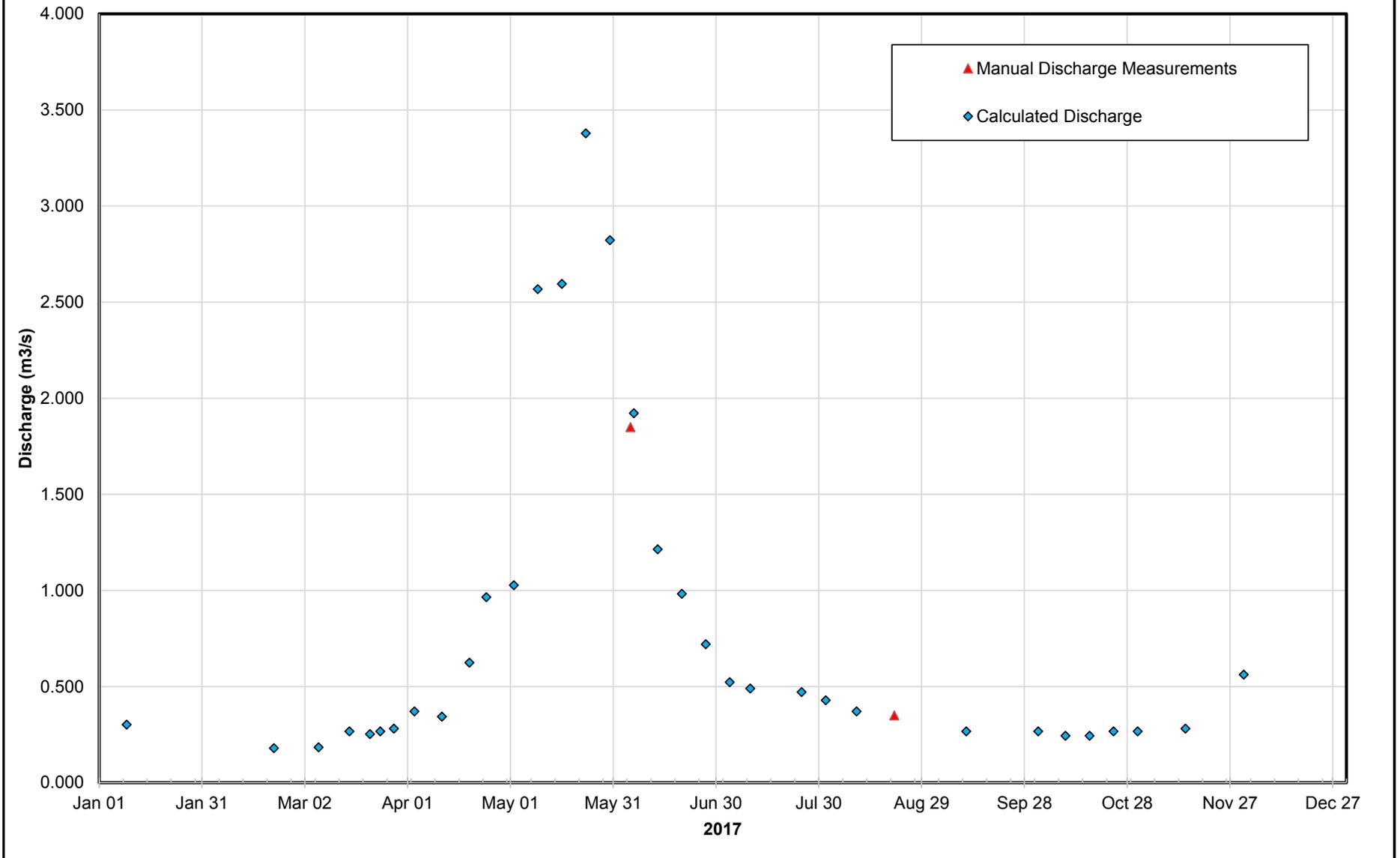


Station Details			
Station Name:	Harmer Creek Dam Spillway	Reporting Year:	2017
Site ID:	EV_HC1	Station Type:	Manual Measurements
EMS:	E102682	Teck Mine:	ElkView Operation
Station Description:	Harmer Creek site is located at the outlet of the Harmer Dam, north of EVO. A staff gauge is located within the concrete spillway which acts as a broad-crested rectangular weir.		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	B		
Rationale for Data Grade Recommendation (RSFMP)	Governed by MAD and RWQM model data use.		

Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 9, 2017	0.112	-	B	0.301	-	-	Staff Gauge Reading
February 21, 2017	0.085	-	B	0.179	-	-	Staff Gauge Reading
March 6, 2017	0.086	-	B	0.183	-	-	Staff Gauge Reading
March 15, 2017	0.105	-	B	0.267	-	-	Staff Gauge Reading
March 21, 2017	0.102	-	B	0.253	-	-	Staff Gauge Reading
March 24, 2017	0.105	-	B	0.267	-	-	Staff Gauge Reading
March 28, 2017	0.108	-	B	0.282	-	-	Staff Gauge Reading
April 3, 2017	0.125	-	B	0.371	-	-	Staff Gauge Reading
April 11, 2017	0.12	-	B	0.343	-	-	Staff Gauge Reading
April 19, 2017	0.165	-	B	0.625	-	-	Staff Gauge Reading
April 24, 2017	0.208	-	B	0.965	-	-	Staff Gauge Reading
May 2, 2017	0.215	-	B	1.027	-	-	Staff Gauge Reading
May 9, 2017	0.35	-	B	2.568	-	-	Staff Gauge Reading
May 16, 2017	0.352	-	B	2.595	-	-	Staff Gauge Reading
May 23, 2017	0.405	-	B	3.378	-	-	Staff Gauge Reading
May 30, 2017	0.368	-	B	2.822	-	-	Staff Gauge Reading

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.30	0.18	0.25	0.58	2.48	1.34	0.49	0.38	0.27	0.26	0.28	0.56

EV_HC1 2017 - Yearly Hydrograph

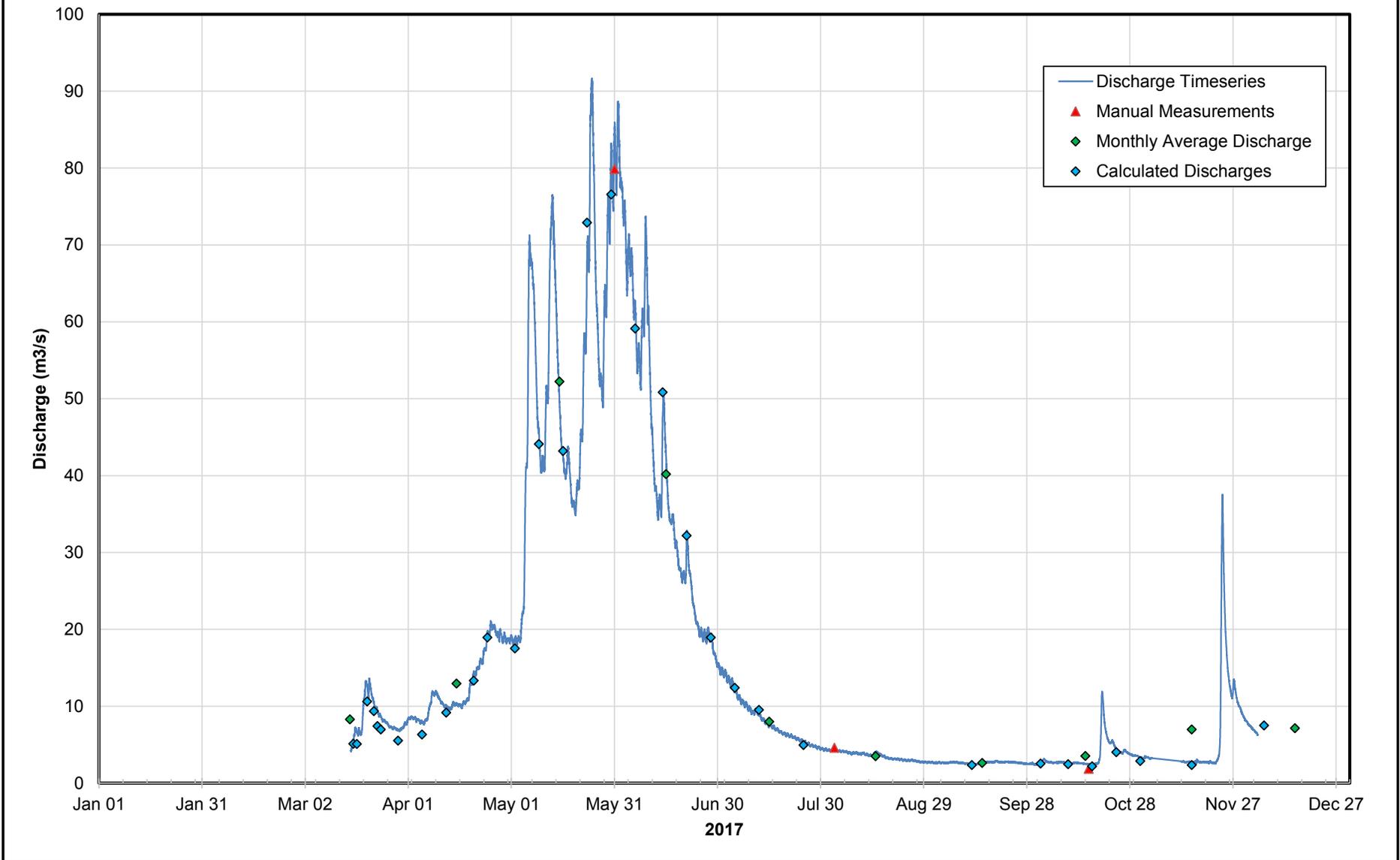


Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
March 16, 2017	0.90	-	B	5.119	-	-	Staff Gauge Reading
March 17, 2017	0.90	-	B	5.090	-	-	Staff Gauge Reading
March 20, 2017	1.05	-	B	10.608	-	-	Staff Gauge Reading
March 22, 2017	1.02	-	B	9.370	-	-	Staff Gauge Reading
March 23, 2017	0.97	-	B	7.419	-	-	Staff Gauge Reading
March 24, 2017	0.96	-	B	6.969	-	-	Staff Gauge Reading
March 29, 2017	0.91	-	B	5.530	-	-	Staff Gauge Reading
April 5, 2017	0.94	-	B	6.307	-	-	Staff Gauge Reading
April 12, 2017	1.02	-	B	9.171	-	-	Staff Gauge Reading
April 20, 2017	1.11	-	B	13.336	-	-	Staff Gauge Reading
April 24, 2017	1.22	-	B	18.935	-	-	Staff Gauge Reading
May 2, 2017	1.19	-	B	17.505	-	-	Staff Gauge Reading
May 9, 2017	1.55	-	B	44.103	-	-	Staff Gauge Reading
May 16, 2017	1.54	-	B	43.186	-	-	Staff Gauge Reading
May 23, 2017	1.82	-	B	72.881	-	-	Staff Gauge Reading
May 30, 2017	1.85	-	B	76.563	-	-	Staff Gauge Reading
May 31, 2017	1.88	79.880	A	80.344	-0.464	-0.6%	KWL ADP Measurement
June 6, 2017	1.70	-	B	59.129	-	-	Staff Gauge Reading
June 14, 2017	1.62	-	B	50.819	-	-	Staff Gauge Reading
June 21, 2017	1.41	-	B	32.201	-	-	Staff Gauge Reading
June 28, 2017	1.22	-	B	18.935	-	-	Staff Gauge Reading
July 5, 2017	1.09	-	B	12.389	-	-	Staff Gauge Reading
July 12, 2017	1.02	-	B	9.530	-	-	Staff Gauge Reading
July 25, 2017	0.89	-	B	4.948	-	-	Staff Gauge Reading
August 3, 2017	0.87	4.610	A	4.401	0.209	4.5%	KWL ADP Measurement
September 12, 2017	0.78	-	B	2.341	-	-	Staff Gauge Reading
October 2, 2017	0.79	-	B	2.553	-	-	Staff Gauge Reading
October 10, 2017	0.79	-	B	2.455	-	-	Staff Gauge Reading
October 16, 2017	0.76	1.853	B	1.998	-0.145	-7.8%	EVO Measurement, 23 Panels none over 10%
October 17, 2017	0.77	-	B	2.175	-	-	Staff Gauge Reading
October 24, 2017	0.86	-	B	4.013	-	-	Staff Gauge Reading
October 31, 2017	0.81	-	B	2.858	-	-	Staff Gauge Reading
November 15, 2017	0.78	-	B	2.360	-	-	Staff Gauge Reading

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
#N/A	#N/A	8.30	12.93	52.23	40.20	8.00	3.49	2.64	3.53	6.99	7.15

EV_MC2 2017 - Yearly Hydrograph



Station Details			
Station Name:	Michel Cr. D/S CMO near Andy Goode Cr. Junction	Reporting Year:	2017
Site ID:	CM_MC2	Station Type:	Manual Measurements
EMS:	E258937	Teck Mine:	Coal Mountain Operation
Station Description:	Michel Creek Downstream (MC2) is located on Michel Creek immediately upstream of the confluence with Andy Good Creek. The staff gauge is located on the right bank side of the creek on a relatively calm section of the creek about 100 m upstream of the confluence with Andy Good Creek.		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	B		
Rationale for Data Grade Recommendation (RSFMP)	Governed by MAD and RWQM data use.		

Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 24, 2017	0.55	-	B	0.355	-	-	Flow calculated using staff gauge reading
January 29, 2017	0.545	-	B	0.336	-	-	Flow calculated using staff gauge reading
January 30, 2017	0.545	-	B	0.336	-	-	Flow calculated using staff gauge reading
February 1, 2017	0.54	-	B	0.318	-	-	Flow calculated using staff gauge reading
February 21, 2017	0.532	-	B	0.291	-	-	Flow calculated using staff gauge reading
March 7, 2017	0.53	-	B	0.284	-	-	Flow calculated using staff gauge reading
March 14, 2017	0.52	-	B	0.253	-	-	Flow calculated using staff gauge reading
March 21, 2017	0.665	-	B	1.010	-	-	Flow calculated using staff gauge reading
March 22, 2017	0.645	-	B	0.860	-	-	Flow calculated using staff gauge reading
March 29, 2017	0.594	-	B	0.550	-	-	Flow calculated using staff gauge reading
April 5, 2017	0.61	-	B	0.637	-	-	Flow calculated using staff gauge reading
April 12, 2017	0.615	-	B	0.666	-	-	Flow calculated using staff gauge reading
April 12, 2017	0.615	-	B	0.666	-	-	Flow calculated using staff gauge reading
April 19, 2017	0.65	-	B	0.896	-	-	Flow calculated using staff gauge reading
April 24, 2017	0.686	-	B	1.186	-	-	Flow calculated using staff gauge reading
May 2, 2017	0.685	-	B	1.177	-	-	Flow calculated using staff gauge reading
May 9, 2017	0.88	-	B	3.967	-	-	Flow calculated using staff gauge reading
May 16, 2017	0.866	-	B	3.683	-	-	Flow calculated using staff gauge reading
May 23, 2017	0.99	-	B	6.755	-	-	Flow calculated using staff gauge reading

Summary Table of Yearly Discharge Measurements

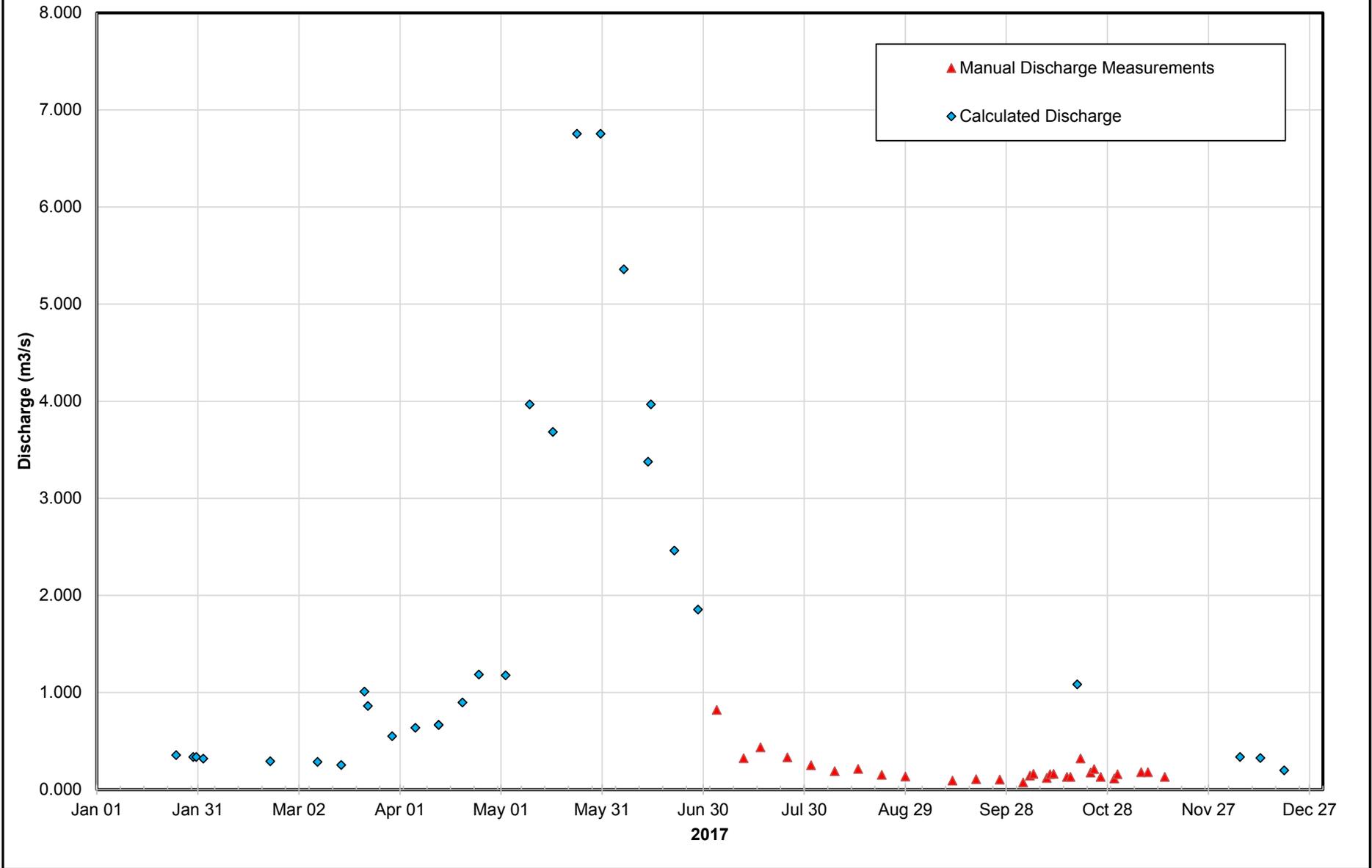
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
May 30, 2017	0.99	-	B	6.755	-	-	Flow calculated using staff gauge reading
June 6, 2017	0.94	-	B	5.358	-	-	Flow calculated using staff gauge reading
June 13, 2017	0.85	-	B	3.377	-	-	Flow calculated using staff gauge reading
June 14, 2017	0.88	-	B	3.967	-	-	Flow calculated using staff gauge reading
June 21, 2017	0.795	-	B	2.461	-	-	Flow calculated using staff gauge reading
June 28, 2017	0.75	-	B	1.855	-	-	Flow calculated using staff gauge reading
July 4, 2017	0.689	0.820	B	1.213	-0.393	-47.9%	CMO measurement, 21 panels none over 10%
July 12, 2017	0.63	0.323	B	0.759	-0.436	-134.9%	CMO measurement, 25 panels none over 10%
July 17, 2017	0.565	0.435	B	0.415	0.020	4.7%	CMO measurement, 25 panels none over 10%
July 25, 2017	0.534	0.332	B	0.298	0.034	10.3%	CMO measurement, 22 panels none over 10%
August 1, 2017	0.504	0.252	B	0.209	0.043	17.1%	CMO measurement, 21 panels none over 10%
August 8, 2017	0.49	0.189	B	0.175	0.014	7.6%	CMO measurement, 21 panels none over 10%
August 15, 2017	0.486	0.213	B	0.166	0.047	22.3%	CMO measurement, 21 panels none over 10%
August 22, 2017	0.46	0.152	B	0.115	0.037	24.4%	CMO measurement, 24 panels none over 10%
August 29, 2017	-	0.134	B	-	-	-	CMO measurement, 24 panels none over 10%, staff gauge dry
September 12, 2017	-	0.091	B	-	-	-	CMO measurement, 24 panels none over 10%, staff gauge dry
September 19, 2017	-	0.107	B	-	-	-	CMO measurement, 24 panels none over 10%, staff gauge dry
September 26, 2017	-	0.104	B	-	-	-	CMO measurement, 24 panels none over 10%, staff gauge dry
October 3, 2017	-	0.073	B	-	-	-	CMO measurement, 24 panels none over 10%, staff gauge dry
October 5, 2017	-	0.143	B	-	-	-	CMO measurement, 24 panels none over 10%, staff gauge dry
October 6, 2017	-	0.162	B	-	-	-	CMO measurement, 24 panels none over 10%, staff gauge dry
October 10, 2017	-	0.119	B	-	-	-	CMO measurement, 24 panels none over 10%, staff gauge dry
October 11, 2017	-	0.158	B	-	-	-	CMO measurement, 24 panels none over 10%, staff gauge dry
October 12, 2017	-	0.162	B	-	-	-	CMO measurement, 24 panels none over 10%, staff gauge dry
October 16, 2017	-	0.131	B	-	-	-	CMO measurement, 25 panels none over 10%, staff gauge dry
October 17, 2017	-	0.131	B	-	-	-	CMO measurement, 24 panels none over 10%, staff gauge dry
October 19, 2017	0.674	-	B	1.083	-	-	Flow calculated using staff gauge reading
October 20, 2017	0.556	0.320	B	0.378	-0.058	-18.0%	CMO measurement, 22 panels none over 10%
October 23, 2017	0.509	0.174	B	0.222	-0.048	-27.6%	CMO measurement, 25 panels none over 10%
October 24, 2017	0.494	0.210	B	0.184	0.026	12.4%	CMO measurement, 25 panels none over 10%
October 26, 2017	0.498	0.131	B	0.194	-0.063	-47.8%	CMO measurement, 25 panels none over 10%
October 30, 2017	0.492	0.113	B	0.179	-0.066	-58.6%	CMO measurement, 25 panels none over 10%
October 31, 2017	0.474	0.158	B	0.141	0.017	11.0%	CMO measurement, 25 panels none over 10%
November 7, 2017	0.462	0.180	B	0.118	0.062	34.3%	CMO measurement, 22 panels none over 10%, Ice in channel
November 9, 2017	0.477	0.180	B	0.147	0.033	18.6%	CMO measurement, 23 panels none over 10%

Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
November 14, 2017	0.472	0.130	B	0.137	-0.007	-5.1%	CMO measurement, 22 panels max flow 11%
December 6, 2017	0.545	-	B	0.336	-	-	Flow calculated using staff gauge reading
December 12, 2017	0.542	-	B	0.325	-	-	Flow calculated using staff gauge reading
December 19, 2017	0.5	-	B	0.199	-	-	Flow calculated using staff gauge reading
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.34	0.30	0.59	0.81	4.47	3.40	0.48	0.19	0.10	0.22	0.16	0.29

CM_MC2 2017 - Yearly Hydrograph





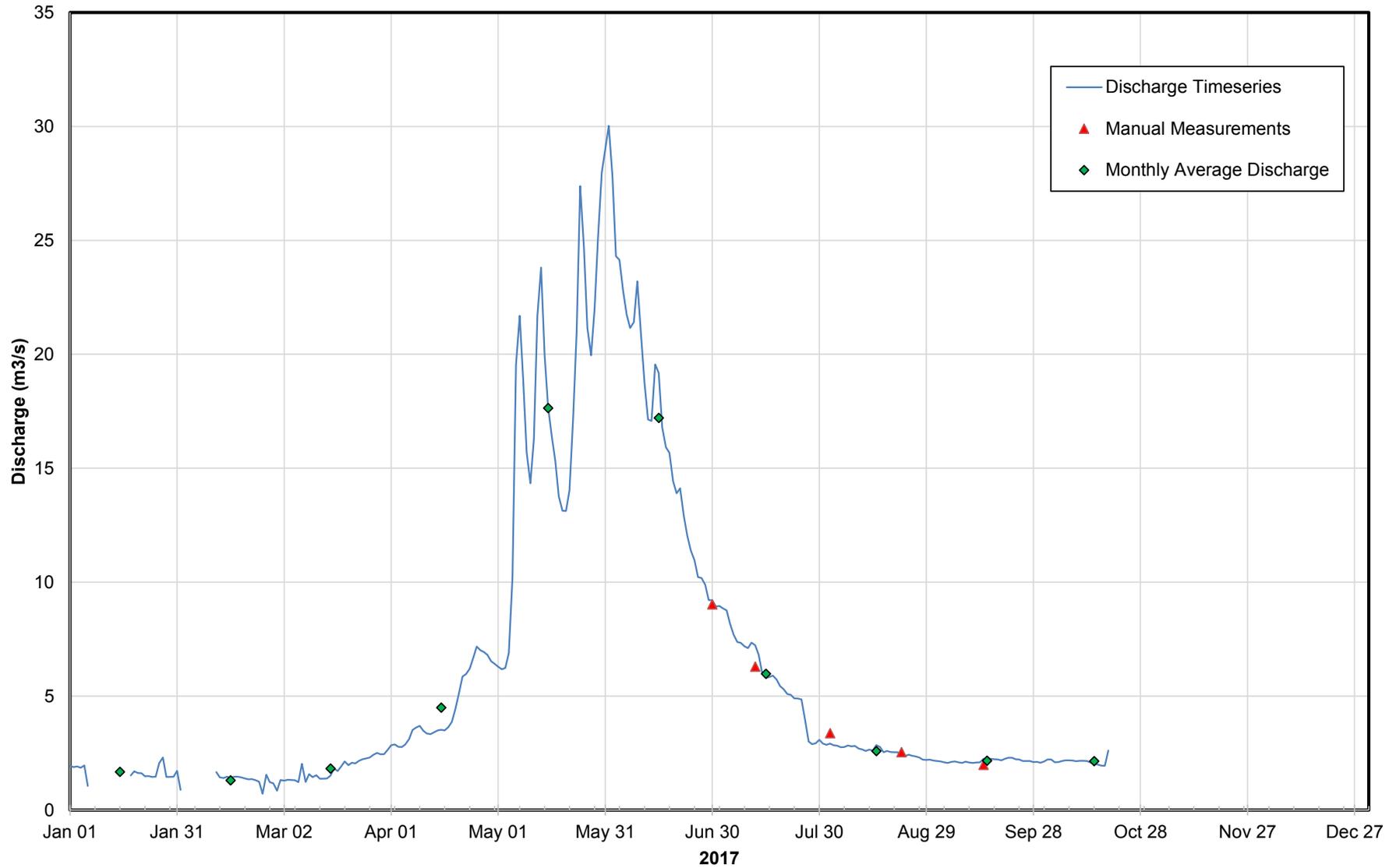
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Appendix B

Order Stations Annual Hydrometric Summaries

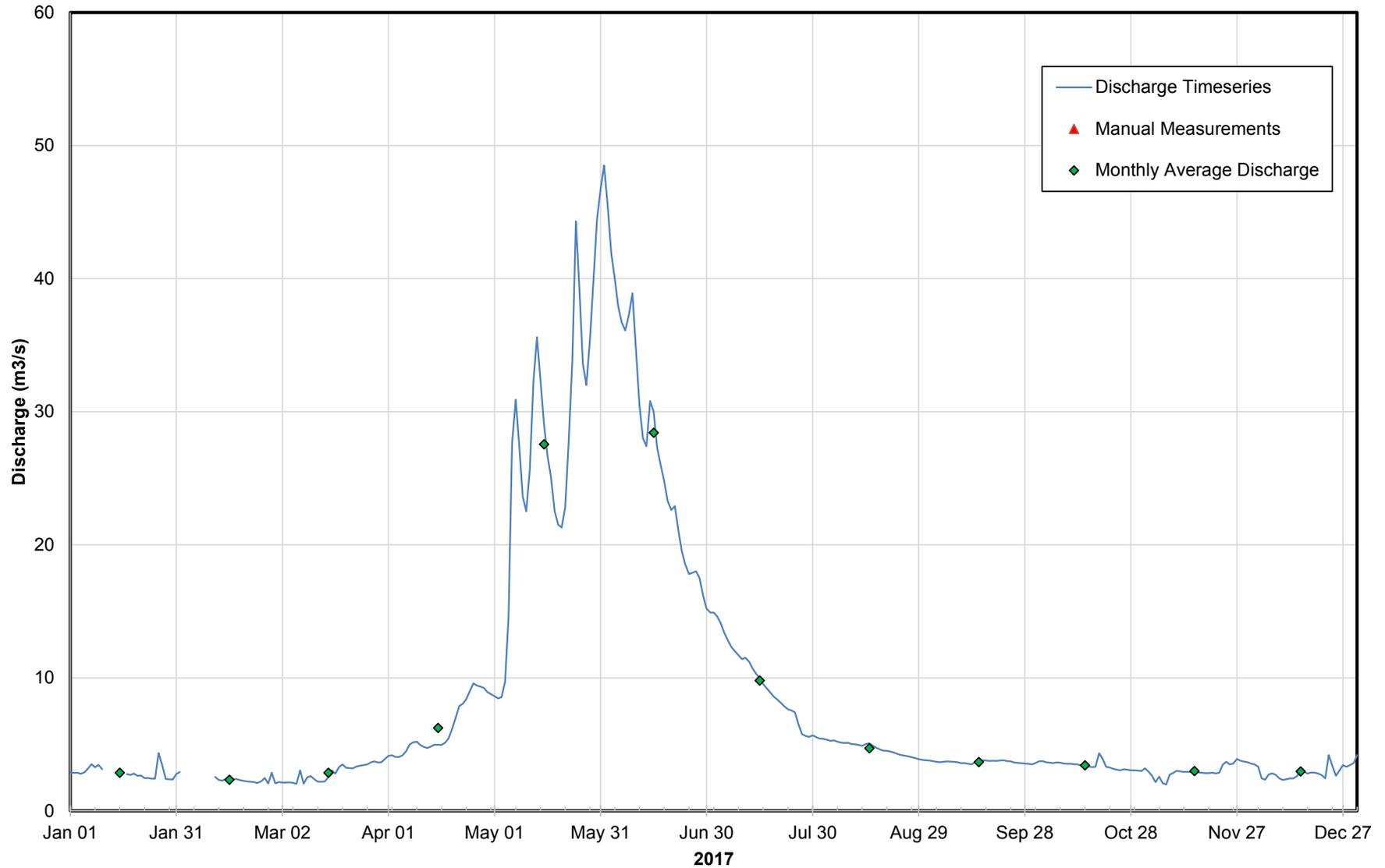
Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
1.67	1.31	1.82	4.50	17.64	17.20	5.98	2.58	2.16	2.14	#N/A	#N/A

GH_FR1 2017 - Yearly Hydrograph



Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
2.87	2.34	2.87	6.23	27.55	28.43	9.79	4.70	3.68	3.41	3.00	2.96

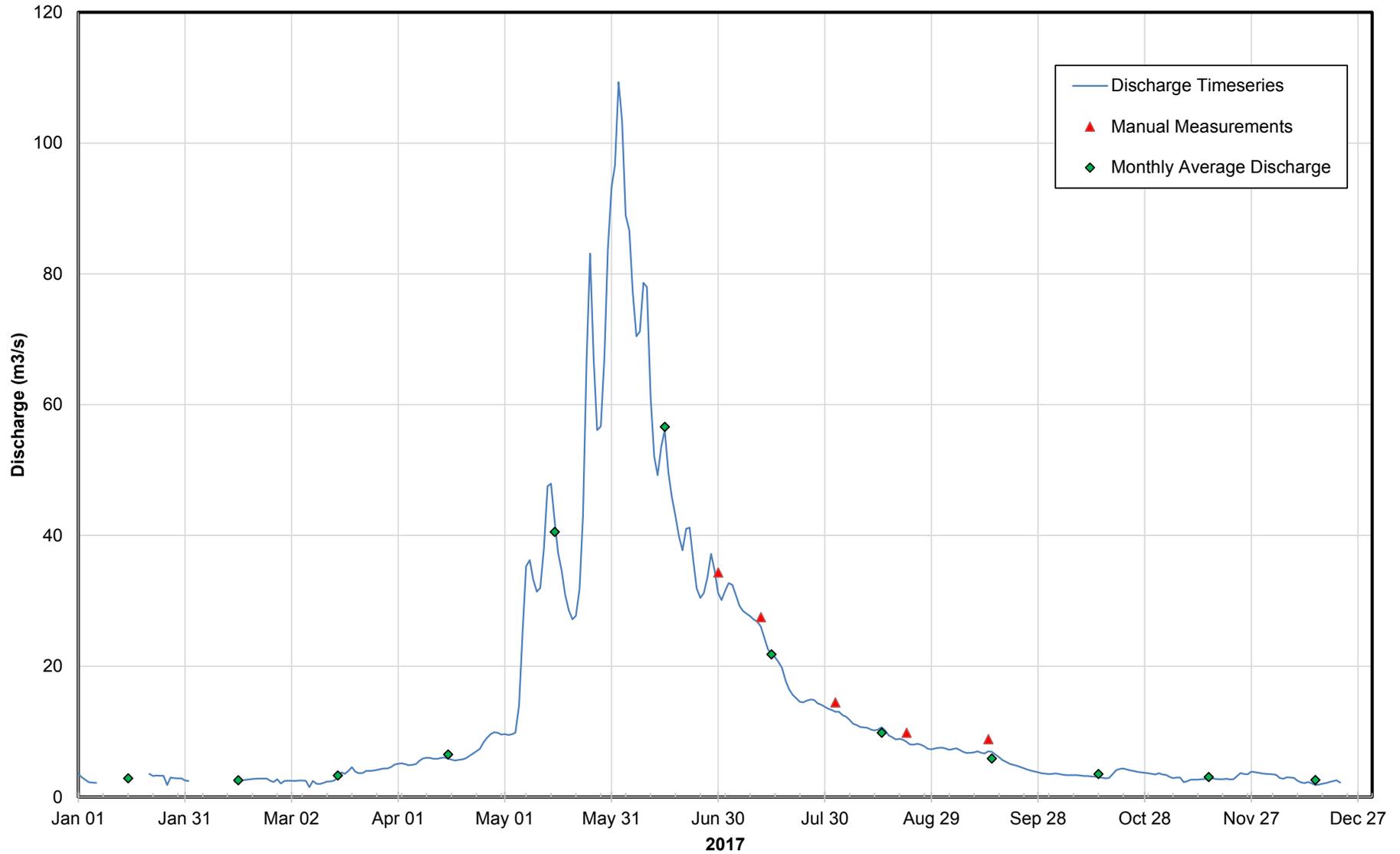
LC_LC5 2017 - Yearly Hydrograph



Monthly Average Discharge m³/sec

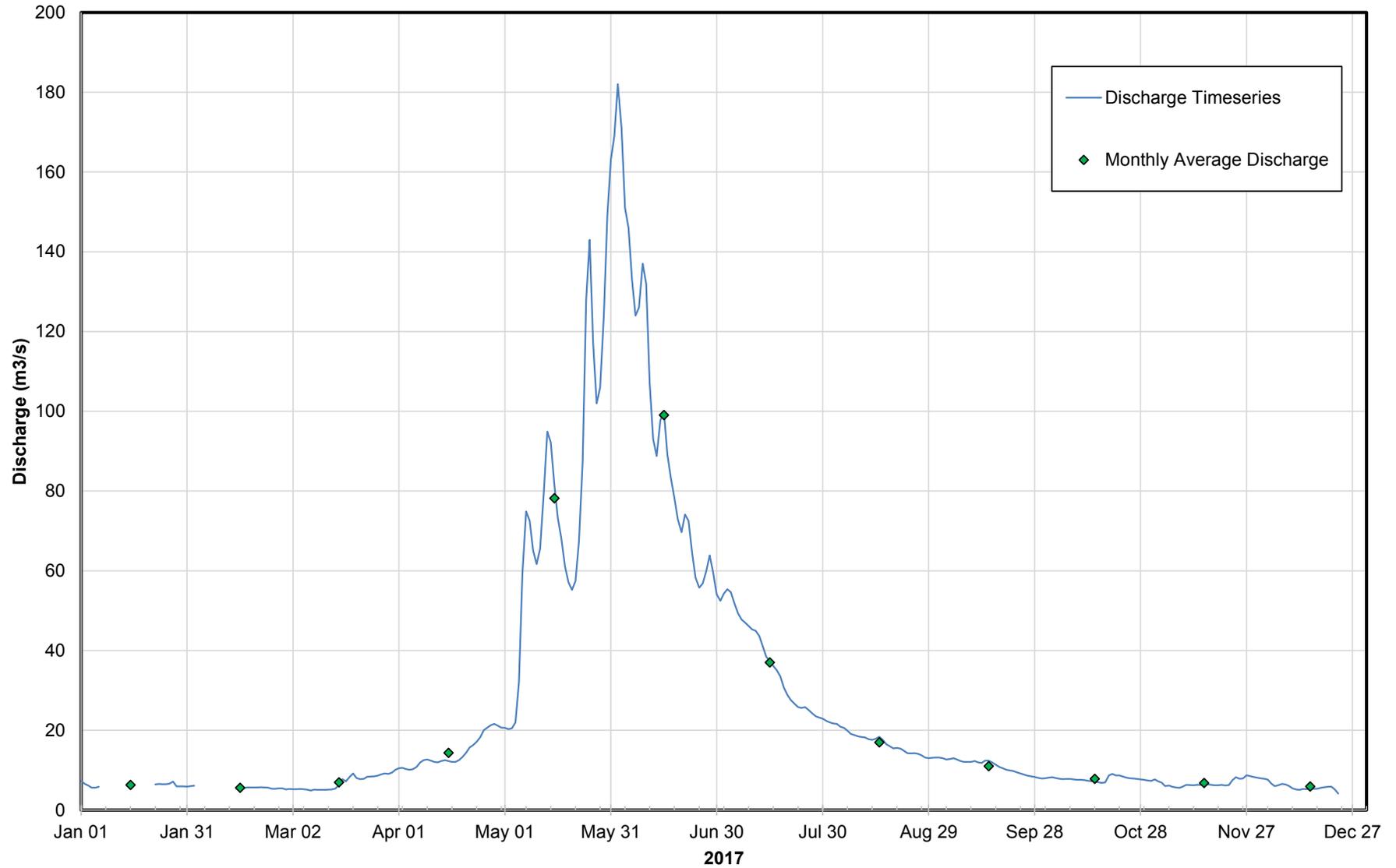
January	February	March	April	May	June	July	August	September	October	November	December
2.84	2.57	3.27	6.51	40.55	56.58	21.81	9.83	5.88	3.52	3.05	2.60

GH_ER1 2017 - Yearly Hydrograph



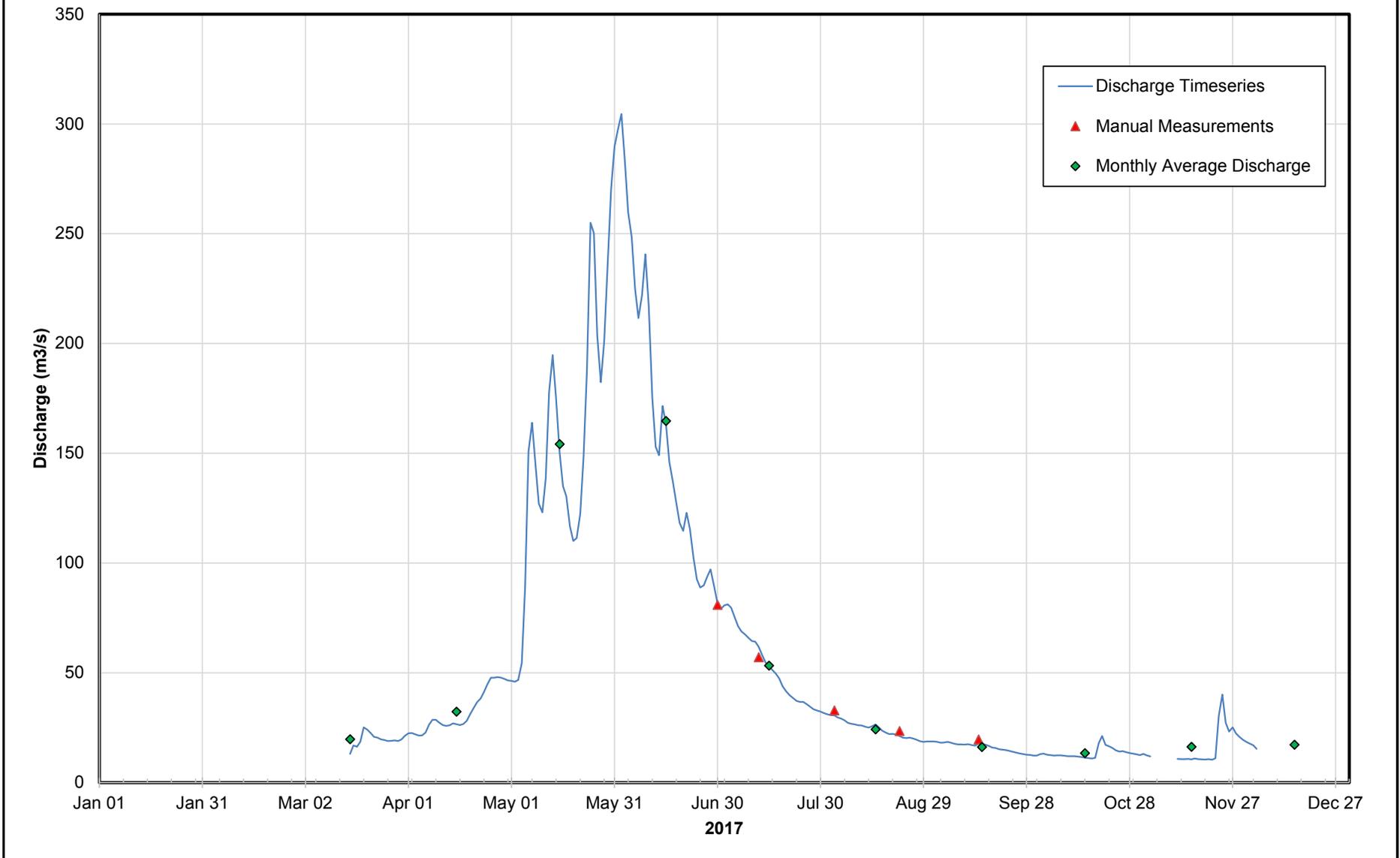
Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
6.30	5.57	6.94	14.35	78.14	99.02	37.00	16.96	11.01	7.81	6.80	5.91

EV_ER4 2017 - Yearly Hydrograph



Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
#N/A	#N/A	19.68	32.27	154.18	164.67	53.22	24.19	16.14	13.40	16.30	17.19

EV_ER1 2017 - Yearly Hydrograph





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Appendix C

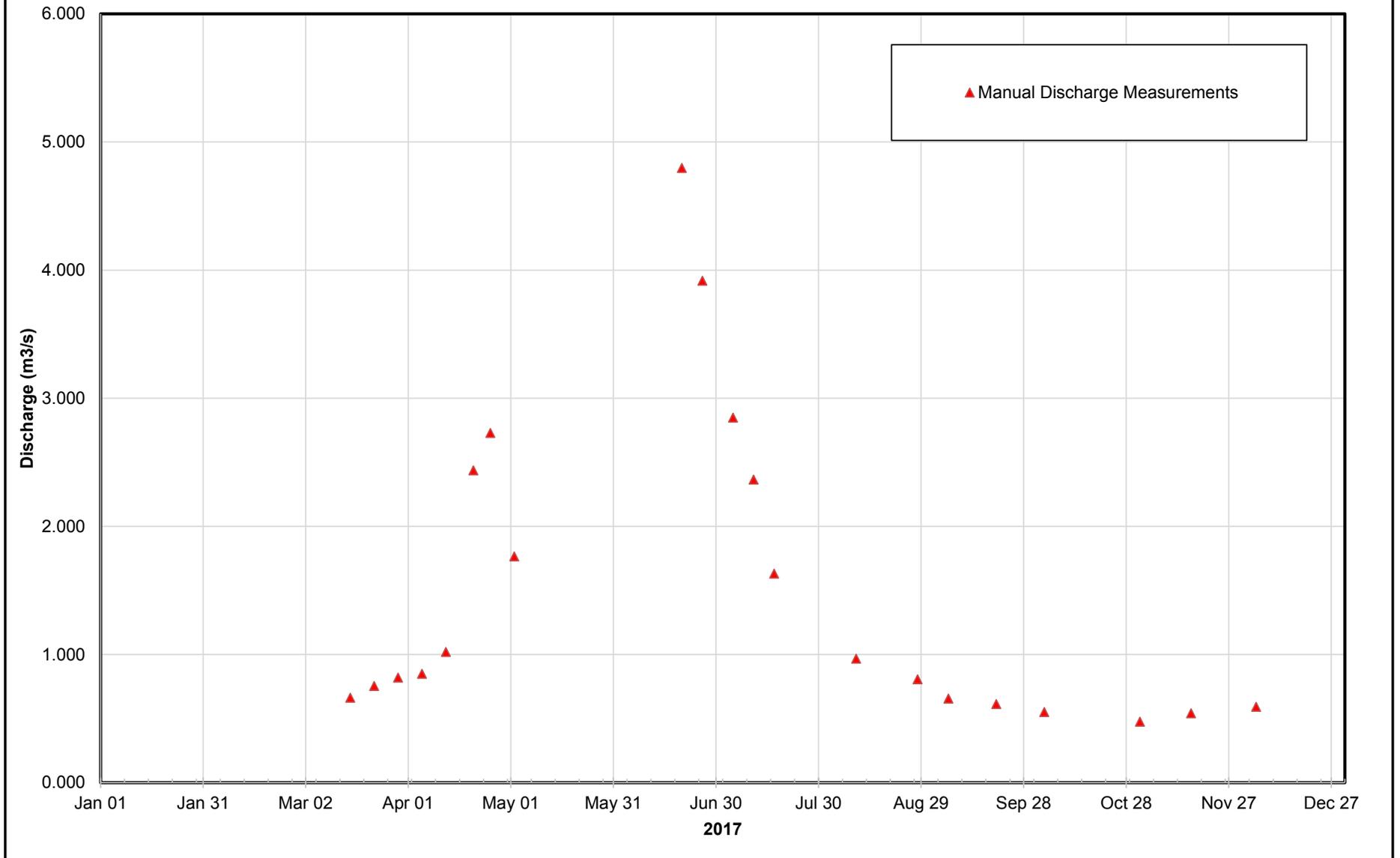
Fording River Operation Annual Hydrometric Summaries

Station Details			
Station Name:	Fording River U/S of Kilmarnock Cr.	Reporting Year:	2017
Site ID:	FR_FR2	Station Type:	Manual Measurements
EMS:	200201	Teck Mine:	Fording River Operation
Station Description:	Manual discharge station on the Fording River Upstream of Kilmarnock Cr.		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	B		
Rationale for Data Grade Recommendation (RSFMP)	Governed by WQ sampling data use.		

Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
March 15, 2017	-	0.662	B	-	-	-	FRO measurement, 23 panels, max panel 9%
March 22, 2017	0.486	0.754	B	-	-	-	FRO measurement, 22 panels, max panel 9%
March 29, 2017	0.471	0.820	C	-	-	-	FRO measurement, 21 panels, max panel 12%
April 5, 2017	-	0.850	B	-	-	-	FRO measurement, 21 panels, max panel 9%
April 12, 2017	0.442	1.020	B	-	-	-	FRO measurement, 22 panels, max panel 10%
April 20, 2017	-	2.437	B	-	-	-	FRO measurement, 28 panels, max panel 7%
April 25, 2017	0.299	2.729	B	-	-	-	FRO measurement, 24 panels, max panel 8%
May 2, 2017	0.472	1.765	B	-	-	-	FRO measurement, 26 panels ,max panel 8%
June 20, 2017	0.296	4.798	B	-	-	-	FRO measurement, 29 panels, max panel 7%
June 26, 2017	0.311	3.918	B	-	-	-	FRO measurement, 28 panels, max panel 7%
July 5, 2017	0.405	2.849	B	-	-	-	FRO measurement, 24 panels, max panel 7%
July 11, 2017	0.429	2.366	B	-	-	-	FRO measurement, 26 panels, max panel 8%
July 17, 2017	0.456	1.632	C	-	-	-	FRO measurement, 22 panels, max panel 11%
August 10, 2017	0.517	0.968	B	-	-	-	FRO measurement, 26 panels, max panel 8%
August 28, 2017	0.536	0.807	B	-	-	-	FRO measurement, 25 panels, max panel 8%
September 6, 2017	0.544	0.657	B	-	-	-	FRO measurement, 22 panels, max panel 10%

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
#N/A	#N/A	0.75	1.76	1.77	4.36	2.28	0.89	0.64	0.55	0.51	0.59

FR_FR2 2017 - Yearly Hydrograph



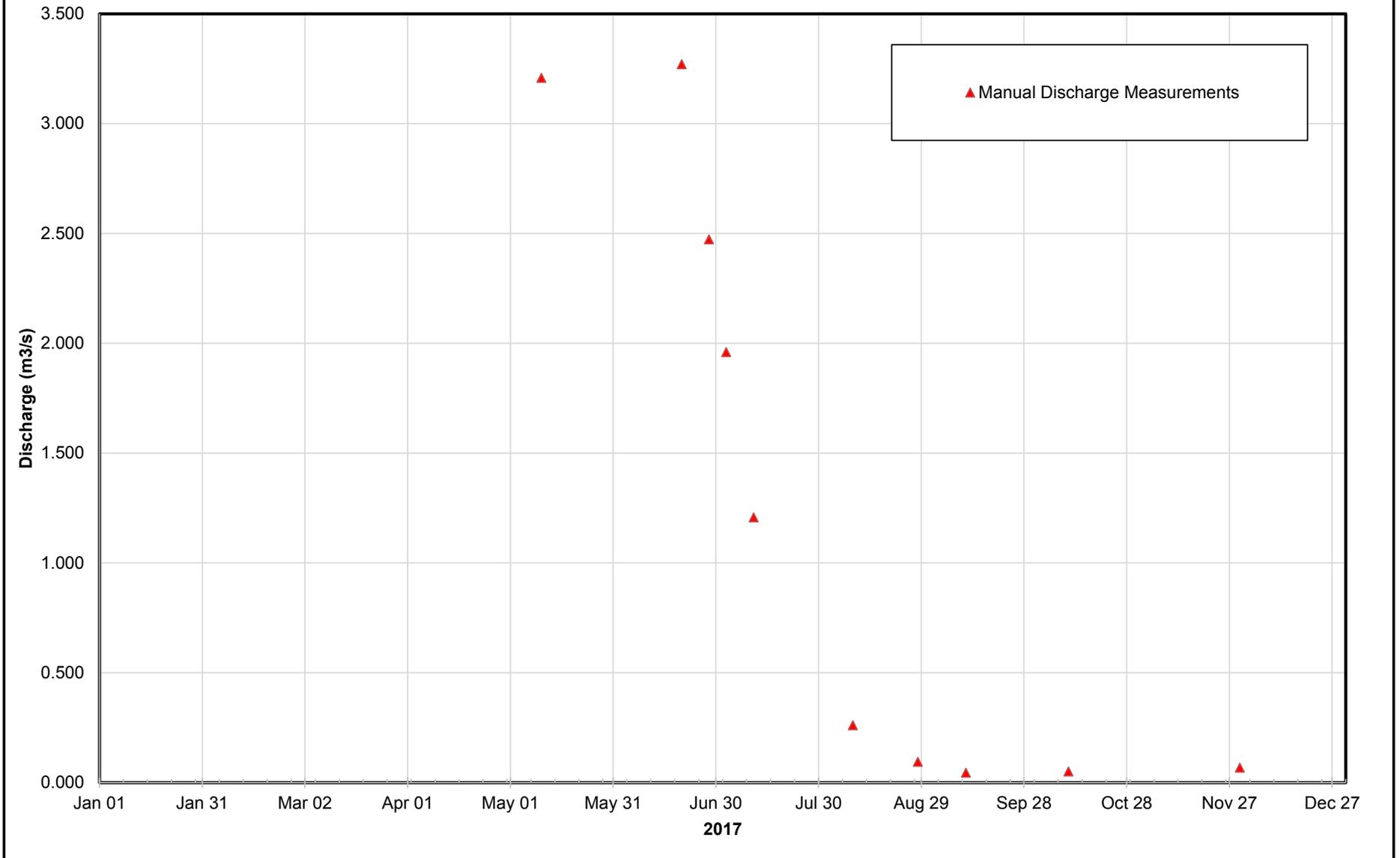
Station Details			
Station Name:	Fording River D/S of Henretta Cr.	Reporting Year:	2017
Site ID:	FR_FR1	Station Type:	Manual Measurements
EMS:	200251	Teck Mine:	Fording River Operation
Station Description:	Manual discharge site on the Fording River downstream of Henretta Cr.		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	B		
Rationale for Data Grade Recommendation (RSFMP)	Governed by WQ sampling data use .		

Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
May 10, 2017	0.48	3.209	B	-	-	-	FRO measurement, 28 panels, max panel 7%
June 20, 2017	0.454	3.270	B	-	-	-	FRO measurement, 28 panels, max panel 6%
June 28, 2017	0.479	2.473	B	-	-	-	FRO measurement, 23 panels, max panel 8%
July 3, 2017	0.508	1.960	B	-	-	-	FRO measurement, 22 panels, max panel 8%
July 11, 2017	0.545	1.208	C	-	-	-	FRO measurement, 20 panels, max panel 14%
August 9, 2017	0.67	0.261	B	-	-	-	FRO measurement, 23 panels, max panel 9%
August 28, 2017	0.718	0.095	B	-	-	-	FRO measurement, 23 panels, max panel 10%
September 11, 2017	0.755	0.045	B	-	-	-	FRO measurement, 22 panels, max panel 9%
October 11, 2017	0.745	0.051	C	-	-	-	FRO measurement, 25 panels, max panel 12%
November 30, 2017	0.718	0.069	B	-	-	-	FRO measurement, 23 panels, max panel 9%
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
#N/A	#N/A	#N/A	#N/A	3.21	2.87	1.58	0.18	0.05	0.05	0.07	#N/A

FR_FR1 2017 - Yearly Hydrograph

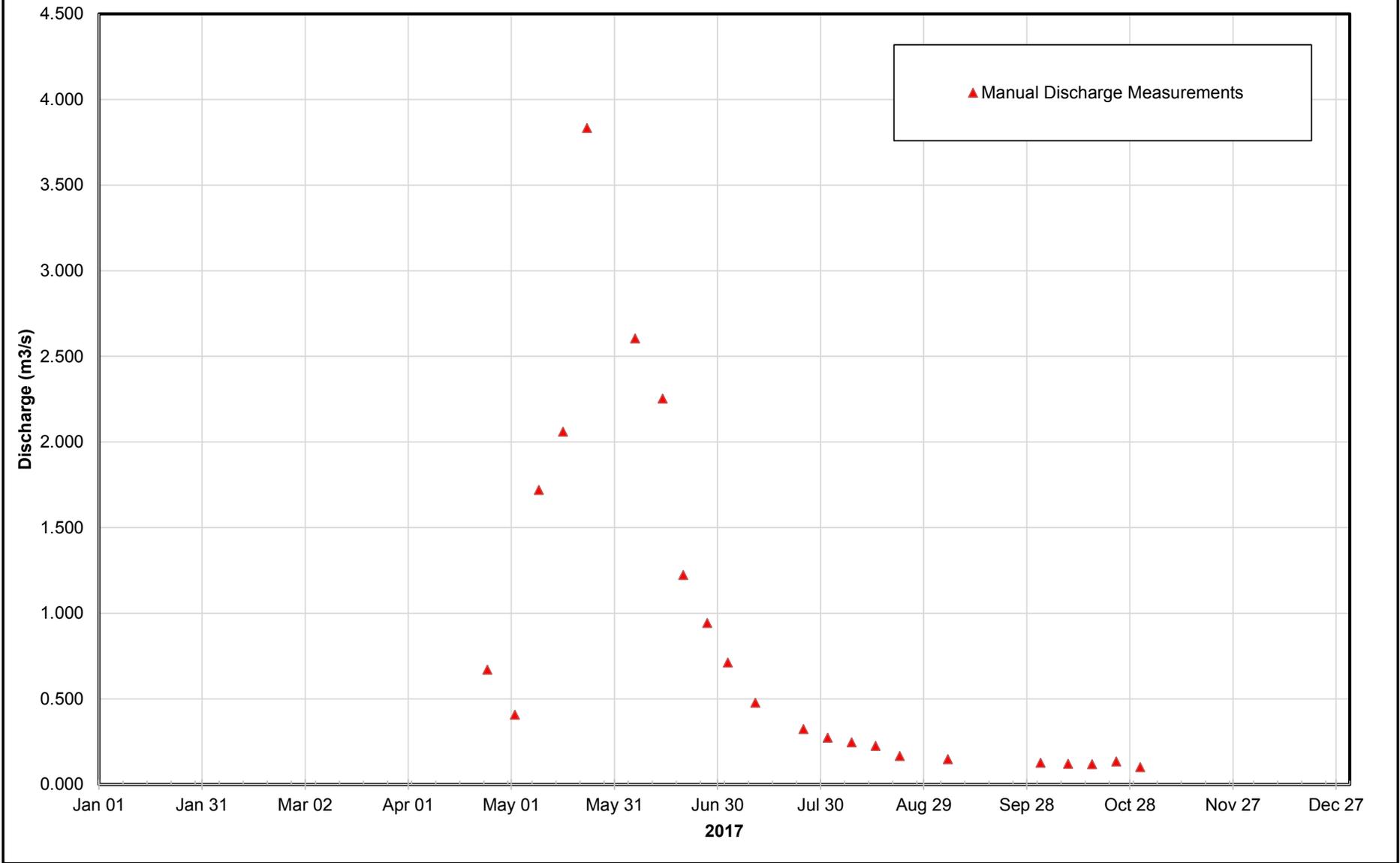


Station Details			
Station Name:	Fording River U/S of Henretta Cr.	Reporting Year:	2017
Site ID:	FR_UFR1	Station Type:	Manual Measurements
EMS:	E216777	Teck Mine:	Fording River Operation
Station Description:	Manual discharge station on the Fording River upstream of Henretta Cr.		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	B		
Rationale for Data Grade Recommendation (RSFMP)	Governed by WQ sampling data use.		

Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
April 24, 2017	0.43	0.670	B	-	-	-	FRO measurement, 25 panels, max panel 6%
May 2, 2017	0.485	0.408	B	-	-	-	FRO measurement, 26 panels, max panel 8%
May 9, 2017	0.339	1.720	B	-	-	-	FRO measurement, 29 panels, max panel 6%
May 16, 2017	0.301	2.061	B	-	-	-	FRO measurement, 26 panels, max panel 9%
May 23, 2017	0.197	3.834	B	-	-	-	FRO measurement, 27 panels, max panel 6%
June 6, 2017	0.497	2.605	B	-	-	-	FRO measurement, 25 panels, max panel 8%
June 14, 2017	0.522	2.253	B	-	-	-	FRO measurement, 25 panels, max panel 8%
June 20, 2017	0.626	1.224	B	-	-	-	FRO measurement, 23 panels, max panel 8%
June 27, 2017	0.664	0.943	B	-	-	-	FRO measurement, 23 panels, max panel 9%
July 3, 2017	0.718	0.712	B	-	-	-	FRO measurement, 23 panels, max panel 8%
July 11, 2017	0.771	0.477	B	-	-	-	FRO measurement, 22 panels, max panel 10%
July 25, 2017	0.801	0.324	B	-	-	-	FRO measurement, 24 panels, max panel 10%
August 1, 2017	0.801	0.273	B	-	-	-	FRO measurement, 22 panels, max panel 9%
August 8, 2017	0.81	0.247	C	-	-	-	FRO measurement, 21 panels, max panel 12%
August 15, 2017	0.833	0.225	B	-	-	-	FRO measurement, 25 panels, max panel 9%
August 22, 2017	0.831	0.167	B	-	-	-	FRO measurement, 24 panels, max panel 8%

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
#N/A	#N/A	#N/A	0.67	2.01	1.76	0.50	0.23	0.15	0.12	#N/A	#N/A

FR_UFR1 2017 - Yearly Hydrograph



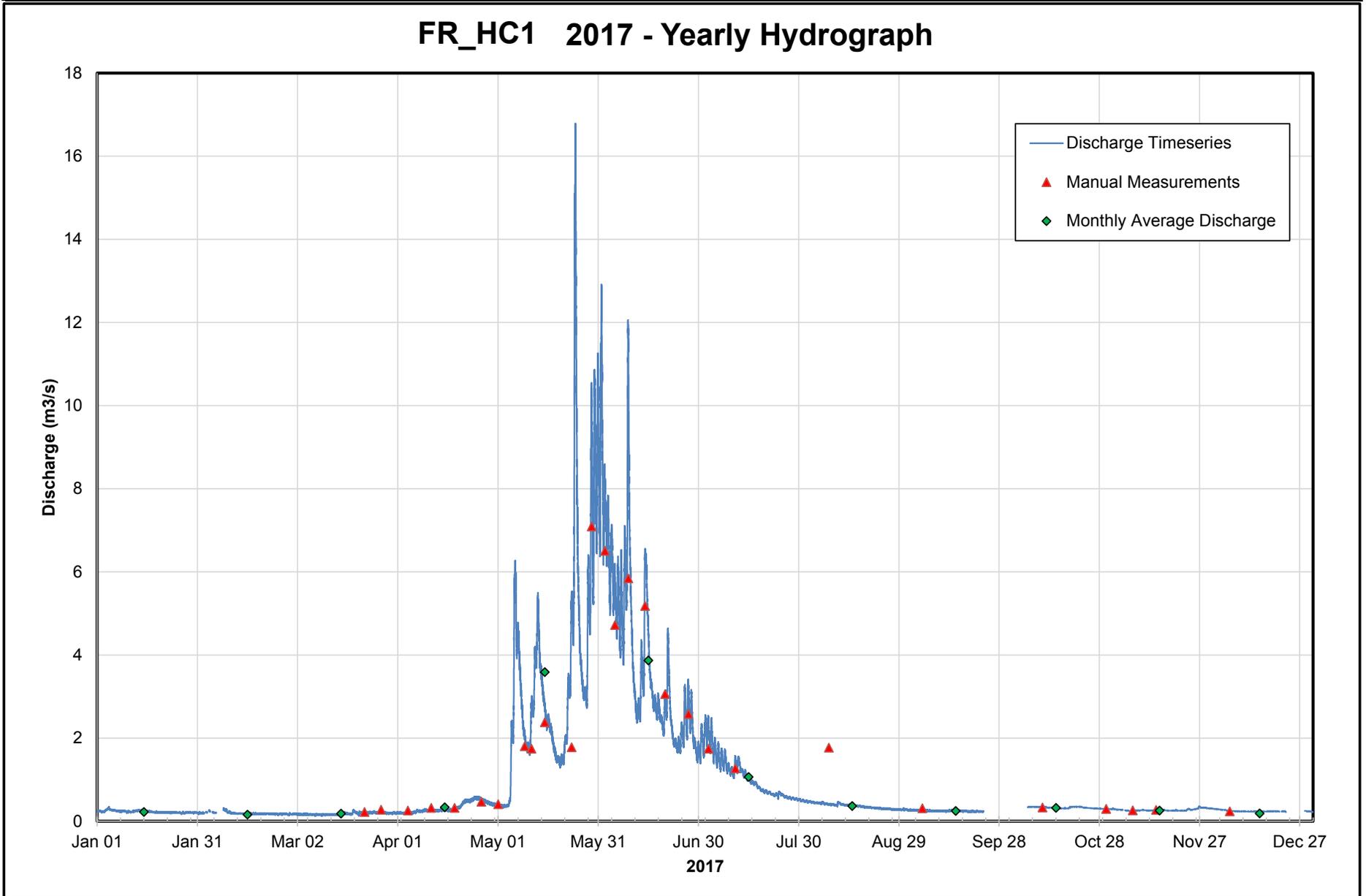
Summary Table of Yearly Discharge Measurements

Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
March 22, 2017	-	0.223	B	-	-	-	FRO measurement, 25 panels, max panel 8%
March 27, 2017	0.22	0.277	B	0.209	0.068	24.5%	FRO measurement, 22 panels, max panel 9%
April 4, 2017	0.27	0.260	B	0.378	-0.119	-45.8%	FRO measurement, 23 panels, max panel 10%
April 11, 2017	0.24	0.321	C	0.278	0.043	13.4%	FRO measurement, 21 panels, max panel 8%
April 18, 2017	0.25	0.321	B	0.293	0.028	8.7%	FRO measurement, 21 panels, max panel 8%
April 26, 2017	0.30	0.471	B	0.531	-0.060	-12.7%	FRO measurement, 27 panels, max panel 8%
May 1, 2017	0.27	0.410	E	0.378	0.032	7.7%	FRO measurement, no back up documentation
May 9, 2017	0.42	1.807	E	1.748	0.059	3.3%	FRO measurement, no back up documentation
May 11, 2017	0.45	1.746	B	2.063	-0.318	-18.2%	KWL Measurement, 26 Panels, max panel 7%
May 15, 2017	0.46	2.382	E	2.349	0.033	1.4%	FRO measurement, no back up documentation
May 23, 2017	0.58	1.783	E	4.776	-2.993	-167.9%	FRO measurement, no back up documentation
May 29, 2017	0.63	7.091	E	6.476	0.615	8.7%	FRO measurement, no back up documentation
June 2, 2017	0.61	6.505	B	5.766	0.739	11.4%	KWL ADP Measurement
June 5, 2017	0.57	4.723	E	4.536	0.187	4.0%	FRO measurement, no back up documentation
June 9, 2017	0.60	5.845	B	5.521	0.324	5.5%	KWL ADP Measurement
June 14, 2017	0.60	5.180	E	5.402	-0.222	-4.3%	FRO measurement, no back up documentation
June 20, 2017	0.49	3.063	E	2.735	0.328	10.7%	FRO measurement, no back up documentation
June 27, 2017	-	2.587	E	-	-	-	FRO measurement, no back up documentation
July 3, 2017	0.45	1.746	B	2.063	-0.318	-18.2%	FRO measurement, 24 panels, max panel 8%
July 11, 2017	0.40	1.272	E	1.432	-0.160	-12.6%	FRO measurement, no back up documentation
August 8, 2017	0.29	1.773	E	0.526	1.247	70.4%	FRO measurement, no back up documentation
September 5, 2017	0.25	0.311	B	0.321	-0.010	-3.2%	FRO measurement, 25 panels, max panel 10%
October 11, 2017	0.71	0.332	B	0.335	-0.003	-1.0%	FRO measurement, 23 panels, max panel 7%
October 30, 2017	0.70	0.299	B	0.298	0.001	0.3%	FRO measurement, 25 panels, max panel 8%
November 7, 2017	0.68	0.263	B	0.261	0.002	0.6%	FRO measurement, 22 panels, max panel 8%
November 14, 2017	0.68	0.275	B	0.257	0.018	6.4%	FRO measurement, 22 panels, max panel 8%
December 6, 2017	0.67	0.239	B	0.250	-0.011	-4.4%	FRO measurement, 24 panels, max panel 9%
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.23	0.16	0.18	0.34	3.59	3.87	1.06	0.37	0.25	0.32	0.26	0.19

FR_HC1 2017 - Yearly Hydrograph

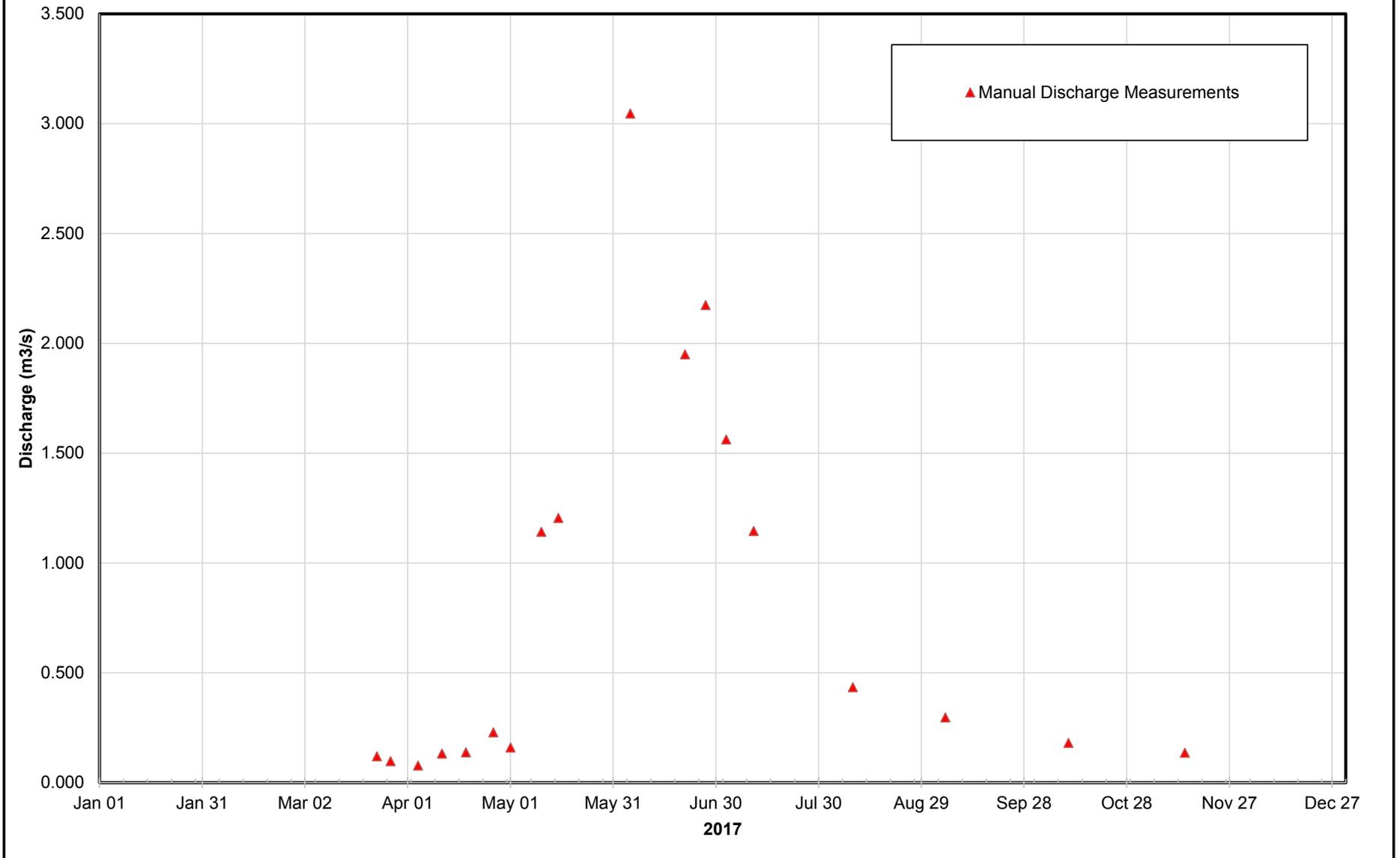


Station Details			
Station Name:	Henretta Creek upstream of McQuarrie Creek	Reporting Year:	2017
Site ID:	FR_HC3	Station Type:	Manual Measurements
EMS:	E300096	Teck Mine:	Fording River Operation
Station Description:	Manual discharge station on Henretta Creek upstream of McQuarrie Creek		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	B		
Rationale for Data Grade Recommendation (RSFMP)	Governed by WQ sampling data use.		

Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
March 23, 2017	-	0.119	B	-	-	-	FRO measurement, 21 panels, max panel 9%
March 27, 2017	0.762	0.097	B	-	-	-	FRO measurement, 21 panels, max panel 10%
April 4, 2017	-	0.077	B	-	-	-	FRO measurement, 23 panels, max panel 8%
April 11, 2017	0.759	0.132	B	-	-	-	FRO measurement, 26 panels, max panel 7%
April 18, 2017	0.75	0.138	B	-	-	-	FRO measurement, 24 panels, max panel 8%
April 26, 2017	0.716	0.228	B	-	-	-	FRO measurement, 28 panels, max panel 5%
May 1, 2017	0.742	0.160	B	-	-	-	FRO measurement, 25 panels, max panel 6%
May 10, 2017	-	1.141	B	-	-	-	FRO measurement, 32 panels, max panel 5%
May 15, 2017	0.496	1.204	B	-	-	-	FRO measurement, 32 panels, max panel 5%
June 5, 2017	0.472	3.045	B	-	-	-	FRO measurement, 26 panels, max panel 6%
June 21, 2017	-	1.949	B	-	-	-	FRO measurement, 25 panels, max panel 7%
June 27, 2017	0.451	2.174	B	-	-	-	FRO measurement, 25 panels, max panel 7%
July 3, 2017	0.471	1.562	B	-	-	-	FRO measurement, 24 panels, max panel 8%
July 11, 2017	0.479	1.145	B	-	-	-	FRO measurement, 22 panels, max panel 8%
August 9, 2017	0.517	0.434	C	-	-	-	FRO measurement, 22 panels, max panel 12%
September 5, 2017	0.529	0.296	B	-	-	-	FRO measurement, 23 panels, max panel 9%

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
#N/A	#N/A	0.11	0.14	0.84	2.39	1.35	0.43	0.30	0.18	0.14	#N/A

FR_HC3 2017 - Yearly Hydrograph



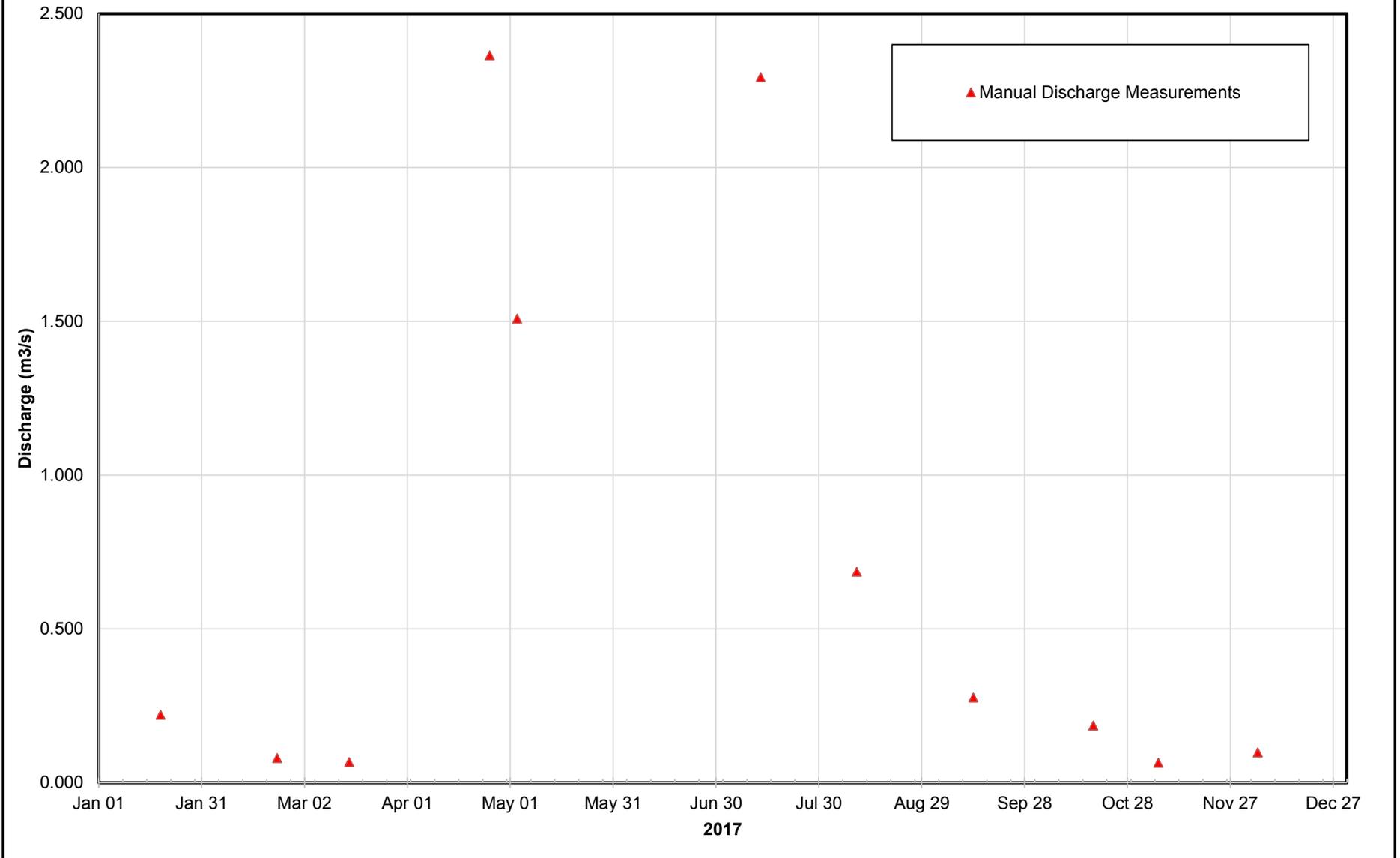
Station Details			
Station Name:	Fording River Near Fording River Road	Reporting Year:	2017
Site ID:	FR_FRRD	Station Type:	Manual Measurements
EMS:	E300097	Teck Mine:	Fording River Operation
Station Description:	Fording River Near Fording River Road		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	N/A		
Rationale for Data Grade Recommendation (RSFMP)	This site was previously added to the permit as a replacement for FR_FRCP1; however, monitoring at this station does not provide representative Fording River data.		

Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 19, 2017	-	0.221	B	-	-	-	FRO measurement, 23 panels, max panel 6%
February 22, 2017	-	0.080	B	-	-	-	FRO measurement, 25 panels, max panel 6%
March 15, 2017	-	0.067	B	-	-	-	FRO measurement, 26 panels, max panel 8%
April 25, 2017	-	2.365	B	-	-	-	FRO measurement, 27 panels, max panel 9%
May 3, 2017	0.439	1.509	B	-	-	-	FRO measurement, 24 panels, max panel 7%
July 13, 2017	-	2.294	B	-	-	-	FRO measurement, 23 panels, max panel 8%
August 10, 2017	0.588	0.686	B	-	-	-	FRO measurement, 25 panels, max panel 6%
September 13, 2017	0.657	0.277	B	-	-	-	FRO measurement, 24 panels, max panel 7%
October 18, 2017	0.667	0.186	B	-	-	-	FRO measurement, 24 panels, max panel 7%
November 6, 2017	0.724	0.065	B	-	-	-	FRO measurement, 24 panels, max panel 7%
December 5, 2017	-	0.099	B	-	-	-	FRO measurement, 24 panels, max panel 8%
	-	-		-	-	-	

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.22	0.08	0.07	2.37	1.51	#N/A	2.29	0.69	0.28	0.19	0.07	0.10

FR_FRRD 2017 - Yearly Hydrograph



Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
February 1, 2017	0.25	0.102	C	0.112	-0.010	-10.0%	FRO measurement, 24 panels, max panel 11%
February 1, 2017	0.25	-	B	0.112	-	-	Staff Gauge Reading
March 6, 2017	0.23	-	B	0.087	-	-	Staff Gauge Reading
March 15, 2017	0.23	-	B	0.093	-	-	Staff Gauge Reading
March 22, 2017	0.23	-	B	0.090	-	-	Staff Gauge Reading
March 29, 2017	0.24	-	B	0.101	-	-	Staff Gauge Reading
April 12, 2017	0.25	-	B	0.114	-	-	Staff Gauge Reading
April 20, 2017	0.26	-	B	0.132	-	-	Staff Gauge Reading
April 26, 2017	0.30	0.471	B	0.235	0.236	50.1%	FRO measurement, 27 panels, max panel 8%
May 2, 2017	0.29	-	B	0.226	-	-	Staff Gauge Reading
May 5, 2017	0.24	-	B	0.107	-	-	Staff Gauge Reading
May 8, 2017	0.34	-	B	0.400	-	-	Staff Gauge Reading
May 16, 2017	0.51	-	B	1.984	-	-	Staff Gauge Reading
May 23, 2017	0.54	-	B	2.454	-	-	Staff Gauge Reading
May 30, 2017	0.59	-	B	3.283	-	-	Staff Gauge Reading
June 6, 2017	0.64	-	B	4.448	-	-	Staff Gauge Reading
June 13, 2017	0.60	-	B	3.628	-	-	Staff Gauge Reading
June 19, 2017	0.52	-	B	2.057	-	-	Staff Gauge Reading
June 26, 2017	0.48	1.329	B	1.485	-0.156	-11.8%	FRO measurement, 22 panels, max panel 8%
July 5, 2017	0.42	-	B	0.958	-	-	Staff Gauge Reading
July 10, 2017	0.40	-	B	0.796	-	-	Staff Gauge Reading
July 23, 2017	0.35	-	B	0.434	-	-	Staff Gauge Reading
July 30, 2017	0.34	-	B	0.410	-	-	Staff Gauge Reading
August 6, 2017	0.34	-	B	0.387	-	-	Staff Gauge Reading
August 8, 2017	0.32	0.260	B	0.312	-0.052	-20.0%	FRO measurement, 22 panels, max panel 10%
August 9, 2017	0.28	-	B	0.191	-	-	Staff Gauge Reading
August 14, 2017	0.28	-	B	0.178	-	-	Staff Gauge Reading
August 18, 2017	0.27	-	B	0.166	-	-	Staff Gauge Reading
August 23, 2017	0.28	-	B	0.191	-	-	Staff Gauge Reading
August 30, 2017	0.28	-	B	0.191	-	-	Staff Gauge Reading
September 5, 2017	0.28	-	B	0.191	-	-	Staff Gauge Reading
September 8, 2017	0.27	-	B	0.166	-	-	Staff Gauge Reading
September 20, 2017	0.27	0.150	B	0.168	-0.018	-12.0%	FRO measurement, 23 panels, max panel 10%
November 1, 2017	0.27	-	B	0.156	-	-	Staff Gauge Reading

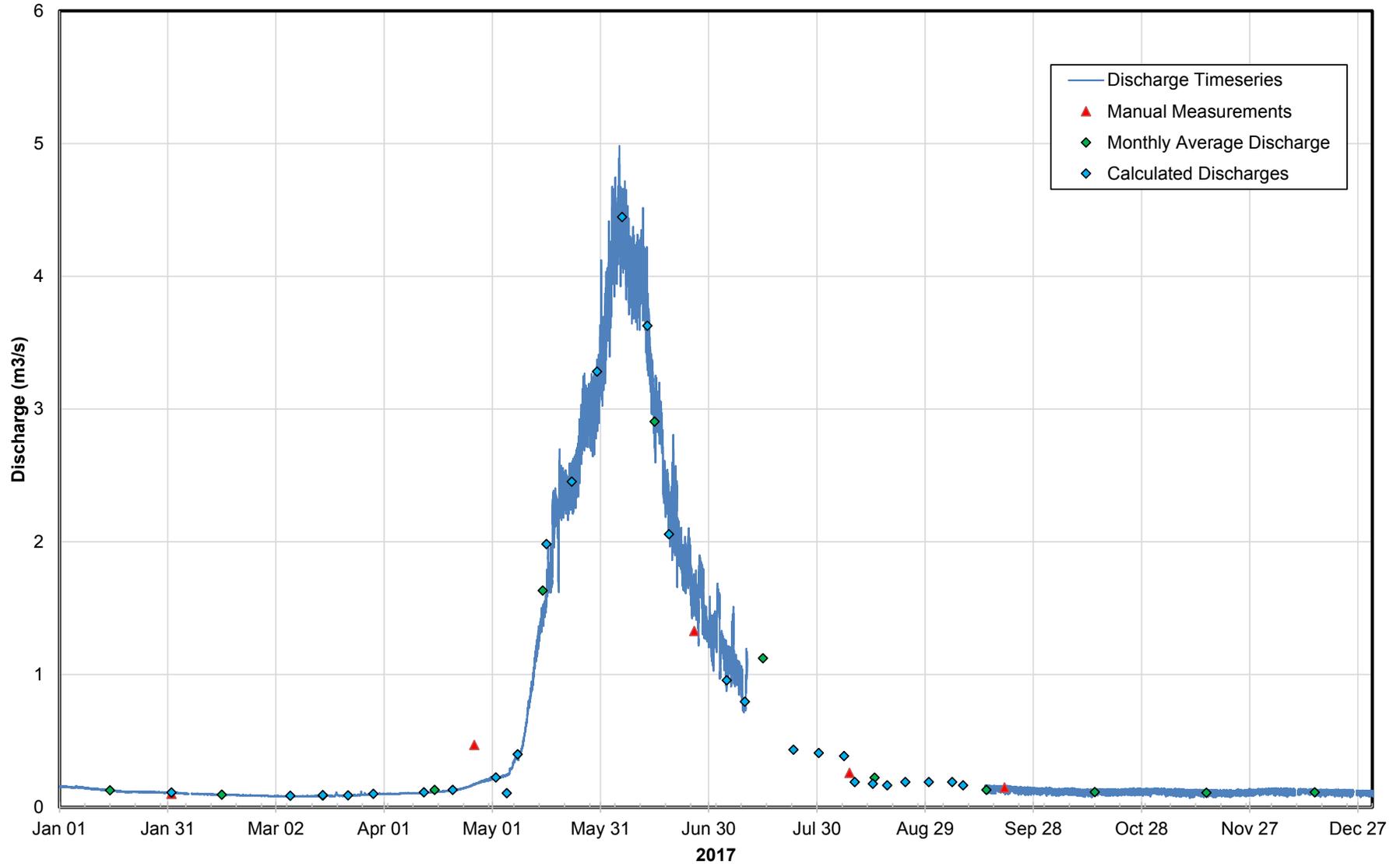
Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
November 16, 2017	0.26	-	B	0.138	-	-	Staff Gauge Reading
November 17, 2017	0.26	0.094	B	0.138	-0.044	-46.9%	FRO measurement, 22 panels, max panel 8%
December 12, 2017	0.26	-	B	0.136	-	-	Staff Gauge Reading

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m³/sec

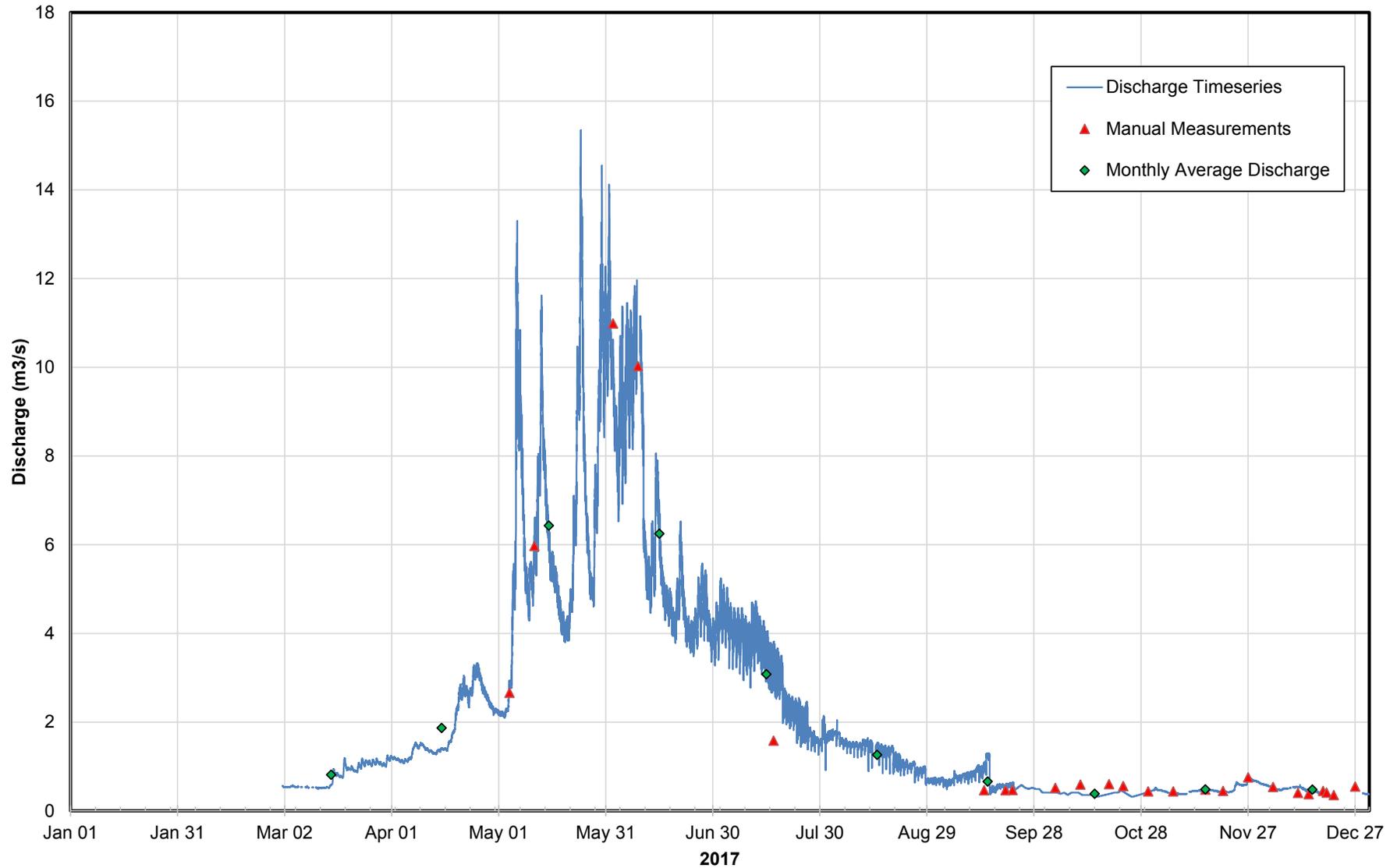
January	February	March	April	May	June	July	August	September	October	November	December
0.13	0.10	0.09	0.13	1.63	2.91	1.12	0.22	0.13	0.12	0.11	0.11

FR_KC1 2017 - Yearly Hydrograph



Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
#N/A	#N/A	0.82	1.87	6.44	6.25	3.08	1.26	0.66	0.39	0.49	0.48

FR_FRNTP 2017 - Yearly Hydrograph





KERR WOOD LEIDAL
consulting engineers

Appendix D

Line Creek Operation Annual Hydrometric Summaries

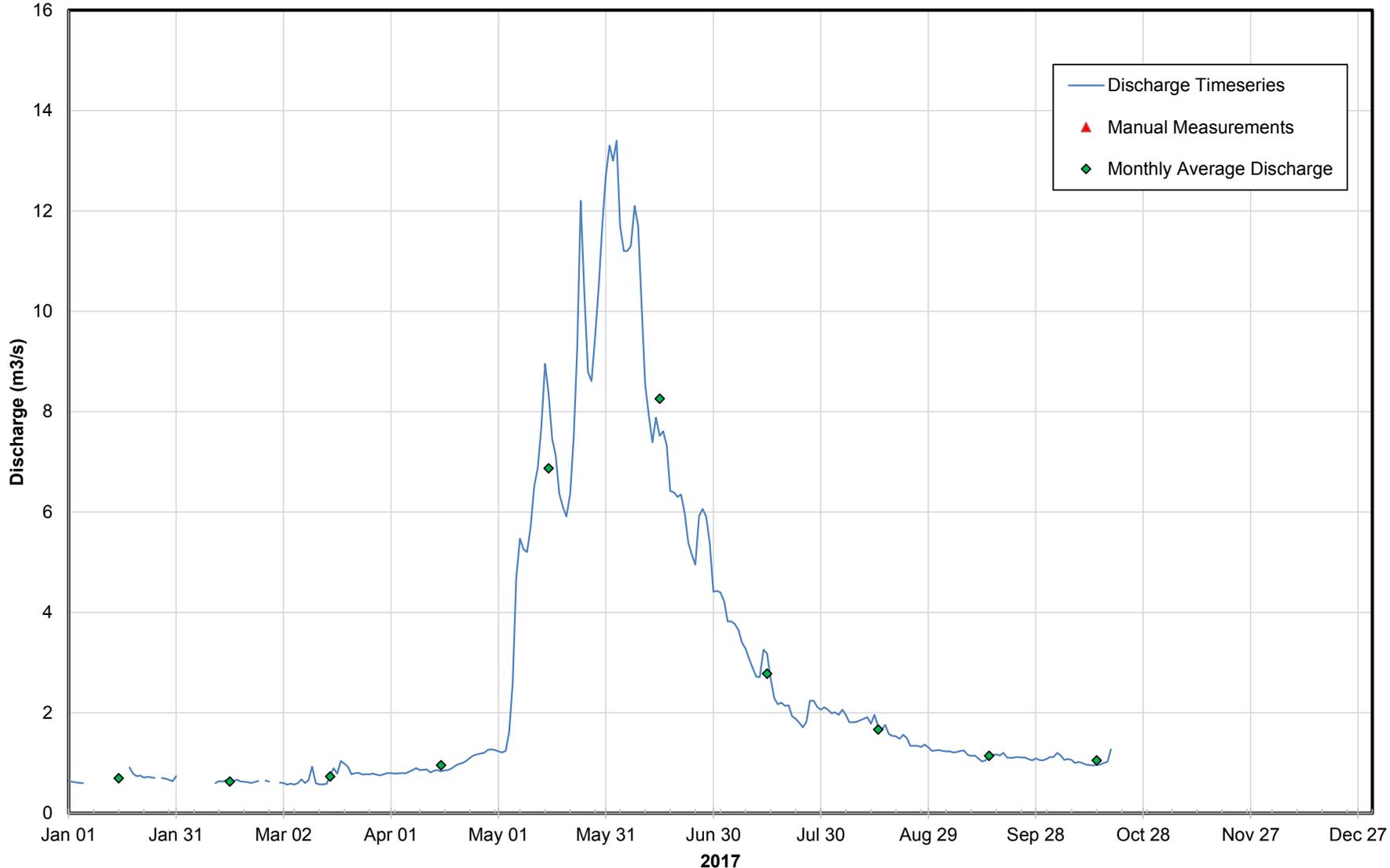
Station Details			
Station Name:	Line Creek U/S of Process Plant	Reporting Year:	2017
Site ID:	LC_LC4	Station Type:	Water Survey of Canada Station
EMS:	200044	Teck Mine:	Line Creek Operation
Station Description:	Water Survey Station Line Creek at the Mouth (08NK022)		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	B		
Rationale for Data Grade Recommendation (RSFMP)	Governed by MAD and RWQM data uses.		

Data Quality Assessment - Continuous Data		
Data Range	Data Quality Assessment Grade*	Description
January 1 - 5, 2017	B	WSC preliminary data, Grade B
January 6 - 17, 2017	M	Erroneous data removed from preliminary dataset (Ice affected)
January 18 - 25, 2017	B	WSC preliminary data, Grade B
January 26, 2017	M	Erroneous data removed from preliminary dataset (Ice affected)
January 27 - 31, 2017	B	WSC preliminary data, Grade B
February 1 - 10, 2017	M	Erroneous data removed from preliminary dataset (Ice affected)
February 11 - 23, 2017	B	WSC preliminary data, Grade B
February 24, 2017	M	Erroneous data removed from preliminary dataset (Ice affected)
February 25 - 27, 2017	B	WSC preliminary data, Grade B
February 27-28, 2017	M	Erroneous data removed from preliminary dataset (Ice affected)
March 1 - October 19, 2017	B	WSC preliminary data, Grade B
October 20 - December 31, 2017	M	Not available in Preliminary WSC dataset

* Grades A, B, C, E and U based on the BC RISC Standards Document. Data gaps greater than 12 hours categorized as **Missing (M)**, data where ice was present in the stream is categorized as **Estimated (E)**

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.70	0.63	0.73	0.96	6.87	8.26	2.78	1.67	1.14	1.05	#N/A	#N/A

LC_LC4 2017 - Yearly Hydrograph



Station Details			
Station Name:	Line Cr. D/S of West Line Creek	Reporting Year:	2017
Site ID:	LC_LC3	Station Type:	Year-Round Continuous Data
EMS:	200337	Teck Mine:	Line Creek Operation
Station Description:	LC3 is located downstream of the Line Creek rock drain and the West Line Creek Confluence. The hydrometric station is located above a trapezoidal section of engineered concrete channel.		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	B		
Rationale for Data Grade Recommendation (RSFMP)	Governed by MAD and AWTF design data uses.		

Data Quality Assessment - Continuous Data		
Data Range	Data Quality Assessment Grade*	Description
January 1 -2, 2017	C	Ice in channel
January 2 - 7, 2017	M	Ice affected data removed
January 7 - 10, 2017	C	Ice in channel, minor ice caused peaks removed
January 10 - 16, 2017	M	Ice affected data removed
January 16 - March 15, 2017	C	Ice in channel, minor ice caused peaks removed
March 15 - September 20, 2017	B	Station performed as expected
September 20 - October 9, 2017	M	Station malfunction
October 9, December 22, 2017	B	Station performed as expected
December 22 - 31, 2017	M	Ice affected data removed

* Grades A, B, C, E and U based on the BC RISC Standards Document. Data gaps greater than 12 hours categorized as **Missing (M)**, data where ice was present in the stream is categorized as **Estimated (E)**

Summary Table of Yearly Discharge Measurements

Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 9, 2017	0.30	-	B	0.437	-	-	Staff gauge reading
January 16, 2017	0.35	-	B	0.626	-	-	Staff gauge reading
January 23, 2017	0.31	-	B	0.486	-	-	Staff gauge reading
January 31, 2017	0.29	-	B	0.421	-	-	Staff gauge reading
February 7, 2017	0.29	-	B	0.421	-	-	Staff gauge reading
February 14, 2017	0.29	-	B	0.421	-	-	Staff gauge reading
February 21, 2017	0.29	-	B	0.421	-	-	Staff gauge reading
February 27, 2017	0.29	-	B	0.405	-	-	Staff gauge reading
March 1, 2017	0.27	0.291	B	0.344	-0.053	-18.2%	LCO Measurement, 21 panels, none over 10%
March 6, 2017	0.18	-	B	0.124	-	-	Staff gauge reading
March 13, 2017	0.18	-	B	0.124	-	-	Staff gauge reading
March 17, 2017	0.27	-	B	0.359	-	-	Staff gauge reading
March 20, 2017	0.29	-	B	0.405	-	-	Staff gauge reading
March 21, 2017	0.29	-	B	0.405	-	-	Staff gauge reading
March 22, 2017	0.27	-	B	0.359	-	-	Staff gauge reading
March 23, 2017	0.27	-	B	0.359	-	-	Staff gauge reading
March 24, 2017	0.28	-	B	0.374	-	-	Staff gauge reading
March 27, 2017	0.27	-	B	0.359	-	-	Staff gauge reading
April 4, 2017	0.29	-	B	0.421	-	-	Staff gauge reading
April 10, 2017	0.31	-	B	0.470	-	-	Staff gauge reading
April 18, 2017	0.30	-	B	0.453	-	-	Staff gauge reading
April 25, 2017	0.41	-	B	0.835	-	-	Staff gauge reading
May 1, 2017	0.40	-	B	0.816	-	-	Staff gauge reading
May 5, 2017	0.41	-	B	0.855	-	-	Staff gauge reading
May 6, 2017	0.61	-	B	1.769	-	-	Staff gauge reading
May 7, 2017	0.90	-	B	3.425	-	-	Staff gauge reading
May 9, 2017	0.93	-	B	3.616	-	-	Staff gauge reading
May 10, 2017	0.92	-	B	3.552	-	-	Staff gauge reading
May 11, 2017	0.83	-	B	2.994	-	-	Staff gauge reading
May 13, 2017	1.00	-	B	4.073	-	-	Staff gauge reading
May 16, 2017	0.93	-	B	3.616	-	-	Staff gauge reading
May 17, 2017	0.96	-	B	3.810	-	-	Staff gauge reading
May 18, 2017	0.91	2.614	B	3.457	-0.843	-32.2%	LCO Measurement, 20 panels, none over 10%
May 19, 2017	0.81	-	B	2.875	-	-	Staff gauge reading

Summary Table of Yearly Discharge Measurements

Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
May 23, 2017	0.92	-	B	3.552	-	-	Staff gauge reading
May 24, 2017	0.99	-	B	4.007	-	-	Staff gauge reading
May 30, 2017	1.05	-	B	4.410	-	-	Staff gauge reading
June 1, 2017	1.10	4.954	B	4.756	0.198	4.0%	KWL Measurement, ADP Measurement
June 6, 2017	1.08	-	B	4.617	-	-	Staff gauge reading
June 8, 2017	1.07	-	B	4.548	-	-	Staff gauge reading
June 9, 2017	0.98	-	B	3.941	-	-	Staff gauge reading
June 13, 2017	0.98	-	B	3.941	-	-	Staff gauge reading
June 19, 2017	0.93	-	B	3.616	-	-	Staff gauge reading
June 26, 2017	0.76	-	B	2.582	-	-	Staff gauge reading
June 30, 2017	1.10	-	B	4.756	-	-	Staff gauge reading
July 6, 2017	0.71	-	B	2.300	-	-	Staff gauge reading
July 11, 2017	0.57	-	B	1.570	-	-	Staff gauge reading
July 17, 2017	0.50	1.441	B	1.240	0.201	13.9%	LCO Measurement, 20 panels, none over 10%
July 25, 2017	0.38	-	B	0.738	-	-	Staff gauge reading
August 2, 2017	0.37	-	B	0.700	-	-	Staff gauge reading
August 8, 2017	0.35	-	B	0.626	-	-	Staff gauge reading
August 15, 2017	0.37	-	B	0.700	-	-	Staff gauge reading
August 24, 2017	0.35	-	B	0.608	-	-	Staff gauge reading
August 27, 2017	0.38	-	B	0.738	-	-	Staff gauge reading
August 30, 2017	0.34	-	B	0.590	-	-	Staff gauge reading
September 2, 2017	0.34	-	B	0.590	-	-	Staff gauge reading
September 5, 2017	0.33	-	B	0.555	-	-	Staff gauge reading
September 8, 2017	0.37	-	B	0.681	-	-	Staff gauge reading
September 20, 2017	0.34	-	B	0.590	-	-	Staff gauge reading
September 25, 2017	0.36	-	B	0.663	-	-	Staff gauge reading
October 2, 2017	0.32	-	B	0.520	-	-	Staff gauge reading
October 10, 2017	0.28	-	B	0.390	-	-	Staff gauge reading
October 17, 2017	0.26	-	B	0.329	-	-	Staff gauge reading
October 24, 2017	0.32	-	B	0.520	-	-	Staff gauge reading
October 31, 2017	0.33	-	B	0.555	-	-	Staff gauge reading
November 8, 2017	0.32	-	B	0.503	-	-	Staff gauge reading
November 14, 2017	0.34	-	B	0.590	-	-	Staff gauge reading
November 21, 2017	0.30	-	B	0.453	-	-	Staff gauge reading
November 28, 2017	0.36	-	B	0.644	-	-	Staff gauge reading

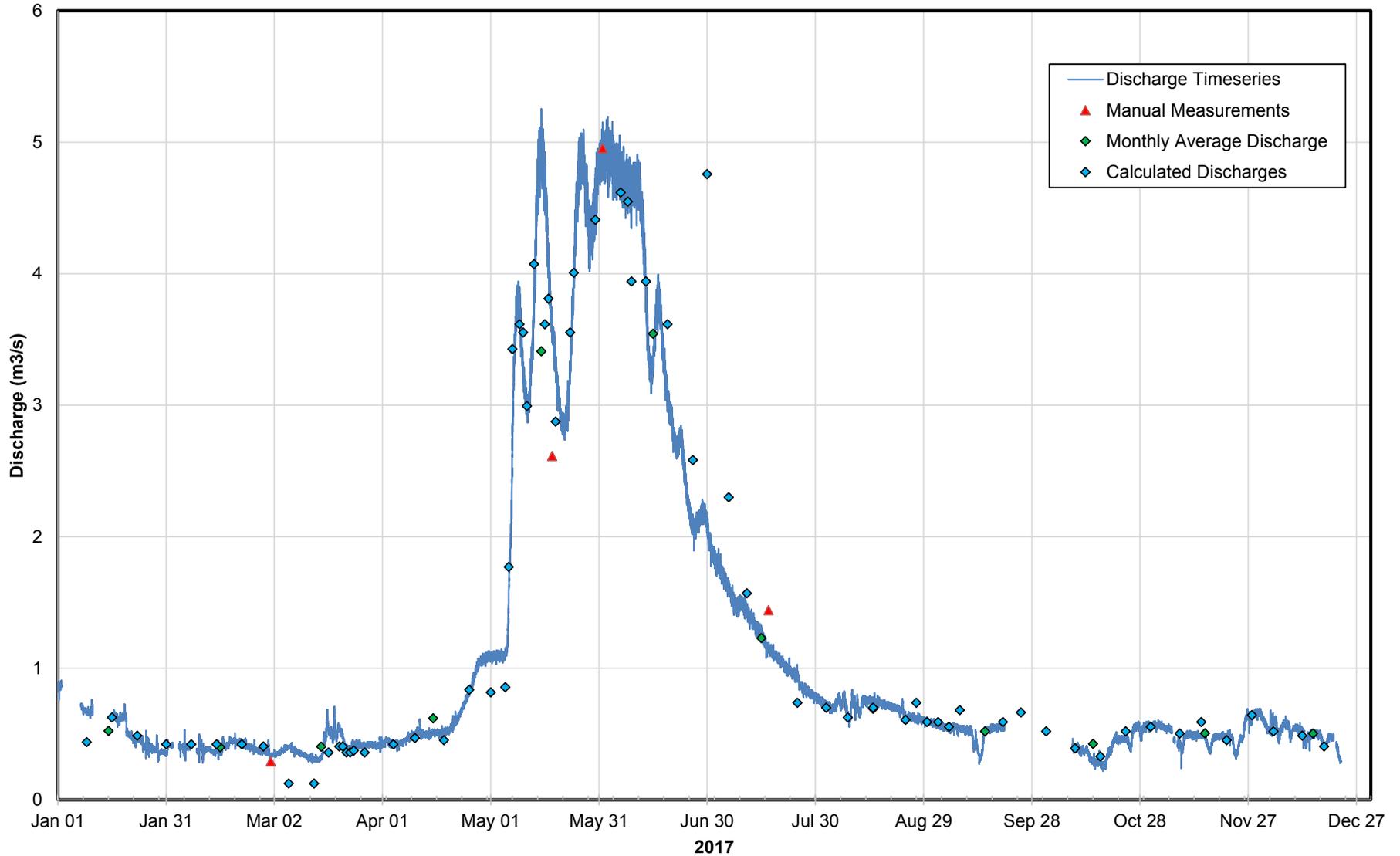
Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
December 4, 2017	0.32	-	B	0.520	-	-	Staff gauge reading
December 12, 2017	0.31	-	B	0.486	-	-	Staff gauge reading
December 18, 2017	0.29	-	B	0.405	-	-	Staff gauge reading
	-	-		-	-	-	

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m³/sec

January	February	March	April	May	June	July	August	September	October	November	December
0.52	0.40	0.40	0.62	3.41	3.54	1.23	0.69	0.52	0.42	0.51	0.50

LC_LC3 2017 - Yearly Hydrograph



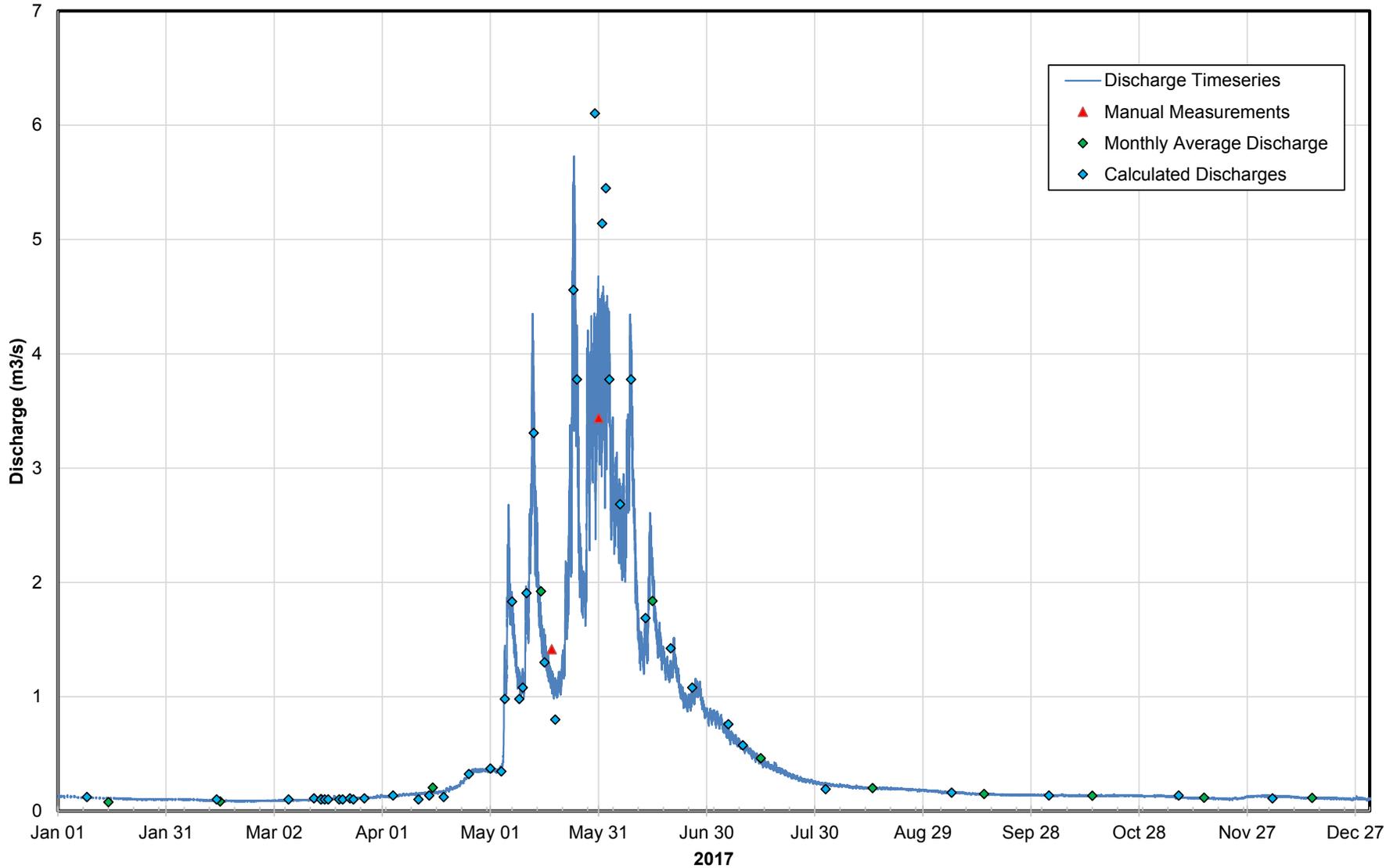
Summary Table of Yearly Discharge Measurements

Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 9, 2017	0.58	-	B	0.124	-	-	Staff gauge reading
February 14, 2017	0.57	-	B	0.102	-	-	Staff gauge reading
March 6, 2017	0.57	-	B	0.102	-	-	Staff gauge reading
March 13, 2017	0.57	-	B	0.112	-	-	Staff gauge reading
March 15, 2017	0.57	-	B	0.102	-	-	Staff gauge reading
March 16, 2017	0.57	-	B	0.102	-	-	Staff gauge reading
March 17, 2017	0.57	-	B	0.102	-	-	Staff gauge reading
March 20, 2017	0.57	-	B	0.102	-	-	Staff gauge reading
March 21, 2017	0.57	-	B	0.102	-	-	Staff gauge reading
March 23, 2017	0.57	-	B	0.112	-	-	Staff gauge reading
March 24, 2017	0.57	-	B	0.102	-	-	Staff gauge reading
March 27, 2017	0.57	-	B	0.112	-	-	Staff gauge reading
April 4, 2017	0.58	-	B	0.136	-	-	Staff gauge reading
April 11, 2017	0.57	-	B	0.102	-	-	Staff gauge reading
April 14, 2017	0.58	-	B	0.136	-	-	Staff gauge reading
April 18, 2017	0.58	-	B	0.124	-	-	Staff gauge reading
April 25, 2017	0.64	-	B	0.325	-	-	Staff gauge reading
May 1, 2017	0.65	-	B	0.372	-	-	Staff gauge reading
May 4, 2017	0.64	-	B	0.348	-	-	Staff gauge reading
May 5, 2017	0.73	-	B	0.982	-	-	Staff gauge reading
May 7, 2017	0.80	-	B	1.833	-	-	Staff gauge reading
May 9, 2017	0.73	-	B	0.982	-	-	Staff gauge reading
May 10, 2017	0.74	-	B	1.081	-	-	Staff gauge reading
May 11, 2017	0.81	-	B	1.908	-	-	Staff gauge reading
May 13, 2017	0.88	-	B	3.309	-	-	Staff gauge reading
May 16, 2017	0.76	-	B	1.302	-	-	Staff gauge reading
May 18, 2017	0.74	1.417	B	1.081	0.336	23.7%	LCO measurement, 20 Panels, none over 10%
May 19, 2017	0.71	-	B	0.801	-	-	Staff gauge reading
May 24, 2017	0.93	-	B	4.560	-	-	Staff gauge reading
May 25, 2017	0.90	-	B	3.777	-	-	Staff gauge reading
May 30, 2017	0.98	-	B	6.104	-	-	Staff gauge reading
May 31, 2017	0.92	3.440	B	4.288	-0.848	-24.6%	KWL Measurement, 25 panels, none over 10%
June 1, 2017	0.95	-	B	5.141	-	-	Staff gauge reading
June 2, 2017	0.96	-	B	5.449	-	-	Staff gauge reading

Monthly Average Discharge m³/sec

January	February	March	April	May	June	July	August	September	October	November	December
0.08	0.08	0.11	0.21	1.92	1.84	0.46	0.20	0.15	0.14	0.12	0.12

LC_LC2 2017 - Yearly Hydrograph

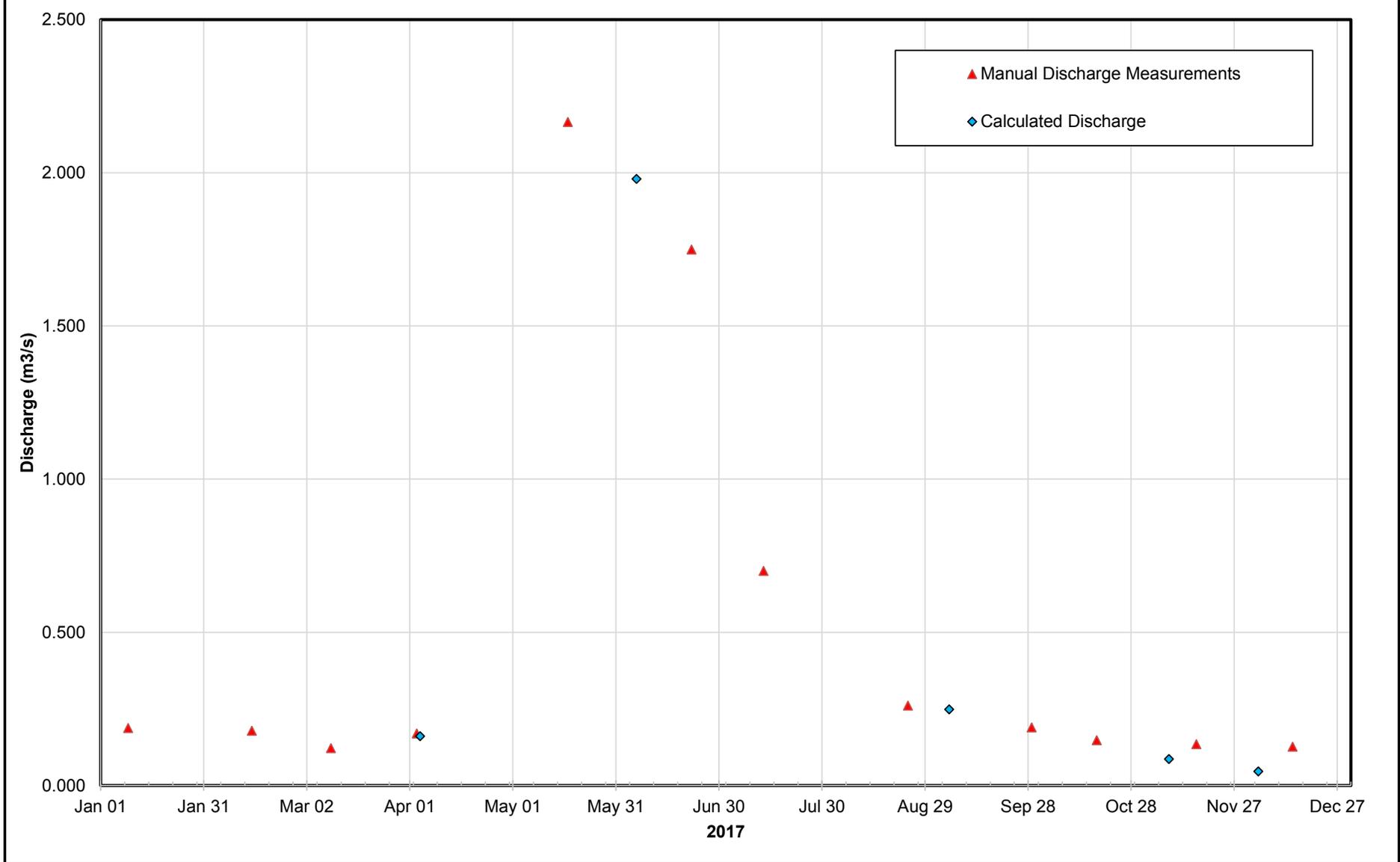


Station Details			
Station Name:	South Line Creek West Side of Main Rock Drain	Reporting Year:	2017
Site ID:	LC_SLC	Station Type:	Manual Measurements
EMS:	E282149	Teck Mine:	Line Creek Operation
Station Description:	South Line Creek West Side of Main Rock Drain		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	B		
Rationale for Data Grade Recommendation (RSFMP)	Governed by MAD and AWTF Design data uses.		

Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 9, 2017	0.551	0.188	C	0.175	0.013	7.1%	LCO measurement, 21 panels, max panel 14%
February 14, 2017	0.549	0.179	B	0.169	0.010	5.5%	LCO measurement, 22 panels, max panel 9%
March 9, 2017	0.498	0.122	B	0.058	0.064	52.4%	LCO measurement, 24 panels, max panel 10%
April 3, 2017	0.546	0.170	B	0.161	0.009	5.4%	LCO measurement, 23 panels, max panel 9%
April 4, 2017	0.546	-	B	0.161	-	-	Staff gauge reading
May 17, 2017	0.841	2.166	B	2.000	0.166	7.7%	LCO measurement, 21 panels, max panel 10%
June 6, 2017	0.839	-	B	1.980	-	-	Staff gauge reading
June 22, 2017	0.759	1.750	B	1.275	0.475	27.1%	LCO measurement, 22 panels, max panel 10%
July 13, 2017	0.637	0.701	B	0.504	0.197	28.2%	LCO measurement, 23 panels, max panel 9%
August 24, 2017	0.575	0.261	B	0.249	0.012	4.7%	LCO measurement, 23 panels, max panel 9%
September 5, 2017	0.575	-	B	0.249	-	-	Staff gauge reading
September 29, 2017	0.56	0.190	B	0.201	-0.011	-5.7%	LCO measurement, 23 panels, max panel 9%
October 18, 2017	0.536	0.148	B	0.135	0.013	8.7%	LCO measurement, 22 panels, max panel 9%
November 8, 2017	0.514	-	B	0.086	-	-	Staff gauge reading
November 16, 2017	0.507	0.135	B	0.073	0.062	45.7%	LCO measurement, 23 panels, max panel 9%
December 4, 2017	0.49	-	B	0.046	-	-	Staff gauge reading

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.19	0.18	0.12	0.17	2.17	1.87	0.70	0.26	0.22	0.15	0.11	0.09

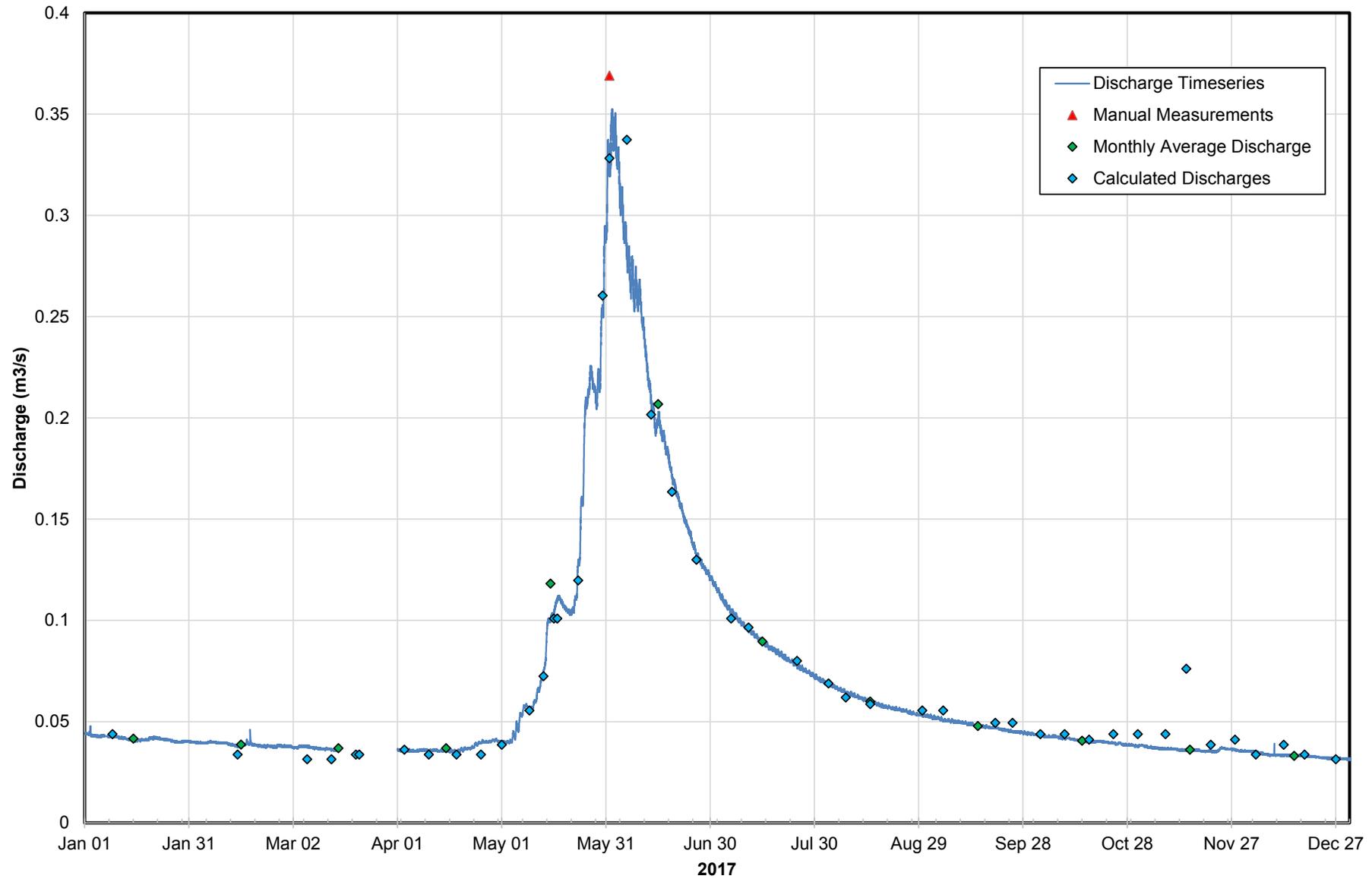
LC_SLC 2017 - Yearly Hydrograph



Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 9, 2017	0.61	-	B	0.044	-	-	Staff gauge reading
February 14, 2017	0.59	-	B	0.034	-	-	Staff gauge reading
March 6, 2017	0.59	-	B	0.032	-	-	Staff gauge reading
March 13, 2017	0.59	-	B	0.032	-	-	Staff gauge reading
March 20, 2017	0.59	-	B	0.034	-	-	Staff gauge reading
March 21, 2017	0.59	-	B	0.034	-	-	Staff gauge reading
April 3, 2017	0.60	-	B	0.036	-	-	Staff gauge reading
April 10, 2017	0.59	-	B	0.034	-	-	Staff gauge reading
April 18, 2017	0.59	-	B	0.034	-	-	Staff gauge reading
April 25, 2017	0.59	-	B	0.034	-	-	Staff gauge reading
May 1, 2017	0.60	-	B	0.039	-	-	Staff gauge reading
May 9, 2017	0.63	-	B	0.055	-	-	Staff gauge reading
May 13, 2017	0.66	-	B	0.072	-	-	Staff gauge reading
May 16, 2017	0.69	-	B	0.101	-	-	Staff gauge reading
May 17, 2017	0.69	-	B	0.101	-	-	Staff gauge reading
May 23, 2017	0.71	-	B	0.120	-	-	Staff gauge reading
May 30, 2017	0.82	-	B	0.260	-	-	Staff gauge reading
June 1, 2017	0.86	-	B	0.328	-	-	Staff gauge reading
June 1, 2017	0.86	0.369	B	0.325	0.044	12.0%	KWL measurement, 22 panels, max panel 9%
June 6, 2017	0.87	-	B	0.337	-	-	Staff gauge reading
June 13, 2017	0.78	-	B	0.202	-	-	Staff gauge reading
June 19, 2017	0.75	-	B	0.163	-	-	Staff gauge reading
June 26, 2017	0.72	-	B	0.130	-	-	Staff gauge reading
July 6, 2017	0.69	-	B	0.101	-	-	Staff gauge reading
July 11, 2017	0.69	-	B	0.097	-	-	Staff gauge reading
July 25, 2017	0.67	-	B	0.080	-	-	Staff gauge reading
August 3, 2017	0.65	-	B	0.069	-	-	Staff gauge reading
August 8, 2017	0.64	-	B	0.062	-	-	Staff gauge reading
August 15, 2017	0.64	-	B	0.059	-	-	Staff gauge reading
August 30, 2017	0.63	-	B	0.055	-	-	Staff gauge reading
September 5, 2017	0.63	-	B	0.055	-	-	Staff gauge reading
September 20, 2017	0.62	-	B	0.049	-	-	Staff gauge reading
September 25, 2017	0.62	-	B	0.049	-	-	Staff gauge reading
October 3, 2017	0.61	-	B	0.044	-	-	Staff gauge reading

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.04	0.04	0.04	0.04	0.12	0.21	0.09	0.06	0.05	0.04	0.04	0.03

LC_WLC 2017 - Yearly Hydrograph





KERR WOOD LEIDAL
consulting engineers

Appendix E

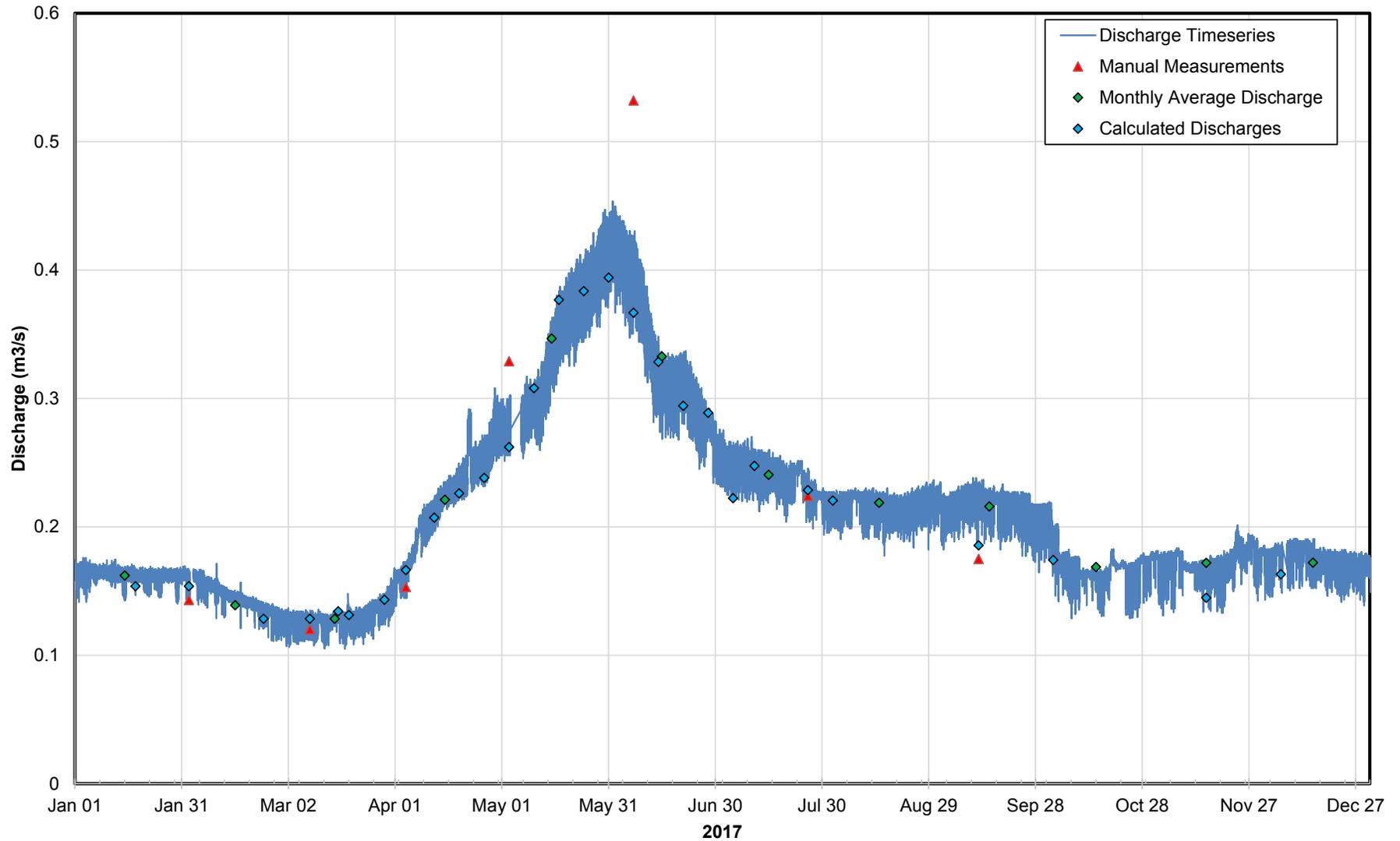
Elkview Operation Annual Hydrometric Summaries

Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 18, 2017	0.562	-	B	0.154	-	-	Staff Gauge Reading
February 2, 2017	0.562	0.143	B	0.154	-0.011	-7.5%	EVO Measurement, 20 panels, none over 10%
February 23, 2017	0.545	-	B	0.128	-	-	Staff Gauge Reading
March 8, 2017	0.545	0.120	B	0.128	-0.008	-7.0%	EVO Measurement, 16 panels, max panel 11%
March 16, 2017	0.549	-	B	0.134	-	-	Staff Gauge Reading
March 19, 2017	0.547	-	B	0.131	-	-	Staff Gauge Reading
March 29, 2017	0.555	-	B	0.143	-	-	Staff Gauge Reading
April 4, 2017	0.57	0.153	B	0.166	-0.013	-8.7%	EVO Measurement, 23 panels, none over 10%
April 12, 2017	0.595	-	B	0.207	-	-	Staff Gauge Reading
April 19, 2017	0.61	-	B	0.233	-	-	Staff Gauge Reading
April 26, 2017	0.618	-	B	0.247	-	-	Staff Gauge Reading
May 3, 2017	0.63	0.329	B	0.269	0.060	18.3%	EVO Measurement, 22 Panels, none over 10%
May 10, 2017	0.648	-	B	0.302	-	-	Staff Gauge Reading
May 17, 2017	0.67	-	B	0.345	-	-	Staff Gauge Reading
May 24, 2017	0.672	-	B	0.349	-	-	Staff Gauge Reading
May 31, 2017	0.675	-	B	0.355	-	-	Staff Gauge Reading
June 7, 2017	0.667	0.532	B	0.339	0.193	36.3%	EVO Measurement, 21 Panels, max panel 11%
June 14, 2017	0.655	-	B	0.316	-	-	Staff Gauge Reading
June 21, 2017	0.643	-	B	0.293	-	-	Staff Gauge Reading
June 28, 2017	0.641	-	B	0.289	-	-	Staff Gauge Reading
July 5, 2017	0.607	-	B	0.228	-	-	Staff Gauge Reading
July 11, 2017	0.623	-	B	0.256	-	-	Staff Gauge Reading
July 26, 2017	0.612	0.224	B	0.236	-0.012	-5.5%	KWL Measurement, 26 Panels, none over 10%
August 2, 2017	0.605	-	B	0.224	-	-	Staff Gauge Reading
September 12, 2017	0.582	0.175	B	0.185	-0.010	-6.0%	EVO Measurement, 28 Panels max panel 11 %
October 3, 2017	0.575	-	B	0.174	-	-	Staff Gauge Reading
November 15, 2017	0.556	-	B	0.145	-	-	Staff Gauge Reading
December 6, 2017	0.568	-	B	0.163	-	-	Staff Gauge Reading
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.16	0.14	0.13	0.22	0.35	0.33	0.24	0.22	0.22	0.17	0.17	0.17

EV_EC1 2017 - Yearly Hydrograph

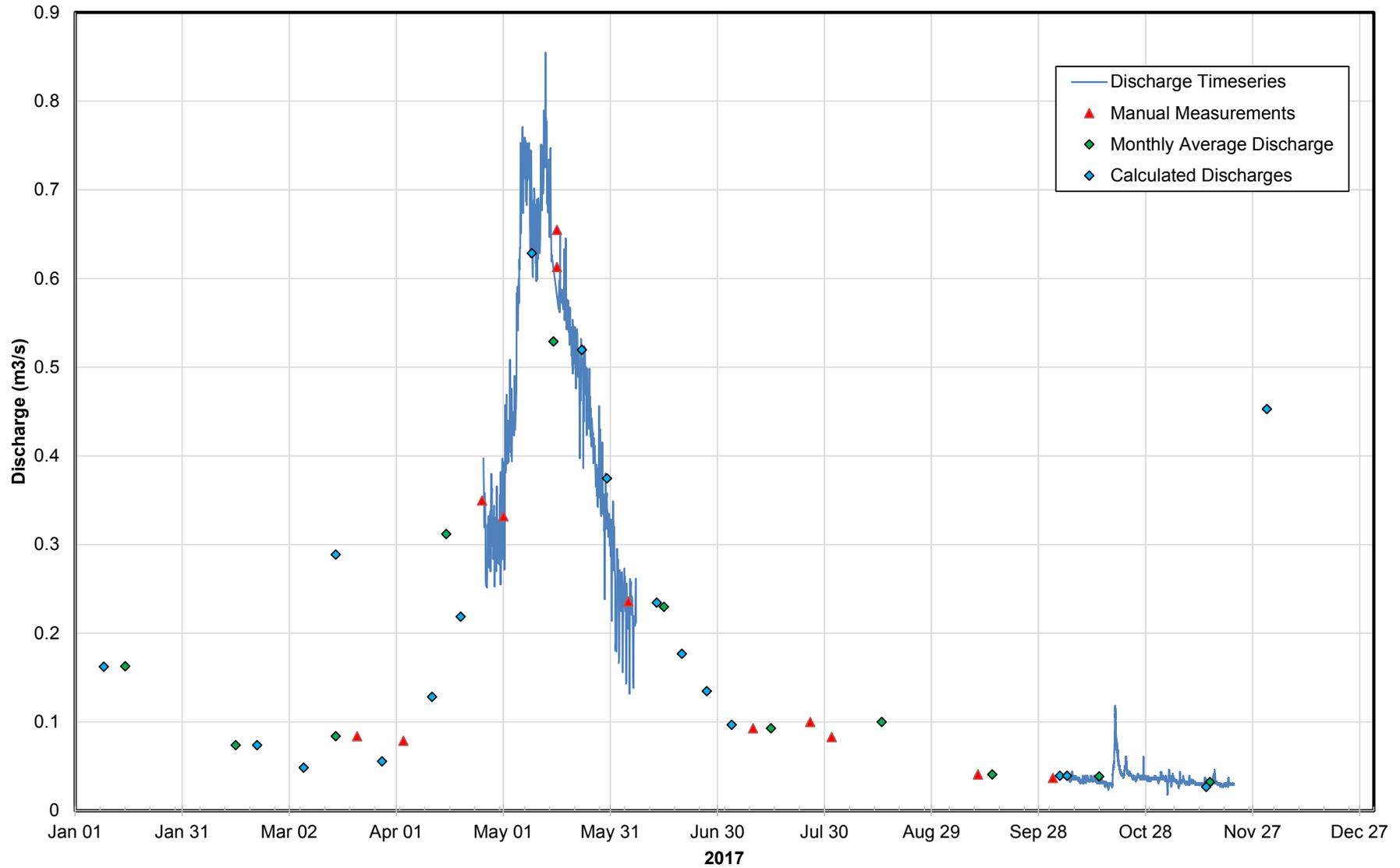


Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 9, 2017	0.11	-	B	0.163	-	-	Staff gauge Reading
February 21, 2017	0.08	-	B	0.074	-	-	Staff gauge Reading
March 6, 2017	0.07	-	B	0.049	-	-	Staff gauge Reading
March 15, 2017	0.14	-	E	0.289	-	-	Staff gauge Reading, questionable value
March 21, 2017	0.09	0.084	C	0.082	0.002	2.0%	EVO Measurement, 20 Panels, max panel 16 %
March 28, 2017	0.08	-	B	0.056	-	-	Staff gauge Reading
April 3, 2017	0.09	0.079	C	0.091	-0.012	-13.2%	EVO Measurement, 21 Panels, max panel 15 %
April 11, 2017	0.10	-	B	0.128	-	-	Staff gauge Reading
April 19, 2017	0.13	-	B	0.219	-	-	Staff gauge Reading
April 25, 2017	0.16	0.350	B	0.347	0.003	0.9%	EVO Measurement, 24 Panels, none over 10 %
May 1, 2017	0.16	0.332	B	0.361	-0.029	-8.0%	EVO Measurement, 24 Panels, none over 10 %
May 9, 2017	0.21	-	B	0.629	-	-	Staff gauge Reading
May 16, 2017	0.21	0.613	B	0.617	-0.004	-0.7%	EVO Measurement, 23 Panels, none over 10 %
May 16, 2017	0.21	0.655	B	0.617	0.038	6.1%	EVO Measurement, 23 Panels, none over 10 %
May 23, 2017	0.19	-	B	0.520	-	-	Staff gauge Reading
May 30, 2017	0.16	-	B	0.375	-	-	Staff gauge Reading
June 5, 2017	0.14	0.236	B	0.259	-0.023	-9.0%	EVO Measurement, 29 Panels, none over 10 %
June 13, 2017	0.13	-	B	0.235	-	-	Staff gauge Reading
June 20, 2017	0.11	-	B	0.177	-	-	Staff gauge Reading
June 27, 2017	0.10	-	B	0.135	-	-	Staff gauge Reading
July 4, 2017	0.09	-	B	0.097	-	-	Staff gauge Reading
July 10, 2017	0.10	0.093	C	0.115	-0.022	-19.4%	EVO Measurement, 23 Panels, 4 panels over 10 %
July 26, 2017	0.08	0.100	B	0.071	0.029	40.2%	KWL Measurement, 24 Panels, none over 10 %
August 1, 2017	0.08	0.083	B	0.071	0.012	16.3%	EVO Measurement, 24 Panels, none over 10 %
September 11, 2017	0.08	0.041	C	0.058	-0.017	-29.7%	EVO Measurement, 22 Panels, max panel 12%
October 2, 2017	0.07	0.037	C	0.044	-0.007	-15.7%	EVO Measurement, 21 Panels, max panel 15%
October 4, 2017	0.07	-	B	0.039	-	-	Staff gauge Reading
October 6, 2017	0.07	-	B	0.039	-	-	Staff gauge Reading
November 14, 2017	0.06	-	B	0.027	-	-	Staff gauge Reading
December 1, 2017	0.18	-	E	0.453	-	-	Staff gauge Reading, questionable value, suspect ice in channel
	-	-		-	-	-	

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.16	0.07	0.08	0.31	0.53	0.23	0.09	0.10	0.04	0.04	0.03	-

EV_DC1 2017 - Yearly Hydrograph



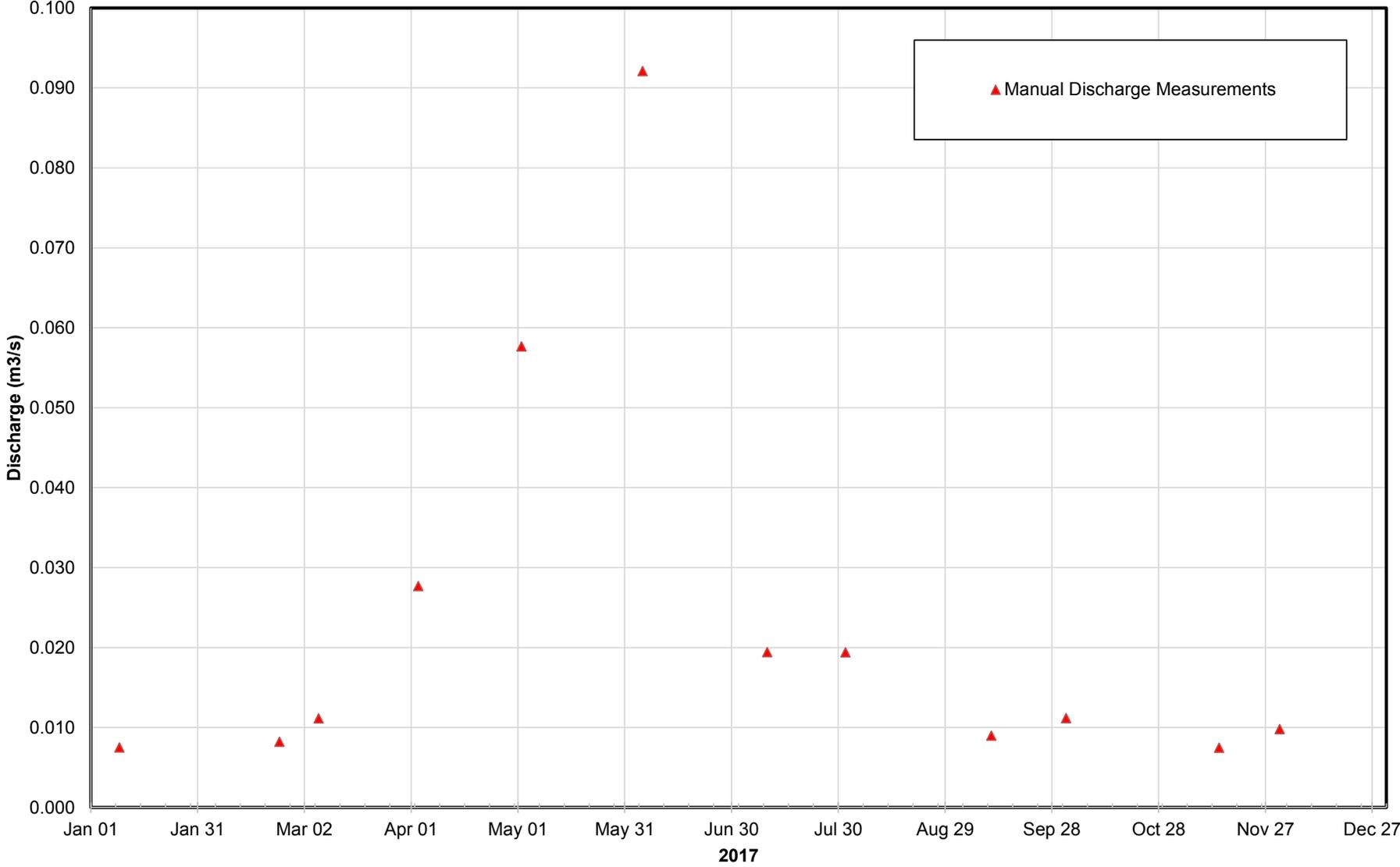
Station Details			
Station Name:	Balmer Creek at CFI Road	Reporting Year:	2017
Site ID:	EV_BLM2	Station Type:	Manual Measurements
EMS:	E298592	Teck Mine:	ElkView Operation
Station Description:	Manual Discharge Measurement Site on Balmer Creek at CFI Road		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	B		
Rationale for Data Grade Recommendation (RSFMP)	Governed by WQ sampling data use.		

Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 9, 2017	-	0.008	B	-	-	-	EVO, volumetric
February 23, 2017	-	0.008	B	-	-	-	EVO, volumetric
March 6, 2017	-	0.011	B	-	-	-	EVO, volumetric
April 3, 2017	-	0.028	E	-	-	-	EVO measurement, 15 panels, max panel 25%
May 2, 2017	-	0.058	C	-	-	-	EVO measurement, 19 panels, max panel 12%
June 5, 2017	-	0.092	C	-	-	-	EVO measurement, 20 panels, max panel 11%
July 10, 2017	-	0.019	E	-	-	-	EVO measurement, 22 panels, max panel 26%
August 1, 2017	-	0.019	C	-	-	-	EVO measurement, 22 panels, max panel 15%
September 11, 2017	-	0.009	E	-	-	-	EVO measurement, 20 panels, max panel 22%
October 2, 2017	0.215	0.011	C	-	-	-	EVO measurement, 20 panels, max panel 15%
November 14, 2017	0.27	0.007	B	-	-	-	EVO measurement, 18 panels, max panel 9%
December 1, 2017	0.266	0.010	C	-	-	-	EVO measurement, 20 panels, max panel 20%
	-	-		-	-	-	
	-	-		-	-	-	

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.008	0.008	0.011	0.028	0.058	0.092	0.019	0.019	0.009	0.011	0.007	0.010

EV_BLM2 2017 - Yearly Hydrograph



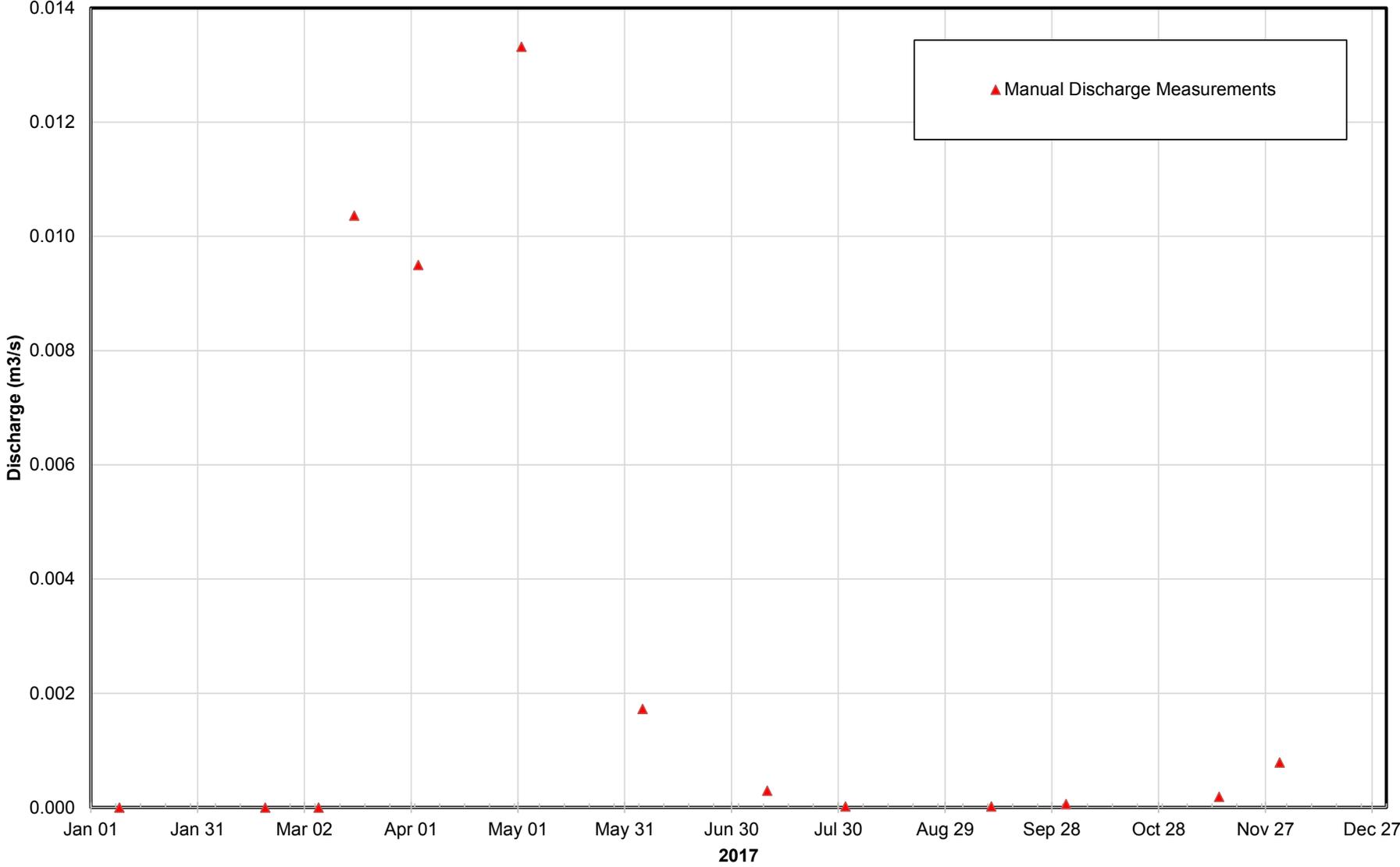
Station Details			
Station Name:	Fenelon Creek At C.F.I. Road	Reporting Year:	2017
Site ID:	EV_FC1	Station Type:	Manual Measurements
EMS:	E298591	Teck Mine:	ElkView Operation
Station Description:	Manual discharge measurement station on Fenelon Creek		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	B		
Rationale for Data Grade Recommendation (RSFMP)	Governed by WQ sampling data use.		

Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 9, 2017	-	-		-	-	-	No flow, no decant
February 19, 2017	-	-		-	-	-	No flow, no decant
March 6, 2017	-	-		-	-	-	No flow, no decant
March 16, 2017	-	0.010	B	-	-	-	EVO volumetric
April 3, 2017	-	0.010	E	-	-	-	EVO measurement, 8 panels, max panel 19%
May 2, 2017	-	0.013	C	-	-	-	EVO measurement, 20 panels, max panel 20%
June 5, 2017	-	0.002	E	-	-	-	EVO measurement, 9 panels, max panel 29%
July 10, 2017	-	0.00029	B	-	-	-	EVO volumetric Measurement
August 1, 2017	-	0.00002	E	-	-	-	EVO measurement, 4 panels, max panel 51%
September 11, 2017	-	0.00002	B	-	-	-	EVO volumetric Measurement
October 2, 2017	-	0.00006	B	-	-	-	EVO volumetric Measurement
November 14, 2017	-	0.00019	B	-	-	-	EVO volumetric Measurement
December 1, 2017	-	0.00079	B	-	-	-	EVO volumetric Measurement
	-	-		-	-	-	

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.00	0.00	0.01	0.01	0.01	0.002	0.0003	0.00002	0.00002	0.00006	0.00019	0.00079

EV_FC1 2017 - Yearly Hydrograph



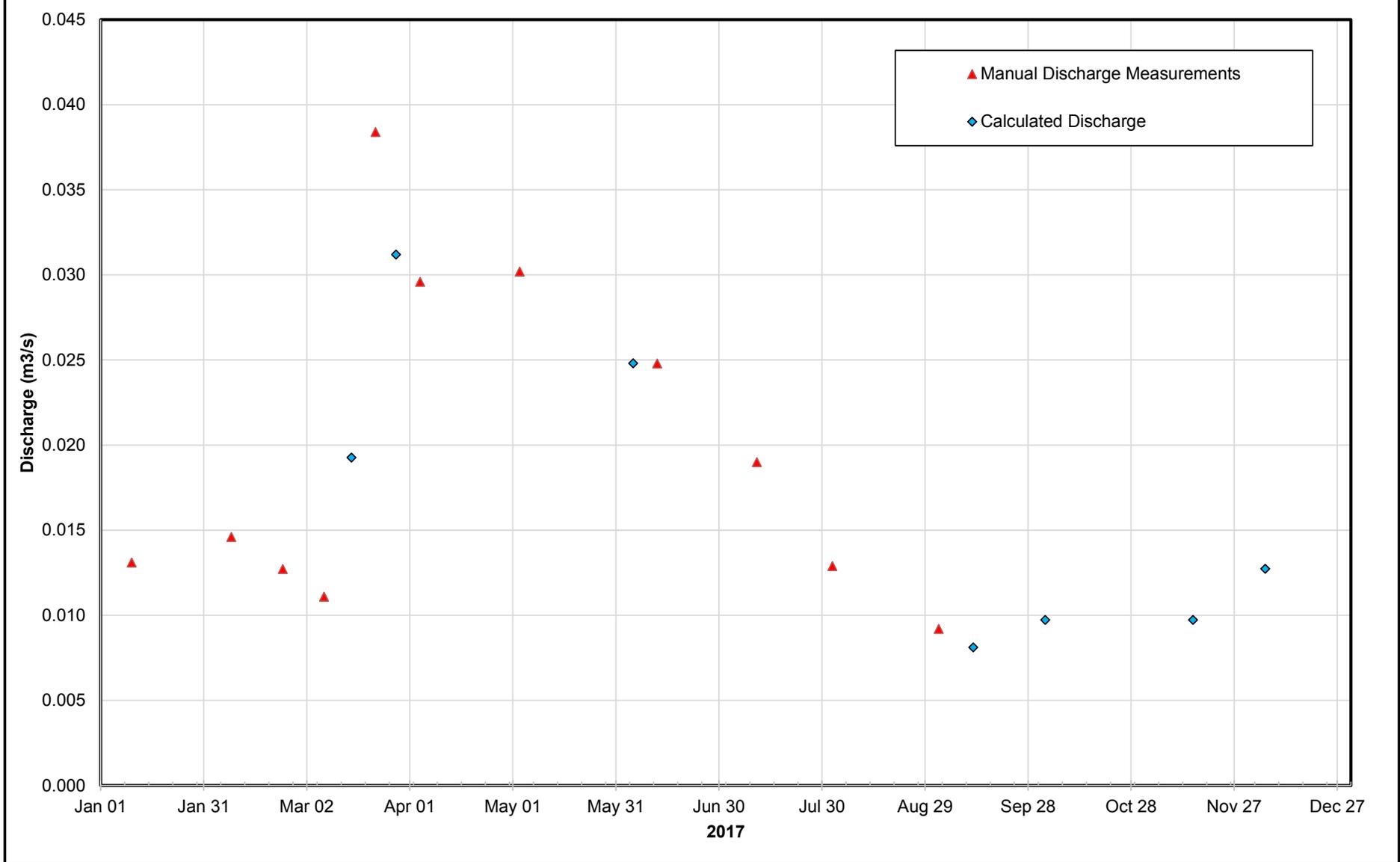
Station Details			
Station Name:	Spring Creek at Mouth	Reporting Year:	2017
Site ID:	EV_SPR2	Station Type:	Manual Measurements
EMS:	E298594	Teck Mine:	ElkView Operation
Station Description:	The Spring Creek site is located on Spring Creek immediately upstream of a small pond; the station is accessed through private property. The station consists of a staff gauge in an open channel.		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	B		
Rationale for Data Grade Recommendation (RSFMP)	Governed by WQ sampling data use.		

Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 10, 2017	0.21	0.013	C	0.019	-0.006	-47.1%	EVO Measurement, 16 panels, none over 10 % - possible ice affects
February 8, 2017	0.203	0.015	C	0.017	-0.003	-17.2%	EVO Measurement, 16 panels, none over 10 %
February 23, 2017	0.181	0.013	C	0.011	0.001	11.3%	EVO Measurement, 17 panels, none over 10 %
March 7, 2017	0.182	0.011	C	0.012	0.000	-3.8%	EVO Measurement, 16 panels, none over 10 %
March 15, 2017	0.21	-	C	0.019	-	-	Staff Gauge Reading
March 22, 2017	0.248	0.038	C	0.034	0.005	11.9%	EVO Measurement, 17 panels, none over 10 %
March 28, 2017	0.242	-	C	0.031	-	-	Staff Gauge Reading
April 4, 2017	0.238	0.030	B	0.030	0.000	0.3%	EVO Measurement, 20 panels, none over 10 %
May 3, 2017	0.233	0.030	C	0.027	0.003	9.0%	EVO Measurement, 17 panels, none over 10 %
June 5, 2017	0.226	-	C	0.025	-	-	Staff Gauge Reading
June 12, 2017	0.226	0.025	C	0.025	0.000	0.0%	EVO Measurement, 18 panels, none over 10 %
July 11, 2017	0.205	0.019	C	0.018	0.001	6.8%	EVO Measurement, 17 panels, none over 10 %
August 2, 2017	0.186	0.013	C	0.012	0.000	3.2%	EVO Measurement, 18 panels, none over 10 %
September 2, 2017	0.166	0.009	C	0.008	0.001	11.8%	EVO Measurement, 18 panels, none over 10 %
September 12, 2017	0.166	-	C	0.008	-	-	Staff Gauge Reading
October 3, 2017	0.174	-	C	0.010	-	-	Staff Gauge Reading
November 15, 2017	0.174	-	C	0.010	-	-	Staff Gauge Reading
December 6, 2017	0.187	-	C	0.013	-	-	Staff Gauge Reading
	-	-		-	-	-	

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.013	0.014	0.025	0.030	0.030	0.025	0.019	0.013	0.009	0.010	0.010	0.013

EV_SPR2 2017 - Yearly Hydrograph



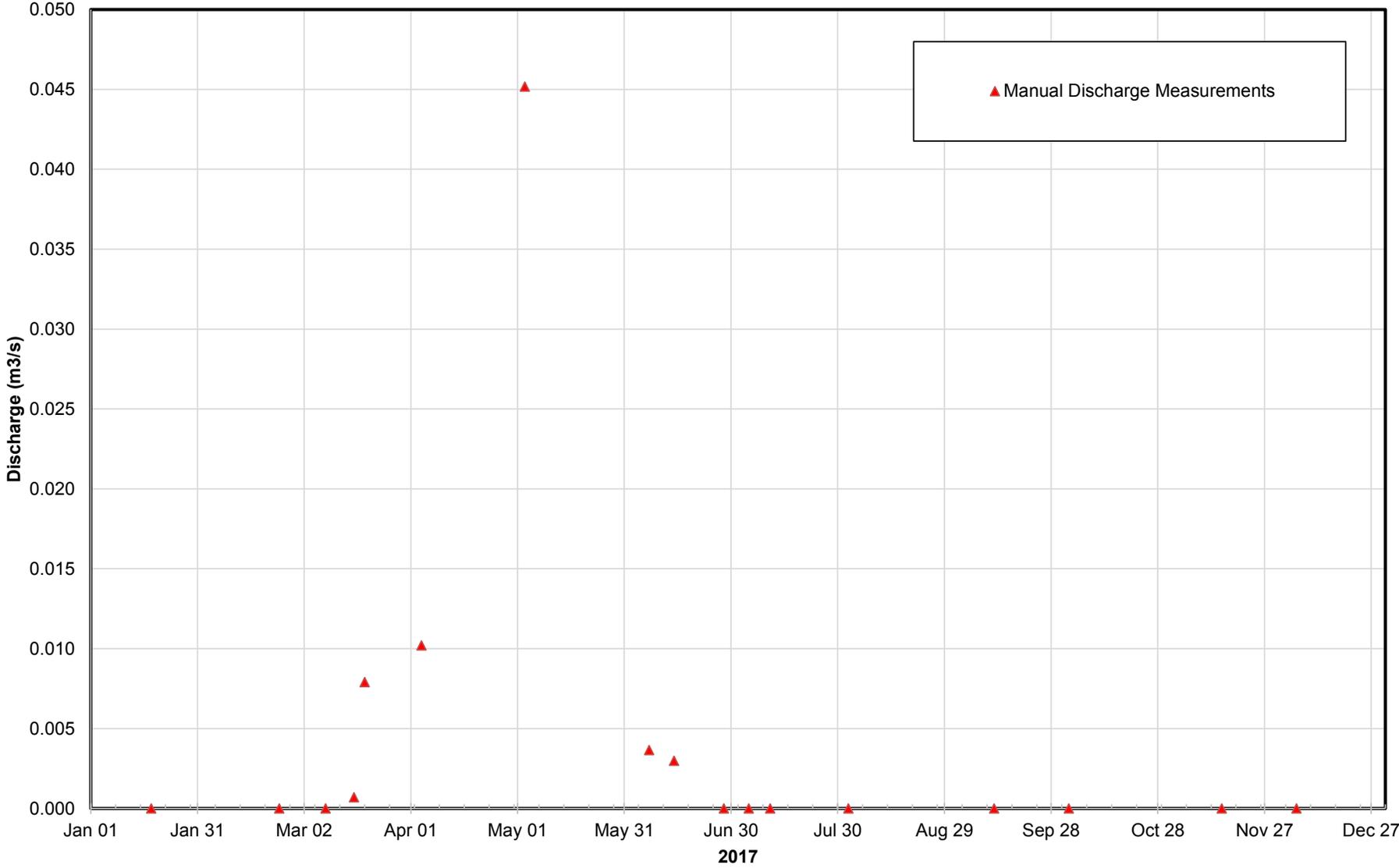
Station Details			
Station Name:	Thresher Creek at Milligan Road	Reporting Year:	2017
Site ID:	EV_TC1	Station Type:	Manual Measurements
EMS:	E298593	Teck Mine:	ElkView Operation
Station Description:	Manual discharge measurement site on Thresher Creek at Milligan Road		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	B		
Rationale for Data Grade Recommendation (RSFMP)	Governed by MAD data use.		

Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 18, 2017	-	-	B	-	-	-	No flow, no decant
February 23, 2017	-	-	B	-	-	-	No flow, no decant
March 8, 2017	-	-	B	-	-	-	No flow, no decant
March 16, 2017	-	0.001	B	-	-	-	EVO volumetric
March 19, 2017	-	0.008	B	-	-	-	EVO volumetric
April 4, 2017	-	0.010	C	-	-	-	EVO measurement, 20 panels, max panel 12%
May 3, 2017	-	0.045	C	-	-	-	EVO measurement, 15 panels, max panel 16%
June 7, 2017	-	0.004	C	-	-	-	EVO measurement, 18 panels, max panel 14%
June 14, 2017	-	0.003	C	-	-	-	EVO measurement, 17 panels, max panel 13%
June 28, 2017	-	-	B	-	-	-	No flow, no decant
July 5, 2017	-	-	B	-	-	-	No flow, no decant
July 11, 2017	-	-	B	-	-	-	No flow, no decant
August 2, 2017	-	-	B	-	-	-	No flow, no decant
September 12, 2017	-	-	B	-	-	-	No flow, no decant
October 3, 2017	-	-	B	-	-	-	No flow, no decant
November 15, 2017	-	-	B	-	-	-	No flow, no decant
December 6, 2017	-	-	B	-	-	-	No flow, no decant

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.00	0.00	0.00	0.01	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00

EV_TC1 2017 - Yearly Hydrograph





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Appendix F

Coal Mountain Annual Hydrometric Summaries

Station Details			
Station Name:	Michel Cr. U/S CMO	Reporting Year:	2017
Site ID:	CM_MC1	Station Type:	Seasonal Continuous Data
EMS:	E258175	Teck Mine:	Coal Mountain Operation
Station Description:	The Michel Creek hydrometric station is located on Michel Creek upstream of mine influence. This monitoring location is used to sample water quality parameters for background levels. The hydrometric station is located on the left side of the channel (looking downstream), south west of the Seven Pit Settling Ponds.		
Description of measurement methods, field procedures or data calculation that deviate from the information provided in the Metadata Summary:	All data was collected and managed as per the detail provided in the 2017 Metadata Summary and the 2017 Flow Monitoring Protocol		
Target Data Quality from Regional Surface Flow Monitoring Plan (RSFMP):	B		
Rationale for Data Grade Recommendation (RSFMP)	Governed by WQ sampling data use.		

Data Quality Assessment - Continuous Data		
Data Range	Data Quality Assessment Grade*	Description
January 1 - May 3, 2017	B	Station operated as expected
May 3 - 5, 2017	M	Data Outage
May 5 - 14, 2017	B	Station operated as expected
May 14 - 16, 2017	M	Data Outage
May 16 - August 13, 2017	B	Station operated as expected
August 13 - 17, 2017	M	Data Outage
August 17 - November 25, 2017	B	Station operated as expected
November 25 - 27, 2017	M	Data Outage
November 27 - December 1, 2017	B	Station operated as expected
December 1 - 6, 2017	M	Data Outage
December 7 - 31, 2017	B	Station operated as expected

* Grades A, B, C, E and U based on the BC RISC Standards Document. Data gaps greater than 12 hours categorized as **Missing (M)**, data where ice was present in the stream is categorized as **Estimated (E)**

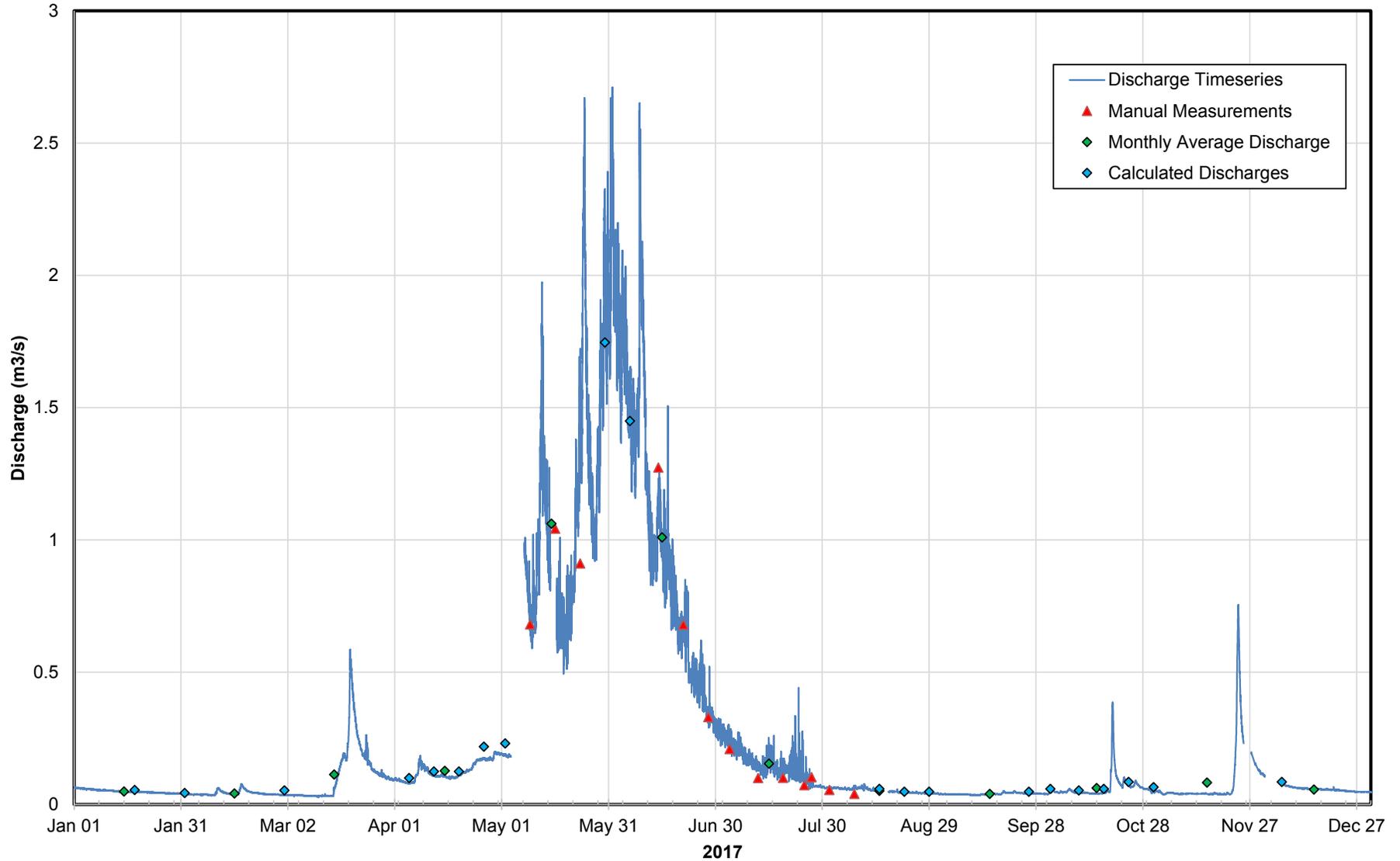
Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 18, 2017	1.03	-	B	0.055	-	-	Flow calculated using staff gauge reading
February 1, 2017	1.02	-	B	0.044	-	-	Flow calculated using staff gauge reading
March 1, 2017	1.03	-	B	0.054	-	-	Flow calculated using staff gauge reading
April 5, 2017	1.07	-	B	0.100	-	-	Flow calculated using staff gauge reading
April 12, 2017	1.08	-	B	0.125	-	-	Flow calculated using staff gauge reading
April 19, 2017	1.08	-	B	0.125	-	-	Flow calculated using staff gauge reading
April 26, 2017	1.13	-	B	0.219	-	-	Flow calculated using staff gauge reading
May 2, 2017	1.13	-	B	0.231	-	-	Flow calculated using staff gauge reading
May 9, 2017	1.25	0.681	B	0.647	0.034	5.0%	CMO measurement, 30 Panels none over 10 %
May 16, 2017	1.28	1.043	B	0.789	0.254	24.4%	CMO measurement, 30 Panels none over 10 %
May 23, 2017	1.40	0.911	C	1.492	-0.581	-63.8%	CMO measurement, 26 Panels none over 10 %
May 30, 2017	1.43	-	B	1.747	-	-	Flow calculated using staff gauge reading
June 6, 2017	1.39	-	B	1.449	-	-	Flow calculated using staff gauge reading
June 14, 2017	1.35	1.274	B	1.183	0.091	7.2%	CMO measurement, 20 Panels max flow 11%
June 21, 2017	1.26	0.680	B	0.692	-0.012	-1.8%	CMO measurement, 20 Panels none over 10 %
June 28, 2017	1.19	0.331	B	0.409	-0.078	-23.7%	CMO measurement, 20 Panels max flow 10%
July 4, 2017	1.12	0.210	C	0.205	0.005	2.5%	CMO measurement, 20 Panels none over 10 %
July 12, 2017	1.09	0.100	B	0.151	-0.051	-51.1%	CMO measurement, 20 Panels max flow 11%
July 19, 2017	1.08	0.101	B	0.125	-0.024	-23.8%	CMO measurement, 21 Panels none over 10 %
July 25, 2017	1.06	0.073	C	0.093	-0.020	-26.8%	CMO measurement, 21 Panels max flow 11.5%
July 27, 2017	1.06	0.104	C	0.093	0.011	11.0%	KWL Measurement, 17 Panels max flow 16%
August 1, 2017	1.05	0.055	B	0.078	-0.023	-42.4%	CMO measurement, 20 Panels max flow 11%
August 8, 2017	1.05	0.040	B	0.072	-0.032	-79.3%	CMO measurement, 21 Panels none over 10 %
August 15, 2017	1.04	-	B	0.059	-	-	Flow calculated using staff gauge reading
August 22, 2017	1.03	-	B	0.049	-	-	Flow calculated using staff gauge reading
August 29, 2017	1.03	-	B	0.049	-	-	Flow calculated using staff gauge reading
September 26, 2017	1.03	-	B	0.049	-	-	Flow calculated using staff gauge reading
October 2, 2017	1.04	-	B	0.059	-	-	Flow calculated using staff gauge reading
October 10, 2017	1.03	-	B	0.054	-	-	Flow calculated using staff gauge reading
October 17, 2017	1.04	-	B	0.059	-	-	Flow calculated using staff gauge reading
October 24, 2017	1.06	-	B	0.085	-	-	Flow calculated using staff gauge reading
October 31, 2017	1.04	-	B	0.065	-	-	Flow calculated using staff gauge reading
December 6, 2017	1.06	-	B	0.085	-	-	Flow calculated using staff gauge reading

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m³/sec

January	February	March	April	May	June	July	August	September	October	November	December
0.05	0.04	0.11	0.13	1.06	1.01	0.15	0.05	0.04	0.06	0.08	0.06

CM_MC1 2017 - Yearly Hydrograph



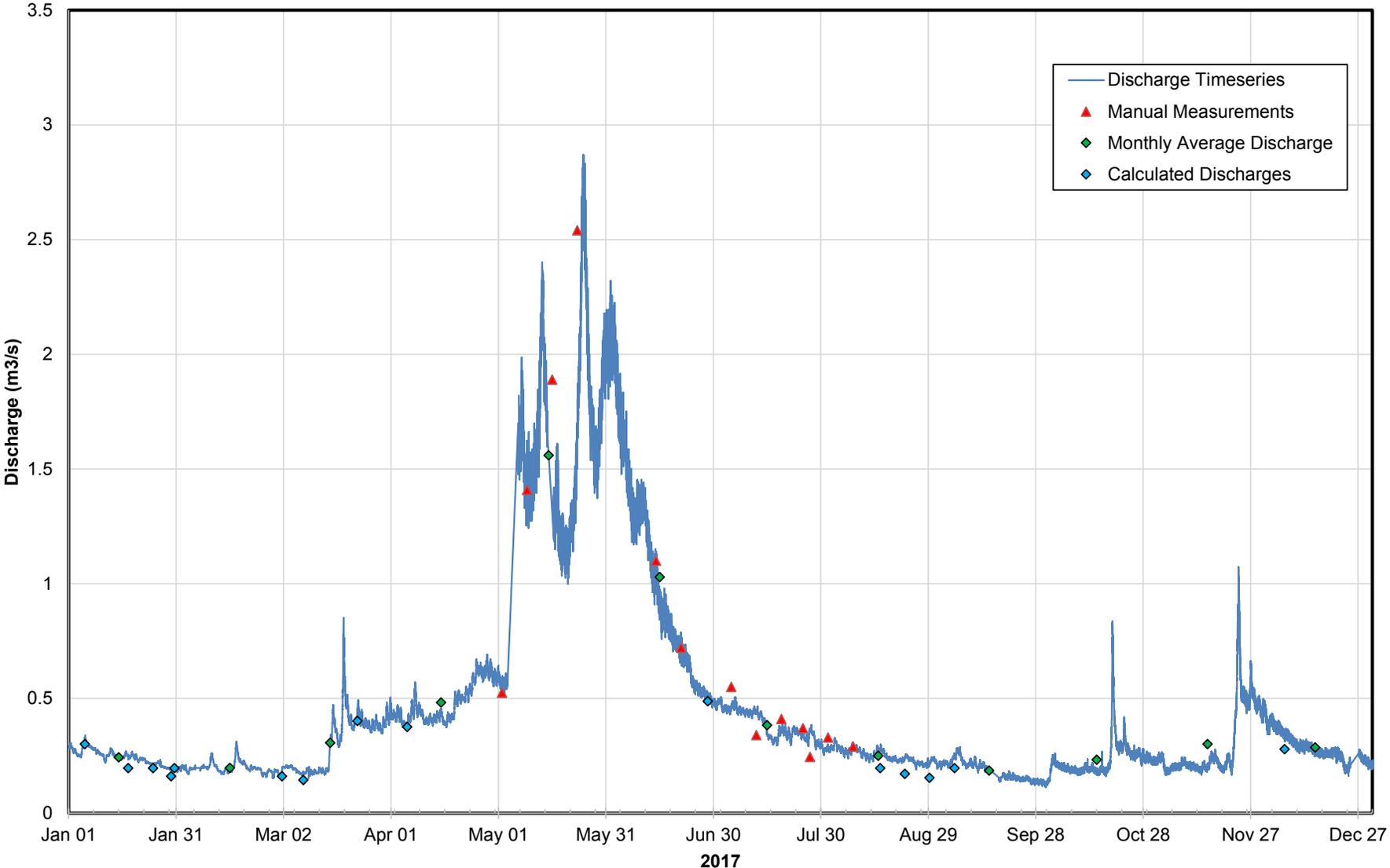
Summary Table of Yearly Discharge Measurements

Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement *	From Stage Discharge Relationship (add equation)			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 5, 2017	0.40	-		0.301	-	-	Flow calculated using staff gauge reading
January 17, 2017	0.37	-		0.196	-	-	Flow calculated using staff gauge reading
January 24, 2017	0.37	-		0.196	-	-	Flow calculated using staff gauge reading
January 29, 2017	0.36	-		0.161	-	-	Flow calculated using staff gauge reading
January 30, 2017	0.37	-		0.196	-	-	Flow calculated using staff gauge reading
March 1, 2017	0.36	-		0.161	-	-	Flow calculated using staff gauge reading
March 7, 2017	0.36	-		0.144	-	-	Flow calculated using staff gauge reading
March 22, 2017	0.42	-		0.402	-	-	Flow calculated using staff gauge reading
April 5, 2017	0.41	-		0.375	-	-	Flow calculated using staff gauge reading
May 2, 2017	0.44	0.524	B	0.549	-0.025	-4.6%	CMO Measurement 33 Panels, none over 10%
May 9, 2017	-	1.409	B	-	-	-	CMO Measurement 39 Panels, none over 10%
May 16, 2017	0.57	1.890	B	1.711	0.179	10.5%	CMO Measurement 38 Panels, none over 10%
May 23, 2017	0.63	2.540	B	2.407	0.133	5.5%	CMO Measurement 27 Panels, none over 10%
June 14, 2017	0.50	1.100	B	1.002	0.098	9.8%	CMO Measurement 27 Panels, max flow 10%
June 21, 2017	0.46	0.721	B	0.685	0.036	5.3%	CMO Measurement 20 Panels, none over 10%
June 28, 2017	0.43	-		0.487	-	-	Flow calculated using staff gauge reading
July 5, 2017	0.42	0.550	B	0.452	0.098	21.7%	CMO Measurement 23 Panels, none over 10%
July 12, 2017	0.42	0.340	B	0.407	-0.067	-16.5%	CMO Measurement 24 Panels, max flow 10%
July 19, 2017	0.40	0.410	B	0.325	0.085	26.2%	CMO Measurement 24 Panels, none over 10%
July 25, 2017	0.40	0.370	C	0.301	0.069	22.9%	CMO Measurement 24 Panels, max flow 12%
July 27, 2017	0.39	0.245	B	0.283	-0.038	-13.3%	KWL Measurement 24 Panels, none over 10%
August 1, 2017	0.38	0.330	B	0.227	0.103	45.2%	CMO Measurement 23 Panels, none over 10%
August 8, 2017	0.38	0.290	B	0.235	0.055	23.2%	CMO Measurement 25 Panels, none over 10%
August 15, 2017	0.37	-		0.196	-	-	Flow calculated using staff gauge reading
August 22, 2017	0.36	-		0.171	-	-	Flow calculated using staff gauge reading
August 29, 2017	0.36	-		0.154	-	-	Flow calculated using staff gauge reading
September 5, 2017	0.37	-		0.196	-	-	Flow calculated using staff gauge reading
December 6, 2017	0.39	-		0.278	-	-	Flow calculated using staff gauge reading
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.24	0.20	0.31	0.48	1.56	1.03	0.38	0.25	0.19	0.23	0.30	0.29

CM_CC1 2017 - Yearly Hydrograph





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Appendix G

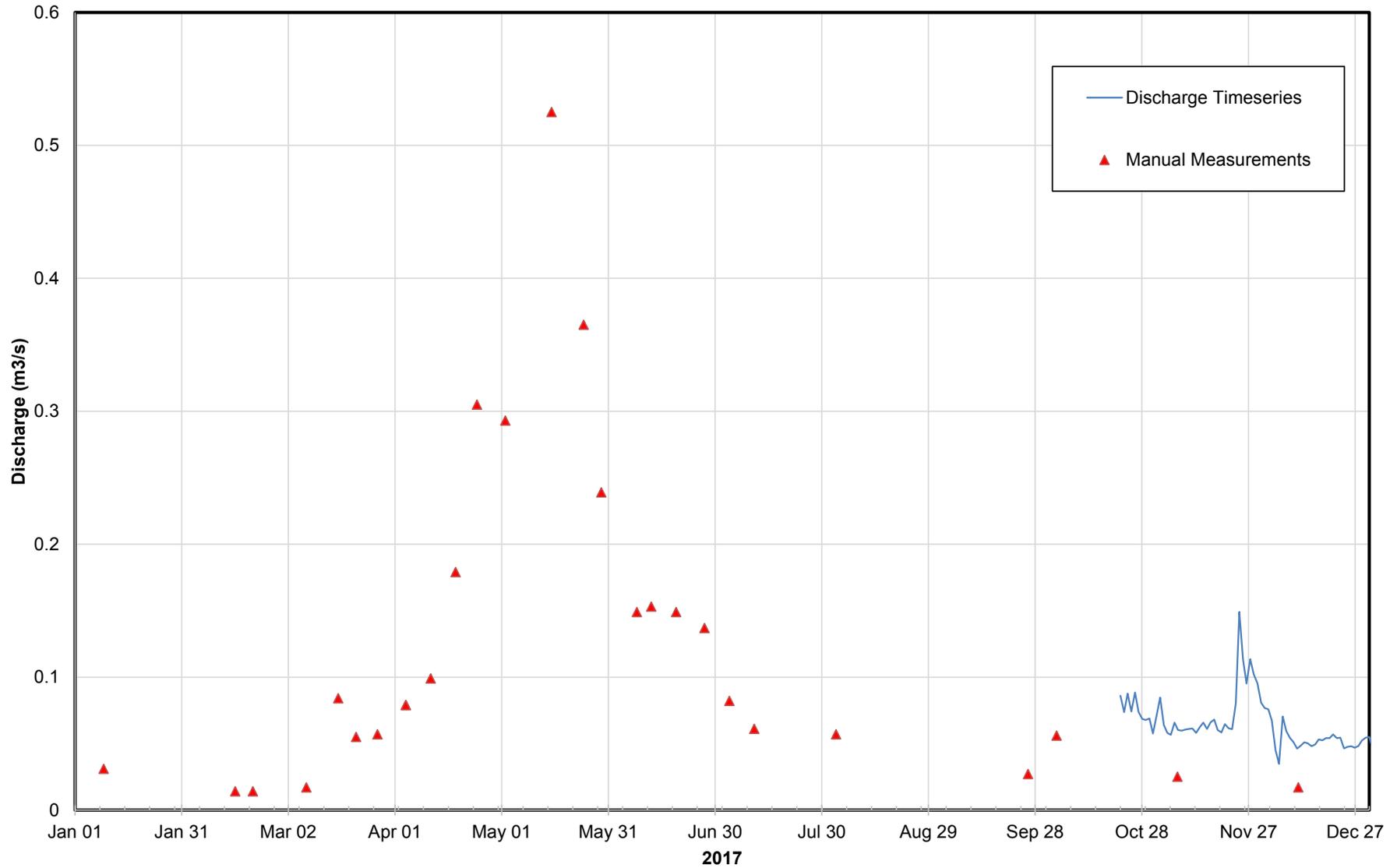
Greenhills Operation Annual Hydrometric Summaries

Summary Table of Yearly Discharge Measurements							
Date	Manual Staff Gauge Reading	Manual Discharge Measurement (m ³ /s)	Data Grade of Staff Gauge Reading or Manual Discharge Measurement*	From Stage Discharge Relationship			Comments
				Calculated Discharge Measurement (m ³ /s)	Difference (Manual-Calculated)	% Difference (Difference/Calculated)	
January 9, 2017	-	0.031	B	-	-	-	GHO measurement, 20 panels, max panel 9%
February 15, 2017	-	0.014	E	-	-	-	GHO measurement, no back-up documentation
February 20, 2017	-	0.014	C	-	-	-	GHO measurement, 20 panels, max panel 11%
March 7, 2017	0.04	0.017	C	-	-	-	GHO measurement, 22 panels, max panel 13%
March 16, 2017	-	0.084	E	-	-	-	GHO measurement, no back-up documentation
March 21, 2017	-	0.055	E	-	-	-	GHO measurement, no back-up documentation
March 27, 2017	-	0.057	E	-	-	-	GHO measurement, no back-up documentation
April 4, 2017	-	0.079	E	-	-	-	GHO measurement, no back-up documentation
April 4, 2017	0.06	0.079	B	-	-	-	GHO measurement, 20 panels, max panel 7%
April 11, 2017	0.06	0.099	B	-	-	-	GHO measurement, 20 panels, max panel 7%
April 18, 2017	0.08	0.179	B	-	-	-	GHO measurement, 20 panels, max panel 6%
April 24, 2017	0.10	0.305	B	-	-	-	GHO measurement, 20 panels, max panel 7%
May 2, 2017	0.10	0.293	B	-	-	-	GHO measurement, 20 panels, max panel 7%
May 9, 2017	-	-	E	-	-	-	GHO measurement, no back-up documentation
May 15, 2017	0.16	0.525	B	-	-	-	GHO measurement, 20 panels, max panel 7%
May 24, 2017	-	0.365	B	-	-	-	GHO measurement, 20 panels, max panel 8%
May 29, 2017	0.09	0.239	B	-	-	-	GHO measurement, 20 panels, max panel 8%
June 8, 2017	-	0.149	E	-	-	-	GHO measurement, no back-up documentation
June 12, 2017	0.10	0.153	B	-	-	-	GHO measurement, 20 panels, max panel 9%
June 19, 2017	-	0.149	B	-	-	-	GHO measurement, 20 panels, max panel 8%
June 27, 2017	-	0.137	B	-	-	-	GHO measurement, 20 panels, max panel 9%
July 4, 2017	-	0.082	B	-	-	-	GHO measurement, 20 panels, max panel 9%
July 11, 2017	-	0.061	B	-	-	-	GHO measurement, 20 panels, max panel 10%
August 3, 2017	0.06	0.057	B	-	-	-	GHO measurement, 21 panels, max panel 9%
September 26, 2017	0.04	0.027	B	-	-	-	GHO measurement, 20 panels, max panel 7%
October 4, 2017	0.05	0.056	C	-	-	-	GHO measurement, 20 panels, max panel 14%
November 7, 2017	0.04	0.025	B	-	-	-	GHO measurement, 20 panels, max panel 6%
December 11, 2017	0.06	0.017	C	-	-	-	GHO measurement, 18 panels, max panel 10%
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	
	-	-		-	-	-	

* Grades A, B, C, E and U based on the BC RISC Standards Document.

Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.07	0.07	0.05

GH_GH1 2017 - Yearly Hydrograph





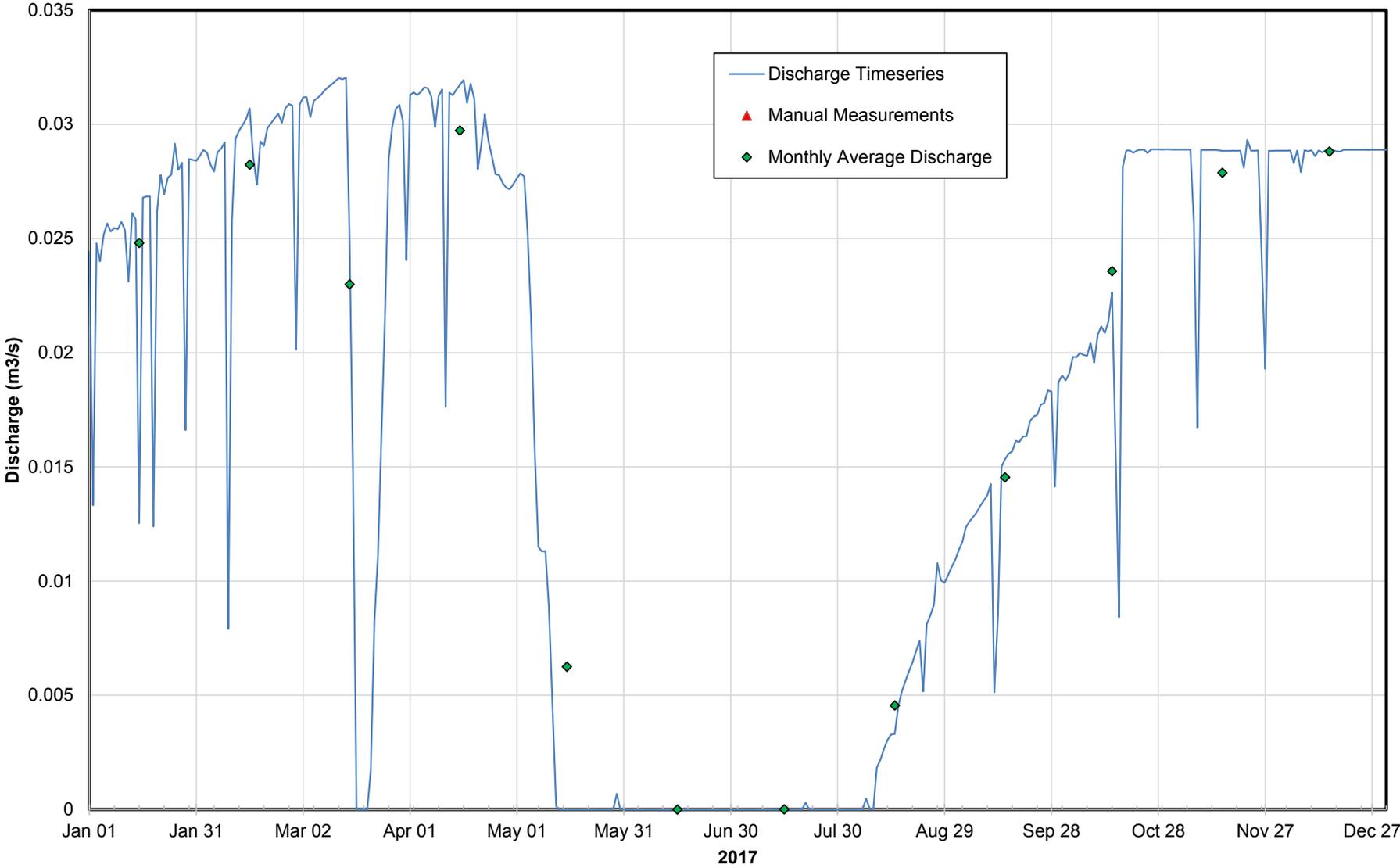
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Appendix H

West Line Creek Annual Hydrometric Summaries

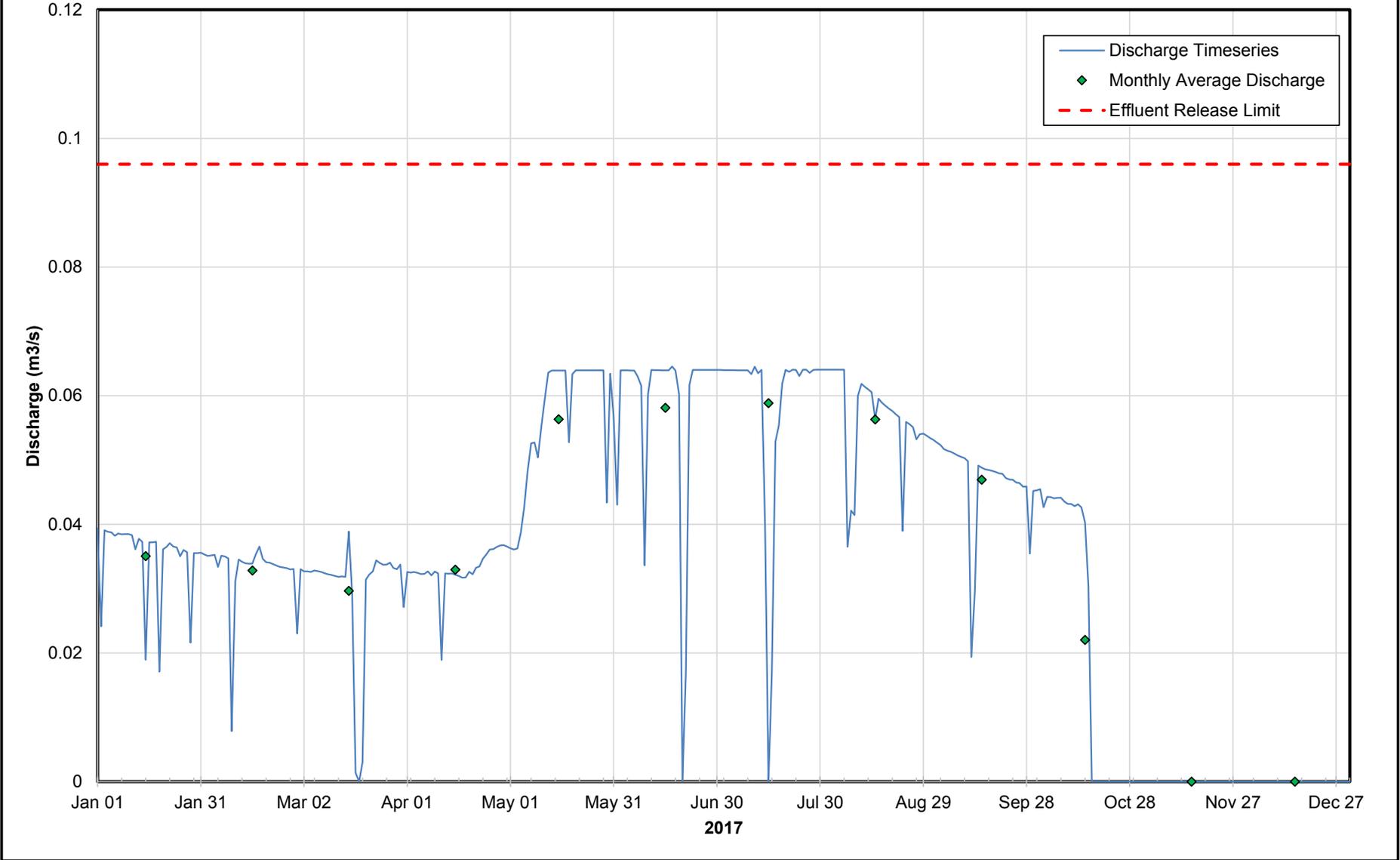
Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.025	0.028	0.023	0.030	0.006	0.000	0.000	0.005	0.015	0.024	0.028	0.029

WL_LCI_SP02 2017 - Yearly Hydrograph



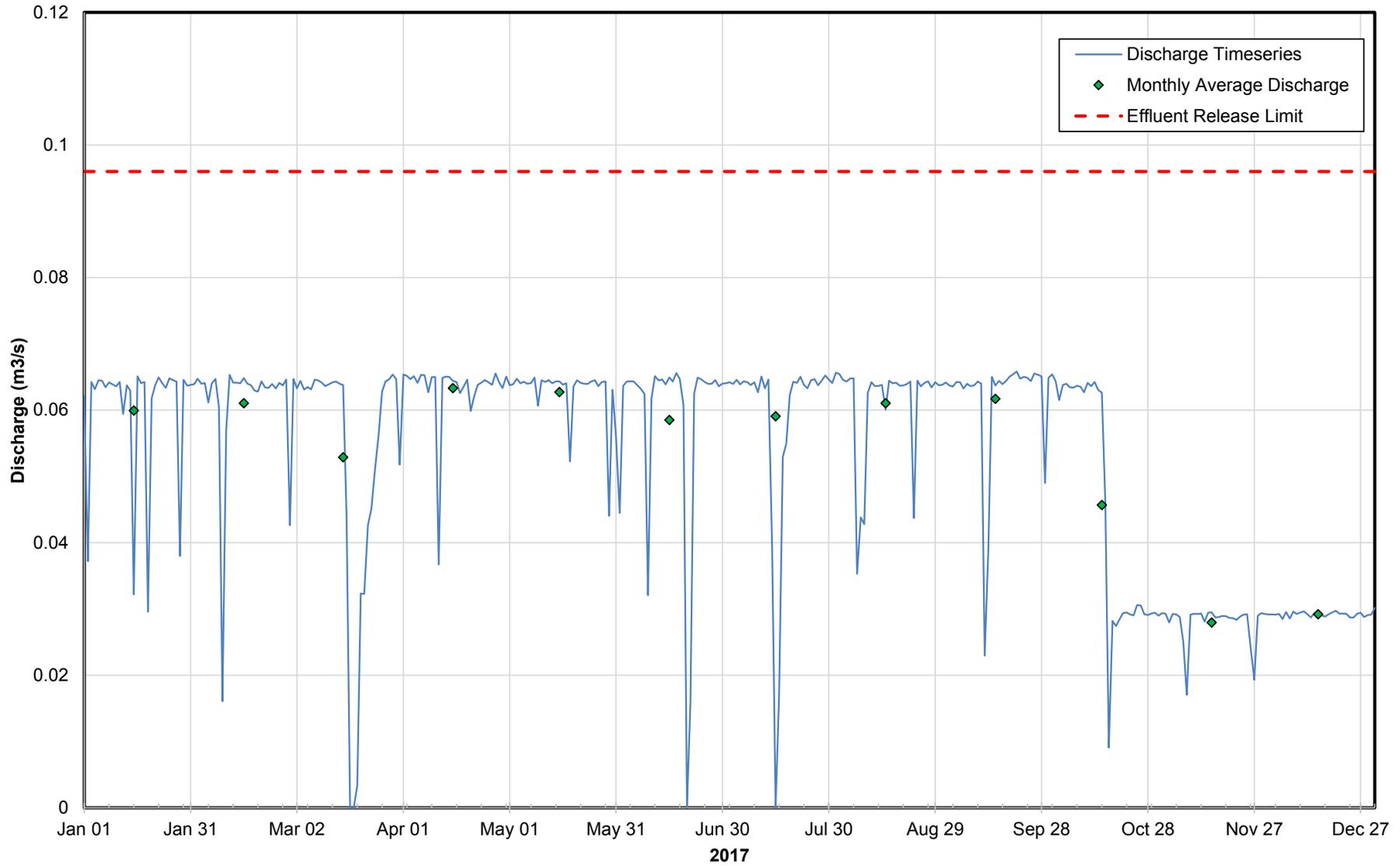
Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.035	0.033	0.030	0.033	0.056	0.058	0.059	0.056	0.047	0.022	0.000	0.000

WL_WLCI_SP01 2017 - Yearly Hydrograph



Monthly Average Discharge m ³ /sec											
January	February	March	April	May	June	July	August	September	October	November	December
0.060	0.061	0.053	0.063	0.063	0.059	0.059	0.061	0.062	0.046	0.028	0.029

WL_BFWB_OUT_SP21 2017 - Yearly Hydrograph



Appendix D – 2017 Relative Percent Difference Results

Location:	FR_CC1	FR_CC1
Sample ID:	FR_CC1_M_03042017_N	FD_M_03042017_123
Date Sampled:	4/3/2017	4/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	7.8	9.6	20.69%	Pass-2
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	223	222	0.45%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	223	222	0.45%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	0.0012	18.18%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0087	0.0088	1.14%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00074	0.00078	5.26%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00077	0.0008	3.82%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00013	0.00012	8.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0436	0.0436	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0426	0.0404	5.30%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.021	0.02	4.88%	Pass
BORON, T	0.01	0.01	mg/l	0.022	0.021	4.65%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000643	0.000654	1.70%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000636	0.00065	2.18%	Pass
CALCIUM, D	0.05	0.05	mg/l	223	223	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	218	215	1.39%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.69	0.7	1.44%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00027	0.00027	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00029	0.00031	6.67%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1770	1800	1.68%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00024	0.00024	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00057	<0.0005	13.08%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.16	0.15	6.45%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1030	1030	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.291	0.289	0.69%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.298	0.297	0.34%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	115	116	0.87%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	115	111	3.54%	Pass
MAJOR ANION SUM	0	0	meq/l	21.6	21.6	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	20.9	21	0.48%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00157	0.00165	4.97%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00208	0.00225	7.85%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00344	0.00349	1.44%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00364	0.00361	0.83%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0533	0.0527	1.13%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0538	0.0528	1.88%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	88.5	88.7	0.23%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0118	0.0115	2.58%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0127	<0.005	87.01%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0012	0.0016	28.57%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	462	467	1.08%	Pass
pH, LAB	0.1	0.1	ph units	8.04	8.03	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	0.0024	18.18%	Pass
POTASSIUM, D	0.05	0.05	mg/l	5.32	5.29	0.57%	Pass
POTASSIUM, T	0.05	0.05	mg/l	5.25	5.22	0.57%	Pass
SELENIUM, D	0.05	0.05	ug/l	171	172	0.58%	Pass
SELENIUM, T	0.05	0.05	ug/l	169	166	1.79%	Pass
SILICON, D	0.05	0.05	mg/l	1.58	1.56	1.27%	Pass
SILICON, T	0.05	0.05	mg/l	1.61	1.59	1.25%	Pass

SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	5.47	5.45	0.37%	Pass
SODIUM, T	0.05	0.05	mg/l	5.67	5.54	2.32%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.340	0.336	1.18%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.330	0.325	1.53%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	518	520	0.39%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000032	3.1e-005	3.17%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000036	3.5e-005	2.82%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	200	200	mg/l	1620	1540	5.06%	Pass
TOTAL KJELDAHL NITROGEN	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.69	0.68	1.46%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.79	1.8	0.56%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0119	0.0117	1.69%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0118	0.0117	0.85%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0315	0.0309	1.92%	Pass
ZINC, T	0.003	0.003	mg/l	0.0306	0.0307	0.33%	Pass

Location:	FR_CC1	FR_CC1
Sample ID:	FR_CC1_M_03072017_N	FD_M_03072017_147
Date Sampled:	7/3/2017	7/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	1.5	40.00%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	225	226	0.44%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	225	226	0.44%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0040	0.0045	11.76%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00081	0.00084	3.64%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00081	0.0008	1.24%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00010	0.00011	9.52%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00019	0.00019	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0326	0.0331	1.52%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0326	0.0325	0.31%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.022	0.023	4.44%	Pass
BORON, T	0.01	0.01	mg/l	0.025	0.024	4.08%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000226	0.000238	5.17%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000374	0.000354	5.49%	Pass
CALCIUM, D	0.05	0.05	mg/l	177	178	0.56%	Pass
CALCIUM, T	0.05	0.05	mg/l	180	178	1.12%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.43	1.31	8.76%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00021	0.00022	4.65%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00024	0.00025	4.08%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1540	1550	0.65%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00023	0.00025	8.33%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.16	0.16	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	840	842	0.24%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.188	0.188	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.190	0.186	2.13%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	96.5	96.3	0.21%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	99.0	97.4	1.63%	Pass
MAJOR ANION SUM	0	0	meq/l	17.5	18	2.82%	Pass
MAJOR CATION SUM	0	0	meq/l	17.1	17.1	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00092	0.0009	2.20%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00165	0.00165	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00375	0.00381	1.59%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00401	0.00391	2.53%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0414	0.0419	1.20%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0412	0.0407	1.22%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	58.8	60	2.02%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0866	0.0868	0.23%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0064	0.0051	22.61%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	306	305	0.33%	Pass
pH, LAB	0.1	0.1	ph units	8.29	8.26	0.36%	Pass
PHOSPHORUS	0.01	0.004	mg/l	< 0.010	<0.004	85.71%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	4.82	4.77	1.04%	Pass
POTASSIUM, T	0.05	0.05	mg/l	4.66	4.61	1.08%	Pass
SELENIUM, D	0.05	0.05	ug/l	168	163	3.02%	Pass
SELENIUM, T	0.05	0.05	ug/l	158	155	1.92%	Pass
SILICON, D	0.05	0.05	mg/l	1.16	1.15	0.87%	Pass
SILICON, T	0.1	0.1	mg/l	1.23	1.2	2.47%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	3.75	3.69	1.61%	Pass
SODIUM, T	0.05	0.05	mg/l	3.75	3.7	1.34%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.250	0.256	2.37%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.259	0.254	1.95%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	424	440	3.70%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000029	3.4e-005	15.87%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000031	3.3e-005	6.25%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1130	1170	3.48%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.560	0.6	6.90%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.47	1.65	11.54%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.50	0.48	4.08%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00922	0.00916	0.65%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00969	0.00974	0.51%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0148	0.0149	0.67%	Pass
ZINC, T	0.003	0.003	mg/l	0.0263	0.0214	20.55%	Pass-2

Location:	FR_CC1	FR_CC1
Sample ID:	FR_CC1_W_10072017_N	FD_W_10072017_183
Date Sampled:	7/10/2017	7/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.69	0.54	24.39%	Pass-2

Location:	FR_EC1H	FR_EC1H
Sample ID:	FR_EC1H-WS-201711231330	FR_DC1-WS-201711231330
Date Sampled:	11/23/2017	11/23/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.5	2.9	43.24%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	278	280	0.72%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	15.8	10.8	37.59%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	294	291	1.03%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.006	0.003	mg/l	< 0.0060	0.0111	59.65%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00066	0.00065	1.53%	Pass
ANTIMONY, T	0.0002	0.0001	mg/l	0.00076	0.00075	1.32%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00022	0.00021	4.65%	Pass
ARSENIC, T	0.0002	0.0001	mg/l	0.00021	0.00022	4.65%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0117	0.0112	4.37%	Pass
BARIUM, T	0.0001	0.00005	mg/l	0.0112	0.0114	1.77%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00004	0.00002	mg/l	< 0.000040	<2e-005	66.67%	Pass-1
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.0001	0.00005	mg/l	< 0.00010	<5e-005	66.67%	Pass-1
BORON, D	0.01	0.01	mg/l	0.030	0.03	0.00%	Pass
BORON, T	0.02	0.01	mg/l	0.038	0.035	8.22%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000710	5.74e-005	21.18%	Pass-2
CADMIUM, T	0.00001	0.000005	mg/l	0.000049	5.54e-005	12.26%	Pass
CALCIUM, D	0.05	0.05	mg/l	341	331	2.98%	Pass
CALCIUM, T	0.1	0.05	mg/l	372	339	9.28%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.08	4.09	28.17%	Pass-2
Cation - Anion Balance	0	0	%	3.6	1.7	71.70%	Fail
CHLORIDE, D	2.5	2.5	mg/l	10.1	10.6	4.83%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0002	0.0001	mg/l	< 0.00020	0.00017	16.22%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0002	0.0001	mg/l	< 0.00020	<0.0001	66.67%	Pass-1
CONDUCTIVITY, LAB	2	2	us/cm	2860	2860	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.001	0.0005	mg/l	< 0.0010	<0.0005	66.67%	Pass-1
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	2370	2330	1.70%	Pass
ION BALANCE	100	100	%	107	103	3.81%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.02	0.01	mg/l	< 0.020	<0.01	66.67%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.0001	0.00005	mg/l	< 0.00010	<5e-005	66.67%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.110	0.113	2.69%	Pass
LITHIUM, T	0.002	0.001	mg/l	0.127	0.118	7.35%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	369	365	1.09%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	404	392	3.02%	Pass
MAJOR ANION SUM	0	0	meq/l	44.9	45.8	1.98%	Pass
MAJOR CATION SUM	0	0	meq/l	48.2	47.4	1.67%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00228	0.00269	16.50%	Pass
MANGANESE, T	0.0002	0.0001	mg/l	0.00365	0.0044	18.63%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00320	0.00311	2.85%	Pass
MOLYBDENUM, T	0.0001	0.00005	mg/l	0.00376	0.00361	4.07%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0234	0.0229	2.16%	Pass
NICKEL, T	0.001	0.0005	mg/l	0.0249	0.0237	4.94%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	38.8	39.7	2.29%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.117	0.123	5.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0524	0.0618	16.46%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0011	0.0011	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	264	263	0.38%	Pass
pH, LAB	0.1	0.1	ph units	8.35	8.34	0.12%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0051	0.0069	30.00%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	6.12	6.28	2.58%	Pass
POTASSIUM, T	0.1	0.05	mg/l	6.38	6.65	4.14%	Pass
SELENIUM, D	0.05	0.05	ug/l	461	448	2.86%	Pass
SELENIUM, T	0.1	0.05	ug/l	407	423	3.86%	Pass
SILICON, D	0.05	0.05	mg/l	0.788	0.836	5.91%	Pass
SILICON, T	0.2	0.1	mg/l	0.98	0.99	1.02%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00002	0.00001	mg/l	< 0.000020	<1e-005	66.67%	Pass-1

SODIUM, D	0.05	0.05	mg/l	15.7	15.3	2.58%	Pass
SODIUM, T	0.1	0.05	mg/l	16.4	15.9	3.10%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.258	0.252	2.35%	Pass
STRONTIUM, T	0.0004	0.0002	mg/l	0.295	0.282	4.51%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	1730	1770	2.29%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000032	3.5e-005	8.96%	Pass
THALLIUM, T	0.00002	0.00001	mg/l	0.000040	4.5e-005	11.76%	Pass
TIN, D	0.0001	< 0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0002	0.0001	mg/l	< 0.00020	<0.0001	66.67%	Pass-1
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	40	40	mg/l	3060	2910	5.03%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.650	0.641	1.39%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.92	3.95	29.99%	Pass-2
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	3.0	3	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	4.00	4.58	13.52%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0224	0.0222	0.90%	Pass
URANIUM, T	0.00002	0.00001	mg/l	0.0244	0.0229	6.34%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.001	0.0005	mg/l	< 0.0010	<0.0005	66.67%	Pass-1
ZINC, D	0.003	0.003	mg/l	0.0199	0.0617	102.45%	Fail
ZINC, T	0.006	0.003	mg/l	0.0228	0.0669	98.33%	Pass-1

Location:	FR_FR1	FR_FR1
Sample ID:	FR_FR1_M_05062017_N	FD_M_05062017_139
Date Sampled:	6/5/2017	6/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	97.6	102	4.41%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	4.8	3.8	23.26%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	102	106	3.85%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0061	0.0047	25.93%	Pass-2
ALUMINUM, T	0.003	0.003	mg/l	0.0450	0.0637	34.41%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0275	0.0271	1.47%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0271	0.0273	0.74%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000089	8.4e-006	5.78%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000131	2e-005	41.69%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	32.8	33.1	0.91%	Pass
CALCIUM, T	0.05	0.05	mg/l	34.8	35.7	2.55%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.92	1.72	10.99%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00028	0.0002	33.33%	Pass-1
COBALT, D	0.0001	< 0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	262	260	0.77%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00023	<0.0002	13.95%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00067	<0.0005	29.06%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.152	0.155	1.95%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	123	124	0.81%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.058	0.081	33.09%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	5.6e-005	11.32%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0022	0.0027	20.41%	Pass-1

LITHIUM, T	0.001	0.001	mg/l	0.0025	0.003	18.18%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	10.1	9.95	1.50%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	10.1	10.4	2.93%	Pass
MAJOR ANION SUM	0	0	meq/l	2.69	2.84	5.42%	Pass
MAJOR CATION SUM	0	0	meq/l	2.50	2.51	0.40%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00190	0.00185	2.67%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00383	0.00476	21.65%	Pass-2
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00124	0.00111	11.06%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000538	0.000542	0.74%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000580	0.000588	1.37%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00062	0.00068	9.23%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.01	1.14	12.09%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	0.0012	18.18%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0062	0.0059	4.96%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0029	0.0032	9.84%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	491	489	0.41%	Pass
pH, LAB	0.1	0.1	ph units	8.31	8.3	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0082	0.012	37.62%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	0.441	0.437	0.91%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.449	0.457	1.77%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.55	4.2	8.00%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.2	4	4.88%	Pass
SILICON, D	0.05	0.05	mg/l	1.35	1.4	3.64%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.494	0.485	1.84%	Pass
SODIUM, T	0.05	0.05	mg/l	0.463	0.475	2.56%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0655	0.0646	1.38%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0682	0.0682	0.00%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	27.1	30.5	11.81%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	13	20	mg/l	158	161	1.88%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.170	0.216	23.83%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.98	1.71	14.63%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	4.8	5	4.08%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	3.17	3.07	3.21%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000506	0.000497	1.79%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000524	0.000521	0.57%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	<0.0013	<0.001	26.09%	Pass-1
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_FR1	FR_FR1
Sample ID:	FR_FR1_MON_2017-09-04_N	WS_2017-09-04_034
Date Sampled:	9/11/2017	9/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	136	135	0.74%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	11.6	12.8	9.84%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	147	148	0.68%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0064	0.0062	3.17%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00013	0.00011	16.67%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0534	0.0539	0.93%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0499	0.0493	1.21%	Pass

BERYLLIUM, D	0.0002	0.0002	mg/l	< 0.00020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.0002	0.0002	mg/l	< 0.00020	<2e-005	0.00%	Pass
BISMUTH, D	0.0005	0.0005	mg/l	< 0.00050	<5e-005	0.00%	Pass
BISMUTH, T	0.0005	0.0005	mg/l	< 0.00050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.00005	0.00005	mg/l	0.0000171	2.17e-005	23.71%	Pass-1
CADMIUM, T	0.00005	0.00005	mg/l	0.0000229	2.05e-005	11.06%	Pass
CALCIUM, D	0.05	0.05	mg/l	81.5	84.7	3.85%	Pass
CALCIUM, T	0.05	0.05	mg/l	77.5	75.1	3.15%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
Cation - Anion Balance	0	0	%	3.8	5.3	32.97%	Fail
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00015	0.00011	30.77%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	532	536	0.75%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	0.00075	40.00%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.191	0.194	1.56%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	320	330	3.08%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0074	0.0086	15.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0075	0.0074	1.34%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	28.3	28.9	2.10%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	26.5	26	1.90%	Pass
MAJOR ANION SUM	0	0	meq/l	5.98	5.98	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	6.45	6.66	3.20%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00019	<0.0001	62.07%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00314	0.00253	21.52%	Pass-2
MERCURY, D	0.00005	0.00005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000919	0.000899	2.20%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000973	0.000947	2.71%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00071	0.00076	6.80%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00081	0.00085	4.82%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	4.09	4.11	0.49%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0073	0.0073	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0073	0.0066	10.07%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	378	328	14.16%	Pass
pH, LAB	0.1	0.1	ph units	8.46	8.45	0.12%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0029	0.0025	14.81%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.938	0.965	2.84%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.824	0.862	4.51%	Pass
SELENIUM, D	0.05	0.05	ug/l	21	20.8	0.96%	Pass
SELENIUM, T	0.05	0.05	ug/l	19.4	19.9	2.54%	Pass
SILICON, D	0.05	0.05	mg/l	1.46	1.56	6.62%	Pass
SILICON, T	0.1	0.1	mg/l	1.54	1.58	2.56%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.736	0.741	0.68%	Pass
SODIUM, T	0.05	0.05	mg/l	0.699	0.795	12.85%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.137	0.138	0.73%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.126	0.122	3.23%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	131	131	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	361	368	1.92%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.336	0.26	25.50%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.1	1.3	16.67%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.44	0.52	16.67%	Pass

URANIUM, D	0.0001	0.0001	mg/l	0.00116	0.00118	1.71%	Pass
URANIUM, T	0.0001	0.0001	mg/l	0.00110	0.00109	0.91%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0044	<0.003	37.84%	Pass-1

Location:	FR_FR1	FR_FR1
Sample ID:	FR_FR1_W_15052017_N	FD_W_15052017_143
Date Sampled:	5/15/2017	5/15/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.0	2.8	33.33%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.61	1.95	19.10%	Pass

Location:	FR_FR2	FR_FR2
Sample ID:	FR_FR2-WS-201708281220	FR_DC1-WQ-201708281220
Date Sampled:	8/28/2017	8/28/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	1.2	18.18%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	209	208	0.48%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	209	208	0.48%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0049	0.0033	39.02%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00026	0.00023	12.24%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0858	0.0876	2.08%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.104	0.0996	4.32%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.012	0.013	8.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000644	3.13e-005	69.17%	Fail
CADMIUM, T	0.000005	0.000005	mg/l	0.0000823	7.18e-005	13.63%	Pass
CALCIUM, D	0.05	0.05	mg/l	104	100	3.92%	Pass
CALCIUM, T	0.05	0.05	mg/l	109	107	1.85%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.70	0.87	21.66%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	1.06	0.97	8.87%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00011	<0.0001	9.52%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00011	<0.0001	9.52%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00010	0.00011	9.52%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	765	782	2.20%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	< 0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.166	0.174	4.71%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	439	428	2.54%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	0.012	18.18%	Pass
IRON, T	0.01	0.01	mg/l	0.034	0.032	6.06%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0425	0.0409	3.84%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0427	0.0405	5.29%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	43.6	43.1	1.15%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	47.1	45.1	4.34%	Pass
MAJOR ANION SUM	0	0	meq/l	9.26	9.2	0.65%	Pass

MAJOR CATION SUM	0	0	meq/l	8.90	8.69	2.39%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0164	0.0128	24.66%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.0221	0.0178	21.55%	Pass-2
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00116	0.00112	3.51%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00131	0.00133	1.52%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00228	0.00221	3.12%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00283	0.00261	8.09%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	11.7	11.7	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0064	0.0063	1.57%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0118	0.0105	11.66%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	275	258	6.38%	Pass
pH, LAB	0.1	0.1	ph units	8.25	8.22	0.36%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	0.0116	141.18%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.85	1.81	2.19%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.09	1.98	5.41%	Pass
SELENIUM, D	0.05	0.05	ug/l	42.7	41.4	3.09%	Pass
SELENIUM, T	0.05	0.05	ug/l	43.1	41.1	4.75%	Pass
SILICON, D	0.05	0.05	mg/l	2.04	2	1.98%	Pass
SILICON, T	0.1	0.1	mg/l	2.33	2.18	6.65%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.06	1.92	7.04%	Pass
SODIUM, T	0.05	0.05	mg/l	2.27	2.07	9.22%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.165	0.162	1.83%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.176	0.176	0.00%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	202	200	1.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	552	543	1.64%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.530	0.497	6.43%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.80	0.95	17.14%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	1	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.48	0.5	4.08%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00295	0.00283	4.15%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00291	0.00288	1.04%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_FR2	FR_FR2
Sample ID:	FR_FR2_M_06022017_N	FD_M_06022017_107
Date Sampled:	2/1/2017	2/1/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.0	4.1	2.47%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	218	215	1.39%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	218	215	1.39%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0052	0.0046	12.24%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00019	5.41%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00022	0.0002	9.52%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00010	0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.100	0.101	1.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0997	0.0949	4.93%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.011	0.011	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.012	0.011	8.70%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000741	7.57e-005	2.14%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000877	8.47e-005	3.48%	Pass
CALCIUM, D	0.05	0.05	mg/l	122	125	2.43%	Pass
CALCIUM, T	0.05	0.05	mg/l	131	123	6.30%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.85	0.94	10.06%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.42	1.43	0.70%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	<0.0001	26.09%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	912	909	0.33%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.192	0.19	1.05%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	522	536	2.65%	Pass
IRON, D	0.01	0.01	mg/l	0.014	0.014	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.045	0.042	6.90%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0555	0.0558	0.54%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0566	0.0534	5.82%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	52.8	54.2	2.62%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	53.4	50.5	5.58%	Pass
MAJOR ANION SUM	0	0	meq/l	10.7	10.7	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	10.6	10.9	2.79%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0224	0.0233	3.94%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0283	0.0278	1.78%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00125	0.00126	0.80%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00134	0.00126	6.15%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00274	0.00281	2.52%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00292	0.00278	4.91%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	18.7	18.8	0.53%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0029	0.0031	6.67%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0066	27.59%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0021	0.0016	27.03%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	327	334	2.12%	Pass
pH, LAB	0.1	0.1	ph units	8.13	8.11	0.25%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0046	0.011	82.05%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.91	1.98	3.60%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.94	1.88	3.14%	Pass
SELENIUM, D	0.05	0.05	ug/l	49.5	49	1.02%	Pass
SELENIUM, T	0.05	0.05	ug/l	40.6	39.2	3.51%	Pass
SILICON, D	0.05	0.05	mg/l	1.95	1.97	1.02%	Pass
SILICON, T	0.05	0.05	mg/l	1.92	1.85	3.71%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.33	2.42	3.79%	Pass
SODIUM, T	0.05	0.05	mg/l	2.38	2.25	5.62%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.185	0.183	1.09%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.200	0.186	7.25%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	239	239	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	651	640	1.70%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.128	<0.05	87.64%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.76	0.85	11.18%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.5	40.00%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.40	0.36	10.53%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00305	0.00303	0.66%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00346	0.0033	4.73%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

ZINC, D	0.001	0.001	mg/l	0.0023	0.0025	8.33%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_FR2	FR_FR2
Sample ID:	FR_FR2_M_07082017_N	FD_M_07082017_156
Date Sampled:	8/10/2017	8/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	181	183	1.10%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	4.2	5.4	25.00%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	185	189	2.14%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0038	0.0045	16.87%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00019	0.00018	5.41%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00025	0.00026	3.92%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0829	0.0833	0.48%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0845	0.0846	0.12%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.011	0.012	8.70%	Pass
BORON, T	0.01	0.01	mg/l	0.012	0.012	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000418	3.99e-005	4.65%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000667	6.58e-005	1.36%	Pass
CALCIUM, D	0.05	0.05	mg/l	90.8	89.7	1.22%	Pass
CALCIUM, T	0.05	0.05	mg/l	89.8	91.2	1.55%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.34	1.36	1.48%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.30	1.28	1.55%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	696	710	1.99%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.21	0.21	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	380	378	0.53%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.028	0.027	3.64%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0369	0.0381	3.20%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0364	0.0371	1.90%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	37.1	37.3	0.54%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	38.6	38	1.57%	Pass
MAJOR ANION SUM	0	0	meq/l	8.35	8.31	0.48%	Pass
MAJOR CATION SUM	0	0	meq/l	7.70	7.66	0.52%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0102	0.0104	1.94%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0175	0.017	2.90%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00115	0.00109	5.36%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00111	0.00111	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00207	0.0021	1.44%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00232	0.00228	1.74%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	10.4	10.1	2.93%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0066	0.0053	21.85%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0055	0.0155	95.24%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	294	293	0.34%	Pass
pH, LAB	0.1	0.1	ph units	8.32	8.33	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	<0.002	0.00%	Pass

POTASSIUM, D	0.05	0.05	mg/l	1.68	1.67	0.60%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.65	1.65	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	32.3	32.2	0.31%	Pass
SELENIUM, T	0.05	0.05	ug/l	32.3	32.1	0.62%	Pass
SILICON, D	0.05	0.05	mg/l	1.90	1.91	0.52%	Pass
SILICON, T	0.1	0.1	mg/l	2.02	2.03	0.49%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.64	1.65	0.61%	Pass
SODIUM, T	0.05	0.05	mg/l	1.75	1.8	2.82%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.148	0.144	2.74%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.148	0.145	2.05%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	186	181	2.72%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	516	515	0.19%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.344	0.355	3.15%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.35	1.62	18.18%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.3	26.09%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.35	0.29	18.75%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00240	0.00238	0.84%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00255	0.00254	0.39%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_FR2	FR_FR2
Sample ID:	FR_FR2_MON_2017-12-04_N	WS_2017-12-04_070
Date Sampled:	12/5/2017	12/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	208	210	0.96%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	208	210	0.96%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0072	0.0056	25.00%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00019	5.41%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00024	0.00021	13.33%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0955	0.102	6.58%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0896	0.095	5.85%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.012	0.011	8.70%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000789	8.12e-005	2.87%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000106	9.85e-005	7.33%	Pass
CALCIUM, D	0.05	0.05	mg/l	108	113	4.52%	Pass
CALCIUM, T	0.05	0.05	mg/l	117	120	2.53%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.66	0.84	24.00%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	2.13	2.14	0.47%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00013	0.00012	8.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	829	826	0.36%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.158	0.166	4.94%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	456	486	6.37%	Pass
ION BALANCE	100	100	%	92.0	97.7	6.01%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.050	0.05	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0386	0.0418	7.96%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0389	0.0411	5.50%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	45.0	49.5	9.52%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	50.4	49.1	2.61%	Pass
MAJOR ANION SUM	0	0	meq/l	10.1	10.1	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	9.27	9.88	6.37%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0218	0.0234	7.08%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0290	0.0247	16.01%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00121	0.00127	4.84%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00124	0.00122	1.63%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00192	0.00294	41.98%	Pass-1
NICKEL, T	0.0005	0.0005	mg/l	0.00216	0.0022	1.83%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	11.8	11.8	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0028	0.0032	13.33%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0119	0.0062	62.98%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	325	304	6.68%	Pass
pH, LAB	0.1	0.1	ph units	8.18	8.25	0.85%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0035	0.0012	97.87%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.81	2.04	11.95%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.75	1.74	0.57%	Pass
SELENIUM, D	0.05	0.05	ug/l	45.5	47.5	4.30%	Pass
SELENIUM, T	0.05	0.05	ug/l	47.6	47.5	0.21%	Pass
SILICON, D	0.05	0.05	mg/l	1.97	2.06	4.47%	Pass
SILICON, T	0.1	0.1	mg/l	2.03	2.07	1.95%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.37	2.52	6.13%	Pass
SODIUM, T	0.05	0.05	mg/l	2.39	2.4	0.42%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.179	0.187	4.37%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.173	0.175	1.15%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	241	240	0.42%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	629	626	0.48%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.301	0.315	4.55%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.59	0.71	18.46%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.56	0.66	16.39%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00315	0.00319	1.26%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00295	0.00306	3.66%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0039	0.0105	91.67%	Pass-1

Location:	FR_FR2	FR_FR2
Sample ID:	FR_FR2_W_10042017_N	FD_W_10042017_119
Date Sampled:	4/12/2017	4/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.4	2.4	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	197	198	0.51%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass

ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	197	198	0.51%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0022	0.0024	8.70%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0266	0.0216	20.75%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00019	0.00019	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.106	0.105	0.95%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0981	0.0976	0.51%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000744	7.88e-005	5.74%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000875	8.88e-005	1.47%	Pass
CALCIUM, D	0.05	0.05	mg/l	113	114	0.88%	Pass
CALCIUM, T	0.05	0.05	mg/l	106	106	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.09	1.6	26.56%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	1.36	1.35	0.74%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	0.00014	7.41%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00014	<0.0001	33.33%	Pass-1
CONDUCTIVITY, LAB	2	2	us/cm	861	867	0.69%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.162	0.161	0.62%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	483	488	1.03%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.057	0.054	5.41%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0520	0.0525	0.96%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0480	0.0481	0.21%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	48.6	49.5	1.83%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	45.7	45.5	0.44%	Pass
MAJOR ANION SUM	0	0	meq/l	10.2	10.2	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	9.80	9.89	0.91%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0125	0.0126	0.80%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0140	0.0138	1.44%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00096	0.0009	6.45%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00128	0.00125	2.37%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00126	0.00124	1.60%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00383	0.00381	0.52%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00390	0.00377	3.39%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	17.7	17.7	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0040	0.0039	2.53%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0099	65.77%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	466	473	1.49%	Pass
pH, LAB	0.1	0.1	ph units	8.25	8.25	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0094	0.0096	2.11%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.86	1.87	0.54%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.85	1.85	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	51.6	51.2	0.78%	Pass
SELENIUM, T	0.05	0.05	ug/l	47.6	47.4	0.42%	Pass
SILICON, D	0.05	0.05	mg/l	1.99	1.99	0.00%	Pass
SILICON, T	0.05	0.05	mg/l	1.83	1.8	1.65%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.23	2.22	0.45%	Pass
SODIUM, T	0.05	0.05	mg/l	2.14	2.17	1.39%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.168	0.167	0.60%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.163	0.164	0.61%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	239	239	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass

TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	668	681	1.93%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.364	0.51	33.41%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.11	1.84	13.67%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.6	2.2	16.67%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	4.43	4.46	0.67%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00266	0.00265	0.38%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00261	0.00261	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0022	0.0022	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0051	0.0061	17.86%	Pass

Location:	FR_FR2	FR_FR2
Sample ID:	FR_FR2_W_15032017_N	FD_W_15032017_099
Date Sampled:	3/15/2017	3/15/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.5	3.1	69.57%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	207	206	0.48%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	207	206	0.48%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0029	0.0022	27.45%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0350	0.0346	1.15%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00023	0.00023	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0970	0.1	3.05%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.102	0.0995	2.48%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.011	0.011	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.012	0.011	8.70%	Pass
BROMIDE, D	0.05	0.05	mg/l	0.051	<0.05	1.98%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000726	6.48e-005	11.35%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000933	0.0001	6.93%	Pass
CALCIUM, D	0.05	0.05	mg/l	122	121	0.82%	Pass
CALCIUM, T	0.05	0.05	mg/l	124	119	4.12%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.81	0.73	10.39%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.68	1.51	10.66%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00022	0.00021	4.65%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00016	0.00015	6.45%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	920	908	1.31%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.185	0.179	3.30%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	532	532	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.101	0.094	7.18%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000064	5.6e-005	13.33%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0613	0.0607	0.98%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0622	0.0596	4.27%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	55.1	55.9	1.44%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	57.1	55.5	2.84%	Pass
MAJOR ANION SUM	0	0	meq/l	10.9	10.8	0.92%	Pass
MAJOR CATION SUM	0	0	meq/l	10.8	10.8	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0201	0.0207	2.94%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0284	0.0264	7.30%	Pass

MERCURY, D	0.00005	0.00005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00074	0.00075	1.34%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00138	0.00134	2.94%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00142	0.00136	4.32%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00300	0.00299	0.33%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00342	0.00331	3.27%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	20.1	20.1	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0031	0.003	3.28%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0052	3.92%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0132	0.0126	4.65%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	313	320	2.21%	Pass
pH, LAB	0.1	0.1	ph units	8.24	8.27	0.36%	Pass
PHOSPHORUS	0.01	0.002	mg/l	0.021	22300	200.00%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.05	2.07	0.97%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.07	2.05	0.97%	Pass
SELENIUM, D	0.05	0.05	ug/l	46.6	47.1	1.07%	Pass
SELENIUM, T	0.05	0.05	ug/l	46.6	45.4	2.61%	Pass
SILICON, D	0.05	0.05	mg/l	1.91	1.91	0.00%	Pass
SILICON, T	0.05	0.05	mg/l	2.00	1.96	2.02%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.52	2.58	2.35%	Pass
SODIUM, T	0.05	0.05	mg/l	2.61	2.54	2.72%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.192	0.188	2.11%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.196	0.189	3.64%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	252	251	0.40%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	666	662	0.60%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.86	0.85	1.17%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	3.8	4.2	10.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	4.44	4.3	3.20%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00354	0.00349	1.42%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00367	0.00356	3.04%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00064	0.00073	13.14%	Pass
ZINC, D	0.001	0.001	mg/l	0.0024	0.0022	8.70%	Pass
ZINC, T	0.003	0.003	mg/l	0.0047	0.0037	23.81%	Pass-1

Location:	FR_FR2	FR_FR2
Sample ID:	FR_FR2_W_20032017_N	FD_W_20032017_104
Date Sampled:	3/22/2017	3/22/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.3	<1	78.79%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	202	203	0.49%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	202	203	0.49%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0019	0.0017	11.11%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0315	0.031	1.60%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00019	0.00019	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00023	0.00023	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.102	0.103	0.98%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.111	0.11	0.90%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.011	0.011	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass

BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000676	7.1e-005	4.91%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000916	9.72e-005	5.93%	Pass
CALCIUM, D	0.05	0.05	mg/l	119	119	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	131	130	0.77%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	0.53	5.83%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.52	1.57	3.24%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	864	872	0.92%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00056	0.0006	6.90%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.176	0.176	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	507	503	0.79%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.072	0.072	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0525	0.0527	0.38%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0605	0.0602	0.50%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	51.1	49.9	2.38%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	57.0	57.6	1.05%	Pass
MAJOR ANION SUM	0	0	meq/l	10.5	10.5	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	10.3	10.2	0.98%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0150	0.0146	2.70%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0198	0.0225	12.77%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	0.0007	33.33%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00138	0.00139	0.72%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00165	0.00165	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00317	0.00318	0.31%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00385	0.00387	0.52%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	18.1	18.1	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0064	0.0076	17.14%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	316	317	0.32%	Pass
pH, LAB	0.1	0.1	ph units	8.27	8.27	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0141	0.0185	26.99%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	1.87	1.84	1.62%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.15	2.13	0.93%	Pass
SELENIUM, D	0.05	0.05	ug/l	44.7	44.5	0.45%	Pass
SELENIUM, T	0.05	0.05	ug/l	50.7	50	1.39%	Pass
SILICON, D	0.05	0.05	mg/l	1.86	1.84	1.08%	Pass
SILICON, T	0.05	0.05	mg/l	2.17	2.17	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.70	2.67	1.12%	Pass
SODIUM, T	0.05	0.05	mg/l	3.08	3.09	0.32%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.184	0.182	1.09%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.212	0.207	2.39%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	247	246	0.41%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000011	1e-005	9.52%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	623	614	1.46%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.591	0.63	6.39%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.83	0.88	5.85%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.2	3	30.77%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	2.40	2.48	3.28%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00269	0.00277	2.93%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00328	0.0032	2.47%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0020	0.0021	4.88%	Pass
ZINC, T	0.003	0.003	mg/l	0.0035	0.0034	2.90%	Pass

Location:	FR_FR2	FR_FR2
Sample ID:	FR_FR2_W_24042017_N	FD_W_24042017_129
Date Sampled:	4/25/2017	4/25/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	3.6	3.5	2.82%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	165	166	0.60%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	165	166	0.60%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0147	0.0185	22.89%	Pass-2
ALUMINUM, T	0.003	0.003	mg/l	0.288	0.287	0.35%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00022	0.00023	4.44%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00013	0.00011	16.67%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00026	0.0003	14.29%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0780	0.0776	0.51%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0768	0.0877	13.25%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000031	2.3e-005	29.63%	Pass-1
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000780	7.18e-005	8.28%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000132	0.000142	7.30%	Pass
CALCIUM, D	0.05	0.05	mg/l	86.2	84.5	1.99%	Pass
CALCIUM, T	0.05	0.05	mg/l	81.2	92.6	13.12%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.99	1.96	1.52%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.69	0.74	6.99%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00061	0.00058	5.04%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00010	0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00021	0.00025	17.39%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	668	666	0.30%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00031	0.00038	20.29%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	0.00097	0.00101	4.04%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.140	0.14	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	357	348	2.55%	Pass
IRON, D	0.01	0.01	mg/l	0.018	0.025	32.56%	Pass-1
IRON, T	0.01	0.01	mg/l	0.280	0.336	18.18%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000276	0.000338	20.20%	Pass-2
LITHIUM, D	0.001	0.001	mg/l	0.0321	0.0315	1.89%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0314	0.0369	16.11%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	34.5	33.3	3.54%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	33.6	36.7	8.82%	Pass
MAJOR ANION SUM	0	0	meq/l	7.63	7.65	0.26%	Pass
MAJOR CATION SUM	0	0	meq/l	7.25	7.06	2.66%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00637	0.00664	4.15%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0169	0.0185	9.04%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00516	0.00519	0.58%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00114	0.00114	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00106	0.00124	15.65%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00362	0.00361	0.28%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00461	0.00524	12.79%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	12.0	12	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0052	0.0055	5.61%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	<0.0076	<0.005	41.27%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0044	0.0044	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	417	401	3.91%	Pass
pH, LAB	0.1	0.1	ph units	8.07	8.06	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0451	0.0402	11.49%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.50	1.36	9.79%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.52	1.57	3.24%	Pass
SELENIUM, D	0.05	0.05	ug/l	40.5	38	6.37%	Pass

SELENIUM, T	0.05	0.05	ug/l	34.6	37.7	8.58%	Pass
SILICON, D	0.05	0.05	mg/l	2.00	1.84	8.33%	Pass
SILICON, T	0.05	0.05	mg/l	2.41	2.33	3.38%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000012	1.6e-005	28.57%	Pass-1
SODIUM, D	0.05	0.05	mg/l	1.46	1.45	0.69%	Pass
SODIUM, T	0.05	0.05	mg/l	1.46	1.61	9.77%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.138	0.135	2.20%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.129	0.15	15.05%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	166	166	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000030	2.6e-005	14.29%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	462	460	0.43%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.942	0.92	2.36%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.12	2.19	3.25%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	18.8	14.4	26.51%	Pass-2
TURBIDITY, LAB	0.1	0.1	ntu	29.3	29.7	1.36%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00182	0.00214	16.16%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00192	0.00241	22.63%	Pass-2
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00228	0.00248	8.40%	Pass
ZINC, D	0.001	0.001	mg/l	0.0020	0.0037	59.65%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.0226	0.0102	75.61%	Fail

Location:	FR_FR2	FR_FR2
Sample ID:	FR_FR2_W_26062017_N	FD_W_26062017_174
Date Sampled:	6/26/2017	6/26/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	136	137	0.73%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.4	4.8	11.76%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	141	141	0.00%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0045	0.004	11.76%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0130	0.0114	13.11%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00014	0.00016	13.33%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0448	0.0444	0.90%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0441	0.0452	2.46%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000229	2.72e-005	17.17%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000372	3.09e-005	18.50%	Pass
CALCIUM, D	0.05	0.05	mg/l	53.4	53.6	0.37%	Pass
CALCIUM, T	0.05	0.05	mg/l	54.8	55.6	1.45%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.51	1.92	23.91%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	441	440	0.23%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.172	0.172	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	214	216	0.93%	Pass

IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.019	0.017	11.11%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0147	0.0147	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0152	0.0161	5.75%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	19.5	20	2.53%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	19.8	20.6	3.96%	Pass
MAJOR ANION SUM	0	0	meq/l	4.76	4.77	0.21%	Pass
MAJOR CATION SUM	0	0	meq/l	4.33	4.38	1.15%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00492	0.00504	2.41%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00605	0.00661	8.85%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00051	0.00054	5.71%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000917	0.000909	0.88%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000939	0.000934	0.53%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00155	0.00159	2.55%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00168	0.0018	6.90%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	4.07	4.07	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0030	0.0027	10.53%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	336	340	1.18%	Pass
pH, LAB	0.1	0.1	ph units	8.36	8.35	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0080	<0.002	120.00%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	0.896	0.922	2.86%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.896	0.95	5.85%	Pass
SELENIUM, D	0.05	0.05	ug/l	15.1	14.7	2.68%	Pass
SELENIUM, T	0.05	0.05	ug/l	13.3	14.2	6.55%	Pass
SILICON, D	0.05	0.05	mg/l	1.36	1.34	1.48%	Pass
SILICON, T	0.1	0.1	mg/l	1.42	1.46	2.78%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.824	0.846	2.63%	Pass
SODIUM, T	0.05	0.05	mg/l	0.840	0.884	5.10%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0917	0.092	0.33%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0949	0.0965	1.67%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	79.1	79.2	0.13%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	0.00014	<0.0001	33.33%	Pass-1
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	283	304	7.16%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.147	0.144	2.06%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.48	1.41	4.84%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.6	1.6	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.73	0.82	11.61%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00108	0.00105	2.82%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00116	0.00117	0.86%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_FRRD	FR_FRRD
Sample ID:	FR_FRRD_M_03042017_N	FD_M_03042017_125
Date Sampled:	4/25/2017	4/25/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	3.3	3.5	5.88%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	179	179	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	179	179	0.00%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0141	0.0143	1.41%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.410	0.344	17.51%	Pass

ANTIMONY, D	0.0001	0.0001	mg/l	0.00017	0.00021	21.05%	Pass-1
ANTIMONY, T	0.0001	0.0001	mg/l	0.00022	0.00022	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00032	0.00031	3.17%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0872	0.085	2.56%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0883	0.0907	2.68%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000031	2.4e-005	25.45%	Pass-1
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000689	6.7e-005	2.80%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000136	0.000127	6.84%	Pass
CALCIUM, D	0.05	0.05	mg/l	103	105	1.92%	Pass
CALCIUM, T	0.05	0.05	mg/l	101	105	3.88%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.76	1.72	2.30%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.14	1.17	2.60%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00093	0.00071	26.83%	Pass-2
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00026	0.00021	21.28%	Pass-1
CONDUCTIVITY, LAB	2	2	us/cm	822	812	1.22%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00028	0.00028	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00105	0.0009	15.38%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.136	0.139	2.18%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	447	457	2.21%	Pass
IRON, D	0.01	0.01	mg/l	0.015	0.015	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.415	0.361	13.92%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000304	0.000285	6.45%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0332	0.0329	0.91%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0331	0.0338	2.09%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	46.1	47.3	2.57%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	46.7	47.6	1.91%	Pass
MAJOR ANION SUM	0	0	meq/l	9.52	9.53	0.10%	Pass
MAJOR CATION SUM	0	0	meq/l	9.05	9.26	2.29%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00419	0.00419	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0138	0.0137	0.73%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00399	0.00392	1.77%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00111	0.00114	2.67%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00118	0.00119	0.84%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00365	0.00376	2.97%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00528	0.00515	2.49%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	15.2	15.2	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0066	0.0059	11.20%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0306	<0.005	143.82%	Fail
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0029	0.0022	27.45%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	436	455	4.26%	Pass
pH, LAB	0.1	0.1	ph units	8.10	8.05	0.62%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0359	0.0388	7.76%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.74	1.77	1.71%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.84	1.86	1.08%	Pass
SELENIUM, D	0.05	0.05	ug/l	67.8	64.8	4.52%	Pass
SELENIUM, T	0.05	0.05	ug/l	57.9	59.8	3.23%	Pass
SILICON, D	0.05	0.05	mg/l	2.01	2.01	0.00%	Pass
SILICON, T	0.05	0.05	mg/l	2.70	2.74	1.47%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000020	1.8e-005	10.53%	Pass
SODIUM, D	0.05	0.05	mg/l	1.74	1.78	2.27%	Pass
SODIUM, T	0.05	0.05	mg/l	1.84	1.87	1.62%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.141	0.142	0.71%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.139	0.141	1.43%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	231	232	0.43%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000045	2.9e-005	43.24%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	597	603	1.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.637	0.652	2.33%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.93	1.84	4.77%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	10.4	8.9	15.54%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	21.9	21.5	1.84%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00240	0.00228	5.13%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00253	0.0026	2.73%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00317	0.00271	15.65%	Pass
ZINC, D	0.001	0.001	mg/l	0.0019	0.0021	10.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0272	0.0193	33.98%	Pass-2

Location:	FR_FRRD	FR_FRRD
Sample ID:	FR_FRRD_M_05062017_N	FD_M_05062017_140
Date Sampled:	6/13/2017	6/13/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	170	170	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	10.4	11	5.61%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	180	181	0.55%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0013	0.0041	103.70%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0593	0.0466	23.98%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00021	0.0002	4.88%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00019	0.00016	17.14%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0550	0.0579	5.14%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0565	0.0575	1.75%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000562	5.77e-005	2.63%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000732	7.51e-005	2.56%	Pass
CALCIUM, D	0.05	0.05	mg/l	77.3	78.1	1.03%	Pass
CALCIUM, T	0.05	0.05	mg/l	74.3	75.7	1.87%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.20	1.27	5.67%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	0.57	13.08%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00021	0.0002	4.88%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	629	634	0.79%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.170	0.17	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	323	335	3.65%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.096	0.078	20.69%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000062	5.4e-005	13.79%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0217	0.0215	0.93%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0226	0.0234	3.48%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	31.6	34	7.32%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	34.3	34.9	1.73%	Pass
MAJOR ANION SUM	0	0	meq/l	7.01	7.06	0.71%	Pass
MAJOR CATION SUM	0	0	meq/l	6.55	6.8	3.75%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00138	0.00149	7.67%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00534	0.00563	5.29%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.0013	0.0007	60.00%	Pass-1
Methyl Mercury, T	0.00005	0.00005	ug/l	< 0.000050	<5e-005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00117	0.00118	0.85%	Pass

MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00126	0.00122	3.23%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00198	0.00214	7.77%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00254	0.00257	1.17%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	11.2	11.3	0.89%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0043	0.0032	29.33%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	319	324	1.56%	Pass
pH, LAB	0.1	0.1	ph units	8.37	8.36	0.12%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0108	0.0103	4.74%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.38	1.52	9.66%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.43	1.45	1.39%	Pass
SELENIUM, D	0.05	0.05	ug/l	41.9	41	2.17%	Pass
SELENIUM, T	0.05	0.05	ug/l	38.2	39	2.07%	Pass
SILICON, D	0.05	0.05	mg/l	1.59	1.59	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	1.63	1.63	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.28	1.35	5.32%	Pass
SODIUM, T	0.05	0.05	mg/l	1.33	1.34	0.75%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0951	0.0949	0.21%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0968	0.0991	2.35%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	125	125	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	411	416	1.21%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.676	0.688	1.76%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.31	1.41	7.35%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	5.0	4.8	4.08%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.96	1.92	2.06%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00187	0.00189	1.06%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00198	0.00201	1.50%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00081	0.00078	3.77%	Pass
ZINC, D	0.001	0.001	mg/l	0.0017	0.0028	48.89%	Pass-1
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_FRRD	FR_FRRD
Sample ID:	FR_FRRD_M_07082017_N	FD_M_07082017_155
Date Sampled:	8/10/2017	8/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.6	2.8	7.41%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	242	225	7.28%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	242	225	7.28%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0038	0.0038	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00018	0.00019	5.41%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.111	0.112	0.90%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.113	0.114	0.88%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000362	3.41e-005	5.97%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000405	4e-005	1.24%	Pass

CALCIUM, D	0.05	0.05	mg/l	129	130	0.77%	Pass
CALCIUM, T	0.05	0.05	mg/l	131	128	2.32%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.05	1.13	7.34%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.57	1.54	1.93%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00013	14.29%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1000	1040	3.92%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.18	0.17	5.71%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	581	583	0.34%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0454	0.0447	1.55%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0431	0.0417	3.30%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	62.7	62.6	0.16%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	65.0	64.9	0.15%	Pass
MAJOR ANION SUM	0	0	meq/l	12.9	12.4	3.95%	Pass
MAJOR CATION SUM	0	0	meq/l	11.8	11.8	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00131	0.00125	4.69%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00262	0.00246	6.30%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000915	0.000915	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000933	0.00089	4.72%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00247	0.00244	1.22%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00285	0.00269	5.78%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	24.2	23.6	2.51%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0052	3.92%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0019	0.0013	37.50%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	431	300	35.84%	Pass-1
pH, LAB	0.1	0.1	ph units	8.28	8.22	0.73%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	<0.002	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.16	2.16	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.13	2.14	0.47%	Pass
SELENIUM, D	0.05	0.05	ug/l	92.8	93.5	0.75%	Pass
SELENIUM, T	0.05	0.05	ug/l	88.8	89.2	0.45%	Pass
SILICON, D	0.05	0.05	mg/l	1.94	1.94	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	2.05	2.08	1.45%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.21	2.23	0.90%	Pass
SODIUM, T	0.05	0.05	mg/l	2.38	2.32	2.55%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.149	0.152	1.99%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.149	0.15	0.67%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	304	296	2.67%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	817	810	0.86%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.053	0.315	142.39%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.21	1.16	4.22%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.1	<1	9.52%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.22	0.2	9.52%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00391	0.00388	0.77%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00416	0.00414	0.48%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_FRRD	FR_FRRD
Sample ID:	FR_FRRD_MON_2017-09-04_N	WS_2017-09-04_035
Date Sampled:	9/13/2017	9/13/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	3.4	3.5	2.90%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	203	203	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	203	203	0.00%	Pass
ALUMINIUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINIUM, T	0.003	0.003	mg/l	0.0532	0.0042	170.73%	Fail
ANTIMONY, D	0.0001	0.0001	mg/l	0.00015	0.00014	6.90%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00020	0.00017	16.22%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00013	<0.0001	26.09%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.107	0.108	0.93%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.111	0.107	3.67%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.012	0.012	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000276	3.45e-005	22.22%	Pass-2
CADMIUM, T	0.000005	0.000005	mg/l	0.0000481	3.55e-005	30.14%	Pass-2
CALCIUM, D	0.05	0.05	mg/l	139	137	1.45%	Pass
CALCIUM, T	0.05	0.05	mg/l	141	139	1.43%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.00	0.94	6.19%	Pass
Cation - Anion Balance	0	0	%	9.9	1.6	144.35%	Fail
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00027	0.00021	25.00%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00011	<0.0001	9.52%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1080	1080	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00071	<0.0005	34.71%	Pass-1
FLUORIDE, D	0.1	0.1	mg/l	0.12	0.15	22.22%	Pass-1
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	662	658	0.61%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.101	<0.01	163.96%	Fail
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000089	<5e-005	56.12%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0414	0.0418	0.96%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0425	0.0411	3.35%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	76.7	76.5	0.26%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	72.9	72.8	0.14%	Pass
MAJOR ANION SUM	0	0	meq/l	11.0	12.9	15.90%	Pass
MAJOR CATION SUM	0	0	meq/l	13.4	13.3	0.75%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00169	0.00361	72.45%	Fail
MANGANESE, T	0.0001	0.0001	mg/l	0.0108	0.00557	63.90%	Fail
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000987	0.00102	3.29%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00103	0.00108	4.74%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00374	0.00381	1.85%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00516	0.00472	8.91%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	16.9	21.1	22.11%	Pass-2
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0067	0.0066	1.50%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0058	<0.005	14.81%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	304	302	0.66%	Pass
pH, LAB	0.1	0.1	ph units	8.09	8.11	0.25%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0077	0.003	87.85%	Fail
POTASSIUM, D	0.05	0.05	mg/l	2.21	2.14	3.22%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.21	2.2	0.45%	Pass
SELENIUM, D	0.05	0.05	ug/l	114	119	4.29%	Pass
SELENIUM, T	0.05	0.05	ug/l	98.5	101	2.51%	Pass
SILICON, D	0.05	0.05	mg/l	2.14	2.09	2.36%	Pass

SILICON, T	0.1	0.1	mg/l	2.13	2.09	1.90%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.43	2.43	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	2.50	2.48	0.80%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.160	0.161	0.62%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.165	0.168	1.80%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	274	351	24.64%	Pass-2
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	820	859	4.65%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.466	0.432	7.57%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.22	1.05	14.98%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.4	<1	82.35%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.51	0.28	58.23%	Fail
URANIUM, D	0.00001	0.00001	mg/l	0.00467	0.00455	2.60%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00450	0.0045	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_HC1	FR_HC1
Sample ID:	FR_HC1_M_01052017_N	FD_M_01052017_131
Date Sampled:	5/1/2017	5/1/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	6.4	7	8.96%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	149	153	2.65%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	149	153	2.65%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0019	0.0012	45.16%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0046	0.0088	62.69%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00010	0.00011	9.52%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0389	0.0406	4.28%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0373	0.0406	8.47%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000357	3.25e-005	9.38%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000377	3.49e-005	7.71%	Pass
CALCIUM, D	0.05	0.05	mg/l	96.1	97.6	1.55%	Pass
CALCIUM, T	0.05	0.05	mg/l	91.1	96.9	6.17%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.73	0.71	2.78%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	759	770	1.44%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00062	<0.0005	21.43%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.220	0.209	5.13%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	388	393	1.28%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.012	0.019	45.16%	Pass-1

LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0117	0.0117	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0113	0.0119	5.17%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	35.8	36.2	1.11%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	35.8	37.7	5.17%	Pass
MAJOR ANION SUM	0	0	meq/l	8.64	8.45	2.22%	Pass
MAJOR CATION SUM	0	0	meq/l	7.81	7.91	1.27%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0116	0.0114	1.74%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0118	0.0133	11.95%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000917	0.00091	0.77%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000911	0.000926	1.63%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00177	0.00168	5.22%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00185	0.00186	0.54%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	9.96	9.71	2.54%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0094	0.0093	1.07%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0477	0.0108	126.15%	Fail
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	450	453	0.66%	Pass
pH, LAB	0.1	0.1	ph units	8.01	7.99	0.25%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0067	0.0048	33.04%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.04	1.05	0.96%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.997	1.06	6.13%	Pass
SELENIUM, D	0.05	0.05	ug/l	50.5	51.4	1.77%	Pass
SELENIUM, T	0.05	0.05	ug/l	42.4	43.9	3.48%	Pass
SILICON, D	0.05	0.05	mg/l	1.55	1.57	1.28%	Pass
SILICON, T	0.05	0.05	mg/l	1.48	1.57	5.90%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.857	0.867	1.16%	Pass
SODIUM, T	0.05	0.05	mg/l	0.815	0.853	4.56%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.150	0.152	1.32%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.145	0.154	6.02%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	237	225	5.19%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	570	536	6.15%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.544	0.481	12.29%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.73	0.72	1.38%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	10.4	164.91%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.26	1.75	148.26%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.00157	0.00158	0.63%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00162	0.00167	3.04%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0020	0.0016	22.22%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.0045	<0.003	40.00%	Pass-1

Location:	FR_HC1	FR_HC1
Sample ID:	FR_HC1_M_05062017_N	FD_M_05062017_141
Date Sampled:	6/5/2017	6/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.8	1.9	5.41%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	104	105	0.96%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	104	105	0.96%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0044	0.0051	14.74%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0521	0.0484	7.36%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
BARIIUM, D	0.00005	0.00005	mg/l	0.0210	0.0212	0.95%	Pass
BARIIUM, T	0.00005	0.00005	mg/l	0.0215	0.0231	7.17%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	< 0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000127	1.27e-005	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000197	1.83e-005	7.37%	Pass
CALCIUM, D	0.05	0.05	mg/l	35.2	35.3	0.28%	Pass
CALCIUM, T	0.05	0.05	mg/l	38.0	37.6	1.06%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.45	1.74	18.18%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00022	0.00054	84.21%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	282	281	0.36%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00027	0.0005	59.74%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.178	0.168	5.78%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	132	132	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.063	0.055	13.56%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000077	<5e-005	42.52%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0030	0.0035	15.38%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0031	0.0037	17.65%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	10.7	10.7	0.00%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	11.1	12.1	8.62%	Pass
MAJOR ANION SUM	0	0	meq/l	2.96	2.96	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	2.67	2.67	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00307	0.00309	0.65%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00567	0.00521	8.46%	Pass
MERCURY, D	0.000005	< 0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00093	0.00096	3.17%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000538	0.000545	1.29%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000568	0.000584	2.78%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00063	0.0006	4.88%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00083	0.00091	9.20%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.52	1.52	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0010	0.0011	9.52%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0129	0.0086	40.00%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0029	0.0033	12.90%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	491	494	0.61%	Pass
pH, LAB	0.1	0.1	ph units	8.24	8.23	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0064	0.0061	4.80%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.453	0.457	0.88%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.470	0.515	9.14%	Pass
SELENIUM, D	0.05	0.05	ug/l	6.1	6.19	1.46%	Pass
SELENIUM, T	0.05	0.05	ug/l	5.84	5.65	3.31%	Pass
SILICON, D	0.05	0.05	mg/l	1.22	1.25	2.43%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.439	0.439	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	0.425	0.465	8.99%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0690	0.0674	2.35%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0710	0.0702	1.13%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	36.3	36.3	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	186	176	5.52%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.220	0.273	21.50%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.33	1.4	5.13%	Pass

TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	7.8	4	64.41%	Fail
TURBIDITY, LAB	0.1	0.1	ntu	4.84	3.65	28.03%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.000595	0.000594	0.17%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000618	0.000628	1.61%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	0.0064	72.34%	Pass-1

Location:	FR_HC1	FR_HC1
Sample ID:	FR_HC1_M_06032017_N	FD_M_06032017_117
Date Sampled:	3/7/2017	3/7/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.0	3.4	51.85%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	139	141	1.43%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	139	141	1.43%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00014	0.00015	6.90%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0383	0.0345	10.44%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0404	0.0382	5.60%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000319	3.17e-005	0.63%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000358	3.75e-005	4.64%	Pass
CALCIUM, D	0.05	0.05	mg/l	95.4	85.6	10.83%	Pass
CALCIUM, T	0.05	0.05	mg/l	99.1	105	5.78%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	<0.0001	9.52%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	627	632	0.79%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.226	0.234	3.48%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	390	340	13.70%	Pass
ION BALANCE	0	0	%	3.8	-3.3	200.00%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0096	0.0098	2.06%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0099	0.0104	4.93%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	36.8	30.5	18.72%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	37.1	36	3.01%	Pass
MAJOR ANION SUM	0	0	meq/l	7.28	7.31	0.41%	Pass
MAJOR CATION SUM	0	0	meq/l	7.85	6.84	13.75%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00565	0.00694	20.49%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.0121	0.0114	5.96%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000947	0.000875	7.90%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00101	0.00107	5.77%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00149	0.00118	23.22%	Pass-1
NICKEL, T	0.0005	0.0005	mg/l	0.00166	0.00159	4.31%	Pass

NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	6.60	6.61	0.15%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0047	0.0046	2.15%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0151	0.0095	45.53%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0023	0.0025	8.33%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	424	424	0.00%	Pass
pH, LAB	0.1	0.1	ph units	7.97	7.96	0.13%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0122	0.0204	50.31%	Fail
POTASSIUM, D	0.05	0.05	mg/l	0.957	0.875	8.95%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.04	0.988	5.13%	Pass
SELENIUM, D	0.05	0.05	ug/l	33.2	30.8	7.50%	Pass
SELENIUM, T	0.05	0.05	ug/l	35.3	34.4	2.58%	Pass
SILICON, D	0.05	0.05	mg/l	1.55	1.5	3.28%	Pass
SILICON, T	0.05	0.05	mg/l	1.59	1.62	1.87%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.816	0.8	1.98%	Pass
SODIUM, T	0.05	0.05	mg/l	0.898	0.867	3.51%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.161	0.147	9.09%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.168	0.175	4.08%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	193	193	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	440	449	2.02%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.459	0.458	0.22%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.25	0.2	22.22%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.00147	0.00134	9.25%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00155	0.00164	5.64%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0019	0.0021	10.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	0.0033	9.52%	Pass

Location:	FR_HC1	FR_HC1
Sample ID:	FR_HC1_MON_2017-11-06_N	WS_2017-11-06_070
Date Sampled:	11/7/2017	11/7/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	140	137	2.17%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0037	<0.003	20.90%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0397	0.0393	1.01%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0388	0.0369	5.02%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000217	2.54e-005	15.71%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000307	2.79e-005	9.56%	Pass
CALCIUM, D	0.05	0.05	mg/l	83.1	85.7	3.08%	Pass
CALCIUM, T	0.05	0.05	mg/l	85.4	86.3	1.05%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	0.54	7.69%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00012	18.18%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00017	0.00084	132.67%	Pass-1

COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	595	602	1.17%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.235	0.233	0.85%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	324	331	2.14%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	0.014	33.33%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0081	0.008	1.24%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0076	0.0075	1.32%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	28.3	28.4	0.35%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	30.8	30.9	0.32%	Pass
MAJOR ANION SUM	0	0	meq/l	6.59	6.56	0.46%	Pass
MAJOR CATION SUM	0	0	meq/l	6.53	6.67	2.12%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00264	0.00256	3.08%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00312	0.0032	2.53%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000965	0.000946	1.99%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000984	0.00113	13.81%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00083	0.00085	2.38%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00094	0.00095	1.06%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	4.68	4.65	0.64%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0032	0.0029	9.84%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0109	0.0076	35.68%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	384	354	8.13%	Pass
pH, LAB	0.1	0.1	ph units	8.18	8.21	0.37%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0068	0.002	109.09%	Fail
POTASSIUM, D	0.05	0.05	mg/l	0.874	0.887	1.48%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.837	0.836	0.12%	Pass
SELENIUM, D	0.05	0.05	ug/l	30.4	30.9	1.63%	Pass
SELENIUM, T	0.05	0.05	ug/l	32.6	33	1.22%	Pass
SILICON, D	0.05	0.05	mg/l	1.47	1.47	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	1.60	1.61	0.62%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.747	0.74	0.94%	Pass
SODIUM, T	0.05	0.05	mg/l	0.795	0.802	0.88%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.146	0.146	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.140	0.143	2.12%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	165	167	1.20%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	413	402	2.70%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.433	0.484	11.12%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	< 0.50	0.51	1.98%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.34	0.46	30.00%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.00125	0.00127	1.59%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00135	0.00137	1.47%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_HC1	FR_HC1
Sample ID:	FR_HC1_W_08052017_N	FD_W_08052017_139
Date Sampled:	5/9/2017	5/9/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units	Primary vs. Duplicate	Category1
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ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.2	1.5	22.22%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	130	131	0.77%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	130	131	0.77%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0021	0.0017	21.05%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0133	0.0153	13.99%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0292	0.0292	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0263	0.0273	3.73%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000159	1.58e-005	0.63%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000209	1.99e-005	4.90%	Pass
CALCIUM, D	0.05	0.05	mg/l	62.0	62.5	0.80%	Pass
CALCIUM, T	0.05	0.05	mg/l	62.1	61	1.79%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.51	1.26	18.05%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	0.00035	91.67%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	457	452	1.10%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.223	0.223	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	246	246	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.016	0.019	17.14%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0054	0.0055	1.83%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0053	0.0052	1.90%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	22.1	21.7	1.83%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	20.2	20.7	2.44%	Pass
MAJOR ANION SUM	0	0	meq/l	5.00	5.02	0.40%	Pass
MAJOR CATION SUM	0	0	meq/l	4.95	4.95	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00353	0.00342	3.17%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00429	0.00431	0.47%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00062	0.00077	21.58%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000712	0.000688	3.43%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000700	0.00069	1.44%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00095	0.00088	7.65%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00090	0.00098	8.51%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	4.01	4.02	0.25%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0017	0.0017	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0062	0.0098	45.00%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	494	485	1.84%	Pass
pH, LAB	0.1	0.1	ph units	8.12	8.1	0.25%	Pass
PHOSPHORUS	0.004	0.01	mg/l	0.0160	<0.01	46.15%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	0.609	0.602	1.16%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.567	0.584	2.95%	Pass
SELENIUM, D	0.05	0.05	ug/l	20.5	20.2	1.47%	Pass
SELENIUM, T	0.05	0.05	ug/l	17.5	16.9	3.49%	Pass
SILICON, D	0.05	0.05	mg/l	1.56	1.57	0.64%	Pass
SILICON, T	0.05	0.05	mg/l	1.58	1.55	1.92%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.605	0.597	1.33%	Pass
SODIUM, T	0.05	0.05	mg/l	0.547	0.554	1.27%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.115	0.116	0.87%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.116	0.114	1.74%	Pass

SULFATE (AS SO4), D	0.3	0.3	mg/l	101	101	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	286	304	6.10%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.220	0.23	4.44%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.60	1.09	37.92%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.6	1.6	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.55	1.14	30.48%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.000965	0.000952	1.36%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000987	0.000969	1.84%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0019	0.0015	23.53%	Pass-1
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_HC1	FR_HC1
Sample ID:	FR_HC1_W_10072017_N	FD_W_10072017_184
Date Sampled:	7/11/2017	7/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	118	125	5.76%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	118	125	5.76%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0029	0.0029	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0091	0.0092	1.09%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	0.00012	18.18%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0204	0.0208	1.94%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0203	0.0192	5.57%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000114	1.02e-005	11.11%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000124	1.36e-005	9.23%	Pass
CALCIUM, D	0.05	0.05	mg/l	43.9	44.4	1.13%	Pass
CALCIUM, T	0.05	0.05	mg/l	45.7	44	3.79%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.00	1.05	4.88%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00012	15.38%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	334	337	0.89%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.211	0.213	0.94%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	168	170	1.18%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.011	0.013	16.67%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0042	0.0042	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0042	0.0042	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	14.3	14.4	0.70%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	14.3	13.7	4.29%	Pass
MAJOR ANION SUM	0	0	meq/l	3.70	3.83	3.45%	Pass

MAJOR CATION SUM	0	0	meq/l	3.40	3.43	0.88%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00356	0.00356	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00403	0.00382	5.35%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000737	0.000748	1.48%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000748	0.000706	5.78%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00057	0.00056	1.77%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00064	0.0006	6.45%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.74	1.75	0.57%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0016	0.0015	6.45%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0079	0.0074	6.54%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	0.0013	26.09%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	239	237	0.84%	Pass
pH, LAB	0.1	0.1	ph units	8.22	8.21	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	0.0021	4.88%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.521	0.516	0.96%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.507	0.501	1.19%	Pass
SELENIUM, D	0.05	0.05	ug/l	9.87	9.92	0.51%	Pass
SELENIUM, T	0.05	0.05	ug/l	9.24	8.79	4.99%	Pass
SILICON, D	0.05	0.05	mg/l	1.21	1.22	0.82%	Pass
SILICON, T	0.1	0.1	mg/l	1.26	1.22	3.23%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.404	0.405	0.25%	Pass
SODIUM, T	0.05	0.05	mg/l	0.399	0.379	5.14%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0846	0.0849	0.35%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0871	0.0839	3.74%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	57.8	57.9	0.17%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	196	195	0.51%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.055	0.131	81.72%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.89	1.01	12.63%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.63	0.48	27.03%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.000630	0.000632	0.32%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000649	0.000625	3.77%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_HC1	FR_HC1
Sample ID:	FR_HC1_W_12062017_N	FD_W_12062017_164
Date Sampled:	6/14/2017	6/14/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	98.8	99.4	0.61%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	98.8	99.4	0.61%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0033	0.0031	6.25%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0657	0.0697	5.91%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0174	0.0172	1.16%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0173	0.0179	3.41%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000086	8.1e-006	5.99%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000173	1.53e-005	12.27%	Pass
CALCIUM, D	0.05	0.05	mg/l	33.7	33.6	0.30%	Pass
CALCIUM, T	0.05	0.05	mg/l	35.8	36.9	3.03%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.01	1.04	2.93%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00023	0.00022	4.44%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	250	255	1.98%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.154	0.154	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	123	123	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.068	0.071	4.32%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0025	0.0024	4.08%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0025	0.0026	3.92%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	9.50	9.43	0.74%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	9.52	10	4.92%	Pass
MAJOR ANION SUM	0	0	meq/l	2.64	2.65	0.38%	Pass
MAJOR CATION SUM	0	0	meq/l	2.49	2.48	0.40%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00142	0.00149	4.81%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00420	0.00447	6.23%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00077	0.00092	17.75%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000716	0.000727	1.52%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000591	0.000673	12.97%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00055	0.00066	18.18%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.938	0.925	1.40%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	485	487	0.41%	Pass
pH, LAB	0.1	0.1	ph units	8.27	8.28	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0074	0.0082	10.26%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.341	0.337	1.18%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.344	0.37	7.28%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.46	4.49	0.67%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.54	4.43	2.45%	Pass
SILICON, D	0.05	0.05	mg/l	1.10	1.08	1.83%	Pass
SILICON, T	0.1	0.1	mg/l	1.23	1.26	2.41%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.359	0.356	0.84%	Pass
SODIUM, T	0.05	0.05	mg/l	0.345	0.363	5.08%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0638	0.0641	0.47%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0677	0.0691	2.05%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	28.6	28.3	1.05%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	147	150	2.02%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.256	0.067	117.03%	Fail
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.10	1.06	3.70%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	7.6	7.8	2.60%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	5.67	4.82	16.21%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000467	0.000463	0.86%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000533	0.000553	3.68%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_HC1	FR_HC1
Sample ID:	FR_HC1_W_15052017_N	FD_W_15052017_144
Date Sampled:	5/15/2017	5/15/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.3	1.3	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	123	135	9.30%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	8.2	<1	156.52%	Fail
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	132	135	2.25%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0027	0.0019	34.78%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0277	0.033	17.46%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00013	0.00011	16.67%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00014	15.38%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0295	0.029	1.71%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0273	0.0278	1.81%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000146	1.64e-005	11.61%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000161	2.26e-005	33.59%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	47.2	46.8	0.85%	Pass
CALCIUM, T	0.05	0.05	mg/l	48.7	48.9	0.41%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.63	1.36	18.06%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00038	0.00044	14.63%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	393	398	1.26%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.201	0.204	1.48%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	188	187	0.53%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.028	0.034	19.35%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0042	0.004	4.88%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0037	0.0038	2.67%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	17.1	17.1	0.00%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	16.6	16.4	1.21%	Pass
MAJOR ANION SUM	0	0	meq/l	4.33	4.41	1.83%	Pass
MAJOR CATION SUM	0	0	meq/l	3.80	3.78	0.53%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00297	0.00282	5.18%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00389	0.00429	9.78%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00109	0.00109	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000474	0.000495	4.33%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000615	0.000599	2.64%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00066	0.00071	7.30%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00081	0.00076	6.37%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	2.89	2.91	0.69%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0013	0.0014	7.41%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.012	82.35%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	0.0011	9.52%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	382	427	11.12%	Pass
pH, LAB	0.1	0.1	ph units	8.31	8.14	2.07%	Pass
PHOSPHORUS	0.004	0.01	mg/l	0.0074	0.014	61.68%	Pass-1

POTASSIUM, D	0.05	0.05	mg/l	0.505	0.509	0.79%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.467	0.478	2.33%	Pass
SELENIUM, D	0.05	0.05	ug/l	13.5	14.2	5.05%	Pass
SELENIUM, T	0.05	0.05	ug/l	12	12.2	1.65%	Pass
SILICON, D	0.05	0.05	mg/l	1.51	1.52	0.66%	Pass
SILICON, T	0.1	0.1	mg/l	1.54	1.55	0.65%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.551	0.546	0.91%	Pass
SODIUM, T	0.05	0.05	mg/l	0.504	0.513	1.77%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0920	0.0922	0.22%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0932	0.0936	0.43%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	71.4	71.6	0.28%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	241	244	1.24%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.135	0.203	40.24%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.08	1.51	31.75%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.4	1.6	40.00%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.49	1.56	4.59%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000698	0.000718	2.82%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000870	0.000898	3.17%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0018	0.0019	5.41%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_HC1	FR_HC1
Sample ID:	FR_HC1_W_17042017_N	FD_W_17042017_124
Date Sampled:	4/18/2017	4/18/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.7	4.7	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	151	151	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	151	151	0.00%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0020	0.0019	5.13%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0097	0.0062	44.03%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00016	<0.0001	46.15%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0427	0.0422	1.18%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0409	0.0392	4.24%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000345	3.94e-005	13.26%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000418	4.42e-005	5.58%	Pass
CALCIUM, D	0.05	0.05	mg/l	99.1	98.7	0.40%	Pass
CALCIUM, T	0.05	0.05	mg/l	96.4	92.1	4.56%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.51	0.55	7.55%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00016	0.00022	31.58%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00011	<0.0001	9.52%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	760	764	0.52%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass

COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.211	0.213	0.94%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	418	420	0.48%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.020	0.017	16.22%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0123	0.0123	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0114	0.0114	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	41.4	42	1.44%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	39.9	38.5	3.57%	Pass
MAJOR ANION SUM	0	0	meq/l	8.82	8.82	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	8.42	8.45	0.36%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0146	0.0144	1.38%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0149	0.0145	2.72%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	< 0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000959	0.00094	2.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00101	0.000924	8.89%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00171	0.0017	0.59%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00182	0.00173	5.07%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	10.4	10.4	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0105	0.0103	1.92%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0221	0.0314	34.77%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	467	475	1.70%	Pass
pH, LAB	0.1	0.1	ph units	7.87	7.88	0.13%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0030	0.0029	3.39%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.05	1.07	1.89%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.01	0.981	2.91%	Pass
SELENIUM, D	0.05	0.05	ug/l	45.1	44.2	2.02%	Pass
SELENIUM, T	0.05	0.05	ug/l	43.6	43.4	0.46%	Pass
SILICON, D	0.05	0.05	mg/l	1.47	1.45	1.37%	Pass
SILICON, T	0.05	0.05	mg/l	1.41	1.39	1.43%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.892	0.89	0.22%	Pass
SODIUM, T	0.05	0.05	mg/l	0.875	0.829	5.40%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.163	0.162	0.62%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.165	0.158	4.33%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	242	242	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000012	<1e-005	18.18%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	581	582	0.17%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.585	0.68	15.02%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.57	0.58	1.74%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.7	51.85%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.83	0.78	6.21%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00172	0.00172	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00178	0.00168	5.78%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0021	0.0021	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0143	<0.003	130.64%	Pass-1

Location:	FR_HC1	FR_HC1
Sample ID:	FR_HC1_W_19062017_N	FD_W_19062017_169
Date Sampled:	6/20/2017	6/20/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	112	111	0.90%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass

ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	112	111	0.90%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0035	0.0035	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0093	0.01	7.25%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0215	0.0216	0.46%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0208	0.021	0.96%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000125	1.22e-005	2.43%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000130	1.28e-005	1.55%	Pass
CALCIUM, D	0.05	0.05	mg/l	38.2	38.7	1.30%	Pass
CALCIUM, T	0.05	0.05	mg/l	38.6	38.2	1.04%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.66	0.63	4.65%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.78	0.76	2.60%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00015	6.90%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	320	316	1.26%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.155	0.162	4.42%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	149	152	1.99%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.011	0.011	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0036	0.0036	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0041	0.0039	5.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	12.9	13.4	3.80%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	12.8	12.8	0.00%	Pass
MAJOR ANION SUM	0	0	meq/l	3.35	3.32	0.90%	Pass
MAJOR CATION SUM	0	0	meq/l	3.00	3.06	1.98%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00320	0.00324	1.24%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00370	0.0037	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.0006000000	<0.0005	18.18%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000622	0.000632	1.59%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000658	0.000644	2.15%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00059	0.00061	3.33%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00078	0.00076	2.60%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.61	1.55	3.80%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0016	0.0016	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0073	0.0074	1.36%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	508	512	0.78%	Pass
pH, LAB	0.1	0.1	ph units	8.23	8.22	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0022	0.0021	4.65%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.454	0.452	0.44%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.447	0.443	0.90%	Pass
SELENIUM, D	0.05	0.05	ug/l	7.72	7.75	0.39%	Pass
SELENIUM, T	0.05	0.05	ug/l	6.85	6.57	4.17%	Pass
SILICON, D	0.05	0.05	mg/l	1.20	1.22	1.65%	Pass
SILICON, T	0.1	0.1	mg/l	1.27	1.27	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.426	0.444	4.14%	Pass
SODIUM, T	0.05	0.05	mg/l	0.424	0.43	1.41%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0766	0.0772	0.78%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0775	0.0764	1.43%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	46.2	46.1	0.22%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	192	199	3.58%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.084	0.1	17.39%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.85	0.92	7.91%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.0	1.8	57.14%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.73	0.73	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000594	0.000581	2.21%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000625	0.000625	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00053	0.00063	17.24%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_HC1	FR_HC1
Sample ID:	FR_HC1_W_22052017_N	FD_W_22052017_149
Date Sampled:	5/23/2017	5/23/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	114	114	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	114	114	0.00%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0028	0.0023	19.61%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.212	0.0727	97.86%	Fail
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00025	0.00016	43.90%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0242	0.0229	5.52%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0359	0.0231	43.39%	Pass-2
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000092	5.3e-006	53.79%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000429	2.12e-005	67.71%	Fail
CALCIUM, D	0.05	0.05	mg/l	37.0	37.5	1.34%	Pass
CALCIUM, T	0.05	0.05	mg/l	34.8	41.4	17.32%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.52	1.49	1.99%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00044	0.00023	62.69%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00017	<0.0001	51.85%	Pass-1
CONDUCTIVITY, LAB	2	2	us/cm	281	279	0.71%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00059	<0.0005	16.51%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.171	0.17	0.59%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	137	138	0.73%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.291	0.093	103.13%	Fail
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000222	0.000113	65.07%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0021	0.0022	4.65%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0017	0.0028	48.89%	Pass-1
MAGNESIUM, D	0.005	0.005	mg/l	10.7	10.9	1.85%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	8.95	11	20.55%	Fail
MAJOR ANION SUM	0	0	meq/l	3.17	3.17	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	2.76	2.79	1.08%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00071	0.00084	16.77%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0151	0.00468	105.36%	Fail
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass

MERCURY, T	0.0005	0.0005	ug/l	0.00138	0.00131	5.20%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000506	0.000503	0.59%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000524	0.000502	4.29%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00078	0.00067	15.17%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.22	1.19	2.49%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0120	0.0026	128.77%	Fail
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	379	391	3.12%	Pass
pH, LAB	0.1	0.1	ph units	8.14	8.2	0.73%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0140	0.0121	14.56%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.373	0.375	0.53%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.478	0.414	14.35%	Pass
SELENIUM, D	0.05	0.05	ug/l	6.03	6.13	1.64%	Pass
SELENIUM, T	0.05	0.05	ug/l	2.23	5.46	84.01%	Fail
SILICON, D	0.05	0.05	mg/l	1.34	1.31	2.26%	Pass
SILICON, T	0.05	0.05	mg/l	1.92	1.45	27.89%	Pass-2
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.426	0.422	0.94%	Pass
SODIUM, T	0.05	0.05	mg/l	0.482	0.424	12.80%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0791	0.0795	0.50%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0663	0.0825	21.77%	Pass-2
SULFATE (AS SO4), D	0.3	0.3	mg/l	38.4	38.4	0.26%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000011	<1e-005	9.52%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	186	187	0.54%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.145	0.221	41.53%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.65	1.71	3.57%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	15.6	10.2	41.86%	Pass-2
TURBIDITY, LAB	0.1	0.1	ntu	8.60	7.53	13.27%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000543	0.000567	4.32%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000386	0.000604	44.04%	Pass-2
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00100	0.00052	63.16%	Pass-1
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_HC1	FR_HC1
Sample ID:	FR_HC1_W_27032017_N	FD_W_27032017_109
Date Sampled:	3/28/2017	3/28/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	5.8	5.4	7.14%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	146	148	1.36%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	146	148	1.36%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0020	0.0024	18.18%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0175	0.0212	19.12%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	0.00012	18.18%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0366	0.0365	0.27%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0318	0.0353	10.43%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass

CADMIUM, D	0.000005	0.000005	mg/l	0.0000347	3.56e-005	2.56%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000364	3.55e-005	2.50%	Pass
CALCIUM, D	0.05	0.05	mg/l	88.8	89.5	0.79%	Pass
CALCIUM, T	0.05	0.05	mg/l	83.0	92.9	11.26%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.53	0.63	17.24%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	0.00016	20.69%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00010	0.00011	9.52%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	695	696	0.14%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.236	0.203	15.03%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	362	365	0.83%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.025	0.025	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0113	0.0115	1.75%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0107	0.0119	10.62%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	34.0	34.3	0.88%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	31.5	34.7	9.67%	Pass
MAJOR ANION SUM	0	0	meq/l	8.16	8.18	0.24%	Pass
MAJOR CATION SUM	0	0	meq/l	7.29	7.35	0.82%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0143	0.0139	2.84%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0149	0.0161	7.74%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000809	0.00084	3.76%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000859	0.000962	11.31%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00150	0.00149	0.67%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00148	0.00159	7.17%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	8.36	8.34	0.24%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0102	0.0089	13.61%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0161	0.0194	18.59%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	337	323	4.24%	Pass
pH, LAB	0.1	0.1	ph units	8.04	8.05	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0037	0.0036	2.74%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.02	1.02	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.915	1.02	10.85%	Pass
SELENIUM, D	0.05	0.05	ug/l	35.5	34.4	3.15%	Pass
SELENIUM, T	0.05	0.05	ug/l	31.7	35.3	10.75%	Pass
SILICON, D	0.05	0.05	mg/l	1.55	1.52	1.95%	Pass
SILICON, T	0.05	0.05	mg/l	1.43	1.59	10.60%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.766	0.772	0.78%	Pass
SODIUM, T	0.05	0.05	mg/l	0.711	0.793	10.90%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.143	0.144	0.70%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.138	0.154	10.96%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	223	222	0.45%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	483	488	1.03%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.327	0.218	40.00%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.69	0.71	2.86%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.6	1.8	11.76%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.58	1.63	3.12%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00122	0.00125	2.43%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00119	0.00132	10.36%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00052	0.00058	10.91%	Pass
ZINC, D	0.001	0.001	mg/l	0.0019	0.0018	5.41%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	0.011	114.29%	Pass-1

Location:	FR_HC1	FR_HC1
Sample ID:	FR_HC1_W_29052017_N	FD_W_29052017_154
Date Sampled:	5/29/2017	5/29/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	1.4	33.33%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	108	107	0.93%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	108	107	0.93%	Pass
ALUMINIUM, D	0.001	0.001	mg/l	0.0056	0.0054	3.64%	Pass
ALUMINIUM, T	0.003	0.003	mg/l	0.218	0.207	5.18%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00022	0.00022	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0220	0.0217	1.37%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0242	0.0242	0.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000069	7.9e-006	13.51%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000311	3.05e-005	1.95%	Pass
CALCIUM, D	0.05	0.05	mg/l	36.3	36.5	0.55%	Pass
CALCIUM, T	0.05	0.05	mg/l	41.3	40.8	1.22%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.53	1.54	0.65%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00055	0.00057	3.57%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00014	0.00015	6.90%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	251	253	0.79%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00052	0.00064	20.69%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.157	0.156	0.64%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	130	131	0.77%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.261	0.252	3.51%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000203	0.000185	9.28%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0026	0.0026	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0032	0.0031	3.17%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	9.52	9.61	0.94%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	10.5	10.5	0.00%	Pass
MAJOR ANION SUM	0	0	meq/l	2.90	2.88	0.69%	Pass
MAJOR CATION SUM	0	0	meq/l	2.63	2.64	0.38%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00116	0.00114	1.74%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0120	0.012	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00176	0.00182	3.35%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000479	0.000501	4.49%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000508	0.000523	2.91%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00097	0.00101	4.04%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.09	1.08	0.92%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0013	0.0014	7.41%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0105	0.0081	25.81%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0020	0.0026	26.09%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	244	240	1.65%	Pass
pH, LAB	0.1	0.1	ph units	8.20	8.16	0.49%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0222	0.0187	17.11%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.364	0.364	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.472	0.459	2.79%	Pass
SELENIUM, D	0.05	0.05	ug/l	5.09	5.23	2.71%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.52	4.55	0.66%	Pass

SILICON, D	0.05	0.05	mg/l	1.33	1.33	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.418	0.418	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	0.400	0.398	0.50%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0688	0.0691	0.44%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0726	0.0732	0.82%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	31.4	31.3	0.32%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000012	1.4e-005	15.38%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	155	169	8.64%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.178	0.161	10.03%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.07	1.97	4.95%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000472	0.000471	0.21%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000505	0.000498	1.40%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00092	0.00087	5.59%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0032	0.0033	3.08%	Pass

Location:	FR_HC3	FR_HC3
Sample ID:	FR_HC3_MON_2017-10-02_N	WS_2017-10-02_034
Date Sampled:	10/11/2017	10/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.1	<1	9.52%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	96.0	99.3	3.38%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	96.0	99.3	3.38%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0136	0.0135	0.74%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0139	0.014	0.72%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000053	6.4e-006	18.80%	Pass
CALCIUM, D	0.05	0.05	mg/l	46.2	50.9	9.68%	Pass
CALCIUM, T	0.05	0.05	mg/l	47.7	51.4	7.47%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
CHROMIUM, T	0.0002	0.0003	mg/l	< 0.00020	<0.0003	40.00%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	308	313	1.61%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.261	0.3	13.90%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	164	180	9.30%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

LITHIUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	11.7	12.9	9.76%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	11.9	13.1	9.60%	Pass
MAJOR ANION SUM	0	0	meq/l	3.44	3.51	2.01%	Pass
MAJOR CATION SUM	0	0	meq/l	3.29	3.62	9.55%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00012	<0.0001	18.18%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000609	0.000638	4.65%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000642	0.000666	3.67%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.285	0.263	8.03%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0090	0.0069	26.42%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	336	279	18.54%	Pass
pH, LAB	0.1	0.1	ph units	8.28	8.23	0.61%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	<0.002	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.191	0.206	7.56%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.193	0.206	6.52%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.15	1.19	3.42%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.24	1.19	4.12%	Pass
SILICON, D	0.05	0.05	mg/l	1.13	1.16	2.62%	Pass
SILICON, T	0.1	0.1	mg/l	1.21	1.25	3.25%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.349	0.372	6.38%	Pass
SODIUM, T	0.05	0.05	mg/l	0.355	0.383	7.59%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.152	0.153	0.66%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.154	0.158	2.56%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	71.7	71.8	0.14%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	220	218	0.91%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.064	0.054	16.95%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.65	0.72	10.22%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.12	0.24	66.67%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.00103	0.00108	4.74%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00107	0.00111	3.67%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_HC3	FR_HC3
Sample ID:	FR_HC3_W_22052017_N	FD_W_22052017_148
Date Sampled:	5/24/2017	5/24/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	83.0	67.4	20.74%	Pass-2
TURBIDITY, LAB	0.1	0.1	ntu	6.79	6.57	3.29%	Pass

Location:	FR_HC3	FR_HC3
Sample ID:	FR_HC3_W_27032017_N	FD_W_27032017_108
Date Sampled:	3/27/2017	3/27/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.11	0.11	0.00%	Pass

Location:	FR_HC3	FR_HC3
Sample ID:	FR_HC3_W_29052017_N	FD_W_29052017_153
Date Sampled:	5/29/2017	5/29/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	10.2	10.4	1.94%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	5.64	6.85	19.38%	Pass

Location:	FR_KC1	FR_KC1
Sample ID:	FR_KC1_M_01052017_N	FD_M_01052017_132
Date Sampled:	5/2/2017	5/2/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	10.3	7.7	28.89%	Pass-2
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	336	346	2.93%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	336	346	2.93%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0033	<0.003	9.52%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00035	0.00035	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00036	0.00035	2.82%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0325	0.0325	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0315	0.0315	0.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.022	0.019	14.63%	Pass
BORON, T	0.01	0.01	mg/l	0.023	0.019	19.05%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000948	0.000914	3.65%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000938	0.000904	3.69%	Pass
CALCIUM, D	0.05	0.05	mg/l	288	285	1.05%	Pass
CALCIUM, T	0.05	0.05	mg/l	281	286	1.76%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.78	0.67	15.17%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	2140	2160	0.93%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	0.00025	22.22%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1260	1280	1.57%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.106	0.0989	6.93%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.104	0.0972	6.76%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	131	139	5.93%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	132	137	3.72%	Pass
MAJOR ANION SUM	0	0	meq/l	26.3	26.9	2.26%	Pass
MAJOR CATION SUM	0	0	meq/l	25.4	26	2.33%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00047	0.00035	29.27%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00047	0.00048	2.11%	Pass

MERCURY, D	0.00005	0.00005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00136	0.0013	4.51%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00141	0.00138	2.15%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0256	0.0253	1.18%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0256	0.0263	2.70%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	95.3	96.8	1.56%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0060	0.0064	6.45%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	389	386	0.77%	Pass
pH, LAB	0.1	0.1	ph units	8.00	7.97	0.38%	Pass
PHOSPHORUS	0.004	0.02	mg/l	< 0.0040	<0.02	133.33%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	3.55	3.69	3.87%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.53	3.69	4.43%	Pass
SELENIUM, D	0.05	0.05	ug/l	255	275	7.55%	Pass
SELENIUM, T	0.05	0.05	ug/l	236	226	4.33%	Pass
SILICON, D	0.05	0.05	mg/l	1.80	1.82	1.10%	Pass
SILICON, T	0.05	0.05	mg/l	1.82	1.83	0.55%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	4.27	4.32	1.16%	Pass
SODIUM, T	0.05	0.05	mg/l	4.31	4.38	1.61%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.264	0.256	3.08%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.262	0.26	0.77%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	613	626	2.10%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000027	2.4e-005	11.76%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000026	3.1e-005	17.54%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1760	1810	2.80%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.263	0.455	53.48%	Fail
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.91	0.86	5.65%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.11	<0.1	9.52%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0111	0.011	0.90%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0116	0.0102	12.84%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0152	0.0137	10.38%	Pass
ZINC, T	0.003	0.003	mg/l	0.0142	0.0135	5.05%	Pass

Location:	FR_KC1	FR_KC1
Sample ID:	FR_KC1_MON_2017-09-04_N	WS_2017-09-04_033
Date Sampled:	9/6/2017	9/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	9.4	11.7	21.80%	Pass-2
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	328	341	3.89%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	328	341	3.89%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00059	0.00056	5.22%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00058	0.00059	1.71%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0456	0.0377	18.97%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0412	0.0423	2.63%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.028	0.029	3.51%	Pass
BORON, T	0.01	0.01	mg/l	0.028	0.027	3.64%	Pass

BROMIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000689	9.7e-006	194.45%	Fail
CADMIUM, T	0.000005	0.000005	mg/l	0.000818	0.000805	1.60%	Pass
CALCIUM, D	0.05	0.05	mg/l	247	198	22.02%	Fail
CALCIUM, T	0.05	0.05	mg/l	223	223	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	0.59	16.51%	Pass
Cation - Anion Balance	0	0	%	8.0	-0.5	200.00%	Fail
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1570	1580	0.63%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.11	0.11	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1080	915	16.54%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0660	0.0678	2.69%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0667	0.0684	2.52%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	112	102	9.35%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	102	101	0.99%	Pass
MAJOR ANION SUM	0	0	meq/l	18.6	18.7	0.54%	Pass
MAJOR CATION SUM	0	0	meq/l	21.8	18.5	16.38%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00033	0.00012	93.33%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00038	0.00044	14.63%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00149	0.00152	1.99%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00158	0.00155	1.92%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0232	0.0195	17.33%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0216	0.0215	0.46%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	52.8	52.4	0.76%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	316	285	10.32%	Pass
pH, LAB	0.1	0.1	ph units	7.97	7.93	0.50%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0065	<0.002	105.88%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	4.24	3.93	7.59%	Pass
POTASSIUM, T	0.05	0.05	mg/l	4.05	4.06	0.25%	Pass
SELENIUM, D	0.05	0.05	ug/l	174	178	2.27%	Pass
SELENIUM, T	0.05	0.05	ug/l	159	162	1.87%	Pass
SILICON, D	0.05	0.05	mg/l	2.05	2	2.47%	Pass
SILICON, T	0.1	0.1	mg/l	2.11	2.14	1.41%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	3.23	2.92	10.08%	Pass
SODIUM, T	0.05	0.05	mg/l	2.94	3	2.02%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.218	0.208	4.69%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.220	0.22	0.00%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	394	391	0.76%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000029	3.3e-005	12.90%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000033	3.4e-005	2.99%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1330	1270	4.62%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.429	0.257	50.15%	Fail
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.03	1.1	6.57%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.13	0.15	14.29%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00809	0.00867	6.92%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00917	0.00933	1.73%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0106	<0.003	111.76%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.0121	0.0141	15.27%	Pass

Location:	FR_KC1	FR_KC1
Sample ID:	FR_KC1_W_08052017_N	FD_W_08052017_138
Date Sampled:	5/8/2017	5/8/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.7	1.9	11.11%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	3.08	3.28	6.29%	Pass

Location:	FR_KC1	FR_KC1
Sample ID:	FR_KC1_W_20032017_N	FD_W_20032017_103
Date Sampled:	3/22/2017	3/22/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.0	1.2	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.55	0.51	7.55%	Pass

Location:	FR_KC1	FR_KC1
Sample ID:	FR_KC1_W_24042017_N	FD_W_24042017_128
Date Sampled:	4/25/2017	4/25/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.8	1.4	25.00%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.19	0.13	37.50%	Pass-1

Location:	FR_KC1	FR_KC1
Sample ID:	FR_KC1_W_26062017_N	FD_W_26062017_173
Date Sampled:	6/26/2017	6/26/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.12	0.16	28.57%	Pass-1

Location:	FR_LP1	FR_LP1
Sample ID:	FR_LP1_M_06032017_N	FD_M_06032017_115
Date Sampled:	3/2/2017	3/2/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	1.5	40.00%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	309	314	1.61%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	309	314	1.61%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0023	0.0021	9.09%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0154	0.0173	11.62%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00044	0.00048	8.70%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00045	0.00052	14.43%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00023	0.00021	9.09%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00027	0.00024	11.76%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0637	0.0643	0.94%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0807	0.0664	19.44%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass

BERYLLIUM, T	0.0002	0.0002	mg/l	< 0.00020	<2e-005	0.00%	Pass
BISMUTH, D	0.0005	0.0005	mg/l	< 0.00050	<5e-005	0.00%	Pass
BISMUTH, T	0.0005	0.0005	mg/l	< 0.00050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.024	0.023	4.26%	Pass
BORON, T	0.01	0.01	mg/l	0.024	0.024	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.00005	0.00005	mg/l	0.000141	0.000138	2.15%	Pass
CADMIUM, T	0.00005	0.00005	mg/l	0.000186	0.000155	18.18%	Pass
CALCIUM, D	0.05	0.05	mg/l	141	140	0.71%	Pass
CALCIUM, T	0.05	0.05	mg/l	144	145	0.69%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.62	2.4	8.76%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	<0.0001	40.00%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00029	0.00028	3.51%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00037	0.00031	17.65%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1290		0.00%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00049	0.00047	4.17%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00083	0.00072	14.19%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.15	0.16	6.45%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	799	795	0.50%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.025	0.027	7.69%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0380	0.0378	0.53%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0389	0.0388	0.26%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	108	108	0.00%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	130	109	17.57%	Pass
MAJOR ANION SUM	0	0	meq/l	16.9	17.2	1.76%	Pass
MAJOR CATION SUM	0	0	meq/l	16.2	16.2	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0150	0.0147	2.02%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0198	0.0173	13.48%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00065	0.00057	13.11%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00223	0.00219	1.81%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00263	0.00239	9.56%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00386	0.0038	1.57%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00476	0.0041	14.90%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	3.42	3.52	2.88%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0176	0.0165	6.45%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0076	0.0068	11.11%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0038	0.0039	2.60%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	331	332	0.30%	Pass
pH, LAB	0.1	0.1	ph units	8.23	8.23	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0227	0.0227	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.39	3.4	0.29%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.99	3.43	15.09%	Pass
SELENIUM, D	0.05	0.05	ug/l	40.2	40.9	1.73%	Pass
SELENIUM, T	0.05	0.05	ug/l	40.5	40	1.24%	Pass
SILICON, D	0.05	0.05	mg/l	3.44	3.51	2.01%	Pass
SILICON, T	0.05	0.05	mg/l	3.50	3.52	0.57%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	4.58	4.55	0.66%	Pass
SODIUM, T	0.05	0.05	mg/l	5.57	4.72	16.52%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.134	0.132	1.50%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.140	0.14	0.00%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	501	511	1.98%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000017	1.8e-005	5.71%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000021	2.2e-005	4.65%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1010	1010	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.260	0.336	25.50%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.86	2.54	11.85%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	1.2	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.72	2.67	1.86%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00293	0.00287	2.07%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00316	0.00309	2.24%	Pass

VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00063	0.00056	11.76%	Pass
ZINC, D	0.001	0.001	mg/l	0.195	0.192	1.55%	Pass
ZINC, T	0.003	0.003	mg/l	0.223	0.192	14.94%	Pass

Location:	FR_LP1	FR_LP1
Sample ID:	FR_LP1_MON_2017-12-04_N	WS_2017-12-04_072
Date Sampled:	12/11/2017	12/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	309	311	0.65%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	4.2	4	4.88%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	314	315	0.32%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	0.0036	18.18%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0321	0.0294	8.78%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00063	0.00062	1.60%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00060	0.0006	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00031	0.0003	3.28%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00034	0.00034	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0462	0.0463	0.22%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0552	0.0538	2.57%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.031	0.032	3.17%	Pass
BORON, T	0.01	0.01	mg/l	0.030	0.031	3.28%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000597	6.52e-005	8.81%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000824	7.24e-005	12.92%	Pass
CALCIUM, D	0.05	0.05	mg/l	185	187	1.08%	Pass
CALCIUM, T	0.05	0.05	mg/l	167	167	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.89	3.04	5.06%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00022	0.00018	20.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00039	0.00038	2.60%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00052	0.00048	8.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1680	1700	1.18%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00058	0.00063	8.26%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00088	0.00082	7.06%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.19	0.19	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1020	1010	0.99%	Pass
ION BALANCE	100	100	%	93.7	93	0.75%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.043	0.037	15.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000053	<5e-005	5.83%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0571	0.0579	1.39%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0599	0.0594	0.84%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	135	131	3.01%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	134	127	5.36%	Pass
MAJOR ANION SUM	0	0	meq/l	22.0	22	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	20.7	20.5	0.97%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0114	0.0116	1.74%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0181	0.0172	5.10%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00068	0.0006	12.50%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00381	0.00376	1.32%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00362	0.0037	2.19%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00596	0.00594	0.34%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00682	0.00646	5.42%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	5.16	5.04	2.35%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0277	0.0277	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0720	0.0758	5.14%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0213	0.0209	1.90%	Pass

OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	325	287	12.42%	Pass
pH, LAB	0.1	0.1	ph units	8.29	8.29	0.00%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0313	0.0297	5.25%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.79	3.87	2.09%	Pass
POTASSIUM, T	0.05	0.05	mg/l	4.18	4.27	2.13%	Pass
SELENIUM, D	0.05	0.05	ug/l	68.2	67.3	1.33%	Pass
SELENIUM, T	0.05	0.05	ug/l	69.6	66.4	4.71%	Pass
SILICON, D	0.05	0.05	mg/l	2.25	2.22	1.34%	Pass
SILICON, T	0.1	0.1	mg/l	2.78	2.67	4.04%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	5.07	5.06	0.20%	Pass
SODIUM, T	0.05	0.05	mg/l	5.35	5.07	5.37%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.187	0.183	2.16%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.181	0.179	1.11%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	740	736	0.54%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000028	2.9e-005	3.51%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000029	2.8e-005	3.51%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1380	1330	3.69%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.693	0.684	1.31%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.76	2.84	2.86%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	4.1	4.1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	3.18	2.88	9.90%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00518	0.00528	1.91%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00495	0.00494	0.20%	Pass
VANADIUM, D	0.0005	< 0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00068	0.00062	9.23%	Pass
ZINC, D	0.003	0.003	mg/l	0.0362	0.0356	1.67%	Pass
ZINC, T	0.003	0.003	mg/l	0.0396	0.0439	10.30%	Pass

Location:	FR_SKP2H	FR_SKP2H
Sample ID:	FR_SKP2H-WS-201710231312	FR_DC1-WS-201710231312
Date Sampled:	10/23/2017	10/23/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	5.8	6.6	12.90%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	219	206	6.12%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	219	206	6.12%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00050	0.00054	7.69%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00051	0.00051	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00011	0.0001	9.52%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0337	0.0369	9.07%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0375	0.0374	0.27%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.024	0.026	8.00%	Pass
BORON, T	0.01	0.01	mg/l	0.026	0.026	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000576	6.84e-005	17.14%	Pass
CALCIUM, D	0.05	0.05	mg/l	225	245	8.51%	Pass
CALCIUM, T	0.05	0.05	mg/l	245	241	1.65%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.69	0.57	19.05%	Pass
Cation - Anion Balance	0	0	%	6.7	7.9	16.44%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	6.9	93.62%	Pass-1
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	0.0002	66.67%	Pass-1

COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1720	1720	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.11	0.12	8.70%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1110	1140	2.67%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0728	0.0724	0.55%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0702	0.0773	9.63%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	134	129	3.80%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	128	129	0.78%	Pass
MAJOR ANION SUM	0	0	meq/l	19.6	19.7	0.51%	Pass
MAJOR CATION SUM	0	0	meq/l	22.5	23.1	2.63%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	< 0.00010	0.00023	78.79%	Pass-1
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00149	0.00166	10.79%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00153	0.00151	1.32%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0236	0.0256	8.13%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0264	0.027	2.25%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	65.0	65.8	1.22%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0594	0.0635	6.67%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0109	74.21%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	300	223	29.45%	Pass-1
pH, LAB	0.1	0.1	ph units	8.01	8.02	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	<0.002	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	4.37	4.37	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	4.25	4.22	0.71%	Pass
SELENIUM, D	0.05	0.05	ug/l	200	192	4.08%	Pass
SELENIUM, T	0.05	0.05	ug/l	191	191	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	1.91	1.88	1.58%	Pass
SILICON, T	0.1	0.1	mg/l	1.96	1.99	1.52%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	3.53	3.55	0.56%	Pass
SODIUM, T	0.05	0.05	mg/l	3.28	3.36	2.41%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.251	0.281	11.28%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.256	0.255	0.39%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	510	516	1.17%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000031	3.3e-005	6.25%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000031	3e-005	3.28%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1510	1500	0.66%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	0.504	163.90%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.79	0.72	9.27%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.4	33.33%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.26	0.24	8.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00950	0.00986	3.72%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00955	0.00978	2.38%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_SP1	FR_SP1
Sample ID:	FR_SP1_MON_2017-10-02_N	WS_2017-10-02_033
Date Sampled:	10/11/2017	10/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units	Primary vs. Duplicate	Category1
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ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	8.6	6.8	23.38%	Pass-2
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	261	257	1.54%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	261	257	1.54%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	0.0039	26.09%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00010	0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0183	0.0186	1.63%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0192	0.0188	2.11%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.020	0.02	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.021	0.021	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000946	0.000115	19.47%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000224	0.000214	4.57%	Pass
CALCIUM, D	0.05	0.05	mg/l	161	162	0.62%	Pass
CALCIUM, T	0.05	0.05	mg/l	162	166	2.44%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.25	1.37	9.16%	Pass
Cation - Anion Balance	0	0	%	8.3	9.4	12.43%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00013	0.00012	8.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	957	964	0.73%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.18	0.23	24.39%	Pass-1
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	769	781	1.55%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0525	0.0529	0.76%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0532	0.0538	1.12%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	89.2	91.6	2.65%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	89.3	91.2	2.11%	Pass
MAJOR ANION SUM	0	0	meq/l	13.2	13.1	0.76%	Pass
MAJOR CATION SUM	0	0	meq/l	15.5	15.8	1.92%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00081	0.00085	4.82%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00096	0.00111	14.49%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000435	0.000449	3.17%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000471	0.000456	3.24%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00431	0.00448	3.87%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00458	0.00447	2.43%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.341	0.318	6.98%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	0.0058	14.81%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0234	0.0187	22.33%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	0.0017	51.85%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	285	293	2.77%	Pass
pH, LAB	0.1	0.1	ph units	8.20	8.14	0.73%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	<0.002	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.54	3.77	6.29%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.72	3.77	1.34%	Pass
SELENIUM, D	0.05	0.05	ug/l	6.25	6.1	2.43%	Pass
SELENIUM, T	0.05	0.05	ug/l	5.71	5.45	4.66%	Pass
SILICON, D	0.05	0.05	mg/l	2.03	2.08	2.43%	Pass
SILICON, T	0.1	0.1	mg/l	2.14	2.2	2.76%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.95	2.04	4.51%	Pass
SODIUM, T	0.05	0.05	mg/l	2.01	2.03	0.99%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.171	0.166	2.97%	Pass

STRONTIUM, T	0.0002	0.0002	mg/l	0.179	0.174	2.83%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	380	381	0.26%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000026	2.6e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000024	2.7e-005	11.76%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	910	919	0.98%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.123	0.14	12.93%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.35	1.1	20.41%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.0	3.6	113.04%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.23	0.47	68.57%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.00541	0.00542	0.18%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00555	0.00532	4.23%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0030	0.0038	23.53%	Pass-1

Location:	FR_SP1	FR_SP1
Sample ID:	FR_SP1_MON_2017-11-06_N	WS_2017-11-06_071
Date Sampled:	11/20/2017	11/20/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.6	3.4	26.67%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	338	346	2.34%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	338	346	2.34%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00010	0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0174	0.0177	1.71%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0177	0.0183	3.33%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.020	0.02	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.023	0.023	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000669	6.79e-005	1.48%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000196	0.000214	8.78%	Pass
CALCIUM, D	0.05	0.05	mg/l	170	164	3.59%	Pass
CALCIUM, T	0.05	0.05	mg/l	176	180	2.25%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.28	1.25	2.37%	Pass
Cation - Anion Balance	0	0	%	8.2	6.8	18.67%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00010	0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1100	1100	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.28	0.29	3.51%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	820	803	2.09%	Pass
ION BALANCE	100	100	%	118	115	2.58%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.011	0.012	8.70%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0514	0.0514	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0545	0.0568	4.13%	Pass

MAGNESIUM, D	0.1	0.1	mg/l	95.9	95.2	0.73%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	95.6	94.1	1.58%	Pass
MAJOR ANION SUM	0	0	meq/l	14.1	14.1	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	16.6	16.2	2.44%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00223	0.00227	1.78%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00246	0.00249	1.21%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000500	0.000481	3.87%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000477	0.000495	3.70%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00409	0.00413	0.97%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00427	0.00427	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.122	0.119	2.49%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0051	<0.005	1.98%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0315	0.0287	9.30%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	299	310	3.61%	Pass
pH, LAB	0.1	0.1	ph units	8.00	7.99	0.13%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0016	0.0017	6.06%	Pass
POTASSIUM, D	0.05	0.05	mg/l	4.07	3.99	1.99%	Pass
POTASSIUM, T	0.05	0.05	mg/l	4.02	3.98	1.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	5.11	5.17	1.17%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.65	4.7	1.07%	Pass
SILICON, D	0.05	0.05	mg/l	2.29	2.31	0.87%	Pass
SILICON, T	0.1	0.1	mg/l	2.55	2.6	1.94%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.92	1.92	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	1.99	2.05	2.97%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.182	0.182	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.177	0.181	2.23%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	350	346	1.15%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000019	2e-005	5.13%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000021	2.3e-005	9.09%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	959	948	1.15%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.143	0.166	14.89%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.29	1.25	3.15%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.40	0.41	2.47%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00421	0.00411	2.40%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00449	0.00458	1.98%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0031	0.0031	0.00%	Pass

Location:	FR_UFR1	FR_UFR1
Sample ID:	FR_UFR1_M_03042017_N	FD_M_03042017_124
Date Sampled:	4/4/2017	4/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.8	1.8	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	127	126	0.79%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	127	126	0.79%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0042	0.0049	15.38%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0208	0.0252	19.13%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	0.0002	66.67%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0732	0.0717	2.07%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0635	0.0718	12.27%	Pass

BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000111	7.1e-006	43.96%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000247	2.06e-005	18.10%	Pass
CALCIUM, D	0.05	0.05	mg/l	43.3	46.8	7.77%	Pass
CALCIUM, T	0.05	0.05	mg/l	38.6	47.3	20.26%	Pass-2
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.37	1.42	3.58%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	0.00016	20.69%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	< 0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	300	298	0.67%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	0.00025	22.22%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.121	0.126	4.05%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	160	172	7.23%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.016	0.017	6.06%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0017	0.0015	12.50%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0015	0.0015	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	12.7	13.5	6.11%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	11.3	13.5	17.74%	Pass
MAJOR ANION SUM	0	0	meq/l	3.34	3.32	0.60%	Pass
MAJOR CATION SUM	0	0	meq/l	3.25	3.49	7.12%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00019	0.00019	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00063	0.00072	13.33%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00059	0.00063	6.56%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000485	0.000583	18.35%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000527	0.000617	15.73%	Pass
NICKEL, D	0.0005	< 0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.157	0.149	5.23%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0049	0.0048	2.06%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	420	430	2.35%	Pass
pH, LAB	0.1	0.1	ph units	8.11	8.12	0.12%	Pass
PHOSPHORUS	0.002	0.01	mg/l	0.0049	0.01	68.46%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	0.390	0.425	8.59%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.380	0.429	12.11%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.834	0.843	1.07%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.768	1.35	54.96%	Fail
SILICON, D	0.05	0.05	mg/l	1.97	2	1.51%	Pass
SILICON, T	0.05	0.05	mg/l	1.81	3.37	60.23%	Fail
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.754	0.746	1.07%	Pass
SODIUM, T	0.05	0.05	mg/l	0.744	0.759	2.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0805	0.0848	5.20%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0724	0.0871	18.43%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	37.6	37.6	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000015	<1e-005	40.00%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	201	171	16.13%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.059	0.061	3.33%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.57	2.09	28.42%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.84	0.86	2.35%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000399	0.00039	2.28%	Pass

URANIUM, T	0.0001	0.0001	mg/l	0.000391	0.000416	6.20%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0056	<0.003	60.47%	Pass-1

Location:	FR_UFR1	FR_UFR1
Sample ID:	FR_UFR1_MON_2017-12-04_N	WS_2017-12-04_071
Date Sampled:	12/21/2017	12/21/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.5	2.5	50.00%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	145	146	0.69%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	145	146	0.69%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	0.0032	6.45%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0080	0.0083	3.68%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0697	0.073	4.63%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0714	0.0711	0.42%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	1.17e-005	80.24%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	53.5	52.5	1.89%	Pass
CALCIUM, T	0.05	0.05	mg/l	55.3	53.3	3.68%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.73	0.75	2.70%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00017	0.00021	21.05%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	372	368	1.08%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.115	0.101	12.96%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	189	187	1.06%	Pass
ION BALANCE	100	100	%	98.1	96.9	1.23%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0015	0.0015	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0015	0.0012	22.22%	Pass-1
MAGNESIUM, D	0.1	0.1	mg/l	13.5	13.7	1.47%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	15.0	14.3	4.78%	Pass
MAJOR ANION SUM	0	0	meq/l	3.89	3.91	0.51%	Pass
MAJOR CATION SUM	0	0	meq/l	3.82	3.79	0.79%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00014	<0.0001	33.33%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00045	0.00052	14.43%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	0.00051	1.98%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000544	0.000551	1.28%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000588	0.000544	7.77%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.159	0.169	6.10%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	0.0034	109.09%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.005	0.00%	Pass

ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0034	0.0058	52.17%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	348	414	17.32%	Pass
pH, LAB	0.1	0.1	ph units	8.13	8.16	0.37%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0043	0.0049	13.04%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.383	0.403	5.09%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.381	0.372	2.39%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.674	0.758	11.73%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.775	0.721	7.22%	Pass
SILICON, D	0.05	0.05	mg/l	1.81	1.85	2.19%	Pass
SILICON, T	0.1	0.1	mg/l	1.97	1.93	2.05%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.674	0.706	4.64%	Pass
SODIUM, T	0.05	0.05	mg/l	0.735	0.718	2.34%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0916	0.0988	7.56%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0969	0.0925	4.65%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	46.7	47.1	0.85%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	226	219	3.15%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.053	0.067	23.33%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.85	0.87	2.33%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.55	0.5	9.52%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000473	0.000506	6.74%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000510	0.000496	2.78%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_UFR1	FR_UFR1
Sample ID:	FR_UFR1_OR_17072017_N	FR_DC1-WS-201708080914
Date Sampled:	8/8/2017	8/8/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	146	145	0.69%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.2	4.2	21.28%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	151	149	1.33%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0045	0.0045	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00015	0.00014	6.90%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0767	0.0847	9.91%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0746	0.0753	0.93%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000096	8.9e-006	7.57%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000120	9.9e-006	19.18%	Pass
CALCIUM, D	0.05	0.05	mg/l	50.2	52.9	5.24%	Pass
CALCIUM, T	0.05	0.05	mg/l	53.7	52.5	2.26%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.88	0.82	7.06%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.11	0.11	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00022	0.00019	14.63%	Pass

COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	350		3.19%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.158	0.158	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	182	195	6.90%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0021	0.0021	17.39%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0018	0.0017	5.71%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	13.7	15.3	11.03%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	13.0	13.2	1.53%	Pass
MAJOR ANION SUM	0	0	meq/l	3.81	3.76	1.32%	Pass
MAJOR CATION SUM	0	0	meq/l	3.68	3.94	6.82%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00062	0.00059	4.96%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000659	0.000667	1.21%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000676	0.000673	0.44%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0115	0.0113	1.75%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0027	0.0022	20.41%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	372	380	2.13%	Pass
pH, LAB	0.1	0.1	ph units	8.42	8.36	0.72%	Pass
PHOSPHORUS	0.002	0.004	mg/l	0.0030	0.0046	42.11%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	0.500	0.469	6.40%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.465	0.472	1.49%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.549	0.615	11.34%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.608	0.601	1.16%	Pass
SILICON, D	0.05	0.05	mg/l	2.07	2.24	7.89%	Pass
SILICON, T	0.1	0.1	mg/l	2.11	2.07	1.91%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.734	0.821	11.19%	Pass
SODIUM, T	0.05	0.05	mg/l	0.683	0.695	1.74%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.100	0.102	1.98%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.101	0.0982	2.81%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	37.1	37	0.27%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	218	209	4.22%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.10	1.15	4.44%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.1	9.52%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.20	0.25	22.22%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.000466	0.000495	6.04%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000435	0.000433	0.46%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	FR_UFR1	FR_UFR1
Sample ID:	FR_UFR1_W_17042017_N	FD_W_17042017_123
Date Sampled:	4/18/2017	4/18/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units	Primary vs. Duplicate	Category1
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TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.0	1.9	5.13%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	4.24	4.48	5.50%	Pass

Location:	GH_CC1	GH_CC1
Sample ID:	GH_CC1_M_02012017_N	FD_M_02012017_099
Date Sampled:	1/10/2017	1/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	21.4	20.8	2.84%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	459	452	1.54%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	459	452	1.54%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00052	0.00052	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00054	0.00052	3.77%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.00017	5.71%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00026	0.00027	3.77%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0218	0.0236	7.93%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0227	0.0219	3.59%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000142	0.000165	14.98%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000146	0.000153	4.68%	Pass
CALCIUM, D	0.05	0.05	mg/l	460	459	0.22%	Pass
CALCIUM, T	0.05	0.05	mg/l	478	478	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.87	1.71	8.94%	Pass
CHLORIDE, D	2.5	2.5	mg/l	5.9	5.9	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	3260	3200	1.86%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	2580	2640	2.30%	Pass
ION BALANCE	0	0	%	3.7	4.5	19.51%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0734	0.0744	1.35%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0750	0.0748	0.27%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	348	362	3.94%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	359	356	0.84%	Pass
MAJOR ANION SUM	0	0	meq/l	48.1	48.4	0.62%	Pass
MAJOR CATION SUM	0	0	meq/l	51.8	52.9	2.10%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00048	0.0005	4.08%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00058	0.00051	12.84%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00312	0.00315	0.96%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00333	0.00332	0.30%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0455	0.0473	3.88%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0465	0.0458	1.52%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	27.9	29.7	6.25%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0079	0.0071	10.67%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	0.0013	26.09%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	380	388	2.08%	Pass
pH, LAB	0.1	0.1	ph units	7.94	7.97	0.38%	Pass

PHOSPHORUS	0.002	0.002	mg/l	0.0050	0.0054	7.69%	Pass
POTASSIUM, D	0.05	0.05	mg/l	4.69	4.87	3.77%	Pass
POTASSIUM, T	0.05	0.05	mg/l	4.99	4.96	0.60%	Pass
SELENIUM, D	0.05	0.05	ug/l	717	792	9.94%	Pass
SELENIUM, T	0.05	0.05	ug/l	680	658	3.29%	Pass
SILICON, D	0.05	0.05	mg/l	2.84	2.92	2.78%	Pass
SILICON, T	0.05	0.05	mg/l	2.99	2.89	3.40%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.08	2.12	1.90%	Pass
SODIUM, T	0.05	0.05	mg/l	2.15	2.1	2.35%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.251	0.251	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.259	0.26	0.39%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	1770	1780	0.56%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000052	5e-005	3.92%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000050	5.3e-005	5.83%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	0.00027	91.89%	Pass-1
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	40	40	mg/l	3000	2940	2.02%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.843	0.901	6.65%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.01	2.1	4.38%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.13	0.17	26.67%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.0203	0.0193	5.05%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0209	0.0209	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0090	0.0093	3.28%	Pass
ZINC, T	0.003	0.003	mg/l	0.0089	0.0087	2.27%	Pass

Location:	GH_CC1	GH_CC1
Sample ID:	GH_CC1_M_06022017_N	FD_M_06022017_108
Date Sampled:	2/9/2017	2/9/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	18.0	18.7	3.81%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	451	453	0.44%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	451	453	0.44%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00052	0.00057	9.17%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00060	0.00065	8.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00017	0.00017	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00024	0.00023	4.26%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0222	0.0211	5.08%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0223	0.0223	0.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.011	<0.01	9.52%	Pass
BORON, T	0.01	0.01	mg/l	0.010	0.011	9.52%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000343	3.92e-005	13.33%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000104	0.000106	1.90%	Pass
CALCIUM, D	0.05	0.05	mg/l	428	429	0.23%	Pass
CALCIUM, T	0.05	0.05	mg/l	438	445	1.59%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.76	1.76	0.00%	Pass
CHLORIDE, D	2.5	2.5	mg/l	6.3	5.9	6.56%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	3300	3280	0.61%	Pass

COPPER, D	0.0002	0.0002	mg/l	0.00026	<0.0002	26.09%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.13	0.13	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	2440	2400	1.65%	Pass
ION BALANCE	0	0	%	1.4	0.5	94.74%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0730	0.0721	1.24%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0716	0.0745	3.97%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	334	322	3.66%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	337	338	0.30%	Pass
MAJOR ANION SUM	0	0	meq/l	47.7	47.7	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	49.0	48.1	1.85%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00038	0.00036	5.41%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00040	0.00045	11.76%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00329	0.00323	1.84%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00336	0.00345	2.64%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0430	0.0414	3.79%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0428	0.0435	1.62%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	27.6	27.6	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0052	<0.005	3.92%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	413	416	0.72%	Pass
pH, LAB	0.1	0.1	ph units	7.96	7.96	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0047	0.005	6.19%	Pass
POTASSIUM, D	0.05	0.05	mg/l	4.93	4.74	3.93%	Pass
POTASSIUM, T	0.05	0.05	mg/l	4.85	4.9	1.03%	Pass
SELENIUM, D	0.05	0.05	ug/l	746	757	1.46%	Pass
SELENIUM, T	0.05	0.05	ug/l	671	671	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	2.75	2.91	5.65%	Pass
SILICON, T	0.05	0.05	mg/l	2.90	2.9	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.89	1.83	3.23%	Pass
SODIUM, T	0.05	0.05	mg/l	1.90	1.92	1.05%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.249	0.246	1.21%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.253	0.257	1.57%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	1750	1750	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000050	5.5e-005	9.52%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000054	5.6e-005	3.64%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	40	40	mg/l	3190	3080	3.51%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.191	<0.05	117.01%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.69	1.69	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.15	0.16	6.45%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0206	0.0206	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0214	0.0218	1.85%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0035	0.0033	5.88%	Pass
ZINC, T	0.003	0.003	mg/l	0.0069	0.0069	0.00%	Pass

Location:	GH_CC1	GH_CC1
Sample ID:	GH_CC1_M_06032017_N	FD_M_06032017_116
Date Sampled:	3/6/2017	3/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	16.8	18.4	9.09%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	445	445	0.00%	Pass

ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	445	445	0.00%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	0.0035	15.38%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00052	0.00053	1.90%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00064	0.00076	17.14%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00011	0.00015	30.77%	Pass-1
ARSENIC, T	0.0001	0.0001	mg/l	0.00018	0.00017	5.71%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0210	0.0242	14.16%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0237	0.0244	2.91%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000483	4.3e-005	11.61%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000904	0.000133	38.14%	Pass-2
CALCIUM, D	0.05	0.05	mg/l	409	409	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	417	423	1.43%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.62	1.8	10.53%	Pass
CHLORIDE, D	2.5	2.5	mg/l	6.4	6	6.45%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	0.00015	14.29%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	3160	3130	0.95%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00136	0.00128	6.06%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.11	0.11	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	2280	2520	10.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0664	0.0706	6.13%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0648	0.0663	2.29%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	305	363	17.37%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	343	344	0.29%	Pass
MAJOR ANION SUM	0	0	meq/l	49.7	49.6	0.20%	Pass
MAJOR CATION SUM	0	0	meq/l	45.7	50.4	9.78%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00046	0.00048	4.26%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00065	0.00072	10.22%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00312	0.00307	1.62%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00327	0.00323	1.23%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0369	0.0435	16.42%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0438	0.0451	2.92%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	30.3	30.1	0.66%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	382	384	0.52%	Pass
pH, LAB	0.1	0.1	ph units	8.00	8	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0062	0.0186	100.00%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	4.18	4.5	7.37%	Pass
POTASSIUM, T	0.05	0.05	mg/l	4.64	4.64	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	538	515	4.37%	Pass
SELENIUM, T	0.05	0.05	ug/l	552	535	3.13%	Pass
SILICON, D	0.05	0.05	mg/l	2.69	2.57	4.56%	Pass
SILICON, T	0.05	0.05	mg/l	2.81	2.72	3.25%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.63	1.83	11.56%	Pass
SODIUM, T	0.05	0.05	mg/l	1.88	1.87	0.53%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.253	0.251	0.79%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.263	0.261	0.76%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	1850	1840	0.54%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000055	6e-005	8.70%	Pass

THALLIUM, T	0.00001	0.00001	mg/l	0.000061	6.3e-005	3.23%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	40	40	mg/l	2900	2960	2.05%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.133	<0.05	90.71%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.01	1.78	12.14%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	7.8	11	34.04%	Pass-2
TURBIDITY, LAB	0.1	0.1	ntu	0.19	0.29	41.67%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.0198	0.0196	1.02%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0218	0.0214	1.85%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00057	0.00052	9.17%	Pass
ZINC, D	0.001	0.001	mg/l	0.0037	0.0039	5.26%	Pass
ZINC, T	0.003	0.003	mg/l	0.0059	0.0076	25.19%	Pass-1

Location:	GH_CC1	GH_CC1
Sample ID:	GH_CC1_W_10042017_N	FD_W_10042017_118
Date Sampled:	4/12/2017	4/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	< 0.10	0.2	66.67%	Pass-1

Location:	GH_CC1	GH_CC1
Sample ID:	GH_CC1_W_15032017_N	FD_W_15032017_098
Date Sampled:	3/15/2017	3/15/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	2	66.67%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.14	0.15	6.90%	Pass

Location:	GH_SC1	GH_SC1
Sample ID:	GH_SC1_M_01052017_N	FD_M_01052017_133
Date Sampled:	5/3/2017	5/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	6.7	6.2	7.75%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	279	277	0.72%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	279	277	0.72%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0026	0.0045	53.52%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0602	0.0703	15.48%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00071	0.00073	2.78%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00070	0.0007	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00016	0.00014	13.33%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00026	0.00028	7.41%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0268	0.0268	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0291	0.0299	2.71%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	2.4e-005	18.18%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000628	0.000628	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000627	0.000635	1.27%	Pass

CALCIUM, D	0.05	0.05	mg/l	269	265	1.50%	Pass
CALCIUM, T	0.05	0.05	mg/l	268	262	2.26%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.46	2.39	2.89%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00022	0.00019	14.63%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00025	0.00025	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	2220	2210	0.45%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00071	0.00061	15.15%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00144	0.00154	6.71%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.12	0.13	8.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1430	1420	0.70%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.128	0.128	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000167	0.00016	4.28%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0461	0.044	4.66%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0459	0.0451	1.76%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	185	184	0.54%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	175	176	0.57%	Pass
MAJOR ANION SUM	0	0	meq/l	30.7	30.6	0.33%	Pass
MAJOR CATION SUM	0	0	meq/l	28.8	28.5	1.05%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00383	0.00385	0.52%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00644	0.0061	5.42%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00213	0.00225	5.48%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00555	0.00543	2.19%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00577	0.00564	2.28%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0368	0.0362	1.64%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0345	0.0341	1.17%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	19.6	19.6	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0157	0.0154	1.93%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	389	422	8.14%	Pass
pH, LAB	0.1	0.1	ph units	8.18	8.15	0.37%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0149	0.0146	2.03%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.81	3.76	1.32%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.60	3.63	0.83%	Pass
SELENIUM, D	0.05	0.05	ug/l	508	485	4.63%	Pass
SELENIUM, T	0.05	0.05	ug/l	463	444	4.19%	Pass
SILICON, D	0.05	0.05	mg/l	2.04	2.06	0.98%	Pass
SILICON, T	0.05	0.05	mg/l	2.14	2.16	0.93%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.63	1.61	1.23%	Pass
SODIUM, T	0.05	0.05	mg/l	2.22	1.58	33.68%	Pass-2
STRONTIUM, D	0.0002	0.0002	mg/l	0.159	0.155	2.55%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.160	0.156	2.53%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	1140	1140	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000030	3.1e-005	3.28%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000035	3.7e-005	5.56%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	40	40	mg/l	2100	2010	4.38%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.403	0.61	40.87%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.91	3.9	0.26%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	21.2	17.8	17.44%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	17.4	17.5	0.57%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00919	0.00917	0.22%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00909	0.00907	0.22%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00060	0.00067	11.02%	Pass
ZINC, D	0.001	0.001	mg/l	0.0316	0.0322	1.88%	Pass
ZINC, T	0.003	0.003	mg/l	0.0318	0.0318	0.00%	Pass

Location:	GH_SC1	GH_SC1
Sample ID:	GH_SC1_M_03072017_N	FD_M_03072017_149
Date Sampled:	7/5/2017	7/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.3	4	7.23%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	261	261	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	261	261	0.00%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0021	0.003	35.29%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0070	0.0069	1.44%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00082	0.00081	1.23%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00081	0.00089	9.41%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00013	0.00014	7.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00024	0.00023	4.26%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0196	0.0202	3.02%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0201	0.0203	0.99%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000136	0.000607	126.78%	Fail
CADMIUM, T	0.000005	0.000005	mg/l	0.000622	0.000639	2.70%	Pass
CALCIUM, D	0.05	0.05	mg/l	257	269	4.56%	Pass
CALCIUM, T	0.05	0.05	mg/l	271	272	0.37%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.69	3.14	15.44%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	2210	2220	0.45%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00064	0.00074	14.49%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00079	0.00078	1.27%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.16	0.11	37.04%	Pass-1
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1350	1420	5.05%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0483	0.0486	0.62%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0495	0.0488	1.42%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	172	182	5.65%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	182	181	0.55%	Pass
MAJOR ANION SUM	0	0	meq/l	30.3	29.8	1.66%	Pass
MAJOR CATION SUM	0	0	meq/l	27.1	28.5	5.04%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00195	0.00243	21.92%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.00317	0.00318	0.31%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00084	0.00083	1.20%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00476	0.0047	1.27%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00481	0.00481	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0342	0.0354	3.45%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0341	0.0351	2.89%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	15.1	14.8	2.01%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0199	0.0191	4.10%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0051	0.0071	32.79%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	0.0033	106.98%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	502	501	0.20%	Pass
pH, LAB	0.1	0.1	ph units	8.19	8.21	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0038	0.0032	17.14%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.83	3.81	0.52%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.76	3.81	1.32%	Pass
SELENIUM, D	0.05	0.05	ug/l	457	432	5.62%	Pass
SELENIUM, T	0.05	0.05	ug/l	427	421	1.42%	Pass
SILICON, D	0.05	0.05	mg/l	1.54	1.54	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	1.60	1.65	3.08%	Pass

SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.32	1.34	1.50%	Pass
SODIUM, T	0.05	0.05	mg/l	1.30	1.32	1.53%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.154	0.157	1.93%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.155	0.158	1.92%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	1150	1130	1.75%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000036	3.8e-005	5.41%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000037	4e-005	7.79%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	2030	2120	4.34%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.487	0.548	11.79%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.60	2.86	9.52%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.1	1.5	30.77%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.92	0.93	1.08%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0101	0.0104	2.93%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0105	0.0103	1.92%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0073	0.0287	118.89%	Fail
ZINC, T	0.003	0.003	mg/l	0.0298	0.0301	1.00%	Pass

Location:	GH_SC1	GH_SC1
Sample ID:	GH_SC1_W_12062017_N	FD_W_12062017_163
Date Sampled:	6/13/2017	6/13/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.3	1.9	19.05%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.47	1.48	0.68%	Pass

Location:	GH_SC1	GH_SC1
Sample ID:	GH_SC1_W_19062017_N	FD_W_19062017_168
Date Sampled:	6/19/2017	6/19/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.1	<1	9.52%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.24	1.17	5.81%	Pass

Location:	GH_BR_F	GH_BR_F
Sample ID:	GH_BR_F_WS_2017-04-18_N	GH_BR_F_WS_2017-04-18_FD
Date Sampled:	4/18/2017	4/18/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	113	116	2.62%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	113	116	2.62%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0324	0.0325	0.31%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.146	0.152	4.03%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00010	0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00019	0.00018	5.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00022	0.00021	4.65%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.115	0.116	0.87%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.106	0.11	3.70%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	0.00388	194.91%	Pass-1
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000169	1.44e-005	15.97%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000251	2.39e-005	4.90%	Pass
CALCIUM, D	0.05	0.05	mg/l	31.3	29.9	4.58%	Pass
CALCIUM, T	0.05	0.05	mg/l	28.7	27.3	5.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	6.43	6.51	1.24%	Pass
CHLORIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00025	0.00028	11.32%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	208	204	1.94%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00114	0.00099	14.08%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00110	0.00115	4.44%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.102	0.102	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	127	121	4.84%	Pass
ION BALANCE	0	0	%	5.1	1.4	113.85%	Fail
IRON, D	0.01	0.01	mg/l	0.037	0.037	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.139	0.147	5.59%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000090	8.7e-005	3.39%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0054	0.0051	5.71%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0053	0.0049	7.84%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	11.9	11.2	6.06%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	10.6	10.9	2.79%	Pass
MAJOR ANION SUM	0	0	meq/l	2.37	2.42	2.09%	Pass
MAJOR CATION SUM	0	0	meq/l	2.63	2.49	5.47%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00030	0.00031	3.28%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00242	0.00238	1.67%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00599	0.00594	0.84%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000326	0.000336	3.02%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000344	0.000332	3.55%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00111	0.00109	1.82%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00125	0.0013	3.92%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.265	0.264	0.38%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0152	0.0154	1.31%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	253	250	1.19%	Pass
pH, LAB	0.1	0.1	ph units	8.19	8.2	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0209	0.0214	2.36%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.574	0.554	3.55%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.539	0.568	5.24%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.608	0.627	3.08%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.704	0.729	3.49%	Pass
SILICON, D	0.05	0.05	mg/l	2.58	2.59	0.39%	Pass
SILICON, T	0.1	0.1	mg/l	2.78	2.86	2.84%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000011	1e-005	9.52%	Pass
SODIUM, D	0.05	0.05	mg/l	1.54	1.44	6.71%	Pass
SODIUM, T	0.05	0.05	mg/l	1.30	1.41	8.12%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0768	0.0728	5.35%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0729	0.0682	6.66%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	3.99	3.98	0.25%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	10	10	mg/l	138	137	0.73%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.316	0.291	8.24%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	7.71	7.38	4.37%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	4.0	6.2	43.14%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	3.06	3.15	2.90%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000185	0.000179	3.30%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000180	0.000178	1.12%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

VANADIUM, T	0.0005	0.0005	mg/l	0.00067	0.00072	7.19%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_CTF	GH_CTF
Sample ID:	GH_CTF_WS_2017-04-27_NP	GH_CTF_WS_2017-04-27_FD
Date Sampled:	4/27/2017	4/27/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.9	3.2	9.84%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	255	263	3.09%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0066	0.006	9.52%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.186	0.208	11.17%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00089	0.00089	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00090	0.00082	9.30%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00022	0.00025	12.77%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00045	0.0004	11.76%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0430	0.043	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0490	0.0485	1.03%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000026	3.2e-005	20.69%	Pass-1
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.25	mg/l	< 0.050	<0.25	133.33%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	0.000385	0.000382	0.78%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000518	0.000498	3.94%	Pass
CALCIUM, D	0.05	0.05	mg/l	122	121	0.82%	Pass
CALCIUM, T	0.05	0.05	mg/l	118	116	1.71%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.94	2.65	10.38%	Pass
CHLORIDE, D	0.5	2.5	mg/l	0.75	<2.5	107.69%	Pass-1
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00043	0.00045	4.55%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00066	0.00064	3.08%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1030	1040	0.97%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00050	0.00049	2.02%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00146	0.00137	6.36%	Pass
FLUORIDE, D	0.02	0.1	mg/l	0.078	<0.1	24.72%	Pass-1
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	595	599	0.67%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.391	0.406	3.76%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000436	0.000436	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0083	0.0084	1.20%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0081	0.0079	2.50%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	70.9	72.3	1.96%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	71.2	70.8	0.56%	Pass
MAJOR ANION SUM	0	0	meq/l	12.4	12.7	2.39%	Pass
MAJOR CATION SUM	0	0	meq/l	12.0	12.1	0.83%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00978	0.00999	2.12%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0243	0.0236	2.92%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.05	0.05	ug/l	< 0.000050	<5e-005	199.60%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00306	0.00308	0.65%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00314	0.00307	2.25%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0247	0.0249	0.81%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0260	0.0254	2.33%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.025	mg/l	4.85	4.87	0.41%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.005	mg/l	0.0014	<0.005	112.50%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0064	0.0055	15.13%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0104	0.0097	6.97%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	389	292	28.49%	Pass-1
pH, LAB	0.1	0.1	ph units	8.34	8.35	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0467	0.0378	21.07%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	2.05	2.07	0.97%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.10	2.1	0.00%	Pass

SELENIUM, D	0.05	0.05	ug/l	86.7	87.3	0.69%	Pass
SELENIUM, T	0.05	0.05	ug/l	78.9	76.3	3.35%	Pass
SILICON, D	0.05	0.05	mg/l	2.99	2.98	0.34%	Pass
SILICON, T	0.05	0.05	mg/l	3.15	3.13	0.64%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000012	1.4e-005	15.38%	Pass
SODIUM, D	0.05	0.05	mg/l	1.27	1.29	1.56%	Pass
SODIUM, T	0.05	0.05	mg/l	1.26	1.25	0.80%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.102	0.101	0.99%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.101	0.097	4.04%	Pass
SULFATE (AS SO4), D	0.3	1.5	mg/l	332	338	1.79%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000013	1.3e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000024	2.6e-005	8.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	40	20	mg/l	904	796	12.71%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.578	0.491	16.28%	Pass
TOTAL ORGANIC CARBON, T	2.5	0.5	mg/l	5.7	4.9	15.09%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	21.7	26.1	18.41%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	20.2	21.7	7.16%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00436	0.00456	4.48%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00460	0.00449	2.42%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00120	0.00128	6.45%	Pass
ZINC, D	0.001	0.001	mg/l	0.0327	0.033	0.91%	Pass
ZINC, T	0.003	0.003	mg/l	0.0426	0.0417	2.14%	Pass

Location:	GH_ER1	GH_ER1
Sample ID:	GH_ER1_WS_2017-01-10_N	GH_ER1_WS_2017-01-10_FD
Date Sampled:	1/16/2017	1/16/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	165	159	3.70%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	165	159	3.70%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0593	0.0619	4.29%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0654	0.0675	3.16%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000061	<5e-006	19.82%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000069	7.6e-006	9.66%	Pass
CALCIUM, D	0.05	0.05	mg/l	50.6	51.8	2.34%	Pass
CALCIUM, T	0.05	0.05	mg/l	57.0	56.8	0.35%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.65	0.66	1.53%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00024	0.00022	8.70%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00026	0.00027	3.77%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	366	368	0.54%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.150	0.175	15.38%	Pass

Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	177	182	2.79%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0033	0.0029	12.90%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0030	0.0029	3.39%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	12.4	12.7	2.39%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	14.3	14.3	0.00%	Pass
MAJOR ANION SUM	0	0	meq/l	4.22	4.12	2.40%	Pass
MAJOR CATION SUM	0	0	meq/l	3.60	3.68	2.20%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00029	0.00035	18.75%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00041	0.00044	7.06%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000872	0.000882	1.14%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000961	0.00098	1.96%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.513	0.514	0.19%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	457	372	20.51%	Pass-1
pH, LAB	0.1	0.1	ph units	8.27	8.29	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	<0.002	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.408	0.401	1.73%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.435	0.463	6.24%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.69	1.82	7.41%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.79	1.77	1.12%	Pass
SILICON, D	0.05	0.05	mg/l	1.81	1.9	4.85%	Pass
SILICON, T	0.05	0.05	mg/l	2.03	2.09	2.91%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.03	1.05	1.92%	Pass
SODIUM, T	0.05	0.05	mg/l	1.16	1.16	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.205	0.211	2.88%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.227	0.226	0.44%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	41.7	41.7	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	226	218	3.60%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.50	0.76	41.27%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.17	0.18	5.71%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000741	0.00076	2.53%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000872	0.000859	1.50%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_ER1	GH_ER1
Sample ID:	GH_ER1_WS_2017-03-06_N	GH_ER1_WS_2017-03-06_FD
Date Sampled:	3/6/2017	3/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.6	1.2	28.57%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	154	154	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	154	154	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	0.0035	15.38%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0606	0.0604	0.33%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0611	0.0607	0.66%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	< 0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000065	6.3e-006	3.13%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000064	5.3e-006	18.80%	Pass
CALCIUM, D	0.05	0.05	mg/l	58.6	55.3	5.79%	Pass
CALCIUM, T	0.05	0.05	mg/l	53.7	54.8	2.03%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	< 0.5	0.00%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.55	0.55	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00021	0.00024	13.33%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00028	0.0004	35.29%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	331	330	0.30%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.146	0.146	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	203	192	5.57%	Pass
ION BALANCE	0	0	%	2.9	0.3	162.50%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0021	0.0026	21.28%	Pass-1
LITHIUM, T	0.001	0.001	mg/l	0.0024	0.0025	4.08%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	13.7	13.1	4.48%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	14.4	14.5	0.69%	Pass
MAJOR ANION SUM	0	0	meq/l	3.88	3.87	0.26%	Pass
MAJOR CATION SUM	0	0	meq/l	4.11	3.9	5.24%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00029	0.00024	18.87%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00034	0.00058	52.17%	Pass-1
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	< 5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	< 0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000941	0.000926	1.61%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000950	0.000949	0.11%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.391	0.391	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	< 0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	< 0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	< 0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	357	330	7.86%	Pass
pH, LAB	0.1	0.1	ph units	8.15	8.18	0.37%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	< 0.002	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.352	0.348	1.14%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.371	0.372	0.27%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.77	1.69	4.62%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.7	1.87	9.52%	Pass
SILICON, D	0.05	0.05	mg/l	1.77	1.74	1.71%	Pass
SILICON, T	0.05	0.05	mg/l	1.77	1.79	1.12%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.12	1.07	4.57%	Pass
SODIUM, T	0.05	0.05	mg/l	1.07	1.08	0.93%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.197	0.189	4.15%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.213	0.216	1.40%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	36.3	36.2	0.28%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass

TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	221	216	2.29%	Pass
TOTAL KjELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.12	0.12	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000792	0.000773	2.43%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000806	0.000826	2.45%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_ER1	GH_ER1
Sample ID:	GH_ER1_WS_2017-04-04_N	GH_ER1_WS_2017-04-04_FD
Date Sampled:	4/4/2017	4/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	153	155	1.30%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	4.8	3.2	40.00%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	158	158	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0155	0.0178	13.81%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0611	0.0609	0.33%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0611	0.0612	0.16%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000053	6.2e-006	15.65%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000080	6.4e-006	22.22%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	55.3	53.8	2.75%	Pass
CALCIUM, T	0.05	0.05	mg/l	57.0	55.1	3.39%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.78	0.71	9.40%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.78	0.78	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00022	0.00024	8.70%	Pass
CHROMIUM, T	0.0001	0.0003	mg/l	0.00027	<0.0003	10.53%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	372	372	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.155	0.155	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	199	192	3.58%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.013	0.015	14.29%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0030	0.0029	3.39%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0031	0.0026	17.54%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	14.8	13.9	6.27%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	14.6	14	4.20%	Pass
MAJOR ANION SUM	0	0	meq/l	4.04	4.05	0.25%	Pass
MAJOR CATION SUM	0	0	meq/l	4.03	3.9	3.28%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00066	0.00062	6.25%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00112	0.00117	4.37%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass

MERCURY, T	0.0005	0.005	ug/l	< 0.00050	<0.005	163.64%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000966	0.00106	9.28%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00100	0.00107	6.76%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.485	0.486	0.21%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	330	327	0.91%	Pass
pH, LAB	0.1	0.1	ph units	8.36	8.34	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	0.0023	13.95%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.396	0.401	1.25%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.399	0.416	4.17%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.9	1.95	2.60%	Pass
SELENIUM, T	0.05	0.05	ug/l	2	1.88	6.19%	Pass
SILICON, D	0.05	0.05	mg/l	1.86	1.86	0.00%	Pass
SILICON, T	0.05	0.05	mg/l	1.94	1.96	1.03%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.17	1.31	11.29%	Pass
SODIUM, T	0.05	0.05	mg/l	1.17	1.25	6.61%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.207	0.212	2.39%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.216	0.21	2.82%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	39.6	39.6	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	225	218	3.16%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.065	0.081	21.92%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.82	0.81	1.23%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.1	1.1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.55	0.56	1.80%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000913	0.000858	6.21%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000932	0.000906	2.83%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_ER1	GH_ER1
Sample ID:	GH_ER1_WS_2017-04-25_N	GH_ER1_WS_2017-04-25_FD
Date Sampled:	4/25/2017	4/25/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	152	153	0.66%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	4.8	4.4	8.70%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	157	157	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0572	0.0571	0.17%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00023	0.00015	42.11%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0624	0.061	2.27%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0602	0.0612	1.65%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass

CADMIUM, D	0.000005	0.000005	mg/l	0.000072	5.3e-006	30.40%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000154	1.15e-005	29.00%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	57.1	56.9	0.35%	Pass
CALCIUM, T	0.05	0.05	mg/l	56.3	56	0.53%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.96	0.78	20.69%	Pass-1
CHLORIDE, D	0.1	0.1	mg/l	0.77	0.76	1.31%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00024	0.00023	4.26%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00034	0.00038	11.11%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	366	367	0.27%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.154	0.152	1.31%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	202	202	0.00%	Pass
ION BALANCE	0	0	%	2.1	1.9	10.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.047	0.051	8.16%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0028	0.0028	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0029	0.0028	3.51%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	14.5	14.6	0.69%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	14.1	14.2	0.71%	Pass
MAJOR ANION SUM	0	0	meq/l	3.94	3.95	0.25%	Pass
MAJOR CATION SUM	0	0	meq/l	4.10	4.1	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00104	0.00108	3.77%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00374	0.00431	14.16%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00064	0.00065	1.55%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000957	0.000949	0.84%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000937	0.00094	0.32%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.493	0.493	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	287	378	27.37%	Pass-1
pH, LAB	0.1	0.1	ph units	8.37	8.39	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0045	0.0043	4.55%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.441	0.439	0.45%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.435	0.433	0.46%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.08	2.19	5.15%	Pass
SELENIUM, T	0.05	0.05	ug/l	2.21	2.05	7.51%	Pass
SILICON, D	0.05	0.05	mg/l	1.72	1.75	1.73%	Pass
SILICON, T	0.1	0.1	mg/l	1.92	1.96	2.06%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.18	1.19	0.84%	Pass
SODIUM, T	0.05	0.05	mg/l	1.16	1.15	0.87%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.218	0.213	2.32%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.213	0.21	1.42%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	35.6	35.6	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	233	207	11.82%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.067	0.091	30.38%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.04	1	3.92%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	9.9	4.3	78.87%	Fail
TURBIDITY, LAB	0.1	0.1	ntu	2.29	2.37	3.43%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000884	0.000879	0.57%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000881	0.000868	1.49%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_ER1	GH_ER1
Sample ID:	GH_ER1_WS_2017-05-08_N	GH_ER1_WS_2017-05-08_FD
Date Sampled:	5/8/2017	5/8/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	152	153	0.66%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	3.6	3.4	5.71%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	156	156	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0044	0.0045	2.25%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.603	0.622	3.10%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00011	0.0001	9.52%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00013	0.00011	16.67%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00048	0.00047	2.11%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0485	0.0483	0.41%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0574	0.0573	0.17%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000042	4.1e-005	2.41%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000087	1.13e-005	26.00%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000805	8.11e-005	0.74%	Pass
CALCIUM, D	0.05	0.05	mg/l	50.3	50.8	0.99%	Pass
CALCIUM, T	0.05	0.05	mg/l	58.7	56	4.71%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.95	1.76	10.24%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.72	0.72	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00018	0.00016	11.76%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00910	0.00152	142.75%	Fail
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00033	0.00033	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	336	334	0.60%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00146	0.00104	33.60%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.142	0.142	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	181	181	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.796	0.764	4.10%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000487	0.000469	3.77%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0026	0.0027	3.77%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0035	0.0036	2.82%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	13.4	13.2	1.50%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	14.6	14.7	0.68%	Pass
MAJOR ANION SUM	0	0	meq/l	3.75	3.75	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	3.67	3.68	0.27%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00144	0.00104	32.26%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.0372	0.0371	0.27%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00322	0.00327	1.54%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000932	0.000925	0.75%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00109	0.00101	7.62%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00193	0.00174	10.35%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.493	0.494	0.20%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0011	<0.001	9.52%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	313	314	0.32%	Pass
pH, LAB	0.1	0.1	ph units	8.27	8.27	0.00%	Pass
PHOSPHORUS	0.02	0.02	mg/l	0.070	0.074	5.56%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.430	0.422	1.88%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.700	0.703	0.43%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.02	2.14	5.77%	Pass

SELENIUM, T	0.05	0.05	ug/l	1.96	1.99	1.52%	Pass
SILICON, D	0.05	0.05	mg/l	1.92	2.06	7.04%	Pass
SILICON, T	0.1	0.1	mg/l	2.84	2.9	2.09%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000016	1.6e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.07	1.05	1.89%	Pass
SODIUM, T	0.05	0.05	mg/l	1.13	1.1	2.69%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.204	0.205	0.49%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.222	0.217	2.28%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	27.4	27.4	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000028	2.8e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	203	205	0.98%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.210	0.217	3.28%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.72	4.43	17.42%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	52.9	50.5	4.64%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	28.3	28	1.07%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000876	0.00089	1.59%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000982	0.000956	2.68%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00259	0.00267	3.04%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0077	0.0075	2.63%	Pass

Location:	GH_ER1	
Sample ID:	GH_ER1_WS_2017-05-29_N	GH_ER1_WS_2017-05-29_FD
Date Sampled:	5/29/2017	
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	147	149	1.35%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	3.6	4.2	15.38%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	151	153	1.32%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0073	0.0052	33.60%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	1.37	1.27	7.58%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00113	0.00107	5.45%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0466	0.0445	4.61%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0674	0.0673	0.15%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000094	8.5e-005	10.06%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000103	7.9e-006	26.37%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.000194	0.000174	10.87%	Pass
CALCIUM, D	0.05	0.05	mg/l	43.0	42.1	2.12%	Pass
CALCIUM, T	0.05	0.05	mg/l	58.8	57.5	2.24%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.73	1.68	2.93%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.47	0.47	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00017	0.00021	21.05%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00316	0.00312	1.27%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00084	0.00085	1.18%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	288	288	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00228	0.00209	8.70%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.138	0.145	4.95%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	153	149	2.65%	Pass

IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	2.03	1.91	6.09%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.00121	0.00113	6.84%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0015	0.0017	12.50%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0036	0.0035	2.82%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	11.0	10.7	2.76%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	12.9	13.2	2.30%	Pass
MAJOR ANION SUM	0	0	meq/l	3.42	3.48	1.74%	Pass
MAJOR CATION SUM	0	0	meq/l	3.10	3.03	2.28%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00133	0.00129	3.05%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.120	0.115	4.26%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00659	0.00658	0.15%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000913	0.000908	0.55%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00110	0.00113	2.69%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00366	0.00359	1.93%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.239	0.242	1.25%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0019	0.0022	14.63%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	294	295	0.34%	Pass
pH, LAB	0.1	0.1	ph units	8.37	8.37	0.00%	Pass
PHOSPHORUS	0.02	0.02	mg/l	0.165	0.174	5.31%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.399	0.38	4.88%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.932	0.92	1.30%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.17	1.08	8.00%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.2	1.06	12.39%	Pass
SILICON, D	0.05	0.05	mg/l	1.75	1.72	1.73%	Pass
SILICON, T	0.1	0.1	mg/l	3.96	3.69	7.06%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000027	2.6e-005	3.77%	Pass
SODIUM, D	0.05	0.05	mg/l	0.782	0.76	2.85%	Pass
SODIUM, T	0.05	0.05	mg/l	0.776	0.772	0.52%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.178	0.182	2.22%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.197	0.194	1.53%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	17.9	17.9	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000066	5.8e-005	12.90%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	184	174	5.59%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.311	0.309	0.65%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	5.02	5.44	8.03%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	136	138	1.46%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	87.7	85.3	2.77%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000748	0.000732	2.16%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000951	0.000918	3.53%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00578	0.00548	5.33%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0159	0.0148	7.17%	Pass

Location:	GH_ER1	GH_ER1
Sample ID:	GH_ER1_WS_2017-06-19_N	WS_2017-06-19_013
Date Sampled:	6/20/2017	6/20/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	129	130	0.77%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	5.8	141.18%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	129	136	5.28%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0029	0.0037	24.24%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.178	0.19	6.52%	Pass

ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00015	0.00014	6.90%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00028	0.00027	3.64%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0445	0.0444	0.22%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0463	0.0469	1.29%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000094	1.01e-005	7.18%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000321	3.23e-005	0.62%	Pass
CALCIUM, D	0.05	0.05	mg/l	39.9	39.8	0.25%	Pass
CALCIUM, T	0.05	0.05	mg/l	40.1	41.3	2.95%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.91	1.58	18.91%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00026	0.00025	3.92%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00066	0.00088	28.57%	Pass-2
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	267	260	2.66%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.099	0.105	5.88%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	145	145	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.241	0.256	6.04%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000158	0.000165	4.33%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0016	0.0018	11.76%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0023	0.0023	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	11.0	11.1	0.90%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	11.0	11.2	1.80%	Pass
MAJOR ANION SUM	0	0	meq/l	3.00	3.13	4.24%	Pass
MAJOR CATION SUM	0	0	meq/l	2.94	2.94	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00262	0.0029	10.14%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0170	0.0184	7.91%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
Methyl Mercury, T	0.00005	0.00005	ug/l	< 0.000050	<5e-005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000984	0.000924	6.29%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000962	0.000983	2.16%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00203	0.00098	69.77%	Pass-1
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.197	0.194	1.53%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	510	515	0.98%	Pass
pH, LAB	0.1	0.1	ph units	8.22	8.3	0.97%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0264	0.028	5.88%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.361	0.364	0.83%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.432	0.448	3.64%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.17	1.18	0.85%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.06	1.12	5.50%	Pass
SILICON, D	0.05	0.05	mg/l	1.71	1.72	0.58%	Pass
SILICON, T	0.1	0.1	mg/l	1.92	1.97	2.57%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.719	0.725	0.83%	Pass
SODIUM, T	0.05	0.05	mg/l	0.707	0.716	1.26%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.188	0.184	2.15%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.186	0.192	3.17%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	19.1	19.1	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	174	170	2.33%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.06	1.51	30.81%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	23.0	23	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	13.9	12.6	9.81%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000609	0.000613	0.65%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000676	0.000696	2.92%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00128	0.00138	7.52%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_ER1	GH_ER1
Sample ID:	GH_ER1_WS_2017-11-06_N	WS_2017-11-06_029
Date Sampled:	11/6/2017	11/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	152	154	1.31%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.015	0.015	mg/l	< 0.015	<0.015	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0661	0.0634	4.17%	Pass
BARIUM, T	0.00025	0.00025	mg/l	0.0578	0.0584	1.03%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00025	0.00025	mg/l	< 0.00025	<0.00025	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000058	8.6e-006	38.89%	Pass-1
CADMIUM, T	0.000025	0.000025	mg/l	< 0.000025	<2.5e-005	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	51.0	50.3	1.38%	Pass
CALCIUM, T	0.25	0.25	mg/l	49.6	51.1	2.98%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.58	0.59	1.71%	Pass
Cation - Anion Balance	0	0	%	2.3	-0.6	200.00%	Fail
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00029	0.00027	7.14%	Pass
CHROMIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	335	326	2.72%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.115	0.118	2.58%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	186	176	5.52%	Pass
ION BALANCE	100	100	%	105	98.7	6.19%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00025	0.00025	mg/l	< 0.00025	<0.00025	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0026	0.0035	29.51%	Pass-1
LITHIUM, T	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	14.2	12.3	14.34%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	11.4	12.1	5.96%	Pass
MAJOR ANION SUM	0	0	meq/l	3.61	3.63	0.55%	Pass
MAJOR CATION SUM	0	0	meq/l	3.78	3.58	5.43%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00100	0.00112	11.32%	Pass
MANGANESE, T	0.0005	0.0005	mg/l	0.00097	0.00105	7.92%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000940	0.00106	12.00%	Pass
MOLYBDENUM, T	0.00025	0.00025	mg/l	0.00102	0.00106	3.85%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

NICKEL, T	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.280	0.28	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	263	294	11.13%	Pass
pH, LAB	0.1	0.1	ph units	8.40	8.39	0.12%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0016	0.0016	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.455	0.441	3.13%	Pass
POTASSIUM, T	0.25	0.25	mg/l	0.29	0.3	3.39%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.44	1.42	1.40%	Pass
SELENIUM, T	0.25	0.25	ug/l	1.4	1.5	6.90%	Pass
SILICON, D	0.05	0.05	mg/l	1.97	1.99	1.01%	Pass
SILICON, T	0.5	0.5	mg/l	2.00	2.04	1.98%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.20	1.04	14.29%	Pass
SODIUM, T	0.25	0.25	mg/l	1.07	1.1	2.76%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.201	0.216	7.19%	Pass
STRONTIUM, T	0.001	0.001	mg/l	0.207	0.211	1.91%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	25.7	25.6	0.39%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	215	205	4.76%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.30	0.24	22.22%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.000719	0.000793	9.79%	Pass
URANIUM, T	0.00005	0.00005	mg/l	0.000712	0.000701	1.56%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.015	0.015	mg/l	< 0.015	<0.015	0.00%	Pass

Location:	GH_ER1A	
Sample ID:	GH_ER1A_WS_2017-07-03_N	WS_2017-07-03_082
Date Sampled:	7/11/2017	
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	139	137	1.45%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	139	137	1.45%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0024	0.0023	4.26%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.152	0.164	7.59%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00019	0.00021	10.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0381	0.038	0.26%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0379	0.0391	3.12%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000070	6.4e-006	8.96%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000209	2.24e-005	6.93%	Pass
CALCIUM, D	0.05	0.05	mg/l	36.9	36.2	1.92%	Pass
CALCIUM, T	0.05	0.05	mg/l	36.9	37.8	2.41%	Pass

CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.92	0.82	11.49%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00015	<0.0001	40.00%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00053	0.00052	1.90%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	271	270	0.37%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.128	0.127	0.78%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	128	126	1.57%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.186	0.179	3.84%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000110	0.000109	0.91%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0022	0.0022	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0024	0.0025	4.08%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	8.82	8.57	2.88%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	8.92	8.9	0.22%	Pass
MAJOR ANION SUM	0	0	meq/l	3.18	3.32	4.31%	Pass
MAJOR CATION SUM	0	0	meq/l	2.60	2.54	2.33%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00088	0.0008	9.52%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00870	0.00881	1.26%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00092	0.00096	4.26%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000978	0.000944	3.54%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000965	0.000954	1.15%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00071	0.0007	1.42%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.303	0.297	2.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0058	0.0073	22.90%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0018	0.0013	32.26%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	413	443	7.01%	Pass
pH, LAB	0.1	0.1	ph units	8.28	8.27	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0107	0.0124	14.72%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.372	0.365	1.90%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.443	0.44	0.68%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.29	1.24	3.95%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.23	1.18	4.15%	Pass
SILICON, D	0.05	0.05	mg/l	1.56	1.54	1.29%	Pass
SILICON, T	0.1	0.1	mg/l	1.79	1.8	0.56%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.579	0.565	2.45%	Pass
SODIUM, T	0.05	0.05	mg/l	0.566	0.549	3.05%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.183	0.18	1.65%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.186	0.184	1.08%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	18.1	27	39.47%	Pass-2
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	159	158	0.63%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	0.111	75.78%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.19	1.15	3.42%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.5	10.1	148.28%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	3.15	3.23	2.51%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000569	0.00059	3.62%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000640	0.000626	2.21%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00073	0.00084	14.01%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_ER2	
	GH_ER2_WS_2017-05-16_N	GH_ER2_WS_2017-05-16_FD
Sample ID:		

Date Sampled: 5/16/2017 5/16/2017
Sample Type: Primary Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	145	148	2.05%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	145	148	2.05%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0033	0.0032	3.08%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.200	0.149	29.23%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00013	0.00012	8.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00025	0.00024	4.08%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0527	0.0424	21.66%	Fail
BARIUM, T	0.00005	0.00005	mg/l	0.0454	0.0452	0.44%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000021	<2e-005	4.88%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000098	9e-006	8.51%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000302	2.63e-005	13.81%	Pass
CALCIUM, D	0.05	0.05	mg/l	48.2	47.7	1.04%	Pass
CALCIUM, T	0.05	0.05	mg/l	45.8	44.2	3.56%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.66	1.72	3.55%	Pass
Cation - Anion Balance	0	0	%	5.1	2	87.32%	Fail
CHLORIDE, D	0.1	0.1	mg/l	0.51	0.51	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00022	0.0002	9.52%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00080	0.00064	22.22%	Pass-2
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	292	290	0.69%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00051	<0.0005	1.98%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.150	0.15	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	177	170	4.03%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.221	0.192	14.04%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000138	0.000104	28.10%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0014	0.0019	30.30%	Pass-1
LITHIUM, T	0.001	0.001	mg/l	0.0021	0.0019	10.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	13.9	12.4	11.41%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	11.7	11.5	1.72%	Pass
MAJOR ANION SUM	0	0	meq/l	3.25	3.32	2.13%	Pass
MAJOR CATION SUM	0	0	meq/l	3.60	3.45	4.26%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00096	0.00088	8.70%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0121	0.0114	5.96%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00142	0.00135	5.05%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000902	0.00101	11.30%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000937	0.000917	2.16%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00063	0.00058	8.26%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.119	0.118	0.84%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0053	5.83%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0014	0.0021	40.00%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	293	300	2.36%	Pass
pH, LAB	0.1	0.1	ph units	8.26	8.25	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0133	0.0122	8.63%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.439	0.374	15.99%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.460	0.438	4.90%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.747	0.777	3.94%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.806	0.753	6.80%	Pass
SILICON, D	0.05	0.05	mg/l	2.15	1.98	8.23%	Pass
SILICON, T	0.1	0.1	mg/l	2.37	2.19	7.89%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass

SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.966	0.861	11.49%	Pass
SODIUM, T	0.05	0.05	mg/l	0.814	0.793	2.61%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.201	0.219	8.57%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.211	0.204	3.37%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	15.4	15.4	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	173	171	1.16%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.107	0.114	6.33%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.38	2.36	0.84%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	16.8	15	11.32%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	5.74	5.71	0.52%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000834	0.000827	0.84%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000816	0.000781	4.38%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00120	0.00106	12.39%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_ER2	GH_ER2
Sample ID:	GH_ER2_WS_2017-05-23_N	GH_ER2_WQ_2017-05-23_FD
Date Sampled:	5/23/2017	5/23/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	143	145	1.39%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.0	3.8	27.27%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	148	149	0.67%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0049	0.0059	18.52%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.784	0.638	20.53%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00012	15.38%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00060	0.00052	14.29%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0448	0.0462	3.08%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0531	0.0554	4.24%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000061	5.2e-005	15.93%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000066	8.6e-006	26.32%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.000117	0.000118	0.85%	Pass
CALCIUM, D	0.05	0.05	mg/l	45.7	46.3	1.30%	Pass
CALCIUM, T	0.05	0.05	mg/l	54.9	55.6	1.27%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.74	1.64	5.92%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.32	0.32	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00017	0.0002	16.22%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00192	0.00161	17.56%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00049	0.00044	10.75%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	277	280	1.08%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00136	0.00121	11.67%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.131	0.13	0.77%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	158	161	1.88%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	1.10	0.886	21.55%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000729	0.000692	5.21%	Pass

LITHIUM, D	0.001	0.001	mg/l	0.0015	0.0014	6.90%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0031	0.0029	6.67%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	10.8	11.1	2.74%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	11.9	12.4	4.12%	Pass
MAJOR ANION SUM	0	0	meq/l	3.27	3.28	0.31%	Pass
MAJOR CATION SUM	0	0	meq/l	3.21	3.26	1.55%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00077	0.00061	23.19%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.0678	0.0684	0.88%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00461	0.0046	0.22%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000881	0.000872	1.03%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000991	0.000954	3.80%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00212	0.00188	12.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.109	0.109	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0016	0.0013	20.69%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	398	342	15.14%	Pass
pH, LAB	0.1	0.1	ph units	8.41	8.35	0.72%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0944	0.097	2.72%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.385	0.412	6.78%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.691	0.644	7.04%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.647	0.686	5.85%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.82	0.783	4.62%	Pass
SILICON, D	0.05	0.05	mg/l	1.86	1.93	3.69%	Pass
SILICON, T	0.1	0.1	mg/l	3.05	2.81	8.19%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000019	1.5e-005	23.53%	Pass-1
SODIUM, D	0.05	0.05	mg/l	0.681	0.699	2.61%	Pass
SODIUM, T	0.05	0.05	mg/l	0.686	0.706	2.87%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.200	0.202	1.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.214	0.216	0.93%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	13.6	13.6	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000037	3.2e-005	14.49%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	171	165	3.57%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.252	0.237	6.13%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	4.99	4.53	9.66%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	77.3	80.3	3.81%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	36.0	38.5	6.71%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000729	0.000733	0.55%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000821	0.000815	0.73%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00334	0.00289	14.45%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0109	0.0086	23.59%	Pass-1

Location:	GH_ER2	GH_ER2
Sample ID:	GH_ER2_WS_2017-06-13_N	WS_2017-06-13_006
Date Sampled:	6/13/2017	6/13/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	137	137	0.00%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0026	0.0011	81.08%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.267	0.258	3.43%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00012	<0.0001	18.18%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00037	0.00039	5.26%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0369	0.000728	192.26%	Fail
BARIUM, T	0.00005	0.00005	mg/l	0.0429	0.0414	3.56%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass

BERYLLIUM, T	0.00002	0.00002	mg/l	0.000022	<2e-005	9.52%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000076	<5e-006	41.27%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000540	5.46e-005	1.10%	Pass
CALCIUM, D	0.05	0.05	mg/l	38.9	0.75	192.43%	Fail
CALCIUM, T	0.05	0.05	mg/l	43.6	42.7	2.09%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.74	1.21	35.93%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00089	0.00087	2.27%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00017	0.00017	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	253	257	1.57%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00056	0.00056	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.129	0.124	3.95%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	136	2.59	192.52%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.416	0.401	3.67%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000264	0.00025	5.45%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0011	<0.001	9.52%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0015	0.0015	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	9.40	0.173	192.77%	Fail
MAGNESIUM, T	0.005	0.005	mg/l	10.1	9.98	1.20%	Pass
MAJOR ANION SUM	0	0	meq/l	3.03	3.02	0.33%	Pass
MAJOR CATION SUM	0	0	meq/l	2.75	<0	200.00%	Fail
MANGANESE, D	0.0001	0.0001	mg/l	0.00211	0.0002	165.37%	Fail
MANGANESE, T	0.0001	0.0001	mg/l	0.0288	0.0294	2.06%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.0018	0.0019	5.41%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000893	<5e-005	178.79%	Fail
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000910	0.000886	2.67%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00098	0.00105	6.90%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0791	0.0942	17.43%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0056	0.0099	55.48%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	450	486	7.69%	Pass
pH, LAB	0.1	0.1	ph units	8.29	8.29	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0282	0.0201	33.54%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	0.325	<0.05	146.67%	Fail
POTASSIUM, T	0.05	0.05	mg/l	0.473	0.467	1.28%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.655	<0.05	171.63%	Fail
SELENIUM, T	0.05	0.05	ug/l	0.665	0.694	4.27%	Pass
SILICON, D	0.05	0.05	mg/l	1.67	<0.05	188.37%	Fail
SILICON, T	0.1	0.1	mg/l	2.05	2.04	0.49%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.533	<0.05	165.69%	Fail
SODIUM, T	0.05	0.05	mg/l	0.552	0.542	1.83%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.183	0.00308	193.38%	Fail
STRONTIUM, T	0.0002	0.0002	mg/l	0.192	0.189	1.57%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	13.0	13	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000013	1.5e-005	14.29%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	159	149	6.49%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.174	0.17	2.33%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.48	2.02	20.44%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	37.1	34.9	6.11%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	22.7	20.6	9.70%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000572	1.1e-005	192.45%	Fail
URANIUM, T	0.00001	0.00001	mg/l	0.000648	0.000654	0.92%	Pass

VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00189	0.00192	1.57%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	0.0011	9.52%	Pass
ZINC, T	0.003	0.003	mg/l	0.0045	0.0039	14.29%	Pass

Location:	GH_ER2	GH_ER2
Sample ID:	GH_ER2_WS_2017-09-04_N	WS_2017-09-04_015
Date Sampled:	9/12/2017	9/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	118	124	4.96%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	10.4	9.2	12.24%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	129	133	3.05%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0220	0.0158	32.80%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0437	0.0442	1.14%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0432	0.0434	0.46%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	6.3e-006	23.01%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000057	8.8e-006	42.76%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	44.8	45.6	1.77%	Pass
CALCIUM, T	0.05	0.05	mg/l	44.5	45	1.12%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.74	0.77	3.97%	Pass
Cation - Anion Balance	0	0	%	1.3	-3	200.00%	Fail
CHLORIDE, D	0.5	0.5	mg/l	2.10	1.48	34.64%	Pass-1
CHROMIUM, D	0.0001	0.0001	mg/l	0.00017	0.00017	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00024	0.00021	13.33%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	263	263	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.146	0.15	2.70%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	151	154	1.97%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.023	0.017	30.00%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0015	0.0016	6.45%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0012	0.0012	0.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	9.53	9.75	2.28%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	10.4	10.4	0.00%	Pass
MAJOR ANION SUM	0	0	meq/l	2.98	3.3	10.19%	Pass
MAJOR CATION SUM	0	0	meq/l	3.06	3.11	1.62%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00102	0.00106	3.85%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00360	0.00367	1.93%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000947	0.000977	3.12%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000951	0.000952	0.11%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0332	0.0729	74.84%	Fail
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	0.0036	113.04%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass

OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	275	274	0.36%	Pass
pH, LAB	0.1	0.1	ph units	8.42	8.39	0.36%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0041	0.0037	10.26%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.378	0.395	4.40%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.372	0.364	2.17%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.722	0.686	5.11%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.638	0.745	15.47%	Pass
SILICON, D	0.05	0.05	mg/l	1.60	1.62	1.24%	Pass
SILICON, T	0.1	0.1	mg/l	1.70	1.63	4.20%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.639	0.654	2.32%	Pass
SODIUM, T	0.05	0.05	mg/l	0.629	0.627	0.32%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.200	0.204	1.98%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.205	0.203	0.98%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	16.4	28	52.25%	Fail
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	144	143	0.70%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.57	<0.5	13.08%	Pass
TOTAL SUSPENDED SOLIDS, LAB	5	5	mg/l	< 5.0	<5	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.06	0.85	21.99%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.000622	0.000616	0.97%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000603	0.000601	0.33%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_ERC	GH_ERC
Sample ID:	GH_ERC_WS_2017-02-21_N	GH_ERC_WS_2017-02-21_FD
Date Sampled:	2/21/2017	2/21/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	156	157	0.64%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	156	157	0.64%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0065	0.0053	20.34%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0615	0.0652	5.84%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0638	0.0637	0.16%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000071	<5e-006	34.71%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	52.0	52.9	1.72%	Pass
CALCIUM, T	0.05	0.05	mg/l	55.7	56.4	1.25%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	0.59	16.51%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.38	0.39	2.60%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00026	0.00027	3.77%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00027	0.00028	3.64%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	354	359	1.40%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.141	0.144	2.11%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	190	195	2.60%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0031	0.0032	3.17%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0035	0.0036	2.82%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	14.7	15.3	4.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	14.2	14.3	0.70%	Pass
MAJOR ANION SUM	0	0	meq/l	3.95	3.98	0.76%	Pass
MAJOR CATION SUM	0	0	meq/l	3.86	3.95	2.30%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00012	0.00024	66.67%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00032	0.00058	57.78%	Pass-1
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000990	0.000949	4.23%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000992	0.000978	1.42%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.445	0.448	0.67%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0010	0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	382	333	13.71%	Pass
pH, LAB	0.1	0.1	ph units	8.18	8.13	0.61%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	<0.002	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.376	0.389	3.40%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.397	0.388	2.29%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.8	1.76	2.25%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.71	1.72	0.58%	Pass
SILICON, D	0.05	0.05	mg/l	1.78	1.78	0.00%	Pass
SILICON, T	0.05	0.05	mg/l	1.99	1.94	2.54%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.01	1.05	3.88%	Pass
SODIUM, T	0.05	0.05	mg/l	1.04	1.03	0.97%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.210	0.212	0.95%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.219	0.22	0.46%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	38.0	38.2	0.52%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	223	219	1.81%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.13	0.15	14.29%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000852	0.000847	0.59%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000827	0.000835	0.96%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_ERC	GH_ERC
Sample ID:	GH_ERC_WS_2017-05-09_N	GH_ERC_WS_2017-05-09_FD
Date Sampled:	5/9/2017	5/9/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass

ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	153	153	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.6	7.4	27.69%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	159	160	0.63%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0041	0.0037	10.26%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.443	0.455	2.67%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00015	0.00011	30.77%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	0.00012	0.0001	18.18%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00042	0.00041	2.41%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0533	0.0501	6.19%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0576	0.0593	2.91%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000035	3.1e-005	12.12%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000121	1.3e-005	7.17%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000539	4.79e-005	11.79%	Pass
CALCIUM, D	0.05	0.05	mg/l	53.6	53.5	0.19%	Pass
CALCIUM, T	0.05	0.05	mg/l	56.2	55.7	0.89%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.92	1.82	5.35%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.81	0.81	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00019	0.00019	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00122	0.00123	0.82%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00027	0.00027	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	333	333	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00087	0.00091	4.49%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.141	0.141	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	199	197	1.01%	Pass
ION BALANCE	0	0	%	2.4	1.3	59.46%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.562	0.567	0.89%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000398	0.0004	0.50%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0034	0.0032	6.06%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0037	0.0036	2.74%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	15.9	15.3	3.85%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	14.3	14.7	2.76%	Pass
MAJOR ANION SUM	0	0	meq/l	3.86	3.89	0.77%	Pass
MAJOR CATION SUM	0	0	meq/l	4.05	3.99	1.49%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00026	0.00031	17.54%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0291	0.0277	4.93%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00266	0.00259	2.67%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000960	0.000991	3.18%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00108	0.00106	1.87%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00152	0.00156	2.60%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.560	0.557	0.54%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0010	0.0011	9.52%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	302	318	5.16%	Pass
pH, LAB	0.1	0.1	ph units	8.40	8.41	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0334	0.036	7.49%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.466	0.451	3.27%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.662	0.681	2.83%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.68	2.59	3.42%	Pass
SELENIUM, T	0.05	0.05	ug/l	2.58	2.42	6.40%	Pass
SILICON, D	0.05	0.05	mg/l	2.13	2.03	4.81%	Pass
SILICON, T	0.1	0.1	mg/l	2.75	2.7	1.83%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000014	1.3e-005	7.41%	Pass
SODIUM, D	0.05	0.05	mg/l	1.19	1.16	2.55%	Pass
SODIUM, T	0.05	0.05	mg/l	1.16	1.18	1.71%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.210	0.209	0.48%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.226	0.221	2.24%	Pass

SULFATE (AS SO4), D	0.3	0.3	mg/l	29.5	29.4	0.34%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000025	2.1e-005	17.39%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	209	203	2.91%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.208	0.183	12.79%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.27	3.3	0.91%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	34.2	35	2.31%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	18.2	16.2	11.63%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000843	0.000843	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000941	0.000942	0.11%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00209	0.00216	3.29%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0057	0.0061	6.78%	Pass

Location:	GH_ERC	GH_ERC
Sample ID:	GH_ERC_WS_2017-05-23_N	GH_ERC_WS_2017-05-23_FD
Date Sampled:	5/23/2017	5/23/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	145	145	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.6	6.4	13.33%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	150	151	0.66%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0056	0.0051	9.35%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.962	1.04	7.79%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00076	0.00084	10.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0496	0.0489	1.42%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0595	0.0625	4.92%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000072	7.6e-005	5.41%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000104	9.1e-006	13.33%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000148	0.00015	1.34%	Pass
CALCIUM, D	0.05	0.05	mg/l	42.2	47.6	12.03%	Pass
CALCIUM, T	0.05	0.05	mg/l	59.5	59.9	0.67%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.76	1.65	6.45%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.43	0.42	2.35%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00020	0.00021	4.88%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00307	0.00244	22.87%	Pass-2
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00061	0.00066	7.87%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	291	297	2.04%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00178	0.00198	10.64%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.131	0.131	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	155	168	8.05%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	1.35	1.51	11.19%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.0208	0.00103	181.13%	Fail
LITHIUM, D	0.001	0.001	mg/l	0.0019	0.0022	14.63%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0041	0.0043	4.76%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	12.1	12	0.83%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	13.6	13.8	1.46%	Pass
MAJOR ANION SUM	0	0	meq/l	3.47	3.49	0.57%	Pass

MAJOR CATION SUM	0	0	meq/l	3.15	3.41	7.93%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00086	0.00098	13.04%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0852	0.0873	2.43%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00615	0.00596	3.14%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000881	0.000927	5.09%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00107	0.00116	8.07%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00271	0.00294	8.14%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.310	0.311	0.32%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0016	0.0015	6.45%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	401	352	13.01%	Pass
pH, LAB	0.1	0.1	ph units	8.41	8.43	0.24%	Pass
PHOSPHORUS	0.02	0.02	mg/l	0.138	0.151	9.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.423	0.424	0.24%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.785	0.827	5.21%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.43	1.56	8.70%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.62	1.62	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	1.92	1.96	2.06%	Pass
SILICON, T	0.1	0.1	mg/l	3.35	3.45	2.94%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000020	3.2e-005	46.15%	Pass-1
SODIUM, D	0.05	0.05	mg/l	0.827	0.826	0.12%	Pass
SODIUM, T	0.05	0.05	mg/l	0.836	0.85	1.66%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.176	0.2	12.77%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.220	0.223	1.35%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	20.5	20.7	0.97%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000047	5e-005	6.19%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	179	182	1.66%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.274	0.367	29.02%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	4.94	5.88	17.38%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	106	113	6.39%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	48.4	49.1	1.44%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000711	0.000806	12.52%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000920	0.000933	1.40%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00406	0.00439	7.81%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0117	0.0146	22.05%	Pass-1

Location:	GH_ERC	GH_ERC
Sample ID:	GH_ERC_WS_2017-07-04_N	WS_2017-07-04_020
Date Sampled:	7/4/2017	7/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	1.2	18.18%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	125	120	4.08%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	7.4	6.4	14.49%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	132	126	4.65%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0036	0.0032	11.76%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.237	0.244	2.91%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00029	0.00031	6.67%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0405	0.0402	0.74%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0452	0.0434	4.06%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000096	6.3e-006	41.51%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000317	2.86e-005	10.28%	Pass
CALCIUM, D	0.05	0.05	mg/l	38.6	38.7	0.26%	Pass
CALCIUM, T	0.05	0.05	mg/l	40.3	40.5	0.50%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.90	1.4	30.30%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00063	0.00066	4.65%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	278	263	5.55%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.104	0.141	30.20%	Pass-2
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	137	136	0.73%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.289	0.285	1.39%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000173	0.000162	6.57%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0019	0.0019	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0022	0.0023	4.44%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	9.86	9.7	1.64%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	10.3	10.3	0.00%	Pass
MAJOR ANION SUM	0	0	meq/l	3.05	2.93	4.01%	Pass
MAJOR CATION SUM	0	0	meq/l	2.77	2.76	0.36%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00108	0.00108	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0136	0.0141	3.61%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0025	0.0025	ug/l	< 0.0025	0.0041	48.48%	Pass-1
Methyl Mercury, T	0.00005	0.00005	ug/l	< 0.000050	<5e-005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000921	0.000942	2.25%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000919	0.000949	3.21%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00080	0.00062	25.35%	Pass-1
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.175	0.176	0.57%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	297	377	23.74%	Pass-1
pH, LAB	0.1	0.1	ph units	8.34	8.32	0.24%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0253	0.0257	1.57%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.363	0.345	5.08%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.450	0.455	1.10%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.26	1.18	6.56%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.23	1.23	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	1.55	1.58	1.92%	Pass
SILICON, T	0.1	0.1	mg/l	1.97	1.97	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.633	0.61	3.70%	Pass
SODIUM, T	0.05	0.05	mg/l	0.630	0.636	0.95%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.185	0.185	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.188	0.188	0.00%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	18.5	18.5	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000011	<1e-005	9.52%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	66.67%	Pass-1
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	172	156	9.76%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.137	0.12	13.23%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.79	2.09	15.46%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	17.3	17.3	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	8.90	9.57	7.26%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000644	0.000641	0.47%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000677	0.000674	0.44%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

VANADIUM, T	0.0005	0.0005	mg/l	0.00106	0.00112	5.50%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_ERC	GH_ERC
Sample ID:	GH_ERC_WS_2017-08-07_N	WS_2017-08-07_005
Date Sampled:	8/1/2017	8/1/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	134	135	0.74%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	134	135	0.74%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0326	0.0365	11.29%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0497	0.0509	2.39%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0489	0.0482	1.44%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000073	5.3e-006	31.75%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000069	9.8e-006	34.73%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	50.2	49.2	2.01%	Pass
CALCIUM, T	0.05	0.05	mg/l	48.8	48.6	0.41%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.70	0.81	14.57%	Pass
Cation - Anion Balance	0	0	%	5.5	4.5	20.00%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.28	0.28	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00020	0.0002	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00031	0.00027	13.79%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	283	291	2.79%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.163	0.163	0.62%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	173	171	1.16%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.032	0.04	22.22%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0027	0.0026	3.77%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0030	0.003	0.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	11.6	11.8	1.71%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	11.4	11.5	0.87%	Pass
MAJOR ANION SUM	0	0	meq/l	3.14	3.17	0.95%	Pass
MAJOR CATION SUM	0	0	meq/l	3.50	3.47	0.86%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00086	0.00087	1.16%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00274	0.00382	32.93%	Pass-2
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00107	0.00098	8.78%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00107	0.00104	2.84%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.181	0.179	1.11%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	404	400	1.00%	Pass

pH, LAB	0.1	0.1	ph units	8.24	8.22	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0036	0.0041	12.99%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.403	0.409	1.48%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.389	0.396	1.78%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.984	1.04	5.53%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.15	1.05	9.09%	Pass
SILICON, D	0.05	0.05	mg/l	1.70	1.67	1.78%	Pass
SILICON, T	0.1	0.1	mg/l	1.82	1.83	0.55%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.719	0.738	2.61%	Pass
SODIUM, T	0.05	0.05	mg/l	0.707	0.715	1.13%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.207	0.206	0.48%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.203	0.2	1.49%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	21.1	21.1	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	177	179	1.12%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.062	0.073	16.30%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.78	0.88	12.05%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.9	3.2	9.84%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.50	0.44	12.77%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000711	0.000713	0.28%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000722	0.000695	3.81%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH ERC	GH ERC
Sample ID:	GH ERC_WS_2017-09-04_N	WS_2017-09-04_012
Date Sampled:	9/5/2017	9/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	143	140	2.12%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	143	140	2.12%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	0.0038	23.53%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0071	0.0058	20.16%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0558	0.0532	4.77%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0534	0.0525	1.70%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000078	7.5e-006	3.92%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	6.6e-006	27.59%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	44.0	44.7	1.58%	Pass
CALCIUM, T	0.05	0.05	mg/l	46.6	46.2	0.86%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00020	0.00013	42.42%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00046	0.0002	78.79%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

CONDUCTIVITY, LAB	2	2	us/cm	303	303	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.134	0.134	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	159	159	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.012	<0.01	18.18%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0026	0.0027	3.77%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0027	0.0026	3.77%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	11.9	11.5	3.42%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	10.9	10.7	1.85%	Pass
MAJOR ANION SUM	0	0	meq/l	3.33	3.26	2.12%	Pass
MAJOR CATION SUM	0	0	meq/l	3.23	3.22	0.31%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00063	0.00066	4.65%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00190	0.0017	11.11%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00107	0.00103	3.81%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00109	0.00104	4.69%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.225	0.224	0.45%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0129	88.27%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	272	268	1.48%	Pass
pH, LAB	0.1	0.1	ph units	8.25	8.24	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	0.0033	49.06%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	0.415	0.418	0.72%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.382	0.378	1.05%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.11	1.1	0.90%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.13	1.17	3.48%	Pass
SILICON, D	0.05	0.05	mg/l	1.79	1.82	1.66%	Pass
SILICON, T	0.1	0.1	mg/l	1.90	1.85	2.67%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.823	0.806	2.09%	Pass
SODIUM, T	0.05	0.05	mg/l	0.785	0.769	2.06%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.196	0.198	1.02%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.213	0.21	1.42%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	21.1	20.8	1.43%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	173	168	2.93%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	2	2	mg/l	< 2.0	<2	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.40	0.42	4.88%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000382	0.000445	15.24%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000756	0.000715	5.57%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_ERC	GH_ERC
Sample ID:	GH_ERC_WS_2017-11-06_N	WS_2017-11-06_030
Date Sampled:	11/14/2017	11/14/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	147	155	5.30%	Pass

ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	147	155	5.30%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0094	0.011	15.69%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	<0.0001	18.18%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0531	0.0532	0.19%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0555	0.0548	1.27%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000051	6.7e-006	27.12%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000068	8.7e-006	24.52%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	53.7	53.5	0.37%	Pass
CALCIUM, T	0.05	0.05	mg/l	54.0	54.7	1.29%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.51	0.56	9.35%	Pass
Cation - Anion Balance	0	0	%	4.9	2.5	64.86%	Fail
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00019	<0.0001	62.07%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00030	0.00039	26.09%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	320	323	0.93%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.123	0.124	0.81%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	192	191	0.52%	Pass
ION BALANCE	100	100	%	110	105	4.65%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.012	0.015	22.22%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0023	0.0022	4.44%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0023	0.0024	4.26%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	14.1	13.9	1.43%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	14.4	14.3	0.70%	Pass
MAJOR ANION SUM	0	0	meq/l	3.52	3.67	4.17%	Pass
MAJOR CATION SUM	0	0	meq/l	3.88	3.86	0.52%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00134	0.00127	5.36%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00104	0.00104	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00109	0.0011	0.91%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.293	0.305	4.01%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0100	0.007	35.29%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0012	0.0011	8.70%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	283	295	4.15%	Pass
pH, LAB	0.1	0.1	ph units	8.26	8.27	0.12%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0030	0.0023	26.42%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	0.350	0.353	0.85%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.371	0.366	1.36%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.34	1.33	0.75%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.54	1.37	11.68%	Pass
SILICON, D	0.05	0.05	mg/l	1.88	1.91	1.58%	Pass
SILICON, T	0.1	0.1	mg/l	2.06	2.05	0.49%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.834	0.83	0.48%	Pass
SODIUM, T	0.05	0.05	mg/l	0.857	0.851	0.70%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.206	0.203	1.47%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.214	0.211	1.41%	Pass

SULFATE (AS SO4), D	0.3	0.3	mg/l	26.2	26.7	1.89%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	196	202	3.02%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.142	0.11	25.40%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	1	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.98	2.49	87.03%	Fail
URANIUM, D	0.00001	0.00001	mg/l	0.000758	0.000776	2.35%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000795	0.000795	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_ERSC4	GH_ERSC4
Sample ID:	GH_ERSC4_WS_2017-06-05_N	GH_ERSC4_WS_2017-06-05_FD
Date Sampled:	6/5/2017	6/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	131	127	3.10%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	2.2	3.2	37.04%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	133	130	2.28%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0051	0.0055	7.55%	Pass
ALUMINUM, T	0.003	0.003	mg/l	1.09	0.966	12.06%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00013	0.00015	14.29%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00015	0.00013	14.29%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00095	0.00085	11.11%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0411	0.0404	1.72%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0566	0.0523	7.90%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000084	8.4e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000060	8.5e-006	34.48%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.000162	0.000157	3.13%	Pass
CALCIUM, D	0.05	0.05	mg/l	40.1	42.2	5.10%	Pass
CALCIUM, T	0.05	0.05	mg/l	52.6	53.2	1.13%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.25	1.29	3.15%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.29	0.29	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00271	0.00256	5.69%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00070	0.00062	12.12%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	262	263	0.38%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00185	0.0018	2.74%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.148	0.148	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	137	142	3.58%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	1.65	1.53	7.55%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000998	0.00106	6.03%	Pass
LITHIUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0030	0.003	0.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	8.93	8.89	0.45%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	12.0	11.7	2.53%	Pass
MAJOR ANION SUM	0	0	meq/l	2.97	2.92	1.70%	Pass

MAJOR CATION SUM	0	0	meq/l	2.77	2.87	3.55%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00085	0.00057	39.44%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.0921	0.0874	5.24%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00571	0.00574	0.52%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000878	0.000885	0.79%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000987	0.001	1.31%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00320	0.00313	2.21%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.132	0.136	2.99%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0015	0.0016	6.45%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	286	299	4.44%	Pass
pH, LAB	0.1	0.1	ph units	8.31	8.32	0.12%	Pass
PHOSPHORUS	0.02	0.02	mg/l	0.163	0.162	0.62%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.348	0.372	6.67%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.831	0.731	12.80%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.768	0.745	3.04%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.872	0.874	0.23%	Pass
SILICON, D	0.05	0.05	mg/l	1.73	1.7	1.75%	Pass
SILICON, T	0.1	0.1	mg/l	3.46	3.23	6.88%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000030	2.6e-005	14.29%	Pass
SODIUM, D	0.05	0.05	mg/l	0.575	0.583	1.38%	Pass
SODIUM, T	0.05	0.05	mg/l	0.621	0.615	0.97%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.173	0.182	5.07%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.191	0.196	2.58%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	14.3	14.3	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000052	4.8e-005	8.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	174	160	8.38%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.268	0.267	0.37%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.84	4.03	4.83%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	132	133	0.75%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	63.1	61.7	2.24%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000667	0.0007	4.83%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000838	0.000865	3.17%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00490	0.00462	5.88%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0132	0.0123	7.06%	Pass

Location:	GH_ERSC4	GH_ERSC4
Sample ID:	GH_ERSC4_WS20170908-1115	GH_ERSCX_WS20170908-1115
Date Sampled:	9/8/2017	9/8/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	137	136	0.73%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	8.8	9.8	10.75%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	146	146	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0079	0.0062	24.11%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0470	0.0478	1.69%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0473	0.0448	5.43%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000052	6.1e-006	15.93%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000075	7e-006	6.90%	Pass
CALCIUM, D	0.05	0.05	mg/l	54.0	43.1	22.45%	Fail
CALCIUM, T	0.05	0.05	mg/l	44.4	43.8	1.36%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.40	1.15	19.61%	Pass
Cation - Anion Balance	0	0	%	4.3	-3.2	200.00%	Fail
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00014	0.00023	48.65%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00022	0.00025	12.77%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	280	272	2.90%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.126	0.127	0.79%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	176	150	15.95%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.011	<0.01	9.52%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0023	0.0018	24.39%	Pass-1
LITHIUM, T	0.001	0.001	mg/l	0.0018	0.0018	0.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	10.0	10.3	2.96%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	9.91	9.48	4.44%	Pass
MAJOR ANION SUM	0	0	meq/l	3.26	3.24	0.62%	Pass
MAJOR CATION SUM	0	0	meq/l	3.56	3.04	15.76%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00155	0.00148	4.62%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00221	0.00219	0.91%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00115	0.00095	19.05%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00101	0.000975	3.53%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0123	0.0119	3.31%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0062	<0.005	21.43%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	275	277	0.72%	Pass
pH, LAB	0.1	0.1	ph units	8.45	8.47	0.24%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0011	<0.001	9.52%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.381	0.375	1.59%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.356	0.333	6.68%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.618	0.7	12.44%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.617	0.734	17.32%	Pass
SILICON, D	0.05	0.05	mg/l	1.66	1.69	1.79%	Pass
SILICON, T	0.1	0.1	mg/l	1.69	1.66	1.79%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.697	0.694	0.43%	Pass
SODIUM, T	0.05	0.05	mg/l	0.659	0.628	4.82%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.240	0.192	22.22%	Fail
STRONTIUM, T	0.0002	0.0002	mg/l	0.205	0.206	0.49%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	16.1	15.7	2.52%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	166	147	12.14%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.89	0.91	2.22%	Pass
TOTAL SUSPENDED SOLIDS, LAB	2	2	mg/l	< 2.0	<2	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.47	0.49	4.17%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000772	0.000627	20.73%	Pass-2
URANIUM, T	0.00001	0.00001	mg/l	0.000694	0.000694	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_FR1	GH_FR1
Sample ID:	GH_FR1_WS_2017-03-21_N	GH_FR1_WS_2017-03-21_FD
Date Sampled:	3/21/2017	3/21/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	203	199	1.99%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	1.8	57.14%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	203	201	0.99%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0346	0.0324	6.57%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00016	0.00014	13.33%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00013	0.00011	16.67%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.122	0.122	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.119	0.112	6.06%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000238	2.34e-005	1.69%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000244	2.43e-005	0.41%	Pass
CALCIUM, D	0.05	0.05	mg/l	125	124	0.80%	Pass
CALCIUM, T	0.05	0.05	mg/l	119	118	0.84%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.93	0.86	7.82%	Pass
CHLORIDE, D	0.5	0.5	mg/l	2.67	2.71	1.49%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00016	0.00013	20.69%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	903	919	1.76%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.14	0.14	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	538	538	0.00%	Pass
ION BALANCE	0	0	%	4.9	4.4	10.75%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.034	0.03	12.50%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0179	0.0171	4.57%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0174	0.0166	4.71%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	55.2	55.2	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	53.9	51.5	4.55%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00232	0.00233	0.43%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00315	0.00279	12.12%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00060	0.00059	1.68%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000927	0.000901	2.84%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000917	0.000927	1.08%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00171	0.00158	7.90%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00180	0.0016	11.76%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	12.3	12.6	2.41%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0036	0.0041	12.99%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	332	417	22.70%	Pass-1
pH, LAB	0.1	0.1	ph units	8.28	8.29	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0062	0.0072	14.93%	Pass

POTASSIUM, D	0.05	0.05	mg/l	1.46	1.46	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.39	1.32	5.17%	Pass
SELENIUM, D	0.05	0.05	ug/l	52.4	50.9	2.90%	Pass
SELENIUM, T	0.05	0.05	ug/l	53.4	50.2	6.18%	Pass
SILICON, D	0.05	0.05	mg/l	2.18	2.15	1.39%	Pass
SILICON, T	0.05	0.05	mg/l	2.31	2.23	3.52%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.67	2.67	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	2.64	2.49	5.85%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.168	0.167	0.60%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.163	0.161	1.23%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	234	240	2.53%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	0.00018	57.14%	Pass-1
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	624	641	2.69%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.109	0.089	20.20%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.25	1.78	23.33%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.5	1.5	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.36	2.35	0.42%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00247	0.00245	0.81%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00242	0.0024	0.83%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_FR1	GH_FR1
Sample ID:	GH_FR1_WS_2017-03-27_N	GH_FR1_WS_2017-03-27_FD
Date Sampled:	3/27/2017	3/27/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	200	201	0.50%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	8.8	11.2	24.00%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	209	212	1.43%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0397	0.0471	17.05%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00013	0.00014	7.41%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00011	0.00013	16.67%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.117	0.116	0.86%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.125	0.12	4.08%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000199	1.87e-005	6.22%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000227	2.15e-005	5.43%	Pass
CALCIUM, D	0.05	0.05	mg/l	110	114	3.57%	Pass
CALCIUM, T	0.05	0.05	mg/l	113	114	0.88%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.80	0.83	3.68%	Pass
CHLORIDE, D	0.5	0.5	mg/l	2.78	2.85	2.49%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	985	1000	1.51%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.15	0.15	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	477	494	3.50%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.026	0.029	10.91%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0203	0.0208	2.43%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0212	0.0197	7.33%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	48.9	50.7	3.61%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	51.2	51.5	0.58%	Pass
MAJOR ANION SUM	0	0	meq/l	10.6	10.8	1.87%	Pass
MAJOR CATION SUM	0	0	meq/l	9.67	10	3.36%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00210	0.00245	15.38%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00278	0.00318	13.42%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00080	<0.0005	46.15%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000844	0.000906	7.09%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000886	0.000915	3.22%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00138	0.00176	24.20%	Pass-1
NICKEL, T	0.0005	0.0005	mg/l	0.00163	0.00191	15.82%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	13.6	12.8	6.06%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0022	0.0033	40.00%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	366	341	7.07%	Pass
pH, LAB	0.1	0.1	ph units	8.38	8.41	0.36%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0062	0.0068	9.23%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.35	1.41	4.35%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.40	1.44	2.82%	Pass
SELENIUM, D	0.05	0.05	ug/l	57.9	59.8	3.23%	Pass
SELENIUM, T	0.05	0.05	ug/l	56.6	57.2	1.05%	Pass
SILICON, D	0.05	0.05	mg/l	2.09	2.18	4.22%	Pass
SILICON, T	0.05	0.05	mg/l	2.28	2.34	2.60%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.74	2.69	1.84%	Pass
SODIUM, T	0.05	0.05	mg/l	2.72	2.8	2.90%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.161	0.163	1.23%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.165	0.163	1.22%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	256	267	4.21%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	640	669	4.43%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.053	0.116	74.56%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.11	1.23	10.26%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.3	1.7	26.67%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.86	2.48	28.57%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00233	0.00246	5.43%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00240	0.0025	4.08%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_FR1	GH_FR1
Sample ID:	GH_FR1_WS_2017-04-11_N	GH_FR1_WS_2017-04-11_FD
Date Sampled:	4/11/2017	4/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	207	204	1.46%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass

ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	207	204	1.46%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0323	0.0297	8.39%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00019	0.00017	11.11%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.117	0.115	1.72%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.118	0.116	1.71%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000197	1.81e-005	8.47%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000277	1.99e-005	32.77%	Pass-2
CALCIUM, D	0.05	0.05	mg/l	115	117	1.72%	Pass
CALCIUM, T	0.05	0.05	mg/l	112	112	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.51	1.49	1.33%	Pass
Cation - Anion Balance	0	0	%	0	0.4	200.00%	Fail
CHLORIDE, D	0.5	0.5	mg/l	2.47	2.48	0.40%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00014	6.90%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	831	830	0.12%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.13	0.13	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	491	495	0.81%	Pass
ION BALANCE	0	0	%	0	0.4	200.00%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.035	0.034	2.90%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0190	0.019	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0193	0.0184	4.77%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	49.4	49.1	0.61%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	50.7	49.7	1.99%	Pass
MAJOR ANION SUM	0	0	meq/l	9.98	9.96	0.20%	Pass
MAJOR CATION SUM	0	0	meq/l	9.97	10	0.30%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00200	0.00201	0.50%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00361	0.00354	1.96%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00058	0.00056	3.51%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000988	0.00102	3.19%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000993	0.00101	1.70%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00200	0.00214	6.76%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00229	0.00211	8.18%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	11.9	12	0.84%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0016	0.0018	11.76%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	367	359	2.20%	Pass
pH, LAB	0.1	0.1	ph units	8.28	8.26	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0021	0.0043	68.75%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.51	1.46	3.37%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.46	1.44	1.38%	Pass
SELENIUM, D	0.05	0.05	ug/l	48.2	48.8	1.24%	Pass
SELENIUM, T	0.05	0.05	ug/l	52.7	52.8	0.19%	Pass
SILICON, D	0.05	0.05	mg/l	2.17	2.17	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	2.42	2.41	0.41%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.76	2.68	2.94%	Pass
SODIUM, T	0.05	0.05	mg/l	2.73	2.64	3.35%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.167	0.166	0.60%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.164	0.157	4.36%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	236	238	0.84%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass

THALLIUM, T	0.0001	0.0001	mg/l	< 0.00010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	635	631	0.63%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.179	0.17	5.16%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.85	2	7.79%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.6	<1	46.15%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.67	1.74	4.11%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00268	0.00274	2.21%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00273	0.00271	0.74%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_FR1	GH_FR1
Sample ID:	GH_FR1_WS_2017-05-23_N	GH_FR1_WQ_2017-05-23_FD
Date Sampled:	5/23/2017	5/23/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	149	154	3.30%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	8.2	4.6	56.25%	Fail
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	158	159	0.63%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0031	0.0035	12.12%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.452	0.573	23.61%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00041	0.00047	13.64%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0672	0.0731	8.41%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0770	0.0763	0.91%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000038	3.9e-005	2.60%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000214	2.16e-005	0.93%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000116	0.000116	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	59.0	68.6	15.05%	Pass
CALCIUM, T	0.05	0.05	mg/l	71.4	66.5	7.11%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.95	2.43	21.92%	Pass-1
CHLORIDE, D	0.1	0.1	mg/l	0.76	0.76	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00098	0.00103	4.98%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00038	0.00038	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	485	488	0.62%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00123	0.00124	0.81%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.154	0.153	0.65%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	257	286	10.68%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.693	0.844	19.65%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000593	0.000547	8.07%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0114	0.0126	10.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0135	0.0131	3.01%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	26.8	27.8	3.66%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	27.3	27.8	1.81%	Pass
MAJOR ANION SUM	0	0	meq/l	5.56	5.59	0.54%	Pass
MAJOR CATION SUM	0	0	meq/l	5.22	5.79	10.35%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00022	0.00102	129.03%	Pass-1

MANGANESE, T	0.0001	0.0001	mg/l	0.0345	0.0317	8.46%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.01	0.01	ug/l	< 0.000010	<1e-005	199.60%	Pass-1
Methyl Mercury, T	0.00005	0.00005	ug/l	< 0.000050	5.6e-005	11.32%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000999	0.000944	5.66%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000952	0.00102	6.90%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00163	0.00186	13.18%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00358	0.00378	5.43%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	5.65	5.64	0.18%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0019	0.0019	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0026	0.0026	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	351	357	1.69%	Pass
pH, LAB	0.1	0.1	ph units	8.43	8.36	0.83%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0490	0.0426	13.97%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.940	1.03	9.14%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.08	1.16	7.14%	Pass
SELENIUM, D	0.05	0.05	ug/l	26	24.4	6.35%	Pass
SELENIUM, T	0.05	0.05	ug/l	24.5	24.3	0.82%	Pass
SILICON, D	0.05	0.05	mg/l	2.04	2.11	3.37%	Pass
SILICON, T	0.1	0.1	mg/l	2.61	2.87	9.49%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000016	1.8e-005	11.76%	Pass
SODIUM, D	0.05	0.05	mg/l	1.31	1.36	3.75%	Pass
SODIUM, T	0.05	0.05	mg/l	1.29	1.3	0.77%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.102	0.103	0.98%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.106	0.0979	7.95%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	95.1	95.4	0.31%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000024	2.7e-005	11.76%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	327	320	2.16%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.341	0.374	9.23%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	4.74	3.68	25.18%	Pass-2
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	63.5	42.8	38.95%	Pass-2
TURBIDITY, LAB	0.1	0.1	ntu	25.7	17.3	39.07%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00143	0.00148	3.44%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00148	0.00141	4.84%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00207	0.00253	20.00%	Pass-1
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0097	0.0091	6.38%	Pass

Location:	GH_FR1	GH_FR1
Sample ID:	GH_FR1_WS_2017-06-13_N	GH_FR1_WS_2017-06-13_FD
Date Sampled:	6/13/2017	6/13/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	174	178	2.27%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0014	0.0012	15.38%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0740	0.0576	24.92%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00016	11.76%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00017	0.00016	6.06%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00013	0.00011	16.67%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00022	0.00021	4.65%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0691	0.0679	1.75%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0682	0.0684	0.29%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass

CADMIUM, D	0.000005	0.000005	mg/l	0.0000232	2.76e-005	17.32%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000495	4.48e-005	9.97%	Pass
CALCIUM, D	0.05	0.05	mg/l	68.4	67.4	1.47%	Pass
CALCIUM, T	0.05	0.05	mg/l	68.6	68	0.88%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.26	1.26	56.82%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	0.69	0.63	9.09%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00025	0.00024	4.08%	Pass
COBALT, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	554	550	0.72%	Pass
COPPER, D	0.0002	0.0002	mg/l	<0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.172	0.166	3.55%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	296	289	2.39%	Pass
IRON, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.139	0.113	20.63%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000087	7.1e-005	20.25%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0142	0.0148	4.14%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0141	0.0141	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	30.4	29.3	3.69%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	29.3	29.6	1.02%	Pass
MAJOR ANION SUM	0	0	meq/l	6.27	6.26	0.16%	Pass
MAJOR CATION SUM	0	0	meq/l	6.00	5.86	2.36%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00169	0.00182	7.41%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00713	0.00558	24.39%	Pass-2
MERCURY, D	0.000005	0.000005	mg/l	<0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00140	0.0009	43.48%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00104	0.00105	0.96%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00111	0.00107	3.67%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00195	0.00202	3.53%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00240	0.00255	6.06%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	7.12	6.83	4.16%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0028	0.0034	19.35%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	<0.0050	0.0103	69.28%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	<0.0010	0.0016	46.15%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	283	488	53.18%	Pass-1
pH, LAB	0.1	0.1	ph units	8.34	8.35	0.12%	Pass
PHOSPHORUS	0.002	0.004	mg/l	0.0078	0.0152	64.35%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.12	1.1	1.80%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.12	1.12	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	29.7	28.8	3.08%	Pass
SELENIUM, T	0.05	0.05	ug/l	28.8	28.4	1.40%	Pass
SILICON, D	0.05	0.05	mg/l	1.77	1.75	1.14%	Pass
SILICON, T	0.1	0.1	mg/l	1.85	1.85	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.39	1.34	3.66%	Pass
SODIUM, T	0.05	0.05	mg/l	1.41	1.42	0.71%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0976	0.0972	0.41%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0969	0.0987	1.84%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	108	106	1.87%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	363	361	0.55%	Pass
TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.620	0.604	2.61%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.23	1.63	31.09%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	10.7	6.3	51.76%	Fail
TURBIDITY, LAB	0.1	0.1	ntu	4.49	2.54	55.48%	Fail
URANIUM, D	0.00001	0.00001	mg/l	0.00155	0.00153	1.30%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00159	0.00161	1.25%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00102	0.00095	7.11%	Pass
ZINC, D	0.001	0.001	mg/l	0.0020	0.0013	42.42%	Pass-1
ZINC, T	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass

Location:	GH_FR1	GH_FR1
Sample ID:	GH_FR1_WS_2017-06-26_N	WS_2017-06-26_017
Date Sampled:	6/27/2017	6/27/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.6	1.3	20.69%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	179	181	1.11%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	179	181	1.11%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	0.0011	9.52%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0225	0.121	137.28%	Fail
ANTIMONY, D	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00018	0.0002	10.53%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00017	0.00024	34.15%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0768	0.0772	0.52%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0762	0.0777	1.95%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000186	2.01e-005	7.75%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000272	4.68e-005	52.97%	Fail
CALCIUM, D	0.05	0.05	mg/l	73.9	73.1	1.09%	Pass
CALCIUM, T	0.05	0.05	mg/l	71.8	72	0.28%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.67	1.64	1.81%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.86	0.8	7.23%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00017	0.00036	71.70%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	0.00012	18.18%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	603	601	0.33%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.121	0.13	7.17%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	316	314	0.63%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.043	0.199	128.93%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	0.000138	93.62%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0161	0.016	0.62%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0158	0.0155	1.92%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	32.0	31.9	0.31%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	32.3	31.8	1.56%	Pass
MAJOR ANION SUM	0	0	meq/l	6.86	6.9	0.58%	Pass
MAJOR CATION SUM	0	0	meq/l	6.42	6.36	0.94%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00086	0.00084	2.35%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00364	0.01	93.26%	Fail
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
Methyl Mercury, T	0.00005	0.00005	ug/l	< 0.000050	<5e-005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00105	0.00102	2.90%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00103	0.00103	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00225	0.00231	2.63%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00250	0.00295	16.51%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	7.50	7.49	0.13%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0034	0.0039	13.70%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	521	519	0.38%	Pass
pH, LAB	0.1	0.1	ph units	8.25	8.26	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0023	0.0021	9.09%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.20	1.18	1.68%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.20	1.23	2.47%	Pass
SELENIUM, D	0.05	0.05	ug/l	34.7	35.6	2.56%	Pass
SELENIUM, T	0.05	0.05	ug/l	31.9	31.7	0.63%	Pass

SILICON, D	0.05	0.05	mg/l	1.76	1.76	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	1.75	1.87	6.63%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.52	1.51	0.66%	Pass
SODIUM, T	0.05	0.05	mg/l	1.50	1.48	1.34%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.110	0.11	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.109	0.11	0.91%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	131	131	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	404	398	1.50%	Pass
TOTAL KjELDAHL NITROGEN	0.05	0.05	mg/l	0.490	0.57	15.09%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.58	1.79	12.46%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.1	2.1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.56	1.22	24.46%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00177	0.00179	1.12%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00197	0.00198	0.51%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00053	0.00106	66.67%	Pass-1
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_FR1	GH_FR1
Sample ID:	GH_FR1_WS_2017-07-25_N	GH_FR1_WS_2017-07-25_FD
Date Sampled:	7/25/2017	7/25/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	184	182	1.09%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	7.6	7.8	2.60%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	191	190	0.52%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0017	0.0018	5.71%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0070	0.0075	6.90%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00023	0.00022	4.44%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.103	0.103	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.102	0.104	1.94%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000187	1.74e-005	7.20%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000193	1.94e-005	0.52%	Pass
CALCIUM, D	0.05	0.05	mg/l	88.6	87.2	1.59%	Pass
CALCIUM, T	0.05	0.05	mg/l	86.0	86.8	0.93%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.01	1.15	12.96%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.07	1.07	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00016	0.00013	20.69%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	742	746	0.54%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.153	0.153	0.66%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	391	383	2.07%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

IRON, T	0.01	0.01	mg/l	0.013	0.015	14.29%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	5.8e-005	14.81%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0186	0.0179	3.84%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0177	0.0175	1.14%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	41.3	40.2	2.70%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	42.9	43	0.23%	Pass
MAJOR ANION SUM	0	0	meq/l	8.41	8.41	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	7.94	7.77	2.16%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00170	0.00158	7.32%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00232	0.00243	4.63%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000938	0.000995	5.90%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00100	0.00101	1.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00253	0.00255	0.79%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00276	0.00278	0.72%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	9.45	9.47	0.21%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0072	0.0074	2.74%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0074	0.0071	4.14%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	315	316	0.32%	Pass
pH, LAB	0.1	0.1	ph units	8.40	8.4	0.00%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0050	0.0054	7.69%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.31	1.28	2.32%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.29	1.31	1.54%	Pass
SELENIUM, D	0.05	0.05	ug/l	46.6	47.2	1.28%	Pass
SELENIUM, T	0.05	0.05	ug/l	43.6	44.2	1.37%	Pass
SILICON, D	0.05	0.05	mg/l	1.86	1.84	1.08%	Pass
SILICON, T	0.1	0.1	mg/l	1.89	1.9	0.53%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.86	1.82	2.17%	Pass
SODIUM, T	0.05	0.05	mg/l	1.88	1.89	0.53%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.130	0.13	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.127	0.129	1.56%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	186	187	0.54%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	502	497	1.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.620	0.615	0.81%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.99	0.99	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	1.4	15.38%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.54	0.56	3.64%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00186	0.0019	2.13%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00200	0.00199	0.50%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_FR1	GH_FR1
Sample ID:	GH_FR1_WS_2017-08-08_N	GH_FR1_WS_2017-08-08_FD
Date Sampled:	8/8/2017	8/8/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	188	189	0.53%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	6.4	6.4	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	194	195	0.51%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0061	0.0069	12.31%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass

ANTIMONY, T	0.0001	0.0001	mg/l	0.00017	0.00018	5.71%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.107	0.108	0.93%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.101	0.106	4.83%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000212	1.74e-005	19.69%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000185	2.36e-005	24.23%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	98.1	101	2.91%	Pass
CALCIUM, T	0.05	0.05	mg/l	98.8	99.5	0.71%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.03	1.1	6.57%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.53	1.52	0.66%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	774	784	1.28%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.16	0.16	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	435	441	1.37%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.011	0.013	16.67%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0179	0.0179	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0193	0.0194	0.52%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	46.1	46.1	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	42.8	45.2	5.45%	Pass
MAJOR ANION SUM	0	0	meq/l	9.19	9.19	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	8.82	8.93	1.24%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00046	0.00036	24.39%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00222	0.00227	2.23%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000975	0.000971	0.41%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000994	0.00098	1.42%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00238	0.00243	2.08%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00250	0.00272	8.43%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	10.8	10.7	0.93%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0076	0.0077	1.31%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	295	293	0.68%	Pass
pH, LAB	0.1	0.1	ph units	8.26	8.27	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	0.0028	33.33%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.38	1.37	0.73%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.14	1.24	8.40%	Pass
SELENIUM, D	0.05	0.05	ug/l	53.3	53.7	0.75%	Pass
SELENIUM, T	0.05	0.05	ug/l	48.5	48	1.04%	Pass
SILICON, D	0.05	0.05	mg/l	1.82	1.84	1.09%	Pass
SILICON, T	0.1	0.1	mg/l	1.97	1.94	1.53%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.06	2.04	0.98%	Pass
SODIUM, T	0.05	0.05	mg/l	1.85	1.94	4.75%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.144	0.143	0.70%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.145	0.144	0.69%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	216	215	0.46%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	592	596	0.67%	Pass

TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.265	0.317	17.87%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.21	1.3	7.17%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.3	<1	26.09%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.40	0.37	7.79%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00230	0.00231	0.43%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00232	0.00237	2.13%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass

Location:	GH_GH1	GH_GH1
Sample ID:	GH_GH1_WS_2017-01-09_N	GH_GH1_WS_2017-01-09_FD
Date Sampled:	1/9/2017	1/9/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	3.0	<1	100.00%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	298	300	0.67%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	9.6	12.8	28.57%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	<1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	308	313	1.61%	Pass
ALUMINUM, D	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0158	0.0172	8.48%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00076	0.00073	4.03%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00075	0.00078	3.92%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00022	0.00022	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00021	0.00022	4.65%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0566	0.0608	7.16%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0577	0.0585	1.38%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	<0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	<0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.012	0.01	18.18%	Pass
BORON, T	0.01	0.01	mg/l	0.011	0.01	9.52%	Pass
BROMIDE, D	0.5	0.5	mg/l	<0.50	<0.5	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000167	9.3e-006	56.92%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000102	1.35e-005	27.85%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	202	200	1.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	199	204	2.48%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.68	1.78	5.78%	Pass
CHLORIDE, D	1	1	mg/l	2.5	2.6	3.92%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00040	0.00016	85.71%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1620	1620	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.2	0.2	mg/l	<0.20	<0.2	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1020	985	3.49%	Pass
IRON, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.013	0.012	8.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0128	0.0114	11.57%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0148	0.0131	12.19%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	126	118	6.56%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	141	131	7.35%	Pass
MAJOR ANION SUM	0	0	meq/l	21.3	21.4	0.47%	Pass
MAJOR CATION SUM	0	0	meq/l	20.6	19.8	3.96%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00058	0.00065	11.38%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00218	0.00219	0.46%	Pass
MERCURY, D	0.000005	0.000005	mg/l	<0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00066	0.00059	11.20%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00267	0.0026	2.66%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00276	0.00271	1.83%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0187	0.0183	2.16%	Pass

NICKEL, T	0.0005	0.0005	mg/l	0.0207	0.0194	6.48%	Pass
NITRATE NITROGEN (NO3), AS N	0.05	0.05	mg/l	7.26	7.21	0.69%	Pass
NITRITE NITROGEN (NO2), AS N	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0091	0.0098	7.41%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0030	0.0032	6.45%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	365	325	11.59%	Pass
pH, LAB	0.1	0.1	ph units	8.33	8.36	0.36%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0054	0.0061	12.17%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.45	2.46	0.41%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.54	2.52	0.79%	Pass
SELENIUM, D	0.05	0.05	ug/l	133	133	0.00%	Pass
SELENIUM, T	0.05	0.05	ug/l	130	122	6.35%	Pass
SILICON, D	0.05	0.05	mg/l	3.43	3.17	7.88%	Pass
SILICON, T	0.05	0.05	mg/l	3.97	3.6	9.78%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	3.3e-005	106.98%	Pass-1
SODIUM, D	0.05	0.05	mg/l	2.62	2.47	5.89%	Pass
SODIUM, T	0.05	0.05	mg/l	3.15	2.76	13.20%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.211	0.206	2.40%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.222	0.216	2.74%	Pass
SULFATE (AS SO4), D	3	3	mg/l	701	700	0.14%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1340	1330	0.75%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.240	0.269	11.39%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.92	1.96	2.06%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.7	<1	51.85%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.31	0.9	37.10%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00777	0.00726	6.79%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00823	0.00791	3.97%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_GH1	
Sample ID:	GH_GH1_WS_2017-02-15_N	GH_GH1_WS_2017-02-15_FD
Date Sampled:	2/15/2017	
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	331	335	1.20%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	3.0	<1	100.00%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	334	335	0.30%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0035	0.0044	22.78%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00076	0.00077	1.31%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00080	0.00081	1.24%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00023	0.00023	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00026	0.00026	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0598	0.0602	0.67%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0590	0.0596	1.01%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.010	0.01	0.00%	Pass
BROMIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000099	9.8e-006	1.02%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000098	1.23e-005	22.62%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	215	214	0.47%	Pass
CALCIUM, T	0.05	0.05	mg/l	216	216	0.00%	Pass

CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.45	1.72	17.03%	Pass
CHLORIDE, D	1	1	mg/l	2.8	2.8	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1700	1720	1.17%	Pass
COPPER, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.2	0.2	mg/l	0.22	0.22	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1150	1130	1.75%	Pass
IRON, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0139	0.0134	3.66%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0148	0.0143	3.44%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	149	146	2.03%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	155	153	1.30%	Pass
MAJOR ANION SUM	0	0	meq/l	23.2	23.2	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	23.2	22.8	1.74%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00057	0.00057	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00142	0.00143	0.70%	Pass
MERCURY, D	0.000005	0.000005	mg/l	<0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	<0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00273	0.00269	1.48%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00286	0.00284	0.70%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0187	0.0181	3.26%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0192	0.0191	0.52%	Pass
NITRATE NITROGEN (NO3), AS N	0.05	0.05	mg/l	7.58	7.52	0.79%	Pass
NITRITE NITROGEN (NO2), AS N	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	<0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0035	0.0036	2.82%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	311	312	0.32%	Pass
pH, LAB	0.1	0.1	ph units	8.33	8.32	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0054	0.0055	1.83%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.69	2.65	1.50%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.69	2.69	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	143	142	0.70%	Pass
SELENIUM, T	0.05	0.05	ug/l	140	139	0.72%	Pass
SILICON, D	0.05	0.05	mg/l	3.87	3.81	1.56%	Pass
SILICON, T	0.05	0.05	mg/l	4.15	4.1	1.21%	Pass
SILVER, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.86	2.81	1.76%	Pass
SODIUM, T	0.05	0.05	mg/l	2.98	2.93	1.69%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.232	0.229	1.30%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.233	0.235	0.85%	Pass
SULFATE (AS SO4), D	3	3	mg/l	766	765	0.13%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1430	1420	0.70%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.226	0.266	16.26%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.73	1.85	6.70%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	<1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.46	0.41	11.49%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00860	0.00851	1.05%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00881	0.00872	1.03%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	<0.0030	0.0041	30.99%	Pass-1

Location:	GH_GH1	
	GH_GH1_WS_2017-03-07_N	GH_GH1_WS_2017-03-07_FD
Sample ID:		

Date Sampled: 3/7/2017
Sample Type: Primary

3/7/2017
Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.4	3.3	80.85%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	302	304	0.66%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	10.0	8.4	17.39%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	312	312	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0072	0.0072	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00068	0.00067	1.48%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00073	0.00069	5.63%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00019	0.0002	5.13%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00023	0.00023	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0518	0.0543	4.71%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0519	0.0527	1.53%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	0.000067	<5e-005	29.06%	Pass-1
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000115	1.03e-005	11.01%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000116	1.07e-005	8.07%	Pass
CALCIUM, D	0.05	0.05	mg/l	198	206	3.96%	Pass
CALCIUM, T	0.05	0.05	mg/l	212	206	2.87%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.56	1.67	6.81%	Pass
CHLORIDE, D	1	1	mg/l	2.6	2.7	3.77%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	0.00012	8.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1640	1650	0.61%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.2	0.2	mg/l	0.21	0.22	4.65%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1070	1100	2.76%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0129	0.0128	0.78%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0137	0.0135	1.47%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	140	141	0.71%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	133	131	1.52%	Pass
MAJOR ANION SUM	0	0	meq/l	21.9	22.4	2.26%	Pass
MAJOR CATION SUM	0	0	meq/l	21.5	22.1	2.75%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00099	0.00097	2.04%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00131	0.00132	0.76%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00253	0.00262	3.50%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00252	0.00247	2.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0151	0.0158	4.53%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0148	0.0148	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.05	0.05	mg/l	6.64	6.84	2.97%	Pass
NITRITE NITROGEN (NO2), AS N	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0074	0.0074	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0048	0.005	4.08%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	357	325	9.38%	Pass
pH, LAB	0.1	0.1	ph units	8.34	8.34	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0053	0.0047	12.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.39	2.51	4.90%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.37	2.47	4.13%	Pass
SELENIUM, D	0.05	0.05	ug/l	124	122	1.63%	Pass
SELENIUM, T	0.05	0.05	ug/l	134	133	0.75%	Pass
SILICON, D	0.05	0.05	mg/l	3.37	3.3	2.10%	Pass
SILICON, T	0.05	0.05	mg/l	3.79	3.79	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass

SODIUM, D	0.05	0.05	mg/l	2.93	3.03	3.36%	Pass
SODIUM, T	0.05	0.05	mg/l	2.79	2.96	5.91%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.245	0.254	3.61%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.224	0.226	0.89%	Pass
SULFATE (AS SO4), D	3	3	mg/l	728	748	2.71%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000014	<1e-005	33.33%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1380	1380	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.183	0.182	0.55%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.72	1.63	5.37%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.54	0.57	5.41%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00774	0.00817	5.41%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00812	0.00806	0.74%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_GH1	GH_GH1
Sample ID:	GH_GH1_WS_2017-04-18_N	GH_GH1_WS_2017-04-18_FD
Date Sampled:	4/18/2017	4/18/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	242	236	2.51%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	17.0	17.2	1.17%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	259	253	2.34%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	0.0031	3.28%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.135	0.091	38.94%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00044	0.00046	4.44%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00046	0.00047	2.15%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00020	0.00022	9.52%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00024	0.00025	4.08%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0501	0.0549	9.14%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0516	0.0523	1.35%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000372	3.69e-005	0.81%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000423	4.36e-005	3.03%	Pass
CALCIUM, D	0.05	0.05	mg/l	115	126	9.13%	Pass
CALCIUM, T	0.05	0.05	mg/l	123	128	3.98%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.59	3.25	9.94%	Pass
CHLORIDE, D	0.5	0.5	mg/l	2.62	2.58	1.54%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00025	0.00022	12.77%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	995	1010	1.50%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00059	0.00065	9.68%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.16	0.16	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	586	634	7.87%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.084	0.079	6.13%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000076	7.8e-005	2.60%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0089	0.0093	4.40%	Pass

LITHIUM, T	0.001	0.001	mg/l	0.0093	0.0099	6.25%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	72.6	77.6	6.66%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	73.4	74.8	1.89%	Pass
MAJOR ANION SUM	0	0	meq/l	12.7	12.5	1.59%	Pass
MAJOR CATION SUM	0	0	meq/l	11.9	12.9	8.06%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00303	0.00352	14.96%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00514	0.00505	1.77%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00152	0.00148	2.67%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00176	0.00177	0.57%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00185	0.0019	2.67%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00919	0.00973	5.71%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00959	0.00973	1.45%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	2.85	2.8	1.77%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0057	<0.005	13.08%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0038	0.0037	2.67%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	279	290	3.87%	Pass
pH, LAB	0.1	0.1	ph units	8.46	8.47	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0069	0.0077	10.96%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.73	1.93	10.93%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.80	1.8	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	57.7	53.4	7.74%	Pass
SELENIUM, T	0.05	0.05	ug/l	54.1	54.8	1.29%	Pass
SILICON, D	0.05	0.05	mg/l	3.32	3.3	0.60%	Pass
SILICON, T	0.1	0.1	mg/l	3.54	3.56	0.56%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.90	3.12	7.31%	Pass
SODIUM, T	0.05	0.05	mg/l	3.06	3.1	1.30%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.165	0.176	6.45%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.173	0.179	3.41%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	348	342	1.74%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	778	721	7.61%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.280	0.29	3.51%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	4.31	4.61	6.73%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	3.9	5.7	37.50%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	5.66	3.49	47.43%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00394	0.00411	4.22%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00417	0.00411	1.45%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00060	0.00052	14.29%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0035	0.0039	10.81%	Pass

Location:	GH_GH1	
Sample ID:	GH_GH1_WS_2017-05-02_N	GH_GH1_WS_2017-05-02_FD
Date Sampled:	5/2/2017	
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	193	198	2.56%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	3.8	1.8	71.43%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	197	200	1.51%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0048	0.0053	9.90%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.255	0.419	48.66%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00039	0.00038	2.60%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00037	0.00039	5.26%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.00019	5.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00033	0.00034	2.99%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0524	0.0545	3.93%	Pass

BARIUM, T	0.00005	0.00005	mg/l	0.0596	0.0605	1.50%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	2.6e-005	26.09%	Pass-1
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.012	<0.01	18.18%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000501	5.22e-005	4.11%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000850	8.33e-005	2.02%	Pass
CALCIUM, D	0.05	0.05	mg/l	80.7	78.2	3.15%	Pass
CALCIUM, T	0.05	0.05	mg/l	70.8	72	1.68%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	4.72	4.83	2.30%	Pass
CHLORIDE, D	0.1	0.1	mg/l	1.41	1.42	0.71%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00044	0.00064	37.04%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00010	0.00011	9.52%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00023	0.00024	4.26%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	650	659	1.38%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00077	0.0008	3.82%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00131	0.00132	0.76%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.131	0.133	1.52%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	367	365	0.55%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.325	0.349	7.12%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000251	0.000257	2.36%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0063	0.0061	3.23%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0054	0.0058	7.14%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	40.3	41.1	1.97%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	41.8	43	2.83%	Pass
MAJOR ANION SUM	0	0	meq/l	7.57	7.62	0.66%	Pass
MAJOR CATION SUM	0	0	meq/l	7.46	7.41	0.67%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00397	0.00416	4.67%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00799	0.00826	3.32%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00382	0.00385	0.78%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00144	0.00143	0.70%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00136	0.00133	2.23%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00580	0.00589	1.54%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00674	0.00704	4.35%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.72	1.71	0.58%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0012	0.0014	15.38%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0118	0.0137	14.90%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0048	0.0057	17.14%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	300	294	2.02%	Pass
pH, LAB	0.1	0.1	ph units	8.31	8.29	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0163	0.0199	19.89%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.30	1.33	2.28%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.35	1.45	7.14%	Pass
SELENIUM, D	0.05	0.05	ug/l	29.4	29.7	1.02%	Pass
SELENIUM, T	0.05	0.05	ug/l	27.4	28.3	3.23%	Pass
SILICON, D	0.05	0.05	mg/l	3.14	3.2	1.89%	Pass
SILICON, T	0.1	0.1	mg/l	3.56	3.9	9.12%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000016	1.7e-005	6.06%	Pass
SODIUM, D	0.05	0.05	mg/l	1.95	2	2.53%	Pass
SODIUM, T	0.05	0.05	mg/l	2.10	2.21	5.10%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.124	0.12	3.28%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.120	0.116	3.39%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	166	166	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000015	2e-005	28.57%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	450	463	2.85%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.247	0.422	52.32%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	6.25	5.93	5.25%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	5.1	8	44.27%	Pass-2
TURBIDITY, LAB	0.1	0.1	ntu	16.1	16.4	1.85%	Pass

URANIUM, D	0.00001	0.00001	mg/l	0.00223	0.00214	4.12%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00225	0.00234	3.92%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00128	0.00163	24.05%	Pass-1
ZINC, D	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0056	0.0059	5.22%	Pass

Location:	GH_GH1	GH_GH1
Sample ID:	GH_GH1_WS_2017-06-12_N	WS_2017-06-12_007
Date Sampled:	6/12/2017	6/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	3.0	3.8	23.53%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	3.01	3	0.33%	Pass

Location:	GH_GH1	GH_GH1
Sample ID:	GH_GH1_WS_2017-06-19_N	WS_2017-06-19_014
Date Sampled:	6/19/2017	6/19/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	3.5	2.7	25.81%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	3.40	2.9	15.87%	Pass

Location:	GH_GH1	GH_GH1
Sample ID:	GH_GH1_WS_2017-06-26_N	WS_2017-06-26_018
Date Sampled:	6/27/2017	6/27/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.9	1.7	11.11%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.08	2.05	1.45%	Pass

Location:	GH_GH1	GH_GH1
Sample ID:	GH_GH1_WS_2017-10-02_N	WS_2017-10-02_046
Date Sampled:	10/4/2017	10/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	211	211	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	6.0	5.8	3.39%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	217	217	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0043	0.0044	2.30%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00082	0.00086	4.76%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00087	0.00088	1.14%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00020	0.0002	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0505	0.0512	1.38%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0486	0.0515	5.79%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass

CADMIUM, D	0.000005	0.000005	mg/l	0.0000128	1.12e-005	13.33%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000129	1.15e-005	11.48%	Pass
CALCIUM, D	0.05	0.05	mg/l	174	176	1.14%	Pass
CALCIUM, T	0.05	0.05	mg/l	176	179	1.69%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.91	1.88	1.58%	Pass
CHLORIDE, D	1	1	mg/l	1.8	1.8	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1720	1730	0.58%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
FLUORIDE, D	0.2	0.2	mg/l	< 0.20	0.23	13.95%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1120	1120	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0149	0.0151	1.33%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0157	0.015	4.56%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	165	165	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	170	168	1.18%	Pass
MAJOR ANION SUM	0	0	meq/l	23.6	24	1.68%	Pass
MAJOR CATION SUM	0	0	meq/l	22.5	22.5	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00068	0.00086	23.38%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.00152	0.00146	4.03%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	< 5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	< 0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00264	0.00274	3.72%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00280	0.00276	1.44%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0214	0.021	1.89%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0220	0.0216	1.83%	Pass
NITRATE NITROGEN (NO3), AS N	0.05	0.05	mg/l	7.77	7.89	1.53%	Pass
NITRITE NITROGEN (NO2), AS N	0.01	0.01	mg/l	0.017	0.017	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0065	0.0058	11.38%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	< 0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	285	289	1.39%	Pass
pH, LAB	0.1	0.1	ph units	8.34	8.34	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0026	0.0022	16.67%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.64	2.65	0.38%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.70	2.68	0.74%	Pass
SELENIUM, D	0.05	0.05	ug/l	189	182	3.77%	Pass
SELENIUM, T	0.05	0.05	ug/l	190	184	3.21%	Pass
SILICON, D	0.05	0.05	mg/l	2.54	2.45	3.61%	Pass
SILICON, T	0.1	0.1	mg/l	2.65	2.56	3.45%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.44	2.42	0.82%	Pass
SODIUM, T	0.05	0.05	mg/l	2.60	2.57	1.16%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.187	0.188	0.53%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.191	0.191	0.00%	Pass
SULFATE (AS SO4), D	3	3	mg/l	898	915	1.88%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000014	1.2e-005	15.38%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000013	1.2e-005	8.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1590	1550	2.55%	Pass
TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.330	0.334	1.20%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.02	1.9	6.12%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.2	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.52	0.45	14.43%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00864	0.00933	7.68%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00906	0.00871	3.94%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	< 0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	< 0.003	0.00%	Pass

Location:	GH_GH2	GH_GH2
Sample ID:	GH_GH2_WS_2017-07-03_N	WS_2017-07-03_080
Date Sampled:	7/11/2017	7/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	262	275	4.84%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	9.2	7.6	19.05%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	271	283	4.33%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0019	0.0015	23.53%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0139	0.0155	10.88%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00091	0.00093	2.17%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00090	0.00092	2.20%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00020	0.0002	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00025	0.00028	11.32%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0617	0.062	0.49%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0600	0.0609	1.49%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.010	0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.011	0.011	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000117	1e-005	15.67%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000089	1.31e-005	38.18%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	155	156	0.64%	Pass
CALCIUM, T	0.05	0.05	mg/l	158	160	1.26%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.65	2.85	7.27%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1550	1550	0.00%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00025	0.00024	4.08%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.10	<0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	874	871	0.34%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.022	0.027	20.41%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0160	0.0162	1.24%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0158	0.0161	1.88%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	118	117	0.85%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	120	120	0.00%	Pass
MAJOR ANION SUM	0	0	meq/l	20.4	20.7	1.46%	Pass
MAJOR CATION SUM	0	0	meq/l	17.6	17.6	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00157	0.00156	0.64%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00386	0.00392	1.54%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.005	0.005	ug/l	< 0.0000050	<5e-006	199.60%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00322	0.00317	1.56%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00315	0.00321	1.89%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0341	0.0337	1.18%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0342	0.034	0.59%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	7.98	8	0.25%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0177	0.0175	1.14%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0160	0.0153	4.47%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0011	<0.001	9.52%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	483	459	5.10%	Pass
pH, LAB	0.1	0.1	ph units	8.30	8.29	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0122	0.0055	75.71%	Fail
POTASSIUM, D	0.05	0.05	mg/l	2.61	2.67	2.27%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.63	2.61	0.76%	Pass
SELENIUM, D	0.05	0.05	ug/l	152	158	3.87%	Pass
SELENIUM, T	0.05	0.05	ug/l	144	144	0.00%	Pass

SILICON, D	0.05	0.05	mg/l	2.66	2.65	0.38%	Pass
SILICON, T	0.1	0.1	mg/l	2.60	2.61	0.38%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.28	2.24	1.77%	Pass
SODIUM, T	0.05	0.05	mg/l	2.18	2.18	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.178	0.179	0.56%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.176	0.183	3.90%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	692	694	0.29%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000010	1.2e-005	18.18%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000013	1.3e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1240	1220	1.63%	Pass
TOTAL KjELDAHL NITROGEN	0.05	0.05	mg/l	0.250	0.125	66.67%	Fail
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.94	3.04	3.34%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.2	2	9.52%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.10	0.95	14.63%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00765	0.00778	1.69%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00774	0.00788	1.79%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0013	< 0.001	26.09%	Pass-1
ZINC, T	0.003	0.003	mg/l	< 0.0030	< 0.003	0.00%	Pass

Location:	GH_GH2	GH_GH2
Sample ID:	GH_GH2_WS_2017-10-02_N	WS_2017-10-02_044
Date Sampled:	10/25/2017	10/25/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	6	142.86%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	222	228	2.67%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, PHENOLPHTHALEIN, lab measured.	2	2	mg/l	< 2.0	<2	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	222	228	2.67%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	< 0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0127	0.0211	49.70%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00073	0.00075	2.70%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00072	0.00076	5.41%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00019	0.0002	5.13%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00022	0.00022	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0489	0.0487	0.41%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0466	0.0468	0.43%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	< 0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000110	1.26e-005	13.56%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000119	1.61e-005	30.00%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	176	179	1.69%	Pass
CALCIUM, T	0.05	0.05	mg/l	174	176	1.14%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.10	1.88	11.06%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	< 2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00010	0.00014	33.33%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1640	1640	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.12	0.12	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1090	1080	0.92%	Pass

IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.020	0.032	46.15%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0161	0.0163	1.23%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0158	0.0166	4.94%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	158	153	3.22%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	148	149	0.67%	Pass
MAJOR ANION SUM	0	0	meq/l	23.4	23.5	0.43%	Pass
MAJOR CATION SUM	0	0	meq/l	22.0	21.7	1.37%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00159	0.00149	6.49%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00267	0.00322	18.68%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.005	0.0005	ug/l	< 0.0000050	6.5e-007	153.98%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00548	0.00551	0.55%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00526	0.00551	4.64%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0184	0.0178	3.31%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0179	0.0187	4.37%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	7.50	7.51	0.13%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0172	0.0184	6.74%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	395	381	3.61%	Pass
pH, LAB	0.1	0.1	ph units	8.30	8.03	3.31%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0051	0.0067	27.12%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.79	2.74	1.81%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.59	2.62	1.15%	Pass
SELENIUM, D	0.05	0.05	ug/l	162	158	2.50%	Pass
SELENIUM, T	0.05	0.05	ug/l	168	173	2.93%	Pass
SILICON, D	0.05	0.05	mg/l	2.57	2.51	2.36%	Pass
SILICON, T	0.1	0.1	mg/l	2.62	2.72	3.75%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	3.15	2.97	5.88%	Pass
SODIUM, T	0.05	0.05	mg/l	3.01	3.03	0.66%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.200	0.199	0.50%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.185	0.194	4.75%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	883	883	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1550	1550	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.407	0.435	6.65%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.94	2.06	6.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.7	4.3	45.71%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.95	1.37	36.21%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00831	0.00836	0.60%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00812	0.00807	0.62%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_GH2	GH_GH2
Sample ID:	GH_GH2_WS_2017-11-06_N	WS_2017-11-06_031
Date Sampled:	11/7/2017	11/7/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.7	<1	91.89%	Pass-1
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	234	233	0.43%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0044	0.0043	2.30%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00067	0.00066	1.50%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00071	0.00071	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass

ARSENIC, T	0.0001	0.0001	mg/l	0.00027	0.00027	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0526	0.0528	0.38%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0511	0.0514	0.59%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	0.32	0.35	8.96%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000157	1.53e-005	2.58%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000177	1.73e-005	2.29%	Pass
CALCIUM, D	0.05	0.05	mg/l	205	197	3.98%	Pass
CALCIUM, T	0.05	0.05	mg/l	195	193	1.03%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.99	2.09	4.90%	Pass
Cation - Anion Balance	0	0	%	4.6	4.6	0.00%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00016	0.00086	137.25%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1680	1680	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.11	0.11	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1280	1260	1.57%	Pass
ION BALANCE	100	100	%	110	110	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	0.018	57.14%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0156	0.0146	6.62%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0145	0.0137	5.67%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	185	186	0.54%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	181	183	1.10%	Pass
MAJOR ANION SUM	0	0	meq/l	23.4	23.2	0.86%	Pass
MAJOR CATION SUM	0	0	meq/l	25.7	25.4	1.17%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00016	0.00017	6.06%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00243	0.00252	3.64%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00783	0.00769	1.80%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00784	0.00766	2.32%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0174	0.0173	0.58%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0179	0.0179	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	7.51	7.38	1.75%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0175	0.0164	6.49%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	325	320	1.55%	Pass
pH, LAB	0.1	0.1	ph units	8.27	8.34	0.84%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0050	0.0045	10.53%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.02	2.97	1.67%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.89	2.92	1.03%	Pass
SELENIUM, D	0.05	0.05	ug/l	177	180	1.68%	Pass
SELENIUM, T	0.05	0.05	ug/l	178	175	1.70%	Pass
SILICON, D	0.05	0.05	mg/l	2.48	2.46	0.81%	Pass
SILICON, T	0.1	0.1	mg/l	2.50	2.53	1.19%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.97	2.91	2.04%	Pass
SODIUM, T	0.05	0.05	mg/l	2.92	2.89	1.03%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.224	0.219	2.26%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.220	0.213	3.23%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	874	863	1.27%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1450	1490	2.72%	Pass

TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.166	0.211	23.87%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.89	2.09	10.05%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.52	0.57	9.17%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00775	0.0078	0.64%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00787	0.00799	1.51%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	0.00059	16.51%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_GH2	GH_GH2
Sample ID:	GH_GH2_WS_2017-12-04_N	WS_2017-12-04_0380
Date Sampled:	12/11/2017	12/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	305	297	2.66%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	10.2	12.6	21.05%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	315	309	1.92%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0077	0.0081	5.06%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00069	0.00066	4.44%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00066	0.00067	1.50%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.00017	5.71%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00022	0.00026	16.67%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0638	0.0605	5.31%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0661	0.0651	1.52%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.5	mg/l	< 0.25	<0.5	66.67%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	0.0000148	1.49e-005	0.67%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000187	1.85e-005	1.08%	Pass
CALCIUM, D	0.05	0.05	mg/l	203	197	3.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	213	207	2.86%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.98	1.92	3.08%	Pass
CHLORIDE, D	0.5	1	mg/l	3.15	3.2	1.57%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00020	<0.0001	66.67%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.00016	28.57%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1760	1720	2.30%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.2	mg/l	0.25	0.24	4.08%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1120	1070	4.57%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.016	0.013	20.69%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0136	0.0131	3.75%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0152	0.0144	5.41%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	150	141	6.19%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	161	167	3.66%	Pass
MAJOR ANION SUM	0	0	meq/l	24.6	24.1	2.05%	Pass
MAJOR CATION SUM	0	0	meq/l	22.7	21.6	4.97%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00212	0.00202	4.83%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00301	0.00295	2.01%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00772	0.00745	3.56%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00701	0.00722	2.95%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0155	0.015	3.28%	Pass

NICKEL, T	0.0005	0.0005	mg/l	0.0174	0.0178	2.27%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.05	mg/l	7.09	6.86	3.30%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.01	mg/l	0.0074	<0.01	29.89%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0033	0.0017	64.00%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	246	237	3.73%	Pass
pH, LAB	0.1	0.1	ph units	8.28	8.28	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0045	0.0046	2.20%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.90	2.79	3.87%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.85	2.92	2.43%	Pass
SELENIUM, D	0.05	0.05	ug/l	163	162	0.62%	Pass
SELENIUM, T	0.05	0.05	ug/l	158	159	0.63%	Pass
SILICON, D	0.05	0.05	mg/l	3.45	3.45	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	3.71	3.76	1.34%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	3.18	3.02	5.16%	Pass
SODIUM, T	0.05	0.05	mg/l	3.46	3.54	2.29%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.254	0.252	0.79%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.232	0.234	0.86%	Pass
SULFATE (AS SO4), D	1.5	3	mg/l	849	832	2.02%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1540	1510	1.97%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.260	0.221	16.22%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.22	2.19	1.36%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.4	1.8	28.57%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.86	0.4	73.02%	Fail
URANIUM, D	0.00001	0.00001	mg/l	0.00900	0.00893	0.78%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00856	0.0085	0.70%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_LC1	GH_LC1
Sample ID:	GH_LC1_WS_2017-05-01_N	GH_LC1_WS_2017-05-01_FD
Date Sampled:	5/1/2017	5/1/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.6	4.7	2.15%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	287	285	0.70%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	287	285	0.70%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0621	0.0489	23.78%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00304	0.00331	8.50%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00311	0.0031	0.32%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00043	0.00047	8.89%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00057	0.00057	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0480	0.0449	6.67%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0497	0.0493	0.81%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.014	0.016	13.33%	Pass
BORON, T	0.01	0.01	mg/l	0.015	0.015	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000150	0.000133	12.01%	Pass
CALCIUM, D	0.05	0.05	mg/l	177	180	1.68%	Pass
CALCIUM, T	0.05	0.05	mg/l	217	213	1.86%	Pass

CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.33	1.3	2.28%	Pass
CHLORIDE, D	0.5	0.5	mg/l	4.58	4.66	1.73%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00196	0.00195	0.51%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00244	0.00238	2.49%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1680	1670	0.60%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00064	0.00058	9.84%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00091	0.00084	8.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.25	0.26	3.92%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	960	984	2.47%	Pass
IRON, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.065	0.047	32.14%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000056	<5e-005	11.32%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.132	0.138	4.44%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.150	0.149	0.67%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	126	130	3.13%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	132	133	0.75%	Pass
MAJOR ANION SUM	0	0	meq/l	20.9	21	0.48%	Pass
MAJOR CATION SUM	0	0	meq/l	19.7	20.2	2.51%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00183	0.0016	13.41%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00438	0.00403	8.32%	Pass
MERCURY, D	0.000005	0.000005	mg/l	<0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00133	0.00092	36.44%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.0157	0.0169	7.36%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.0166	0.0165	0.60%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0772	0.0767	0.65%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0807	0.0798	1.12%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	27.4	27.6	0.73%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0120	0.0124	3.28%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	<0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0027	0.0025	7.69%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	294	276	6.32%	Pass
pH, LAB	0.1	0.1	ph units	8.12	8.11	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0059	0.0048	20.56%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	6.61	6.22	6.08%	Pass
POTASSIUM, T	0.05	0.05	mg/l	5.96	5.92	0.67%	Pass
SELENIUM, D	0.05	0.05	ug/l	34.3	36.9	7.30%	Pass
SELENIUM, T	0.05	0.05	ug/l	35.5	35.4	0.28%	Pass
SILICON, D	0.05	0.05	mg/l	2.58	2.52	2.35%	Pass
SILICON, T	0.1	0.1	mg/l	2.68	2.66	0.75%	Pass
SILVER, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.12	8.26	1.71%	Pass
SODIUM, T	0.05	0.05	mg/l	7.84	7.65	2.45%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.324	0.339	4.52%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.351	0.348	0.86%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	626	632	0.95%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000049	4.6e-005	6.32%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000052	5e-005	3.92%	Pass
TIN, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1320	1410	6.59%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.205	0.186	9.72%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.83	1.94	5.84%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	11.7	10.7	8.93%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	5.09	6.12	18.38%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00978	0.0109	10.83%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0105	0.0105	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00060	0.00054	10.53%	Pass
ZINC, D	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0100	0.0086	15.05%	Pass

Location:	GH_LC1	GH_LC1
	GH_LC1_WS_2017-06-05_N	GH_LC1_WS_2017-06-05_FD
Sample ID:		

Date Sampled: 6/5/2017
Sample Type: Primary

6/5/2017
Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units	6/5/2017 Primary	6/5/2017 Secondary	Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.1	4.2	66.67%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	258	263	1.92%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	258	263	1.92%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0235	0.0276	16.05%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00337	0.00336	0.30%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00333	0.00362	8.35%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00045	0.0005	10.53%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00050	0.00052	3.92%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0456	0.0509	10.98%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0446	0.0459	2.87%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.020	0.019	5.13%	Pass
BORON, T	0.01	0.01	mg/l	0.021	0.022	4.65%	Pass
BROMIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000169	1.45e-005	15.29%	Pass
CALCIUM, D	0.05	0.05	mg/l	223	229	2.65%	Pass
CALCIUM, T	0.05	0.05	mg/l	219	239	8.73%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.82	1.75	3.92%	Pass
CHLORIDE, D	1	1	mg/l	5.1	5	1.98%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00084	0.00093	10.17%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00101	0.00104	2.93%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1840	1850	0.54%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	0.00059	16.51%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00093	0.0009	3.28%	Pass
FLUORIDE, D	0.2	0.2	mg/l	0.23	0.23	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	110	1180	6.11%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.042	0.04	4.88%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.151	0.149	1.33%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.153	0.174	12.84%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	135	147	8.51%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	146	151	3.37%	Pass
MAJOR ANION SUM	0	0	meq/l	24.7	24.6	0.41%	Pass
MAJOR CATION SUM	0	0	meq/l	23.0	24.4	5.91%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00086	0.00097	12.02%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00316	0.00318	0.63%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00068	0.0007	2.90%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.0176	0.0176	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.0175	0.0189	7.69%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0735	0.0806	9.21%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0725	0.0744	2.59%	Pass
NITRATE NITROGEN (NO3), AS N	0.05	0.05	mg/l	39.8	39.3	1.26%	Pass
NITRITE NITROGEN (NO2), AS N	0.01	0.01	mg/l	0.070	0.067	4.38%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	295	353	17.90%	Pass
pH, LAB	0.1	0.1	ph units	8.23	8.22	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0083	0.0067	21.33%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	6.60	7.25	9.39%	Pass
POTASSIUM, T	0.05	0.05	mg/l	5.97	6.29	5.22%	Pass
SELENIUM, D	0.05	0.05	ug/l	96.6	96.4	0.21%	Pass
SELENIUM, T	0.05	0.05	ug/l	87.5	90.7	3.59%	Pass
SILICON, D	0.05	0.05	mg/l	2.11	2.19	3.72%	Pass
SILICON, T	0.1	0.1	mg/l	2.14	2.22	3.67%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass

SODIUM, D	0.05	0.05	mg/l	14.0	15	6.90%	Pass
SODIUM, T	0.05	0.05	mg/l	13.3	13.5	1.49%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.491	0.501	2.02%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.487	0.533	9.02%	Pass
SULFATE (AS SO4), D	3	3	mg/l	796	789	0.88%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000055	5.8e-005	5.31%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000057	6.4e-005	11.57%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1580	1510	4.53%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.291	0.302	3.71%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.28	2.44	6.78%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.9	4.6	83.08%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.04	0.83	22.46%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.0114	0.0115	0.87%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0120	0.0132	9.52%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_LC1	GH_LC1
Sample ID:	GH_LC1_WS_2017-08-07_N	WS_2017-08-07_006
Date Sampled:	8/2/2017	8/2/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	5.4	4.9	9.71%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	293	285	2.77%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	293	285	2.77%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.006	0.003	mg/l	< 0.0060	0.006	0.00%	Pass
ANTIMONY, D	0.0002	0.0001	mg/l	0.00401	0.00418	4.15%	Pass
ANTIMONY, T	0.0002	0.0001	mg/l	0.00403	0.00406	0.74%	Pass
ARSENIC, D	0.0002	0.0001	mg/l	0.00055	0.00052	5.61%	Pass
ARSENIC, T	0.0002	0.0001	mg/l	0.00054	0.00064	16.95%	Pass
BARIUM, D	0.0001	0.00005	mg/l	0.0467	0.0455	2.60%	Pass
BARIUM, T	0.0001	0.00005	mg/l	0.0447	0.0487	8.57%	Pass
BERYLLIUM, D	0.00004	0.00002	mg/l	< 0.000040	<2e-005	66.67%	Pass-1
BERYLLIUM, T	0.00004	0.00002	mg/l	< 0.000040	<2e-005	66.67%	Pass-1
BISMUTH, D	0.0001	0.00005	mg/l	< 0.00010	<5e-005	66.67%	Pass-1
BISMUTH, T	0.0001	0.00005	mg/l	< 0.00010	<5e-005	66.67%	Pass-1
BORON, D	0.02	0.01	mg/l	0.021	0.021	0.00%	Pass
BORON, T	0.02	0.01	mg/l	0.020	0.02	0.00%	Pass
BROMIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CADMIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
CADMIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
CALCIUM, D	0.1	0.05	mg/l	207	215	3.79%	Pass
CALCIUM, T	0.1	0.05	mg/l	213	212	0.47%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.69	1.73	2.34%	Pass
CHLORIDE, D	1	1	mg/l	5.6	5.5	1.80%	Pass
CHROMIUM, D	0.0002	0.0001	mg/l	< 0.00020	<0.0001	66.67%	Pass-1
CHROMIUM, T	0.0002	0.0001	mg/l	< 0.00020	<0.0001	66.67%	Pass-1
COBALT, D	0.0002	0.0001	mg/l	0.00128	0.00128	0.00%	Pass
COBALT, T	0.0002	0.0001	mg/l	0.00148	0.00161	8.41%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1940	1870	3.67%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00062	0.00057	8.40%	Pass
COPPER, T	0.001	0.0005	mg/l	< 0.0010	0.00085	16.22%	Pass
FLUORIDE, D	0.2	0.2	mg/l	0.23	0.23	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1180	1170	0.85%	Pass
IRON, D	0.02	0.01	mg/l	< 0.020	<0.01	66.67%	Pass-1
IRON, T	0.02	0.01	mg/l	< 0.020	<0.01	66.67%	Pass-1
LEAD, D	0.0001	0.00005	mg/l	< 0.00010	<5e-005	66.67%	Pass-1
LEAD, T	0.0001	0.00005	mg/l	< 0.00010	<5e-005	66.67%	Pass-1
LITHIUM, D	0.002	0.001	mg/l	0.170	0.154	9.88%	Pass

LITHIUM, T	0.002	0.001	mg/l	0.169	0.144	15.97%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	162	154	5.06%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	152	161	5.75%	Pass
MAJOR ANION SUM	0	0	meq/l	24.7	24.5	0.81%	Pass
MAJOR CATION SUM	0	0	meq/l	24.3	24	1.24%	Pass
MANGANESE, D	0.0002	0.0001	mg/l	0.00077	0.00075	2.63%	Pass
MANGANESE, T	0.0002	0.0001	mg/l	0.00181	0.00199	9.47%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00059	0.00121	68.89%	Pass-1
MOLYBDENUM, D	0.0001	0.00005	mg/l	0.0188	0.0192	2.11%	Pass
MOLYBDENUM, T	0.0001	0.00005	mg/l	0.0190	0.019	0.00%	Pass
NICKEL, D	0.001	0.0005	mg/l	0.0969	0.095	1.98%	Pass
NICKEL, T	0.001	0.0005	mg/l	0.0966	0.104	7.38%	Pass
NITRATE NITROGEN (NO3), AS N	0.05	0.05	mg/l	45.8	46.1	0.65%	Pass
NITRITE NITROGEN (NO2), AS N	0.01	0.01	mg/l	0.072	0.069	4.26%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0056	<0.005	11.32%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	321	312	2.84%	Pass
pH, LAB	0.1	0.1	ph units	8.21	8.13	0.98%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0044	0.0048	8.70%	Pass
POTASSIUM, D	0.1	0.05	mg/l	7.19	7.15	0.56%	Pass
POTASSIUM, T	0.1	0.05	mg/l	6.80	7.35	7.77%	Pass
SELENIUM, D	0.1	0.05	ug/l	59.7	61.8	3.46%	Pass
SELENIUM, T	0.1	0.05	ug/l	58.6	60.8	3.69%	Pass
SILICON, D	0.1	0.05	mg/l	2.54	2.48	2.39%	Pass
SILICON, T	0.2	0.1	mg/l	2.50	2.6	3.92%	Pass
SILVER, D	0.00002	0.00001	mg/l	< 0.000020	<1e-005	66.67%	Pass-1
SILVER, T	0.00002	0.00001	mg/l	< 0.000020	<1e-005	66.67%	Pass-1
SODIUM, D	0.1	0.05	mg/l	11.9	11.7	1.69%	Pass
SODIUM, T	0.1	0.05	mg/l	11.3	12.2	7.66%	Pass
STRONTIUM, D	0.0004	0.0002	mg/l	0.455	0.47	3.24%	Pass
STRONTIUM, T	0.0004	0.0002	mg/l	0.463	0.463	0.00%	Pass
SULFATE (AS SO4), D	3	3	mg/l	740	737	0.41%	Pass
THALLIUM, D	0.00002	0.00001	mg/l	0.000054	6e-005	10.53%	Pass
THALLIUM, T	0.00002	0.00001	mg/l	0.000058	5.4e-005	7.14%	Pass
TIN, D	0.0002	0.0001	mg/l	< 0.00020	<0.0001	66.67%	Pass-1
TIN, T	0.0002	0.0001	mg/l	< 0.00020	<0.0001	66.67%	Pass-1
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1800	1780	1.12%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.412	0.315	26.69%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.15	1.81	17.17%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.9	4.1	34.29%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.34	0.39	13.70%	Pass
URANIUM, D	0.00002	0.00001	mg/l	0.0114	0.0115	0.87%	Pass
URANIUM, T	0.00002	0.00001	mg/l	0.0114	0.0114	0.00%	Pass
VANADIUM, D	0.001	0.0005	mg/l	< 0.0010	<0.0005	66.67%	Pass-1
VANADIUM, T	0.001	0.0005	mg/l	< 0.0010	0.00055	58.06%	Pass-1
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.006	0.003	mg/l	< 0.0060	<0.003	66.67%	Pass-1

Location:	GH_MC1	GH_MC1
Sample ID:	GH_MC1_WS_2017-03-22_N	GH_MC1_WS_2017-03-22_FD
Date Sampled:	3/22/2017	3/22/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	245	248	1.22%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	13.2	13.4	1.50%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	258	261	1.16%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0541	0.0094	140.79%	Fail
ANTIMONY, D	0.0001	0.0001	mg/l	0.00041	0.00041	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00051	0.00043	17.02%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00021	0.00023	9.09%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00033	0.00027	20.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0510	0.0489	4.20%	Pass

BARIUM, T	0.00005	0.00005	mg/l	0.0608	0.0514	16.76%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.032	0.022	37.04%	Pass-1
BORON, T	0.01	0.01	mg/l	0.025	0.023	8.33%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000218	1.97e-005	10.12%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000388	3.18e-005	19.83%	Pass
CALCIUM, D	0.05	0.05	mg/l	74.6	71.3	4.52%	Pass
CALCIUM, T	0.05	0.05	mg/l	72.8	78.6	7.66%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.90	2.92	0.69%	Pass
CHLORIDE, D	0.5	0.5	mg/l	3.06	3.02	1.32%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	<0.0001	26.09%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00045	0.00045	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00064	0.00051	22.61%	Pass-2
CONDUCTIVITY, LAB	2	2	us/cm	667	664	0.45%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00065	<0.0005	26.09%	Pass-1
FLUORIDE, D	0.1	0.1	mg/l	0.19	0.18	5.41%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	353	338	4.34%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.041	<0.01	121.57%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0375	0.0361	3.80%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0409	0.0392	4.24%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	40.5	38.8	4.29%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	35.9	40.6	12.29%	Pass
MAJOR ANION SUM	0	0	meq/l	8.21	8.23	0.24%	Pass
MAJOR CATION SUM	0	0	meq/l	7.90	7.58	4.13%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00436	0.00418	4.22%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00721	0.00552	26.55%	Pass-2
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00094	0.00104	10.10%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00331	0.00313	5.59%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00414	0.00331	22.28%	Pass-2
NICKEL, D	0.0005	0.0005	mg/l	0.00449	0.00457	1.77%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00523	0.00501	4.30%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.774	0.768	0.78%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0099	0.0087	12.90%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0115	0.0105	9.09%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	298	293	1.69%	Pass
pH, LAB	0.1	0.1	ph units	8.42	8.43	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0136	0.0135	0.74%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.77	1.78	0.56%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.04	1.88	8.16%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.12	4.34	5.20%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.2	4.01	4.63%	Pass
SILICON, D	0.05	0.05	mg/l	2.71	2.83	4.33%	Pass
SILICON, T	0.05	0.05	mg/l	2.90	2.76	4.95%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	18.3	18.2	0.55%	Pass
SODIUM, T	0.05	0.05	mg/l	17.4	19.1	9.32%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.206	0.18	13.47%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.194	0.194	0.00%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	139	138	0.72%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000012	1e-005	18.18%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	447	446	0.22%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.134	0.189	34.06%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.83	3.11	9.43%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.34	0.34	0.00%	Pass

URANIUM, D	0.0001	0.0001	mg/l	0.00336	0.00331	1.50%	Pass
URANIUM, T	0.0001	0.0001	mg/l	0.00349	0.0033	5.60%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0064	<0.003	72.34%	Pass-1

Location:	GH_MC1	GH_MC1
Sample ID:	GH_MC1_WS_2017-04-18_N	GH_MC1_WS_2017-04-18_FD
Date Sampled:	4/18/2017	4/18/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	210	208	0.96%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	15.2	9	51.24%	Fail
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	225	217	3.62%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0073	0.0088	18.63%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0754	0.0759	0.66%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00030	0.0003	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00032	0.00031	3.17%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00020	0.00021	4.88%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00024	0.00023	4.26%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0599	0.0663	10.14%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0617	0.0606	1.80%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.022	0.022	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.023	0.022	4.44%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000310	3.62e-005	15.48%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000434	4.35e-005	0.23%	Pass
CALCIUM, D	0.05	0.05	mg/l	63.3	70.4	10.62%	Pass
CALCIUM, T	0.05	0.05	mg/l	65.0	63.1	2.97%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	4.47	4.45	0.45%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.91	0.91	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00013	14.29%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	538	518	3.79%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00064	0.00069	7.52%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00080	0.00077	3.82%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.168	0.165	1.80%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	276	306	10.31%	Pass
IRON, D	0.01	0.01	mg/l	0.010	0.012	18.18%	Pass
IRON, T	0.01	0.01	mg/l	0.080	0.08	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000052	5.2e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0261	0.0281	7.38%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0254	0.0266	4.62%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	28.7	31.7	9.93%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	29.4	28.6	2.76%	Pass
MAJOR ANION SUM	0	0	meq/l	6.35	6.18	2.71%	Pass
MAJOR CATION SUM	0	0	meq/l	6.10	6.76	10.26%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00071	0.00088	21.38%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.00235	0.00242	2.94%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00186	0.00186	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00200	0.00203	1.49%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00205	0.00203	0.98%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00359	0.00384	6.73%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00403	0.00386	4.31%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.623	0.624	0.16%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass

ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0073	0.0075	2.70%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	272	254	6.84%	Pass
pH, LAB	0.1	0.1	ph units	8.51	8.4	1.30%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0090	0.0104	14.43%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.37	1.57	13.61%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.42	1.4	1.42%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.77	4.38	8.52%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.71	4.47	5.23%	Pass
SILICON, D	0.05	0.05	mg/l	3.02	2.95	2.35%	Pass
SILICON, T	0.1	0.1	mg/l	3.20	3.21	0.31%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	12.5	13.7	9.16%	Pass
SODIUM, T	0.05	0.05	mg/l	12.8	12.5	2.37%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.183	0.208	12.79%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.184	0.188	2.15%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	85.2	85.1	0.12%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000011	1.2e-005	8.70%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000014	1.4e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	349	347	0.57%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.192	0.193	0.52%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	5.38	5.18	3.79%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.0	3.2	46.15%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.38	1.24	10.69%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00193	0.00203	5.05%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00199	0.00195	2.03%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_MC1	GH_MC1
Sample ID:	GH_MC1_WS_2017-07-03_N	WS_2017-07-03_081
Date Sampled:	7/10/2017	7/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	201	208	3.42%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	24.4	24	1.65%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	226	232	2.62%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0023	0.002	13.95%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0047	0.146	187.52%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00053	0.00053	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00052	0.0005	3.92%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00021	0.00023	9.09%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00024	0.00037	42.62%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0778	0.0781	0.38%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0748	0.08	6.72%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.035	0.035	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.036	0.035	2.82%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000321	3.48e-005	8.07%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000323	8.81e-005	92.69%	Fail
CALCIUM, D	0.05	0.05	mg/l	62.5	62.1	0.64%	Pass
CALCIUM, T	0.05	0.05	mg/l	63.4	62.5	1.43%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.98	3.33	11.09%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.80	1.78	1.12%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	0.00021	70.97%	Pass-1

COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	0.00039	118.37%	Pass-1
CONDUCTIVITY, LAB	2	2	us/cm	594	592	0.34%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00047	0.0005	6.19%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00060	0.00108	57.14%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.160	0.15	6.45%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	273	275	0.73%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	0.296	186.93%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	0.000207	122.18%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0376	0.0379	0.79%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0367	0.0368	0.27%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	28.5	29.2	2.43%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	29.6	28.3	4.49%	Pass
MAJOR ANION SUM	0	0	meq/l	6.60	6.72	1.80%	Pass
MAJOR CATION SUM	0	0	meq/l	6.11	6.16	0.81%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00021	0.00028	28.57%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00040	0.011	185.96%	Pass-1
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0025	0.0005	ug/l	< 0.0025	0.00154	47.52%	Pass-1
Methyl Mercury, T	0.00005	0.00005	ug/l	< 0.000050	<5e-005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00364	0.00362	0.55%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00369	0.00358	3.03%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00206	0.00212	2.87%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00216	0.00371	52.81%	Pass-1
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0641	0.0687	6.93%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0175	0.0091	63.16%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0060	0.0064	6.45%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	208	221	6.06%	Pass
pH, LAB	0.1	0.1	ph units	8.58	8.56	0.23%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0112	0.0142	23.62%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.15	2.24	4.10%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.16	2.12	1.87%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.1	2.14	1.89%	Pass
SELENIUM, T	0.05	0.05	ug/l	2.09	2.05	1.93%	Pass
SILICON, D	0.05	0.05	mg/l	2.98	3	0.67%	Pass
SILICON, T	0.1	0.1	mg/l	3.01	3.15	4.55%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	13.6	13.8	1.46%	Pass
SODIUM, T	0.05	0.05	mg/l	13.8	13.2	4.44%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.181	0.177	2.23%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.185	0.178	3.86%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	97.5	97.5	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	1.6e-005	46.15%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	367	371	1.08%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.187	0.256	31.15%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.00	3.48	14.81%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	2	66.67%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.37	0.59	45.83%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.00224	0.00218	2.71%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00230	0.00231	0.43%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	0.0007	33.33%	Pass-1
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	0.0035	15.38%	Pass

Location:	GH_TC1	GH_TC1
Sample ID:	GH_TC1_WS_2017-01-10_N	GH_TC1_WS_2017-01-10_FD
Date Sampled:	1/10/2017	1/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	253	247	2.40%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	253	247	2.40%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0219	0.0271	21.22%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00015	0.00014	6.90%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00022	0.0002	9.52%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00019	0.00018	5.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00021	0.0002	4.88%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0892	0.0879	1.47%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0830	0.0841	1.32%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.020	0.021	4.88%	Pass
BORON, T	0.01	0.01	mg/l	0.020	0.02	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000140	1.74e-005	21.66%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000204	1.82e-005	11.40%	Pass
CALCIUM, D	0.05	0.05	mg/l	215	216	0.46%	Pass
CALCIUM, T	0.05	0.05	mg/l	219	226	3.15%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.46	2.18	12.07%	Pass
CHLORIDE, D	0.5	0.5	mg/l	15.3	15.8	3.22%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1570	1580	0.63%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	979	971	0.82%	Pass
ION BALANCE	0	0	%	0.7	-0.3	200.00%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.027	0.028	3.64%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0225	0.022	2.25%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0190	0.0202	6.12%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	107	105	1.89%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	102	103	0.98%	Pass
MAJOR ANION SUM	0	0	meq/l	19.8	20	1.01%	Pass
MAJOR CATION SUM	0	0	meq/l	20.1	19.9	1.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00228	0.00214	6.33%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00355	0.00345	2.86%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00117	0.00117	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00121	0.0012	0.83%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00194	0.00196	1.03%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00196	0.00208	5.94%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	10.0	10.3	2.96%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0131	0.0196	39.76%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0235	0.0233	0.85%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0106	0.0099	6.83%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	376	364	3.24%	Pass
pH, LAB	0.1	0.1	ph units	8.27	8.27	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0110	0.0117	6.17%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.94	1.88	3.14%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.13	1.81	16.24%	Pass
SELENIUM, D	0.05	0.05	ug/l	109	109	0.00%	Pass
SELENIUM, T	0.05	0.05	ug/l	101	103	1.96%	Pass
SILICON, D	0.05	0.05	mg/l	4.26	4.23	0.71%	Pass
SILICON, T	0.05	0.05	mg/l	4.33	4.24	2.10%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	11.0	10.8	1.83%	Pass
SODIUM, T	0.05	0.05	mg/l	10.2	10.2	0.00%	Pass

STRONTIUM, D	0.0002	0.0002	mg/l	0.550	0.555	0.90%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.530	0.535	0.94%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	652	669	2.57%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1270	1280	0.78%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.347	0.299	14.86%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.67	2.61	2.27%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.7	1.7	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.88	0.86	2.30%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00335	0.00334	0.30%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00337	0.00338	0.30%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_TC1	GH_TC1
Sample ID:	GH_TC1_WS_2017-02-15_N	GH_TC1_WS_2017-02-15_FD
Date Sampled:	2/15/2017	2/15/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	234	233	0.43%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	7.2	7.8	8.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	241	241	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0185	0.0148	22.22%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00026	0.00026	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00029	0.00027	7.14%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00022	0.00021	4.65%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00027	0.00024	11.76%	Pass
BARIIUM, D	0.00005	0.00005	mg/l	0.0948	0.0975	2.81%	Pass
BARIIUM, T	0.00005	0.00005	mg/l	0.0959	0.0961	0.21%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.020	0.02	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.022	0.021	4.65%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000616	6.62e-005	7.20%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000719	6.98e-005	2.96%	Pass
CALCIUM, D	0.05	0.05	mg/l	207	207	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	210	207	1.44%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.46	3.57	3.13%	Pass
CHLORIDE, D	0.5	0.5	mg/l	16.7	16.7	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	<0.0001	18.18%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1500	1510	0.66%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.10	0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	907	908	0.11%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.028	0.025	11.32%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000052	5.8e-005	10.91%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0242	0.0242	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0251	0.0251	0.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	94.9	94.9	0.00%	Pass

MAGNESIUM, T	0.1	0.1	mg/l	99.9	98.3	1.61%	Pass
MAJOR ANION SUM	0	0	meq/l	19.2	19.2	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	18.7	18.7	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00406	0.00428	5.28%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00632	0.00628	0.63%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00132	0.00088	40.00%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00134	0.00133	0.75%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00138	0.00138	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00208	0.00214	2.84%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00238	0.00232	2.55%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	12.7	12.7	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0275	0.03	8.70%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0088	55.07%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0121	0.0116	4.22%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	304	300	1.32%	Pass
pH, LAB	0.1	0.1	ph units	8.36	8.35	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0178	0.0165	7.58%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.17	2.19	0.92%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.24	2.2	1.80%	Pass
SELENIUM, D	0.05	0.05	ug/l	94.7	93.5	1.28%	Pass
SELENIUM, T	0.05	0.05	ug/l	91.9	92.4	0.54%	Pass
SILICON, D	0.05	0.05	mg/l	3.96	4.02	1.50%	Pass
SILICON, T	0.05	0.05	mg/l	4.23	4.28	1.18%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	12.6	12.6	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	13.3	13	2.28%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.586	0.585	0.17%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.593	0.591	0.34%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	626	625	0.16%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1220	1190	2.49%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.425	0.462	8.34%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.84	3.76	2.11%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.0	1.8	10.53%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.92	0.95	3.21%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00332	0.00325	2.13%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00332	0.00331	0.30%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_TC1	GH_TC1
Sample ID:	GH_TC1_WS_2017-03-06_N	GH_TC1_WS_2017-03-06_FD
Date Sampled:	3/6/2017	3/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.8	1.7	5.71%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	230	233	1.30%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	230	233	1.30%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0119	0.0139	15.50%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00017	0.00016	6.06%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00019	0.00019	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00020	0.00017	16.22%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0843	0.0807	4.36%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0800	0.0758	5.39%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass

BERYLLIUM, T	0.0002	0.0002	mg/l	< 0.00020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.017	0.02	16.22%	Pass
BORON, T	0.01	0.01	mg/l	0.022	0.022	0.00%	Pass
BROMIDE, D	0.25	0.5	mg/l	< 0.25	<0.5	66.67%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	0.0000372	3.83e-005	2.91%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000411	4.59e-005	11.03%	Pass
CALCIUM, D	0.05	0.05	mg/l	219	195	11.59%	Pass
CALCIUM, T	0.05	0.05	mg/l	208	205	1.45%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.87	2.59	10.26%	Pass
CHLORIDE, D	0.5	1	mg/l	16.5	16.7	1.20%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	0.00031	102.44%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1410	1420	0.71%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.2	mg/l	< 0.10	<0.2	66.67%	Pass-1
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	922	917	0.54%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.015	0.02	28.57%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0204	0.0233	13.27%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0236	0.0233	1.28%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	91.2	104	13.11%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	104	103	0.97%	Pass
MAJOR ANION SUM	0	0	meq/l	19.1	19.5	2.07%	Pass
MAJOR CATION SUM	0	0	meq/l	19.0	18.9	0.53%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00178	0.0019	6.52%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00257	0.00261	1.54%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00054	<0.0005	7.69%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00137	0.00145	5.67%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00139	0.00141	1.43%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00180	0.00197	9.02%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00218	0.00224	2.71%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.05	mg/l	12.2	12.3	0.82%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.01	mg/l	0.0102	0.011	7.55%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0177	0.0177	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0112	0.0107	4.57%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	320	327	2.16%	Pass
pH, LAB	0.1	0.1	ph units	8.23	8.23	0.00%	Pass
PHOSPHORUS	0.01	0.002	mg/l	0.015	0.0121	21.40%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.69	1.83	7.95%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.76	1.81	2.80%	Pass
SELENIUM, D	0.05	0.05	ug/l	106	102	3.85%	Pass
SELENIUM, T	0.05	0.05	ug/l	104	104	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	3.54	3.82	7.61%	Pass
SILICON, T	0.05	0.05	mg/l	3.70	3.61	2.46%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	12.6	13	3.13%	Pass
SODIUM, T	0.05	0.05	mg/l	13.2	13.3	0.75%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.521	0.597	13.60%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.582	0.597	2.54%	Pass
SULFATE (AS SO4), D	1.5	3	mg/l	635	646	1.72%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1270	1260	0.79%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.282	0.332	16.29%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.74	2.72	0.73%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.43	0.42	2.35%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00330	0.0036	8.70%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00363	0.0036	0.83%	Pass

VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_TC2	GH_TC2
Sample ID:	GH_TC2_WS_2017-03-28_N	GH_TC2_WS_2017-03-28_FD
Date Sampled:	3/28/2017	3/28/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	5.5	5.3	3.70%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	7.70	7.81	1.42%	Pass

Location:	GH_TC2	GH_TC2
Sample ID:	GH_TC2_WS_2017-07-04_N	WS_2017-07-04_022
Date Sampled:	7/4/2017	7/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.5	3.7	38.71%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.38	2.67	63.70%	Fail

Location:	GH_TC2	GH_TC2
Sample ID:	GH_TC2_WS_2017-10-02_N	WS_2017-10-02_043
Date Sampled:	10/3/2017	10/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	179	181	1.11%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	10.6	7.9	29.19%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	190	189	0.53%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0106	0.013	20.34%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00019	0.00019	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00027	0.00023	16.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0835	0.0885	5.81%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0814	0.0786	3.50%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.025	0.024	4.08%	Pass
BORON, T	0.01	0.01	mg/l	0.023	0.024	4.26%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000094	6.3e-006	39.49%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	256	255	0.39%	Pass
CALCIUM, T	0.05	0.05	mg/l	263	265	0.76%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.94	2.96	0.68%	Pass
Cation - Anion Balance	0	0	%	0.5	2.1	123.08%	Fail
CHLORIDE, D	2.5	2.5	mg/l	13.8	13.8	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	0.00039	118.37%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1710	1730	1.16%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

FLUORIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1240	1270	2.39%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.014	0.019	30.30%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0268	0.0264	1.50%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0273	0.0273	0.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	147	155	5.30%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	151	145	4.05%	Pass
MAJOR ANION SUM	0	0	meq/l	25.1	25	0.40%	Pass
MAJOR CATION SUM	0	0	meq/l	25.4	26.1	2.72%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00080	0.00083	3.68%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00158	0.00174	9.64%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00129	0.00131	1.54%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00138	0.00131	5.20%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00219	0.00224	2.26%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00210	0.00216	2.82%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	17.7	17.4	1.71%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0120	0.0124	3.28%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0117	0.015	24.72%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	348	349	0.29%	Pass
pH, LAB	0.1	0.1	ph units	8.41	8.39	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0042	0.0046	9.09%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.33	2.45	5.02%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.24	2.16	3.64%	Pass
SELENIUM, D	0.05	0.05	ug/l	169	179	5.75%	Pass
SELENIUM, T	0.05	0.05	ug/l	170	166	2.38%	Pass
SILICON, D	0.05	0.05	mg/l	2.24	2.37	5.64%	Pass
SILICON, T	0.1	0.1	mg/l	2.47	2.37	4.13%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	11.6	12.2	5.04%	Pass
SODIUM, T	0.05	0.05	mg/l	11.6	11.1	4.41%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.708	0.71	0.28%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.723	0.728	0.69%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	946	940	0.64%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	40	mg/l	1360	1670	20.46%	Pass-2
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.718	0.691	3.83%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.64	2.65	0.38%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.6	1.6	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.04	0.88	16.67%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00597	0.00601	0.67%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00585	0.00588	0.51%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	GH_WADE	GH_WADE
Sample ID:	GH_WADE_WS_2017-03-16_N	GH_WADE_WS_2017-03-16_FD
Date Sampled:	3/16/2017	3/16/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.2	1.3	51.43%	Pass-1
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	199	208	4.42%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0163	0.0193	16.85%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.433	0.397	8.67%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00015	0.00014	6.90%	Pass

ANTIMONY, T	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00023	0.00023	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00054	0.00049	9.71%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.117	0.117	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.132	0.125	5.45%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000043	4.4e-005	2.30%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.031	0.032	3.17%	Pass
BORON, T	0.01	0.01	mg/l	0.033	0.032	3.08%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000272	2.81e-005	3.25%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000132	0.000131	0.76%	Pass
CALCIUM, D	0.05	0.05	mg/l	48.0	48.5	1.04%	Pass
CALCIUM, T	0.05	0.05	mg/l	50.1	48.5	3.25%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	5.35	5.34	0.19%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.59	0.56	5.22%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00066	0.00062	6.25%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00055	0.00054	1.83%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	403	405	0.50%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00053	0.00057	7.27%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00197	0.0019	3.62%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.091	0.1	9.42%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	184	185	0.54%	Pass
IRON, D	0.01	0.01	mg/l	0.030	0.031	3.28%	Pass
IRON, T	0.01	0.01	mg/l	0.661	0.609	8.19%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000681	0.000647	5.12%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0116	0.012	3.39%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0123	0.0119	3.31%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	15.5	15.4	0.65%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	15.5	15.1	2.61%	Pass
MAJOR ANION SUM	0	0	meq/l	4.56	4.72	3.45%	Pass
MAJOR CATION SUM	0	0	meq/l	4.43	4.45	0.45%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00352	0.0034	3.47%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0236	0.0225	4.77%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.001	ug/l	0.00812	0.0082	0.98%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000945	0.000963	1.89%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00110	0.00107	2.76%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00104	0.00112	7.41%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00277	0.00257	7.49%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.313	0.282	10.42%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0012	0.0011	8.70%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0050	0.0434	158.68%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0401	0.0374	6.97%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	303	298	1.66%	Pass
pH, LAB	0.1	0.1	ph units	8.18	8.22	0.49%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0774	0.0674	13.81%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.43	1.42	0.70%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.62	1.53	5.71%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.3	2.1	9.09%	Pass
SELENIUM, T	0.05	0.05	ug/l	2.17	2	8.15%	Pass
SILICON, D	0.05	0.05	mg/l	2.97	2.88	3.08%	Pass
SILICON, T	0.05	0.05	mg/l	3.37	3.15	6.75%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000029	3.2e-005	9.84%	Pass
SODIUM, D	0.05	0.05	mg/l	16.6	16.6	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	16.6	16.2	2.44%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.206	0.212	2.87%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.218	0.211	3.26%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	25.5	25.4	0.39%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000035	3.6e-005	2.82%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	248	248	0.00%	Pass

TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.453	0.412	9.48%	Pass
TOTAL ORGANIC CARBON, T	2.5	2.5	mg/l	12.8	9.9	25.55%	Pass-2
TOTAL SUSPENDED SOLIDS, LAB	2	2	mg/l	33.0	31	6.25%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	55.3	54.3	1.82%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000734	0.000743	1.22%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000835	0.000812	2.79%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00204	0.00178	13.61%	Pass
ZINC, D	0.001	0.001	mg/l	0.0013	0.0012	8.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0076	0.0077	1.31%	Pass

Location:	GH_WC1	GH_WC1
Sample ID:	GH_WC1_WS_2017-05-01_N	GH_WC1_WS_2017-05-01_FD
Date Sampled:	5/1/2017	5/1/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	265	262	1.14%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	24.2	25.4	4.84%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	289	287	0.69%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0802	0.0694	14.44%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00356	0.0035	1.70%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00339	0.00344	1.46%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00031	0.00029	6.67%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00039	0.00038	2.60%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.140	0.133	5.13%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.126	0.132	4.65%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.019	0.02	5.13%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000180	0.000155	14.93%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000202	0.000193	4.56%	Pass
CALCIUM, D	0.05	0.05	mg/l	117	116	0.86%	Pass
CALCIUM, T	0.05	0.05	mg/l	131	132	0.76%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.99	2.94	1.69%	Pass
CHLORIDE, D	0.5	0.5	mg/l	2.18	2.23	2.27%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00100	0.00096	4.08%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00105	0.00102	2.90%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1080	1090	0.92%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00054	0.00053	1.87%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00076	0.00072	5.41%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.22	0.22	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	562	568	1.06%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.068	0.052	26.67%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000057	<5e-005	13.08%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.121	0.118	2.51%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.130	0.133	2.28%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	65.5	67.9	3.60%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	67.2	70.2	4.37%	Pass
MAJOR ANION SUM	0	0	meq/l	12.4	12.5	0.80%	Pass
MAJOR CATION SUM	0	0	meq/l	11.7	11.8	0.85%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00149	0.00142	4.81%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00242	0.00199	19.50%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00111	0.00113	1.79%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.0220	0.0217	1.37%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.0225	0.0231	2.63%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0365	0.0361	1.10%	Pass

NICKEL, T	0.0005	0.0005	mg/l	0.0367	0.0375	2.16%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	31.9	32.5	1.86%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0283	0.0309	8.78%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0051	0.0054	5.71%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0023	0.0021	9.09%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	287	260	9.87%	Pass
pH, LAB	0.1	0.1	ph units	8.50	8.51	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0051	0.0057	11.11%	Pass
POTASSIUM, D	0.05	0.05	mg/l	6.04	6	0.66%	Pass
POTASSIUM, T	0.05	0.05	mg/l	5.54	5.69	2.67%	Pass
SELENIUM, D	0.05	0.05	ug/l	54	50.9	5.91%	Pass
SELENIUM, T	0.05	0.05	ug/l	51.3	53.9	4.94%	Pass
SILICON, D	0.05	0.05	mg/l	3.38	3.22	4.85%	Pass
SILICON, T	0.1	0.1	mg/l	3.47	3.53	1.71%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	6.75	6.64	1.64%	Pass
SODIUM, T	0.05	0.05	mg/l	6.32	6.44	1.88%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.379	0.37	2.40%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.395	0.401	1.51%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	207	211	1.91%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000033	3.3e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000036	3.2e-005	11.76%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	765	781	2.07%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.397	0.411	3.47%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.63	3.53	2.79%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.9	2.1	32.00%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	2.54	2.91	13.58%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00441	0.00426	3.46%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00403	0.0041	1.72%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00057	0.00054	5.41%	Pass
ZINC, D	0.003	0.003	mg/l	0.0125	0.0115	8.33%	Pass
ZINC, T	0.003	0.003	mg/l	0.0138	0.013	5.97%	Pass

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-01-03_N	FD_M_2017-01-03_032
Date Sampled:	1/10/2017	1/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	170	169	0.59%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.2	5.4	3.77%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	175	175	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0070	0.0055	24.00%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00015	0.00014	6.90%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00018	0.00017	5.71%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.180	0.18	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.192	0.191	0.52%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000311	2.85e-005	8.72%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000324	3.14e-005	3.13%	Pass
CALCIUM, D	0.05	0.05	mg/l	46.6	46.5	0.21%	Pass
CALCIUM, T	0.05	0.05	mg/l	47.3	46.8	1.06%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.98	1.08	9.71%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.58	0.58	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

CHROMIUM, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	331	333	0.60%	Pass
COPPER, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.123	0.124	0.81%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	188	188	0.00%	Pass
ION BALANCE	0	0	%	0.6	0.7	15.38%	Pass
IRON, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.015	0.015	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0103	0.0104	0.97%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0099	0.0096	3.08%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	17.4	17.4	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	18.1	18.5	2.19%	Pass
MAJOR ANION SUM	0	0	meq/l	3.79	3.78	0.26%	Pass
MAJOR CATION SUM	0	0	meq/l	3.83	3.83	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00083	0.00087	4.71%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00161	0.00157	2.52%	Pass
MERCURY, D	0.000005	0.000005	mg/l	<0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00052	<0.0005	3.92%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00124	0.00124	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00132	0.00134	1.50%	Pass
NICKEL, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.370	0.369	0.27%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	<0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	<0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0128	0.0114	11.57%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	379	379	0.00%	Pass
pH, LAB	0.1	0.1	ph units	8.34	8.35	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0135	0.0105	25.00%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	1.20	1.2	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.25	1.25	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.98	2.03	2.49%	Pass
SELENIUM, T	0.05	0.05	ug/l	2.06	2.11	2.40%	Pass
SILICON, D	0.05	0.05	mg/l	2.98	3.04	1.99%	Pass
SILICON, T	0.05	0.05	mg/l	3.02	3.06	1.32%	Pass
SILVER, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.12	1.13	0.89%	Pass
SODIUM, T	0.05	0.05	mg/l	1.15	1.18	2.58%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0543	0.0545	0.37%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0568	0.0574	1.05%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	11.3	11.3	0.00%	Pass
SULFIDE (as S), T	0.002	0.002	mg/l	<0.0020	<0.002	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	199	200	0.50%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.069	<0.05	31.93%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.06	1.19	11.56%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	<1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.30	0.31	3.28%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000435	0.000443	1.82%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000443	0.00045	1.57%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00052	0.00054	3.77%	Pass
ZINC, D	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-03-07_N	FD_M_2017-03-07_038
Date Sampled:	3/7/2017	3/7/2017

Analyte	Sample Type:			Primary	Secondary	Primary vs. Duplicate	Category1
	Detection Limit Pri.	Detection Limit Dup.	Units				
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	186	183	1.63%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	186	183	1.63%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0205	0.0133	42.60%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00015	0.00013	14.29%	Pass
BARIIUM, D	0.00005	0.00005	mg/l	0.182	0.181	0.55%	Pass
BARIIUM, T	0.00005	0.00005	mg/l	0.181	0.172	5.10%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000363	3.2e-005	12.59%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000435	4.18e-005	3.99%	Pass
CALCIUM, D	0.05	0.05	mg/l	45.7	46.2	1.09%	Pass
CALCIUM, T	0.05	0.05	mg/l	46.5	46.2	0.65%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.02	1.17	13.70%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.47	0.51	8.16%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.0001	18.18%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	319	318	0.31%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.132	0.132	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	191	190	0.52%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.037	0.031	17.65%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0094	0.009	4.35%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0096	0.0097	1.04%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	18.6	18.1	2.72%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	17.9	17.4	2.83%	Pass
MAJOR ANION SUM	0	0	meq/l	3.96	3.92	1.02%	Pass
MAJOR CATION SUM	0	0	meq/l	3.88	3.86	0.52%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00106	0.00095	10.95%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00237	0.0022	7.44%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00127	0.00132	3.86%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00126	0.00123	2.41%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.284	0.284	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0108	0.0108	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	356	360	1.12%	Pass
pH, LAB	0.1	0.1	ph units	8.27	8.24	0.36%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0111	0.012	7.79%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.12	1.11	0.90%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.16	1.14	1.74%	Pass
SELENIUM, D	0.05	0.05	ug/l	2	1.92	4.08%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.88	1.92	2.11%	Pass
SILICON, D	0.05	0.05	mg/l	2.59	2.58	0.39%	Pass
SILICON, T	0.05	0.05	mg/l	2.88	2.85	1.05%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.10	1.08	1.83%	Pass

SODIUM, T	0.05	0.05	mg/l	1.10	1.08	1.83%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0570	0.057	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0556	0.0558	0.36%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	10.3	10.3	0.00%	Pass
SULFIDE (as S), T	0.002	0.002	mg/l	< 0.0020	<0.002	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	202	211	4.36%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.081	0.068	17.45%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.18	1.15	2.58%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.1	1.6	27.03%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.77	0.62	21.58%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.000476	0.000473	0.63%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000480	0.000476	0.84%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00059	0.00052	12.61%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-03-14_N	FD_WK_20170314_050
Date Sampled:	3/13/2017	3/13/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.4	1.8	25.00%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	184	186	1.08%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	184	186	1.08%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0060	0.0067	11.02%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00013	0.00016	20.69%	Pass-1
ANTIMONY, T	0.0001	0.0001	mg/l	0.00023	0.00026	12.24%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00013	0.00014	7.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.189	0.19	0.53%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.185	0.192	3.71%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000344	3.52e-005	2.30%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000348	3.69e-005	5.86%	Pass
CALCIUM, D	0.05	0.05	mg/l	43.4	44.2	1.83%	Pass
CALCIUM, T	0.05	0.05	mg/l	43.9	45.5	3.58%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.39	1.44	3.53%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	339	340	0.29%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.116	0.122	5.04%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	179	182	1.66%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.018	0.021	15.38%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

LITHIUM, D	0.001	0.001	mg/l	0.0104	0.0108	3.77%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0100	0.0106	5.83%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	17.1	17.3	1.16%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	16.4	17	3.59%	Pass
MAJOR ANION SUM	0	0	meq/l	3.93	3.96	0.76%	Pass
MAJOR CATION SUM	0	0	meq/l	3.64	3.71	1.90%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00090	0.00084	6.90%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00151	0.00157	3.90%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00128	0.00129	0.78%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00132	0.00135	2.25%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.286	0.287	0.35%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0053	5.83%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0245	0.0242	1.23%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	416	366	12.79%	Pass
pH, LAB	0.1	0.1	ph units	8.20	8.2	0.00%	Pass
PHOSPHORUS	0.02	0.02	mg/l	< 0.020	0.034	51.85%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.18	1.19	0.84%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.18	1.2	1.68%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.03	2	1.49%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.94	2.01	3.54%	Pass
SILICON, D	0.05	0.05	mg/l	2.37	2.34	1.27%	Pass
SILICON, T	0.05	0.05	mg/l	2.30	2.42	5.08%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.08	1.09	0.92%	Pass
SODIUM, T	0.05	0.05	mg/l	1.05	1.08	2.82%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0556	0.0573	3.01%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0567	0.0585	3.13%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	10.4	10.5	0.96%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	202	187	7.71%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.173	0.137	23.23%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.53	1.39	9.59%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.33	0.29	12.90%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000411	0.000414	0.73%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000445	0.000461	3.53%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00059	0.00058	1.71%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-03-21_N	FD_WK_20170321_053
Date Sampled:	3/20/2017	3/20/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	170	166	2.38%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	170	166	2.38%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0013	0.0015	14.29%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0220	0.0333	40.87%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00010	0.00012	18.18%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00011	0.00016	37.04%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	0.00013	0.00014	7.41%	Pass

ARSENIC, T	0.0001	0.0001	mg/l	0.00015	0.0002	28.57%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.186	0.187	0.54%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.161	0.198	20.61%	Fail
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000260	3.07e-005	16.58%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000509	6.48e-005	24.03%	Pass-2
CALCIUM, D	0.05	0.05	mg/l	43.1	45.5	5.42%	Pass
CALCIUM, T	0.05	0.05	mg/l	38.1	48.8	24.63%	Pass-2
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.25	1.23	1.61%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	0.51	1.98%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.00015	22.22%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	320	313	2.21%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00059	0.00085	36.11%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.110	0.111	0.90%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	172	183	6.20%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.073	0.09	20.86%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000052	5e-005	3.92%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0090	0.0098	8.51%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0080	0.0099	21.23%	Pass-2
MAGNESIUM, D	0.005	0.005	mg/l	15.6	16.9	8.00%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	13.8	17.8	25.32%	Fail
MAJOR ANION SUM	0	0	meq/l	3.65	3.6	1.38%	Pass
MAJOR CATION SUM	0	0	meq/l	3.51	3.74	6.34%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00052	0.00056	7.41%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00456	0.00558	20.12%	Pass-2
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00088	0.00086	2.30%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00108	0.00115	6.28%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00103	0.00135	26.89%	Pass-2
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	0.00058	14.81%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.355	0.374	5.21%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0470	0.0071	147.50%	Fail
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0129	0.0126	2.35%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	364	374	2.71%	Pass
pH, LAB	0.1	0.1	ph units	8.23	8.21	0.24%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0248	0.0226	9.28%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.10	1.18	7.02%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.01	1.23	19.64%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.89	1.99	5.15%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.6	2.11	27.49%	Pass-2
SILICON, D	0.05	0.05	mg/l	2.47	2.62	5.89%	Pass
SILICON, T	0.05	0.05	mg/l	2.32	2.77	17.68%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.983	1.06	7.54%	Pass
SODIUM, T	0.05	0.05	mg/l	0.879	1.1	22.33%	Pass-2
STRONTIUM, D	0.0002	0.0002	mg/l	0.0504	0.0533	5.59%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0458	0.0592	25.52%	Pass-2
SULFATE (AS SO4), D	0.3	0.3	mg/l	11.2	11	1.80%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	168	173	2.93%	Pass

TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.120	0.096	22.22%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.55	1.48	4.62%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	5.2	5	3.92%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.47	2.78	11.81%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000325	0.000342	5.10%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000371	0.000442	17.47%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00066	0.00083	22.82%	Pass-1
ZINC, D	0.001	0.001	mg/l	<0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0042	<0.003	33.33%	Pass-1

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-03-28_N	FD_WK_20170328_056
Date Sampled:	3/27/2017	3/27/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	168	165	1.80%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	2.8	3.8	30.30%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	171	169	1.18%	Pass
ALUMINIUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINIUM, T	0.003	0.003	mg/l	0.0086	0.006	35.62%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00019	0.00024	23.26%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	0.00015	0.00014	6.90%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00016	0.00017	6.06%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.195	0.197	1.02%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.176	0.173	1.72%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000326	3.12e-005	4.39%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000355	3.39e-005	4.61%	Pass
CALCIUM, D	0.05	0.05	mg/l	43.3	43.5	0.46%	Pass
CALCIUM, T	0.05	0.05	mg/l	42.4	43.1	1.64%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.79	1.6	11.21%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	321	326	1.55%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.118	0.114	3.45%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	182	182	0.00%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
ION BALANCE	0	0	%	0.3	1.2	120.00%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.020	0.018	10.53%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0097	0.0096	1.04%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0100	0.0103	2.96%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	17.9	17.8	0.56%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	17.5	17.6	0.57%	Pass
MAJOR ANION SUM	0	0	meq/l	3.68	3.63	1.37%	Pass
MAJOR CATION SUM	0	0	meq/l	3.71	3.71	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00086	0.00092	6.74%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00157	0.00163	3.75%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00051	0.00053	3.85%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00110	0.00109	0.91%	Pass

MOLYBDENUM, T	0.0005	0.0005	mg/l	0.00123	0.00127	3.20%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	0.00056	11.32%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.325	0.33	1.53%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0097	0.0093	4.21%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	330	336	1.80%	Pass
pH, LAB	0.1	0.1	ph units	8.34	8.35	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0127	0.0142	11.15%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.28	1.27	0.78%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.23	1.24	0.81%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.07	2.09	0.96%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.93	2.32	18.35%	Pass
SILICON, D	0.05	0.05	mg/l	2.76	2.82	2.15%	Pass
SILICON, T	0.05	0.05	mg/l	2.76	3.35	19.31%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.09	1.09	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	1.07	1.07	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0562	0.0564	0.36%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0559	0.0568	1.60%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	10.6	10.7	0.94%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	167	187	11.30%	Pass
TOTAL KjELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.21	1.97	11.48%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.0	1.2	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.49	0.54	9.71%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000350	0.000354	1.14%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000411	0.000411	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00102	0.00104	1.94%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-04-04_N	FD_M_2017-04-04_041
Date Sampled:	4/4/2017	4/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	161	164	1.85%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.2	4.2	21.28%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	167	168	0.60%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0031	0.0028	10.17%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0389	0.0545	33.40%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00017	0.00016	6.06%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.196	0.193	1.54%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.208	0.204	1.94%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000260	2.82e-005	8.12%	Pass

CADMIUM, T	0.000005	0.000005	mg/l	0.0000403	4.34e-005	7.41%	Pass
CALCIUM, D	0.05	0.05	mg/l	44.1	42.1	4.64%	Pass
CALCIUM, T	0.05	0.05	mg/l	41.2	40.9	0.73%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.17	1.19	1.69%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	314	312	0.64%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.099	0.1	1.01%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	180	175	2.82%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
ION BALANCE	0	0	%	1.5	-0.2	200.00%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.060	0.074	20.90%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000058	<5e-005	14.81%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0090	0.0087	3.39%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0083	0.0082	1.21%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	17.0	17	0.00%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	15.7	15.6	0.64%	Pass
MAJOR ANION SUM	0	0	meq/l	3.57	3.59	0.56%	Pass
MAJOR CATION SUM	0	0	meq/l	3.68	3.57	3.03%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00091	0.0009	1.10%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00324	0.00367	12.45%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	0.00106	71.79%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00124	0.00118	4.96%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00118	0.00115	2.58%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.329	0.323	1.84%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0429	0.0192	76.33%	Fail
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0114	0.0116	1.74%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	491	485	1.23%	Pass
pH, LAB	0.1	0.1	ph units	8.35	8.34	0.12%	Pass
PHOSPHORUS	0.004	0.002	mg/l	0.0213	0.0259	19.49%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.23	1.22	0.82%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.14	1.13	0.88%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.89	1.92	1.57%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.84	1.84	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	2.63	2.7	2.63%	Pass
SILICON, T	0.05	0.05	mg/l	2.61	2.65	1.52%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.02	1.02	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	0.945	0.937	0.85%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0530	0.0505	4.83%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0507	0.0506	0.20%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	10.1	10.1	0.00%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	195	180	8.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.107	0.106	0.94%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.36	1.58	14.97%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.5	3.7	38.71%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	5.10	6.44	23.22%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.000386	0.000357	7.81%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000361	0.000358	0.83%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00077	0.00081	5.06%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-04-11_N	FD_WK_20170411_059
Date Sampled:	4/10/2017	4/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	152	151	0.66%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	3.4	2.8	19.35%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	156	154	1.29%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0027	0.0026	3.77%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0088	0.0094	6.59%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00015	0.00014	6.90%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00014	0.00017	19.35%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00017	0.00017	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00015	0.00017	12.50%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.187	0.186	0.54%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.157	0.169	7.36%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000304	3.43e-005	12.06%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000322	3.85e-005	17.82%	Pass
CALCIUM, D	0.05	0.05	mg/l	41.8	42	0.48%	Pass
CALCIUM, T	0.05	0.05	mg/l	35.5	38	6.80%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.58	2.07	21.94%	Pass-2
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	297	293	1.36%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00028	<0.0002	33.33%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.100	0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	168	168	0.00%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
ION BALANCE	0	0	%	1.2	1.8	40.00%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.019	0.021	10.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0092	0.0092	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0078	0.0083	6.21%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	15.5	15.3	1.30%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	13.3	14	5.13%	Pass
MAJOR ANION SUM	0	0	meq/l	3.35	3.31	1.20%	Pass
MAJOR CATION SUM	0	0	meq/l	3.44	3.43	0.29%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00090	0.00078	14.29%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00143	0.00152	6.10%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00067	0.00062	7.75%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00121	0.00121	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00107	0.00116	8.07%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.327	0.331	1.22%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0287	0.0154	60.32%	Fail
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0108	0.0109	0.92%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	496	493	0.61%	Pass
pH, LAB	0.1	0.1	ph units	8.32	8.32	0.00%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0161	0.017	5.44%	Pass

POTASSIUM, D	0.05	0.05	mg/l	1.17	1.18	0.85%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.05	1.12	6.45%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.89	1.91	1.05%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.62	1.74	7.14%	Pass
SILICON, D	0.05	0.05	mg/l	2.63	2.62	0.38%	Pass
SILICON, T	0.05	0.05	mg/l	2.30	2.41	4.67%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.02	0.968	5.23%	Pass
SODIUM, T	0.05	0.05	mg/l	0.845	0.897	5.97%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0502	0.05	0.40%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0429	0.0458	6.54%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	10.1	9.98	1.20%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	190	178	6.52%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.105	0.1	4.88%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.72	2.24	19.35%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.1	1.9	53.33%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.89	0.83	6.98%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000342	0.000347	1.45%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000324	0.000349	7.43%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00058	0.00056	3.51%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00063	0.00069	9.09%	Pass
ZINC, D	0.001	0.001	mg/l	0.0012	<0.001	18.18%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	0.0044	37.84%	Pass-1

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-04-18_N	FD_WK_20170418_062
Date Sampled:	4/18/2017	4/18/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	150	154	2.63%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	150	154	2.63%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0031	0.0026	17.54%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0328	0.0156	71.07%	Fail
ANTIMONY, D	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00019	0.00017	11.11%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00020	0.00023	13.95%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.165	0.175	5.88%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.143	0.17	17.25%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000342	3.25e-005	5.10%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000480	4.46e-005	7.34%	Pass
CALCIUM, D	0.05	0.05	mg/l	38.2	37.8	1.05%	Pass
CALCIUM, T	0.05	0.05	mg/l	34.0	37	8.45%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.65	1.69	2.40%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	0.52	3.92%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00017	0.00012	34.48%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	288	291	1.04%	Pass

COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.063	0.095	40.51%	Pass-1
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	155	152	1.95%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
ION BALANCE	0	0	%	0	-3.1	200.00%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.053	0.032	49.41%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000064	<5e-005	24.56%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0088	0.0085	3.47%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0077	0.0083	7.50%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	14.4	14.1	2.11%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	12.5	14	11.32%	Pass
MAJOR ANION SUM	0	0	meq/l	3.16	3.33	5.24%	Pass
MAJOR CATION SUM	0	0	meq/l	3.16	3.12	1.27%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00073	0.00068	7.09%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00225	0.00207	8.33%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00086	0.00083	3.55%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00124	0.00123	0.81%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00119	0.00125	4.92%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00108	0.00079	31.02%	Pass-1
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.309	0.417	29.75%	Pass-2
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0152	<0.005	100.99%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0102	0.0094	8.16%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	497	496	0.20%	Pass
pH, LAB	0.1	0.1	ph units	8.26	8.28	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0173	0.0186	7.24%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.10	1.19	7.86%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.980	1.16	16.82%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.77	1.87	5.49%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.7	1.69	0.59%	Pass
SILICON, D	0.05	0.05	mg/l	2.42	2.55	5.23%	Pass
SILICON, T	0.05	0.05	mg/l	2.23	2.53	12.61%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.943	1.04	9.78%	Pass
SODIUM, T	0.05	0.05	mg/l	0.880	1.03	15.71%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0486	0.0488	0.41%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0435	0.0486	11.07%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	6.75	9.74	36.26%	Pass-2
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	183	180	1.65%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.152	0.089	52.28%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.79	1.92	7.01%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1.5	1.5	mg/l	1.8	<1.5	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.38	1.18	15.63%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000341	0.000365	6.80%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000331	0.0004	18.88%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00058	0.00058	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00089	0.00081	9.41%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0107	<0.003	112.41%	Pass-1

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-04-25_N	FD_WK_20170425_065
Date Sampled:	4/24/2017	4/24/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units	Primary vs. Duplicate	Category1
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ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	122	128	4.80%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	122	128	4.80%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0124	0.0126	1.60%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0833	0.0753	10.09%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00017	0.00017	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00021	0.00023	9.09%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00031	0.00027	13.79%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.149	0.148	0.67%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.156	0.149	4.59%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000306	3.26e-005	6.33%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000812	8.15e-005	0.37%	Pass
CALCIUM, D	0.05	0.05	mg/l	31.0	30.9	0.32%	Pass
CALCIUM, T	0.05	0.05	mg/l	33.5	31.8	5.21%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.54	2.58	1.56%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.51	<0.5	1.98%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00026	0.0002	26.09%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	237	240	1.26%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00021	0.00023	9.09%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	0.00052	3.92%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.081	0.082	1.23%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	122	123	0.82%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	0.016	0.016	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.140	0.117	17.90%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000119	0.000113	5.17%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0079	0.008	1.26%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0083	0.0079	4.94%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	10.9	11.1	1.82%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	11.2	11	1.80%	Pass
MAJOR ANION SUM	0	0	meq/l	2.65	2.75	3.70%	Pass
MAJOR CATION SUM	0	0	meq/l	2.52	2.52	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00171	0.00174	1.74%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00875	0.00871	0.46%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00321	0.00303	5.77%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00113	0.00115	1.75%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00123	0.00114	7.59%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00069	0.00069	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00104	0.001	3.92%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.389	0.384	1.29%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0012	<0.001	18.18%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0089	<0.005	56.12%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0207	0.0195	5.97%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	396	392	1.02%	Pass
pH, LAB	0.1	0.1	ph units	8.28	8.28	0.00%	Pass
PHOSPHORUS	0.004	0.002	mg/l	0.0552	0.0216	87.50%	Fail
POTASSIUM, D	0.05	0.05	mg/l	1.04	1.03	0.97%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.08	1.06	1.87%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.53	1.56	1.94%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.41	1.34	5.09%	Pass
SILICON, D	0.05	0.05	mg/l	2.46	2.39	2.89%	Pass
SILICON, T	0.05	0.05	mg/l	2.63	2.52	4.27%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.940	0.95	1.06%	Pass
SODIUM, T	0.05	0.05	mg/l	0.956	0.946	1.05%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0413	0.0415	0.48%	Pass

STRONTIUM, T	0.0002	0.0002	mg/l	0.0455	0.0429	5.88%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	7.71	7.45	3.43%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	<0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	119	138	14.79%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.217	0.203	6.67%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.58	3.24	9.97%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	13.3	13.1	1.52%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	11.0	10.5	4.65%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000302	0.000302	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000359	0.000344	4.27%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00092	0.00091	1.09%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00144	0.00137	4.98%	Pass
ZINC, D	0.001	0.001	mg/l	0.0012	<0.001	18.18%	Pass
ZINC, T	0.003	0.003	mg/l	0.0039	0.0056	35.79%	Pass-1

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-05-02_N	FD_M_2017-05-02_044
Date Sampled:	5/2/2017	5/2/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	126	127	0.79%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	7.2	5	36.07%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	133	132	0.75%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0111	0.0092	18.72%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0289	0.0329	12.94%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00019	0.00019	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00019	0.00021	10.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00020	0.0002	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00022	0.00022	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.151	0.152	0.66%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.157	0.148	5.90%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000325	3.62e-005	10.77%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000458	4.35e-005	5.15%	Pass
CALCIUM, D	0.05	0.05	mg/l	33.1	34.6	4.43%	Pass
CALCIUM, T	0.05	0.05	mg/l	33.5	34.3	2.36%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.46	2.58	4.76%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.54	0.55	1.83%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00013	14.29%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	274	275	0.36%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	0.00022	9.52%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.083	0.084	1.20%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	135	141	4.35%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.042	0.045	6.90%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0084	0.0082	2.41%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0085	0.0081	4.82%	Pass

MAGNESIUM, D	0.005	0.005	mg/l	12.6	13.3	5.41%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	12.5	13.4	6.95%	Pass
MAJOR ANION SUM	0	0		2.89	2.86	1.04%	Pass
MAJOR CATION SUM	0	0	meq/l	2.76	2.9	4.95%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00091	0.001	9.42%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00227	0.00223	1.78%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00137	0.00118	14.90%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00114	0.00118	3.45%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00117	0.0012	2.53%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00055	0.00069	22.58%	Pass-1
NICKEL, T	0.0005	0.0005	mg/l	0.00073	0.00086	16.35%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.580	0.577	0.52%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0033	0.0036	8.70%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0126	0.0116	8.26%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	478	461	3.62%	Pass
pH, LAB	0.1	0.1	ph units	8.37	8.37	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0233	0.0246	5.43%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.14	1.14	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.16	1.15	0.87%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.95	1.92	1.55%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.65	1.74	5.31%	Pass
SILICON, D	0.05	0.05	mg/l	2.47	2.53	2.40%	Pass
SILICON, T	0.05	0.05	mg/l	2.39	2.55	6.48%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.08	1	7.69%	Pass
SODIUM, T	0.05	0.05	mg/l	1.07	1.01	5.77%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0440	0.0448	1.80%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0451	0.0449	0.44%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	8.09	8.09	0.00%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	150	149	0.67%	Pass
TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.210	0.163	25.20%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.76	2.65	4.07%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.8	1.8	43.48%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	2.20	2.05	7.06%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000329	0.000314	4.67%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000351	0.00035	0.29%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00081	0.00078	3.77%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00102	0.00105	2.90%	Pass
ZINC, D	0.001	0.001	mg/l	0.0011	<0.001	9.52%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-05-16_N	FD_WK_20170516_071
Date Sampled:	5/15/2017	5/15/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	119	118	0.84%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	119	118	0.84%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0055	0.0052	5.61%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.164	0.159	3.10%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00030	0.00024	22.22%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	0.00027	0.00024	11.76%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00034	0.00033	2.99%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.154	0.154	0.00%	Pass

BARIUM, T	0.00005	0.00005	mg/l	0.158	0.151	4.53%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000380	3.73e-005	1.86%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000831	8.62e-005	3.66%	Pass
CALCIUM, D	0.05	0.05	mg/l	30.5	30.3	0.66%	Pass
CALCIUM, T	0.05	0.05	mg/l	30.4	29.6	2.67%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.96	2.99	1.01%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.67	0.61	9.38%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00040	0.0007	54.55%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00015	0.00018	18.18%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	250	251	0.40%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00034	0.00033	2.99%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00068	0.00074	8.45%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.080	0.084	4.88%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	124	123	0.81%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.220	0.245	10.75%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000172	0.000197	13.55%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0079	0.0077	2.56%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0074	0.0067	9.93%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	11.7	11.6	0.86%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	10.6	10.8	1.87%	Pass
MAJOR ANION SUM	0	0	meq/l	2.75	2.74	0.36%	Pass
MAJOR CATION SUM	0	0	meq/l	2.56	2.53	1.18%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00128	0.00141	9.67%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00711	0.00789	10.40%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00309	0.0042	30.45%	Pass-2
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000972	0.000952	2.08%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00106	0.00103	2.87%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00083	0.00082	1.21%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00125	0.00136	8.43%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.63	1.63	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0080	0.0085	6.06%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0218	0.0217	0.46%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	255	338	27.99%	Pass-1
pH, LAB	0.1	0.1	ph units	8.24	8.22	0.24%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0542	0.0447	19.21%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.05	1.05	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.01	0.992	1.80%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.52	4.4	2.69%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.32	4.21	2.58%	Pass
SILICON, D	0.05	0.05	mg/l	2.57	2.53	1.57%	Pass
SILICON, T	0.1	0.1	mg/l	2.80	2.71	3.27%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.01	1	1.00%	Pass
SODIUM, T	0.05	0.05	mg/l	0.900	0.89	1.12%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0408	0.0406	0.49%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0402	0.0411	2.21%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	11.3	11.5	1.75%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000016	1.4e-005	13.33%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	150	135	10.53%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.480	0.442	8.24%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.76	3.39	10.35%	Pass

TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	8.4	9	6.90%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	8.54	9.82	13.94%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000249	0.000256	2.77%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000313	0.000316	0.95%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00085	0.00085	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00195	0.002	2.53%	Pass
ZINC, D	0.001	0.001	mg/l	0.0016	0.0014	13.33%	Pass
ZINC, T	0.003	0.003	mg/l	0.0034	0.0047	32.10%	Pass-1

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-05-23_N	FD_WK_20170523_074
Date Sampled:	5/23/2017	5/23/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	113	115	1.75%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	113	115	1.75%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0112	0.011	1.80%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.282	0.269	4.72%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00019	5.41%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00022	0.00023	4.44%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00024	0.00024	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00044	0.00045	2.25%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.161	0.162	0.62%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.168	0.167	0.60%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000031	3.6e-005	14.93%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000363	3.46e-005	4.80%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000199	0.000181	9.47%	Pass
CALCIUM, D	0.05	0.05	mg/l	28.5	28.6	0.35%	Pass
CALCIUM, T	0.05	0.05	mg/l	28.8	28.8	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.08	3.18	3.19%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.59	0.59	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00055	0.00056	1.80%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00027	0.00025	7.69%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	227	228	0.44%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00034	0.00033	2.99%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00123	0.00139	12.21%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.080	0.082	2.47%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	116	115	0.87%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.447	0.435	2.72%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000423	0.000413	2.39%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0080	0.008	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0079	0.008	1.26%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	10.8	10.6	1.87%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	10.2	10.2	0.00%	Pass
MAJOR ANION SUM	0	0	meq/l	2.66	2.69	1.12%	Pass
MAJOR CATION SUM	0	0	meq/l	2.38	2.37	0.42%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00027	0.00031	13.79%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0132	0.0125	5.45%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00627	0.00702	11.29%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00101	0.000992	1.80%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00107	0.00105	1.89%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00071	0.00069	2.86%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00205	0.002	2.47%	Pass

NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.73	1.73	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0141	0.0137	2.88%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0193	0.0115	50.65%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0209	0.019	9.52%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	371	310	17.91%	Pass
pH, LAB	0.1	0.1	ph units	8.27	8.24	0.36%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0414	0.0504	19.61%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.05	1.04	0.96%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.16	1.16	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.84	4.81	0.62%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.34	4.33	0.23%	Pass
SILICON, D	0.05	0.05	mg/l	2.54	2.57	1.17%	Pass
SILICON, T	0.05	0.05	mg/l	2.82	2.83	0.35%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000026	2.4e-005	8.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.944	0.89	5.89%	Pass
SODIUM, T	0.05	0.05	mg/l	0.844	0.851	0.83%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0389	0.039	0.26%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0409	0.0407	0.49%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	11.8	11.9	0.84%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000026	2.6e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	168	156	7.41%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.372	0.343	8.11%	Pass
TOTAL ORGANIC CARBON, T	2.5	0.5	mg/l	5.4	5.96	9.86%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	28.8	24.9	14.53%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	27.3	24.8	9.60%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000237	0.000229	3.43%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000297	0.000299	0.67%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00084	0.00082	2.41%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00269	0.00262	2.64%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0068	0.007	2.90%	Pass

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-05-30_N	FD_WK_20170530_077
Date Sampled:	5/30/2017	5/30/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	95.7	94.6	1.16%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.0	4.8	4.08%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	101	99.4	1.60%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0141	0.0121	15.27%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.137	0.136	0.73%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00022	0.0002	9.52%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00024	0.00023	4.26%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00034	0.00028	19.35%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.141	0.14	0.71%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.148	0.143	3.44%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	2.7e-005	29.79%	Pass-1
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000273	3.39e-005	21.57%	Pass-2
CADMIUM, T	0.000005	0.000005	mg/l	0.000106	0.000115	8.14%	Pass
CALCIUM, D	0.05	0.05	mg/l	28.4	28.2	0.71%	Pass
CALCIUM, T	0.05	0.05	mg/l	29.2	28.6	2.08%	Pass

CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	4.38	3.19	31.44%	Pass-2
Cation - Anion Balance	0	0	%	0.4	0.6	40.00%	Fail
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00032	0.00032	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00019	0.00016	17.14%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	216	215	0.46%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00027	0.00027	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00085	0.00088	3.47%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.082	0.078	5.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	116	115	0.87%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	0.012	<0.01	18.18%	Pass
IRON, T	0.01	0.01	mg/l	0.257	0.274	6.40%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000236	0.000282	17.76%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0068	0.0068	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0073	0.0071	2.78%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	10.8	10.8	0.00%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	10.9	10.6	2.79%	Pass
MAJOR ANION SUM	0	0	meq/l	2.35	2.32	1.28%	Pass
MAJOR CATION SUM	0	0	meq/l	2.37	2.35	0.85%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00037	0.00039	5.26%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00729	0.00702	3.77%	Pass
MERCURY, D	0.00001	0.00001	mg/l	0.000023	1.8e-005	24.39%	Pass-1
MERCURY, T	0.0005	0.0005	ug/l	0.00433	0.00449	3.63%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000940	0.000926	1.50%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00101	0.000978	3.22%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00071	0.0007	1.42%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00135	0.00149	9.86%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.49	1.49	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0129	0.0137	6.02%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0132	90.11%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0248	0.0241	2.86%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	383	383	0.00%	Pass
pH, LAB	0.1	0.1	ph units	8.29	8.3	0.12%	Pass
PHOSPHORUS	0.002	0.004	mg/l	0.0254	0.0535	71.23%	Fail
POTASSIUM, D	0.05	0.05	mg/l	0.854	0.821	3.94%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.917	0.919	0.22%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.13	4.14	0.24%	Pass
SELENIUM, T	0.05	0.05	ug/l	3.44	3.59	4.27%	Pass
SILICON, D	0.05	0.05	mg/l	2.33	2.31	0.86%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000010	1.2e-005	18.18%	Pass
SODIUM, D	0.05	0.05	mg/l	0.846	0.863	1.99%	Pass
SODIUM, T	0.05	0.05	mg/l	0.857	0.844	1.53%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0365	0.0362	0.83%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0380	0.0371	2.40%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	10.9	10.9	0.00%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000014	1.6e-005	13.33%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	13	13	mg/l	132	144	8.70%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.211	0.18	15.86%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	5.18	5.32	2.67%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	13.3	12.1	9.45%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	14.0	14.3	2.12%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000214	0.000217	1.39%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000245	0.000253	3.21%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00086	0.0008	7.23%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00182	0.0018	1.10%	Pass
ZINC, D	0.001	0.001	mg/l	0.0015	<0.001	40.00%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.0044	0.0042	4.65%	Pass

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-06-06_N	FD_M_2017-06-06_047
Date Sampled:	6/5/2017	6/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	112	114	1.77%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.2	3.2	47.62%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	118	118	0.00%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0139	0.0047	98.92%	Fail
ALUMINUM, T	0.003	0.003	mg/l	0.0524	0.0428	20.17%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00017	5.71%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00018	0.0002	10.53%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00020	0.00023	13.95%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00027	0.00028	3.64%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.164	0.154	6.29%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.151	0.158	4.53%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000358	3.43e-005	4.28%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000535	6.26e-005	15.68%	Pass
CALCIUM, D	0.05	0.05	mg/l	29.0	29	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	28.2	29.7	5.18%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.23	2.26	1.34%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	0.53	5.83%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00017	12.50%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	239	241	0.83%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00025	0.00022	12.77%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	0.00062	21.43%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.088	0.091	3.35%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	119	118	0.84%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.099	0.082	18.78%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000085	7.4e-005	13.84%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0078	0.0088	12.05%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0074	0.0081	9.03%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	11.2	11	1.80%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	10.1	11.2	10.33%	Pass
MAJOR ANION SUM	0	0	meq/l	2.70	2.72	0.74%	Pass
MAJOR CATION SUM	0	0	meq/l	2.44	2.42	0.82%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00119	0.00064	60.11%	Fail
MANGANESE, T	0.0001	0.0001	mg/l	0.00305	0.00281	8.19%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00180	0.00217	18.64%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000915	0.000992	8.08%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00108	0.00108	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00070	0.00074	5.56%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00097	0.00109	11.65%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.52	1.53	0.66%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0127	0.0134	5.36%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0131	0.0076	53.14%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0226	0.0214	5.45%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	461	465	0.86%	Pass
pH, LAB	0.1	0.1	ph units	8.30	8.28	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0190	0.0205	7.59%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.05	1.01	3.88%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.978	1.06	8.05%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.09	4.3	5.01%	Pass
SELENIUM, T	0.05	0.05	ug/l	3.68	4	8.33%	Pass
SILICON, D	0.05	0.05	mg/l	2.47	2.41	2.46%	Pass

SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.981	1.02	3.90%	Pass
SODIUM, T	0.05	0.05	mg/l	0.895	0.992	10.28%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0407	0.0399	1.99%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0414	0.0415	0.24%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	11.3	11.3	0.00%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	13	13	mg/l	140	148	5.56%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.112	0.095	16.43%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.40	2.29	4.69%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	3.7	3.9	5.26%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	4.54	4.09	10.43%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000201	0.000234	15.17%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000273	0.000272	0.37%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00078	0.00082	5.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00119	0.00125	4.92%	Pass
ZINC, D	0.001	0.001	mg/l	0.0013	0.0012	8.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-06-27_N	FD_WK_20170627_086
Date Sampled:	6/26/2017	6/26/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	139	138	0.72%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	9.8	8.8	10.75%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	149	147	1.35%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0044	0.0043	2.30%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0179	0.0201	11.58%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00019	0.00018	5.41%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00018	0.00019	5.41%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00022	0.0002	9.52%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00027	0.00024	11.76%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.191	0.189	1.05%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.179	0.174	2.83%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000411	4.28e-005	4.05%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000429	4.38e-005	2.08%	Pass
CALCIUM, D	0.05	0.05	mg/l	35.8	35.8	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	36.5	35.7	2.22%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.53	2.21	13.50%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.68	0.69	1.46%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	0.00012	18.18%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	289	292	1.03%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.088	0.087	1.14%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	150	150	0.00%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

IRON, T	0.01	0.01	mg/l	0.028	0.028	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0099	0.0098	1.02%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0096	0.0094	2.11%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	14.8	14.8	0.00%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	14.5	13.9	4.23%	Pass
MAJOR ANION SUM	0	0	meq/l	3.39	3.35	1.19%	Pass
MAJOR CATION SUM	0	0	meq/l	3.08	3.08	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00094	0.00087	7.73%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00193	0.00195	1.03%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00139	0.00118	16.34%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00116	0.0012	3.39%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00119	0.00116	2.55%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00061	0.00066	7.87%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00077	0.00073	5.33%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.71	1.71	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0124	0.0122	1.63%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0100	0.0095	5.13%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0135	0.0135	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	517	522	0.96%	Pass
pH, LAB	0.1	0.1	ph units	8.38	8.38	0.00%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0202	0.0214	5.77%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.16	1.19	2.55%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.11	1.08	2.74%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.08	4.04	0.99%	Pass
SELENIUM, T	0.05	0.05	ug/l	3.53	3.53	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	2.64	2.61	1.14%	Pass
SILICON, T	0.1	0.1	mg/l	2.57	2.51	2.36%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.16	1.17	0.86%	Pass
SODIUM, T	0.05	0.05	mg/l	1.07	1.03	3.81%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0504	0.0503	0.20%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0493	0.0485	1.64%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	13.1	13.1	0.00%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	170	177	4.03%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.111	0.134	18.78%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.27	2.17	4.50%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.8	1.8	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.52	1.68	10.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000299	0.0003	0.33%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000312	0.00031	0.64%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00072	0.00068	5.71%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00116	0.00109	6.22%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-07-04_N	FD_M_2017-07-04_050
Date Sampled:	7/4/2017	7/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	148	146	1.36%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	12.0	12.4	3.28%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	160	158	1.26%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0031	0.0029	6.67%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0100	0.0102	1.98%	Pass

ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00019	0.00018	5.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00024	0.00023	4.26%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.202	0.201	0.50%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.191	0.188	1.58%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000408	3.36e-005	19.35%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000425	4.75e-005	11.11%	Pass
CALCIUM, D	0.05	0.05	mg/l	38.4	38.3	0.26%	Pass
CALCIUM, T	0.05	0.05	mg/l	40.3	39.9	1.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.60	1.98	21.23%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	0.68	0.68	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	0.00012	18.18%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	301	302	0.33%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.090	0.091	1.10%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	157	157	0.00%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.018	0.019	5.41%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0101	0.0102	0.99%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0100	0.0097	3.05%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	14.9	14.9	0.00%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	14.8	14.5	2.05%	Pass
MAJOR ANION SUM	0	0	meq/l	3.61	3.56	1.39%	Pass
MAJOR CATION SUM	0	0	meq/l	3.23	3.22	0.31%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00046	0.00042	9.09%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00173	0.00173	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00080	0.00087	8.38%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00128	0.00121	5.62%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00120	0.00118	1.68%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00105	0.00078	29.51%	Pass-1
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.51	1.52	0.66%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0088	0.0085	3.47%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0082	0.0082	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0092	0.0091	1.09%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	503	499	0.80%	Pass
pH, LAB	0.1	0.1	ph units	8.40	8.4	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0078	0.0082	5.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.25	1.26	0.80%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.20	1.16	3.39%	Pass
SELENIUM, D	0.05	0.05	ug/l	3.73	3.48	6.93%	Pass
SELENIUM, T	0.05	0.05	ug/l	3.54	3.32	6.41%	Pass
SILICON, D	0.05	0.05	mg/l	2.68	2.58	3.80%	Pass
SILICON, T	0.1	0.1	mg/l	2.53	2.48	2.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.17	1.17	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	1.15	1.12	2.64%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0525	0.0522	0.57%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0524	0.0513	2.12%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	13.3	13.3	0.00%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	183	186	1.63%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.212	0.19	10.95%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.85	1.98	6.79%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.1	1.3	16.67%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.69	1.17	51.61%	Fail
URANIUM, D	0.00001	0.00001	mg/l	0.000333	0.000318	4.61%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000366	0.000352	3.90%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00077	0.00076	1.31%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00094	0.00092	2.15%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-07-25_N	FD_WK_20170725_095
Date Sampled:	7/24/2017	7/24/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	159	160	0.63%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	12.0	11.4	5.13%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	171	172	0.58%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0014	0.0016	13.33%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0038	0.005	27.27%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00017	0.00017	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00024	0.00016	40.00%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	0.00013	0.00014	7.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.179	0.177	1.12%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.190	0.171	10.53%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000435	3.62e-005	18.32%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000468	3.94e-005	17.17%	Pass
CALCIUM, D	0.05	0.05	mg/l	42.0	42.5	1.18%	Pass
CALCIUM, T	0.05	0.05	mg/l	40.3	40.5	0.50%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.60	2.48	4.72%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.74	0.74	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	330	328	0.61%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.099	0.098	1.02%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	168	169	0.59%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	0.0019	<0.0016	17.14%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.013	0.012	8.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0100	0.01	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0103	0.0097	6.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	15.3	15.3	0.00%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	15.2	14.4	5.41%	Pass
MAJOR ANION SUM	0	0	meq/l	3.81	3.82	0.26%	Pass
MAJOR CATION SUM	0	0	meq/l	3.44	3.47	0.87%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00029	0.00033	12.90%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00145	0.00137	5.67%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass

MERCURY, T	0.0005	0.0005	ug/l	0.00080	0.0008	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00121	0.00127	4.84%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00122	0.00112	8.55%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.04	1.05	0.96%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0041	0.0042	2.41%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0106	0.0107	0.94%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0052	0.005	3.92%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	502	465	7.65%	Pass
pH, LAB	0.1	0.1	ph units	8.56	8.56	0.00%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0132	0.013	1.53%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.22	1.23	0.82%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.29	1.17	9.76%	Pass
SELENIUM, D	0.05	0.05	ug/l	3.75	3.87	3.15%	Pass
SELENIUM, T	0.05	0.05	ug/l	3.49	3.08	12.48%	Pass
SILICON, D	0.05	0.05	mg/l	2.48	2.47	0.40%	Pass
SILICON, T	0.1	0.1	mg/l	2.56	2.42	5.62%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.15	1.16	0.87%	Pass
SODIUM, T	0.05	0.05	mg/l	1.09	1.1	0.91%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0529	0.0552	4.26%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0547	0.0495	9.98%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	13.9	13.9	0.00%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	0.0018	<0.0015	18.18%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	196	198	1.02%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.210	0.206	1.92%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.66	2.51	5.80%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.2	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.49	0.35	33.33%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.000315	0.000336	6.45%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000368	0.000314	15.84%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00065	0.00065	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00082	0.00071	14.38%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-08-01_N	FD_M_2017-08-01_053
Date Sampled:	8/1/2017	8/1/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	162	165	1.83%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	11.0	11.8	7.02%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	173	177	2.29%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0045	0.0033	30.77%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00011	0.00015	30.77%	Pass-1
ANTIMONY, T	0.0001	0.0001	mg/l	0.00020	0.0002	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00019	0.00018	5.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00019	0.00018	5.41%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.193	0.183	5.32%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.199	0.199	0.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000287	2.86e-005	0.35%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000447	4.2e-005	6.23%	Pass
CALCIUM, D	0.05	0.05	mg/l	41.1	42.8	4.05%	Pass
CALCIUM, D	0.05	0.05	mg/l	41.1	45.4	9.94%	Pass
CALCIUM, D	0.05	0.05	mg/l	41.7	42.8	2.60%	Pass
CALCIUM, D	0.05	0.05	mg/l	41.7	45.4	8.50%	Pass
CALCIUM, T	0.05	0.05	mg/l	46.7	46.8	0.21%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.05	2.37	14.48%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.71	0.71	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	319	321	0.63%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.089	0.09	1.12%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	173	182	5.07%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.014	0.012	15.38%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0108	0.0121	11.35%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0101	0.0101	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	16.3	16.3	0.00%	Pass
MAGNESIUM, D	0.005	0.1	mg/l	16.3	16.6	1.82%	Pass
MAGNESIUM, D	0.1	0.005	mg/l	17.1	16.3	4.79%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	17.1	16.6	2.97%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	17.2	17.3	0.58%	Pass
MAJOR ANION SUM	0	0	meq/l	3.83	3.92	2.32%	Pass
MAJOR CATION SUM	0	0	meq/l	3.50	3.56	1.70%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00016	0.00019	17.14%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00145	0.00142	2.09%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00050	0.00052	3.92%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00102	0.00117	13.70%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00118	0.00116	1.71%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.00	1	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0027	0.0028	3.64%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0080	0.0104	26.09%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0041	0.0035	15.79%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	223	223	0.00%	Pass
pH, LAB	0.1	0.1	ph units	8.59	8.58	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0084	0.0066	24.00%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.29	1.28	0.78%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.29	1.32	2.30%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.31	1.28	2.32%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.31	1.32	0.76%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.25	1.28	2.37%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.76	2.82	2.15%	Pass
SELENIUM, T	0.05	0.05	ug/l	3.28	3.29	0.30%	Pass
SILICON, D	0.05	0.05	mg/l	2.35	2.37	0.85%	Pass
SILICON, T	0.1	0.1	mg/l	2.62	2.63	0.38%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.10	1.09	0.91%	Pass
SODIUM, D	0.05	0.05	mg/l	1.10	1.13	2.69%	Pass
SODIUM, D	0.05	0.05	mg/l	1.11	1.09	1.82%	Pass
SODIUM, D	0.05	0.05	mg/l	1.11	1.13	1.79%	Pass
SODIUM, T	0.05	0.05	mg/l	1.11	1.11	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0507	0.0565	10.82%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0557	0.0564	1.25%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	13.8	13.8	0.00%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	186	181	2.72%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.178	0.144	21.12%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.17	2.28	4.94%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	1.2	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.68	0.66	2.99%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000321	0.000379	16.57%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000380	0.000384	1.05%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00064	0.00062	3.17%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00070	0.00071	1.42%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-08-29_N	FD_WK_2017-08-29_007
Date Sampled:	8/28/2017	8/28/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	162	163	0.62%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	12.4	11.8	4.96%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	175	175	0.00%	Pass
ALUMINIUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINIUM, T	0.003	0.003	mg/l	0.0041	0.0056	30.93%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00017	0.00016	6.06%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00017	0.00015	12.50%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.208	0.208	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.205	0.205	0.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000352	3.33e-005	5.55%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000373	3.85e-005	3.17%	Pass
CALCIUM, D	0.05	0.05	mg/l	46.4	46.5	0.22%	Pass
CALCIUM, T	0.05	0.05	mg/l	48.8	47.6	2.49%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.52	1.27	17.92%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.75	0.76	1.32%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00022	0.00018	20.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	362	357	1.39%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.092	0.097	5.29%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	188	189	0.53%	Pass
HYDROGEN SULFIDE	0.021	0.021	mg/l	< 0.021	<0.021	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.017	0.017	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0106	0.0105	0.95%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0109	0.0108	0.92%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	17.6	17.7	0.57%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	18.9	18.1	4.32%	Pass
MAJOR ANION SUM	0	0	meq/l	3.87	3.89	0.52%	Pass
MAJOR CATION SUM	0	0	meq/l	3.84	3.86	0.52%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00080	0.00067	17.69%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00221	0.00215	2.75%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass

MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	0.00052	3.92%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00120	0.00115	4.26%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00124	0.0012	3.28%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.962	0.96	0.21%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0014	0.0016	13.33%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0214	0.0139	42.49%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0053	0.0057	7.27%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	256	258	0.78%	Pass
pH, LAB	0.1	0.1	ph units	8.40	8.4	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0051	0.0064	22.61%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.31	1.32	0.76%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.24	1.23	0.81%	Pass
SELENIUM, D	0.05	0.05	ug/l	3.69	3.57	3.31%	Pass
SELENIUM, T	0.05	0.05	ug/l	3.22	3.19	0.94%	Pass
SILICON, D	0.05	0.05	mg/l	2.93	2.99	2.03%	Pass
SILICON, T	0.1	0.1	mg/l	3.01	2.96	1.68%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.15	1.19	3.42%	Pass
SODIUM, T	0.05	0.05	mg/l	1.23	1.19	3.31%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0579	0.055	5.14%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0603	0.0594	1.50%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	14.0	14	0.00%	Pass
SULFIDE (as S), T	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	200	205	2.47%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.120	0.077	43.65%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.47	1.3	12.27%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.1	9.52%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.31	0.41	27.78%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.000387	0.00039	0.77%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000426	0.000415	2.62%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00051	0.00051	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00062	0.00059	4.96%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-09-19_N	FD_WK_2017-09-19_019
Date Sampled:	9/19/2017	9/19/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	168	169	0.59%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	12.4	12.2	1.63%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	181	182	0.55%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00029	0.00017	52.17%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	0.00013	0.00015	14.29%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.204	0.2	1.98%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.198	0.194	2.04%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000298	3e-005	0.67%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000388	3.73e-005	3.94%	Pass
CALCIUM, D	0.05	0.05	mg/l	50.3	48.8	3.03%	Pass
CALCIUM, T	0.05	0.05	mg/l	47.8	47.5	0.63%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.37	1.51	9.72%	Pass
Cation - Anion Balance	0	0	%	2.3	1	78.79%	Fail
CHLORIDE, D	0.5	0.5	mg/l	0.97	0.95	2.08%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	357	356	0.28%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.095	0.095	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	208	203	2.43%	Pass
HYDROGEN SULFIDE	0.021	0.021	mg/l	0.021	0.022	4.65%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.017	0.014	19.35%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0103	0.0105	1.92%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0113	0.0111	1.79%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	19.9	19.7	1.01%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	18.1	18	0.55%	Pass
MAJOR ANION SUM	0	0	meq/l	4.04	4.06	0.49%	Pass
MAJOR CATION SUM	0	0	meq/l	4.23	4.14	2.15%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00057	0.0006	5.13%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00205	0.00177	14.66%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00117	0.00118	0.85%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00124	0.00121	2.45%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.997	0.994	0.30%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0019	0.0022	14.63%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0091	0.021	79.07%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0033	0.0027	20.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	266	274	2.96%	Pass
pH, LAB	0.1	0.1	ph units	8.57	8.56	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0136	0.0065	70.65%	Fail
POTASSIUM, D	0.05	0.05	mg/l	1.25	1.27	1.59%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.25	1.22	2.43%	Pass
SELENIUM, D	0.05	0.05	ug/l	3.1	3.21	3.49%	Pass
SELENIUM, T	0.05	0.05	ug/l	3.21	3.16	1.57%	Pass
SILICON, D	0.05	0.05	mg/l	2.87	2.88	0.35%	Pass
SILICON, T	0.1	0.1	mg/l	2.76	2.73	1.09%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.14	1.15	0.87%	Pass
SODIUM, T	0.05	0.05	mg/l	1.17	1.15	1.72%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0589	0.0596	1.18%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0614	0.061	0.65%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	15.8	15.8	0.00%	Pass
SULFIDE (as S), T	0.02	0.02	mg/l	0.020	0.021	4.88%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	231	216	6.71%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.054	0.054	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.52	1.52	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.49	0.25	64.86%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.000453	0.000446	1.56%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000455	0.000454	0.22%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00053	<0.0005	5.83%	Pass

ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

	Location:	LC_DC1	LC_DC1
	Sample ID:	LC_DC1_WS_2017-10-16_N	FD_M_2017-10-16_025
	Date Sampled:	10/16/2017	10/16/2017
	Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	175	179	2.26%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	12.8	13.4	4.58%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	188	192	2.11%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00013	0.00014	7.41%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00018	0.00017	5.71%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.204	0.2	1.98%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.202	0.194	4.04%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	0.069	<0.05	31.93%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	0.0000320	3.18e-005	0.63%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000374	3.4e-005	9.52%	Pass
CALCIUM, D	0.05	0.05	mg/l	47.1	47.4	0.63%	Pass
CALCIUM, T	0.05	0.05	mg/l	48.0	47.2	1.68%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.43	1.61	11.84%	Pass
CHLORIDE, D	0.5	0.5	mg/l	4.62	1.09	123.64%	Fail
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	327	330	0.91%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.089	0.091	2.22%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	196	194	1.03%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.011	0.012	8.70%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0112	0.0113	0.89%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0113	0.0109	3.60%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	18.9	18.3	3.23%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	18.9	18.7	1.06%	Pass
MAJOR ANION SUM	0	0	meq/l	4.31	4.3	0.23%	Pass
MAJOR CATION SUM	0	0	meq/l	3.99	3.95	1.01%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00084	0.00081	3.64%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00159	0.0016	0.63%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00116	0.00118	1.71%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00121	0.00122	0.82%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.21	1.21	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0018	0.0018	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0112	0.0111	0.90%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0048	0.0047	2.11%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	345	391	12.50%	Pass
pH, LAB	0.1	0.1	ph units	8.48	8.46	0.24%	Pass

PHOSPHORUS	0.002	0.002	mg/l	0.0055	0.0055	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.20	1.18	1.68%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.20	1.19	0.84%	Pass
SELENIUM, D	0.05	0.05	ug/l	3.39	3.41	0.59%	Pass
SELENIUM, T	0.05	0.05	ug/l	3.43	3.3	3.86%	Pass
SILICON, D	0.05	0.05	mg/l	2.67	2.64	1.13%	Pass
SILICON, T	0.1	0.1	mg/l	2.76	2.73	1.09%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.19	1.16	2.55%	Pass
SODIUM, T	0.05	0.05	mg/l	1.22	1.21	0.82%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0585	0.0589	0.68%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0592	0.0592	0.00%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	16.2	16.2	0.00%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	205	185	10.26%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.108	0.104	3.77%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.18	1.98	9.62%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.39	0.32	19.72%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000471	0.00048	1.89%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000473	0.000474	0.21%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00056	0.00055	1.80%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_DC1	LC_DC1
Sample ID:	LC_DC1_WS_2017-11-15_N	FD_M_2017-11-15_039
Date Sampled:	11/15/2017	11/15/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	182	176	3.35%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.4	9	50.00%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	187	185	1.08%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0032	0.0033	3.08%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00013	0.00014	7.41%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00014	0.00016	13.33%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00016	0.00018	11.76%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.208	0.216	3.77%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.205	0.204	0.49%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000325	3.17e-005	2.49%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000378	3.67e-005	2.95%	Pass
CALCIUM, D	0.05	0.05	mg/l	52.5	53.5	1.89%	Pass
CALCIUM, T	0.05	0.05	mg/l	53.9	57.4	6.29%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.38	1.38	0.00%	Pass
Cation - Anion Balance	0	0	%	0.9	0.9	0.00%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.34	1.35	0.74%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00011	0.00073	147.62%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	374	370	1.08%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.089	0.087	2.27%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	214	216	0.93%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
ION BALANCE	100	100	%	102	102	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.011	0.015	30.77%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0107	0.0103	3.81%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0122	0.0128	4.80%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	20.1	19.9	1.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	20.4	20	1.98%	Pass
MAJOR ANION SUM	0	0	meq/l	4.28	4.32	0.93%	Pass
MAJOR CATION SUM	0	0	meq/l	4.36	4.39	0.69%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00028	0.00035	22.22%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00147	0.00183	21.82%	Pass-2
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00130	0.00131	0.77%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00130	0.00142	8.82%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00054	0.0005	7.69%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.62	1.6	1.24%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0024	0.0021	13.33%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0128	0.0148	14.49%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0101	0.0098	3.02%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	315	319	1.26%	Pass
pH, LAB	0.1	0.1	ph units	8.35	8.36	0.12%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0151	0.0105	35.94%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	1.21	1.24	2.45%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.27	1.25	1.59%	Pass
SELENIUM, D	0.05	0.05	ug/l	3.73	3.67	1.62%	Pass
SELENIUM, T	0.05	0.05	ug/l	3.64	3.31	9.50%	Pass
SILICON, D	0.05	0.05	mg/l	2.74	2.63	4.10%	Pass
SILICON, T	0.1	0.1	mg/l	2.89	2.84	1.75%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.17	1.21	3.36%	Pass
SODIUM, T	0.05	0.05	mg/l	1.28	1.26	1.57%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0648	0.0647	0.15%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0640	0.0678	5.77%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	18.5	22.5	19.51%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	218	216	0.92%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.252	0.305	19.03%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.51	1.55	2.61%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.43	0.37	15.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000500	0.000505	1.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000490	0.000532	8.22%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00050	0.00051	1.98%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location: Sample ID: Date Sampled: Sample Type:	LC_DC1	LC_DC1
	LC_DC1_WS_2017-12-05_N	FD_M_2017-12-05_065
	12/5/2017	12/5/2017
	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	195	191	2.07%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	2.8	94.74%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	195	194	0.51%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0040	0.0043	7.23%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00017	0.00014	19.35%	Pass
ANTIMONY, T	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00016	0.00015	6.45%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00016	0.00014	13.33%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.212	0.215	1.41%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.217	0.206	5.20%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000228	2.28e-005	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000335	2.52e-005	28.28%	Pass-2
CALCIUM, D	0.05	0.05	mg/l	53.1	50.9	4.23%	Pass
CALCIUM, T	0.05	0.05	mg/l	52.4	49.8	5.09%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.54	1.72	11.04%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.49	1.5	0.67%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	403	408	1.23%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.101	0.104	2.93%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	210	206	1.92%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
ION BALANCE	100	100	%	95.6	94.4	1.26%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0107	0.0106	0.94%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0108	0.0102	5.71%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	18.9	19.3	2.09%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	19.5	19.2	1.55%	Pass
MAJOR ANION SUM	0	0	meq/l	4.49	4.46	0.67%	Pass
MAJOR CATION SUM	0	0	meq/l	4.29	4.21	1.88%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00078	0.00083	6.21%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00125	0.00112	10.97%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00128	0.00127	0.78%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00136	0.00134	1.48%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.86	1.86	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0176	0.0114	42.76%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0119	0.0125	4.92%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	392	390	0.51%	Pass
pH, LAB	0.1	0.1	ph units	8.27	8.29	0.24%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0114	0.0112	1.77%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.19	1.21	1.67%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.16	1.14	1.74%	Pass
SELENIUM, D	0.05	0.05	ug/l	3.81	3.82	0.26%	Pass
SELENIUM, T	0.05	0.05	ug/l	3.6	3.62	0.55%	Pass
SILICON, D	0.05	0.05	mg/l	2.70	2.79	3.28%	Pass
SILICON, T	0.1	0.1	mg/l	2.80	2.7	3.64%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass

SODIUM, D	0.05	0.05	mg/l	1.29	1.31	1.54%	Pass
SODIUM, T	0.05	0.05	mg/l	1.28	1.22	4.80%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0681	0.0668	1.93%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0680	0.0658	3.29%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	19.6	19.7	0.51%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	205	199	2.97%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.071	0.064	10.37%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.63	1.77	8.24%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.57	0.44	25.74%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.000505	0.000496	1.80%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000507	0.000506	0.20%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00054	0.00053	1.87%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_DC3	LC_DC3
Sample ID:	LC_DC3_WS_2017-08-15_N	FD_M_2017-08-15_005
Date Sampled:	8/14/2017	8/14/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	140	138	1.44%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	140	138	1.44%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0068	0.0069	1.46%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0248	0.0218	12.88%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00026	0.00027	3.77%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00031	0.00032	3.17%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00033	0.00035	5.88%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00032	0.00033	3.08%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.172	0.171	0.58%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.170	0.171	0.59%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000679	6.66e-005	1.93%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000835	9.01e-005	7.60%	Pass
CALCIUM, D	0.05	0.05	mg/l	42.6	44.5	4.36%	Pass
CALCIUM, D	0.05	0.05	mg/l	42.6	44.6	4.59%	Pass
CALCIUM, D	0.05	0.05	mg/l	44.8	44.5	0.67%	Pass
CALCIUM, D	0.05	0.05	mg/l	44.8	44.6	0.45%	Pass
CALCIUM, T	0.05	0.05	mg/l	50.3	50.6	0.59%	Pass
CARBON, DISSOLVED ORGANIC, D	2	2	mg/l	2.4	2.2	8.70%	Pass
CHLORIDE, D	0.5	0.5	mg/l	3.15	3.14	0.32%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00016	13.33%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00014	0.00015	6.90%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	360	361	0.28%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.078	0.078	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	175	180	2.82%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

IRON, T	0.01	0.01	mg/l	0.025	0.021	17.39%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0078	0.0081	3.77%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0081	0.0082	1.23%	Pass
MAGNESIUM, D	0.1	0.005	mg/l	16.7	16.8	0.60%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	16.7	16.7	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	17.0	16.8	1.18%	Pass
MAGNESIUM, D	0.005	0.1	mg/l	17.0	16.7	1.78%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	16.6	16.9	1.79%	Pass
MAJOR ANION SUM	0	0	meq/l	3.99	3.94	1.26%	Pass
MAJOR CATION SUM	0	0	meq/l	3.71	3.68	0.81%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00225	0.00236	4.77%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00804	0.00778	3.29%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00221	0.00212	4.16%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00151	0.00158	4.53%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00182	0.00179	1.66%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00128	0.00131	2.32%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00143	0.00138	3.56%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	4.55	4.56	0.22%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.132	0.132	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0140	0.0137	2.17%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	209	239	13.39%	Pass
pH, LAB	0.1	0.1	ph units	8.29	8.3	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0233	0.0233	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.59	1.6	0.63%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.59	1.66	4.31%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.69	1.6	5.47%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.69	1.66	1.79%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.60	1.62	1.24%	Pass
SELENIUM, D	0.05	0.05	ug/l	9.55	9.7	1.56%	Pass
SELENIUM, T	0.05	0.05	ug/l	9.25	9.66	4.34%	Pass
SILICON, D	0.05	0.05	mg/l	2.79	2.8	0.36%	Pass
SILICON, T	0.1	0.1	mg/l	2.82	2.84	0.71%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.778	0.775	0.39%	Pass
SODIUM, D	0.05	0.05	mg/l	0.778	0.781	0.38%	Pass
SODIUM, D	0.05	0.05	mg/l	0.792	0.775	2.17%	Pass
SODIUM, D	0.05	0.05	mg/l	0.792	0.781	1.40%	Pass
SODIUM, T	0.05	0.05	mg/l	0.761	0.77	1.18%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0569	0.0585	2.77%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0669	0.0673	0.60%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	36.4	36.3	0.28%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000012	1.1e-005	8.70%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	236	231	2.14%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.580	0.43	29.70%	Pass-2
TOTAL ORGANIC CARBON, T	2	2	mg/l	2.2	2.1	4.65%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.0	1.6	22.22%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.39	1.22	13.03%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000558	0.00058	3.87%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000586	0.000585	0.17%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00160	0.00156	2.53%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00170	0.00174	2.33%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_DCDS	LC_DCDS
Sample ID:	LC_DCDS_WS_2017-06-20_N	FD_WK_20170620_083
Date Sampled:	6/19/2017	6/19/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	114	114	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	114	114	0.00%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0172	0.0169	1.76%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.198	0.189	4.65%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00024	0.00025	4.08%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00026	0.00031	17.54%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00030	0.00031	3.28%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00037	0.00041	10.26%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.148	0.143	3.44%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.147	0.148	0.68%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000505	5.35e-005	5.77%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000914	0.000108	16.65%	Pass
CALCIUM, D	0.05	0.05	mg/l	34.7	33.8	2.63%	Pass
CALCIUM, T	0.05	0.05	mg/l	33.0	33.8	2.40%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.41	2.76	21.07%	Pass-2
CHLORIDE, D	0.5	0.5	mg/l	1.56	1.53	1.94%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00045	0.0004	11.76%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00021	0.00022	4.65%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	295	293	0.68%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	0.00023	13.95%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00260	0.00064	120.99%	Fail
FLUORIDE, D	0.02	0.02	mg/l	0.064	0.064	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	134	134	0.00%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.146	0.172	16.35%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000214	0.000196	8.78%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0078	0.0077	1.29%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0072	0.0076	5.41%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	11.5	12	4.26%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	11.0	12	8.70%	Pass
MAJOR ANION SUM	0	0	meq/l	3.08	3.07	0.33%	Pass
MAJOR CATION SUM	0	0	meq/l	2.75	2.75	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00275	0.00278	1.08%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00650	0.0068	4.51%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.002500000	0.0028	11.32%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00134	0.00134	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00131	0.00134	2.26%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00116	0.00118	1.71%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00184	0.0018	2.20%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	3.97	3.99	0.50%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0532	0.0528	0.75%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0219	0.022	0.46%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	493	503	2.01%	Pass
pH, LAB	0.1	0.1	ph units	8.25	8.26	0.12%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0390	0.0383	1.81%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.18	1.21	2.51%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.20	1.28	6.45%	Pass
SELENIUM, D	0.05	0.05	ug/l	7.31	7.22	1.24%	Pass
SELENIUM, T	0.05	0.05	ug/l	6.82	6.96	2.03%	Pass
SILICON, D	0.05	0.05	mg/l	2.37	2.42	2.09%	Pass
SILICON, T	0.1	0.1	mg/l	2.58	2.72	5.28%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000012	1.1e-005	8.70%	Pass
SODIUM, D	0.05	0.05	mg/l	0.899	0.936	4.03%	Pass
SODIUM, T	0.05	0.05	mg/l	0.863	0.924	6.83%	Pass

STRONTIUM, D	0.0002	0.0002	mg/l	0.0501	0.0486	3.04%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0503	0.05	0.60%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	22.5	22.3	0.89%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000017	1.7e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	0.013	<0.01	26.09%	Pass-1
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	165	172	4.15%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.250	0.443	55.70%	Fail
TOTAL ORGANIC CARBON, T	0.5	2.5	mg/l	3.69	3	20.63%	Pass-2
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	7.5	7.3	2.70%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	17.1	17.7	3.45%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000301	0.000318	5.49%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000301	0.000338	11.58%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00127	0.00133	4.62%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00215	0.00235	8.89%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0034	0.0039	13.70%	Pass

Location:	LC_DCDS	LC_DCDS
Sample ID:	LC_DCDS_WS_2017-08-09_N	FD_WK_2017-08-09_003
Date Sampled:	8/9/2017	8/9/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	109	106	2.79%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	18.2	17.6	3.35%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	128	123	3.98%	Pass
ALUMINIUM, D	0.003	0.003	mg/l	0.0065	0.0067	3.03%	Pass
ALUMINIUM, T	0.003	0.003	mg/l	0.0116	0.0127	9.05%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00026	0.00027	3.77%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00030	0.0003	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00027	0.00028	3.64%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00032	0.00032	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.167	0.169	1.19%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.163	0.163	0.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000193	1.62e-005	17.46%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000471	4.23e-005	10.74%	Pass
CALCIUM, D	0.05	0.05	mg/l	38.8	39.7	2.29%	Pass
CALCIUM, D	0.05	0.05	mg/l	38.8	39.8	2.54%	Pass
CALCIUM, D	0.05	0.05	mg/l	39.6	39.7	0.25%	Pass
CALCIUM, D	0.05	0.05	mg/l	39.6	39.8	0.50%	Pass
CALCIUM, T	0.05	0.05	mg/l	40.5	40.4	0.25%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.43	2.42	0.41%	Pass
CHLORIDE, D	0.5	0.5	mg/l	2.83	2.39	16.86%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	306	306	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.092	0.093	1.08%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	164	167	1.81%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0090	0.0089	1.12%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0094	0.0098	4.17%	Pass
MAGNESIUM, D	0.1	0.005	mg/l	15.8	15.7	0.63%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	15.8	16.5	4.33%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	16.1	15.7	2.52%	Pass
MAGNESIUM, D	0.005	0.1	mg/l	16.1	16.5	2.45%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	16.0	15.7	1.89%	Pass
MAJOR ANION SUM	0	0	meq/l	3.51	3.39	3.48%	Pass
MAJOR CATION SUM	0	0	meq/l	3.34	3.35	0.30%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00149	0.00159	6.49%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	0.00121	83.04%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00160	0.00157	1.89%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00158	0.00159	0.63%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00093	0.00097	4.21%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00115	0.00116	0.87%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	3.37	3.31	1.80%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0611	0.0606	0.82%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0322	0.0328	1.85%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	254	297	15.61%	Pass
pH, LAB	0.1	0.1	ph units	8.71	8.71	0.00%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0149	0.0151	1.33%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.36	1.41	3.61%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.36	1.44	5.71%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.41	1.41	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.41	1.44	2.11%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.41	1.4	0.71%	Pass
SELENIUM, D	0.05	0.05	ug/l	7.3	7.33	0.41%	Pass
SELENIUM, T	0.05	0.05	ug/l	7.63	7.43	2.66%	Pass
SILICON, D	0.05	0.05	mg/l	1.77	1.74	1.71%	Pass
SILICON, T	0.1	0.1	mg/l	1.75	1.75	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.910	0.883	3.01%	Pass
SODIUM, D	0.05	0.05	mg/l	0.910	0.924	1.53%	Pass
SODIUM, D	0.05	0.05	mg/l	0.913	0.883	3.34%	Pass
SODIUM, D	0.05	0.05	mg/l	0.913	0.924	1.20%	Pass
SODIUM, T	0.05	0.05	mg/l	0.948	0.952	0.42%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0582	0.0587	0.86%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0586	0.0588	0.34%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	30.6	29.5	3.66%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000011	1.2e-005	8.70%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	189	175	7.69%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.262	0.571	74.19%	Fail
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.40	2.23	7.34%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.7	1.3	26.67%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.83	0.85	2.38%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000526	0.000524	0.38%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000526	0.000538	2.26%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00130	0.00131	0.77%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00154	0.00154	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_DCDS	LC_DCDS
Sample ID:	LC_DCDS_WS_2017-10-30_N	FD_WK_WS_2017-10-30_029
Date Sampled:	10/30/2017	10/30/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	137	138	0.73%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0081	0.0077	5.06%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0396	0.0371	6.52%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00037	0.00038	2.67%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00037	0.00037	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00032	0.00035	8.96%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00032	0.00036	11.76%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.182	0.175	3.92%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.182	0.175	3.92%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000434	4.12e-005	5.20%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000688	6.75e-005	1.91%	Pass
CALCIUM, D	0.05	0.05	mg/l	51.0	47.8	6.48%	Pass
CALCIUM, T	0.05	0.05	mg/l	48.8	48.3	1.03%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.16	1.92	11.76%	Pass
Cation - Anion Balance	0	0	%	2.1	-0.7	200.00%	Fail
CHLORIDE, D	0.5	0.5	mg/l	3.89	3.86	0.77%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00022	37.84%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00028	0.00027	3.64%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	369	369	0.27%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.071	0.066	7.30%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	202	192	5.08%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.030	0.031	3.28%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000055	5.4e-005	1.83%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0097	0.0095	2.08%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0096	0.0091	5.35%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	18.1	17.7	2.23%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	17.0	16.4	3.59%	Pass
MAJOR ANION SUM	0	0	meq/l	3.97	3.99	0.50%	Pass
MAJOR CATION SUM	0	0	meq/l	4.14	3.93	5.20%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00041	0.00034	18.67%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00876	0.00887	1.25%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00100	0.00092	8.33%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00222	0.00211	5.08%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00214	0.00217	1.39%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00205	0.00199	2.97%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00225	0.00234	3.92%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	4.16	4.12	0.97%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.169	0.167	1.19%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0373	0.0351	6.08%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0157	0.0158	0.63%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	288	307	6.39%	Pass
pH, LAB	0.1	0.1	ph units	8.29	8.27	0.24%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0238	0.0242	1.67%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.82	1.74	4.49%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.69	1.72	1.76%	Pass
SELENIUM, D	0.05	0.05	ug/l	7.65	7.9	3.22%	Pass
SELENIUM, T	0.05	0.05	ug/l	7.23	7.25	0.28%	Pass
SILICON, D	0.05	0.05	mg/l	2.32	2.38	2.55%	Pass
SILICON, T	0.1	0.1	mg/l	2.51	2.5	0.40%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.22	1.19	2.49%	Pass
SODIUM, T	0.05	0.05	mg/l	1.15	1.15	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0695	0.0664	4.56%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0680	0.0667	1.93%	Pass

SULFATE (AS SO4), D	0.3	0.3	mg/l	39.5	39.1	1.02%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000010	1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000012	1.3e-005	8.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	215	206	4.28%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.246	0.256	3.98%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.52	2.18	14.47%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.7	1.9	11.11%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	5.57	5.39	3.28%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000860	0.000862	0.23%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000842	0.000872	3.50%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00115	0.00115	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00132	0.00135	2.25%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_DCDS	LC_DCDS
Sample ID:	LC_DCDS_WS_2017-11-07_N	FD_M_2017-11-07_062
Date Sampled:	11/7/2017	11/7/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	138	142	2.86%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0072	0.0077	6.71%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0353	0.0367	3.89%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00039	0.00036	8.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00037	0.00038	2.67%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00032	0.00037	14.49%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00036	0.00036	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.169	0.179	5.75%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.166	0.174	4.71%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000502	6.03e-005	18.28%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000805	7.72e-005	4.19%	Pass
CALCIUM, D	0.05	0.05	mg/l	47.2	53.3	12.14%	Pass
CALCIUM, T	0.05	0.05	mg/l	57.8	56	3.16%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.66	2.47	7.41%	Pass
CHLORIDE, D	0.5	0.5	mg/l	4.57	4.72	3.23%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00018	25.00%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00010	0.00011	9.52%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00025	0.00027	7.69%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	395	394	0.25%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.078	0.079	1.27%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	195	209	6.93%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.026	0.024	8.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000053	<5e-005	5.83%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0093	0.0082	12.57%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0088	0.0084	4.65%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	18.7	18.4	1.62%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	18.5	18.7	1.08%	Pass
MAJOR ANION SUM	0	0	meq/l	4.17	4.28	2.60%	Pass
MAJOR CATION SUM	0	0	meq/l	3.99	4.27	6.78%	Pass

MANGANESE, D	0.0001	0.0001	mg/l	0.00035	0.00028	22.22%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.0101	0.01	1.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00090	0.00092	2.20%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00218	0.0024	9.61%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00226	0.0023	1.75%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00204	0.00223	8.90%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00259	0.00247	4.74%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	4.92	4.97	1.01%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.169	0.171	1.18%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0280	0.0295	5.22%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0185	0.018	2.74%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	295	304	3.01%	Pass
pH, LAB	0.1	0.1	ph units	8.29	8.32	0.36%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0236	0.0242	2.51%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.85	1.75	5.56%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.71	1.76	2.88%	Pass
SELENIUM, D	0.05	0.05	ug/l	7.45	8.83	16.95%	Pass
SELENIUM, T	0.05	0.05	ug/l	8.13	8.32	2.31%	Pass
SILICON, D	0.05	0.05	mg/l	2.43	2.63	7.91%	Pass
SILICON, T	0.1	0.1	mg/l	2.57	2.64	2.69%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.02	0.995	2.48%	Pass
SODIUM, T	0.05	0.05	mg/l	1.02	1.03	0.98%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0695	0.0779	11.40%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0737	0.0703	4.72%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	44.5	45	1.12%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000011	<1e-005	9.52%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	253	222	13.05%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.489	0.401	19.78%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.54	2.59	1.95%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.3	1.3	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	3.93	3.58	9.32%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000867	0.000859	0.93%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000853	0.000848	0.59%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00112	0.00126	11.76%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00134	0.00133	0.75%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0034	<0.003	12.50%	Pass

Location:	LC_DCDS	LC_DCDS
Sample ID:	LC_DCDS_WS_2017-12-18_N	FD_WK_2017-12-19_037
Date Sampled:	12/18/2017	12/18/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	143	138	3.56%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	143	138	3.56%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0047	0.006	24.30%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0694	0.0798	13.94%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00038	0.00038	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00037	0.00037	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00036	0.00032	11.76%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00038	0.00039	2.60%	Pass
BARIIUM, D	0.00005	0.00005	mg/l	0.176	0.179	1.69%	Pass
BARIIUM, T	0.00005	0.00005	mg/l	0.205	0.2	2.47%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000598	6.49e-005	8.18%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000820	7.02e-005	15.51%	Pass
CALCIUM, D	0.05	0.05	mg/l	59.2	57.9	2.22%	Pass
CALCIUM, T	0.05	0.05	mg/l	58.0	57.2	1.39%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.14	2.36	9.78%	Pass
Cation - Anion Balance	0	0	%	0	-0.7	200.00%	Fail
CHLORIDE, D	0.5	0.5	mg/l	4.80	4.9	2.06%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00017	0.00023	30.00%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00015	0.00014	6.90%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00021	0.00022	4.65%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	452	453	0.22%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	0.00055	9.52%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.088	0.091	3.35%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	228	223	2.22%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
ION BALANCE	100	100	%	100	98.6	1.41%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.039	0.043	9.76%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	5.9e-005	16.51%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0089	0.0086	3.43%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0085	0.0086	1.17%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	19.5	19.1	2.07%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	20.2	20.4	0.99%	Pass
MAJOR ANION SUM	0	0	meq/l	4.65	4.61	0.86%	Pass
MAJOR CATION SUM	0	0	meq/l	4.65	4.55	2.17%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00374	0.0036	3.81%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00911	0.00911	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00113	0.00115	1.75%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00230	0.00227	1.31%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00222	0.00222	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00225	0.00217	3.62%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00260	0.00257	1.16%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	8.22	8.93	8.28%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0353	0.0373	5.51%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0173	0.0161	7.19%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0288	0.0274	4.98%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	296	302	2.01%	Pass
pH, LAB	0.1	0.1	ph units	8.17	8.19	0.24%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0335	0.0338	0.89%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.82	1.76	3.35%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.92	1.88	2.11%	Pass
SELENIUM, D	0.05	0.05	ug/l	9.98	10.3	3.16%	Pass
SELENIUM, T	0.05	0.05	ug/l	10.2	10.2	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	2.71	2.62	3.38%	Pass
SILICON, T	0.1	0.1	mg/l	2.94	2.91	1.03%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00005	mg/l	< 0.000010	<5e-005	133.33%	Pass-1
SODIUM, D	0.05	0.05	mg/l	0.946	0.938	0.85%	Pass
SODIUM, T	0.05	0.05	mg/l	1.02	1.01	0.99%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0756	0.0751	0.66%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0756	0.075	0.80%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	50.9	51.1	0.39%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000012	1.3e-005	8.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	259	249	3.94%	Pass
TOTAL KjELDAHL NITROGEN	0.05	0.05	mg/l	0.417	0.523	22.55%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.63	2.23	16.46%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.9	2.3	19.05%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	4.52	5.14	12.84%	Pass

URANIUM, D	0.0001	0.0001	mg/l	0.000881	0.00089	1.02%	Pass
URANIUM, T	0.0001	0.0001	mg/l	0.000858	0.00086	0.23%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00123	0.00122	0.82%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00162	0.00166	2.44%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0034	0.0032	6.06%	Pass

Location:	LC_DCEF	LC_DCEF
Sample ID:	LC_DCEF_WS_2017-10-03_N	FD_M_2017-10-03_059
Date Sampled:	10/3/2017	10/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.7	1.9	11.11%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	151	142	6.14%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.6	2.6	73.17%	Fail
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	157	144	8.64%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00017	0.00019	11.11%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00021	0.0002	4.88%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.253	0.252	0.40%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.242	0.238	1.67%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000282	2.52e-005	11.24%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000324	3.29e-005	1.53%	Pass
CALCIUM, D	0.05	0.05	mg/l	34.5	34.2	0.87%	Pass
CALCIUM, T	0.05	0.05	mg/l	34.6	34.3	0.87%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.31	1.37	4.48%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00020	0.00016	22.22%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	258	261	1.16%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.076	0.084	10.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	142	143	0.70%	Pass
HYDROGEN SULFIDE	0.021	0.021	mg/l	< 0.021	<0.021	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0181	0.0181	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0191	0.0189	1.05%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	13.6	14	2.90%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	13.6	13.3	2.23%	Pass
MAJOR ANION SUM	0	0	meq/l	3.27	3.02	7.95%	Pass
MAJOR CATION SUM	0	0	meq/l	2.97	2.99	0.67%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00114	0.00112	1.77%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00115	0.00108	6.28%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0752	0.0805	6.81%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass

NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0081	<0.005	47.33%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0136	0.0135	0.74%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	294	295	0.34%	Pass
pH, LAB	0.1	0.1	ph units	8.42	8.35	0.83%	Pass
PHOSPHORUS	0.002	0.004	mg/l	0.0132	0.0154	15.38%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.979	0.969	1.03%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.00	0.987	1.31%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.49	1.6	7.12%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.31	1.42	8.06%	Pass
SILICON, D	0.05	0.05	mg/l	2.81	2.81	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	2.86	2.82	1.41%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.52	2.56	1.57%	Pass
SODIUM, T	0.05	0.05	mg/l	2.54	2.52	0.79%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0484	0.0478	1.25%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0485	0.0488	0.62%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	6.34	6.32	0.32%	Pass
SULFIDE (as S), T	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	155	153	1.30%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.960	0.112	158.21%	Fail
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.09	1.17	7.08%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.42	0.24	54.55%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.000371	0.00037	0.27%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000364	0.000363	0.28%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00074	0.00073	1.36%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_GRCK	LC_GRCK
Sample ID:	LC_GRCK_WS_2017-02-07_N	FD_M_2017-02-07_035
Date Sampled:	2/15/2017	2/15/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	155	155	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.8	2	97.44%	Fail
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	160	157	1.89%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0011	<0.001	9.52%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0486	0.0426	13.16%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00014	0.00011	24.00%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0590	0.0583	1.19%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0771	0.0635	19.35%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.011	0.011	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.011	0.012	8.70%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000052	<5e-006	3.92%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000093	9.9e-006	6.25%	Pass
CALCIUM, D	0.05	0.05	mg/l	51.1	50.8	0.59%	Pass
CALCIUM, T	0.05	0.05	mg/l	50.1	50.8	1.39%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass

CHROMIUM, D	0.0001	0.0001	mg/l	0.00013	<0.0001	26.09%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00028	0.00022	24.00%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	394	390	1.02%	Pass
COPPER, D	0.0002	0.0002	mg/l	<0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.133	0.135	1.49%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	207	205	0.97%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	<0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.072	0.072	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0050	0.0051	1.98%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0048	0.005	4.08%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	19.2	18.9	1.57%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	24.0	20.4	16.22%	Pass
MAJOR ANION SUM	0	0	meq/l	4.38	4.31	1.61%	Pass
MAJOR CATION SUM	0	0	meq/l	4.24	4.2	0.95%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00044	0.00045	2.25%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00588	0.00528	10.75%	Pass
MERCURY, D	0.000005	0.000005	mg/l	<0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	<0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00153	0.00151	1.32%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00151	0.00155	2.61%	Pass
NICKEL, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0981	0.0753	26.30%	Pass-2
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0011	0.0011	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0106	<0.005	71.79%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0032	0.0027	16.95%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	353	368	4.16%	Pass
pH, LAB	0.1	0.1	ph units	8.30	8.29	0.12%	Pass
PHOSPHORUS	0.002	0.004	mg/l	0.0100	0.005	66.67%	Fail
POTASSIUM, D	0.05	0.05	mg/l	0.608	0.595	2.16%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.773	0.656	16.38%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.93	2.92	0.34%	Pass
SELENIUM, T	0.05	0.05	ug/l	2.58	2.61	1.16%	Pass
SILICON, D	0.05	0.05	mg/l	2.50	2.5	0.00%	Pass
SILICON, T	0.05	0.05	mg/l	2.75	2.75	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.17	2.12	2.33%	Pass
SODIUM, T	0.05	0.05	mg/l	2.63	2.25	15.57%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.176	0.174	1.14%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.174	0.179	2.83%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	55.8	55.7	0.18%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	<0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	222	229	3.10%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	<0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	<0.50	<0.5	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	3.6	3.4	5.71%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.20	1.09	9.61%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00108	0.00103	4.74%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00106	0.00109	2.79%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	<0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass

Location:	LC_HSP	LC_HSP
Sample ID:	LC_HSP_WS_2017-10-31_N	FD_WK_WS_20171024_061

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units	Date Sampled:	10/31/2017	10/31/2017	Primary vs. Duplicate	Category1
				Sample Type:	Primary	Secondary		
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l		3.4	4	16.22%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l		188	188	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l		< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l		0.0326	0.0277	16.25%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l		0.00058	0.00061	5.04%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l		0.00060	0.00058	3.39%	Pass
ARSENIC, D	0.0001	0.0001	mg/l		0.00016	0.00016	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l		0.00019	0.00019	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l		0.0591	0.0588	0.51%	Pass
BARIUM, T	0.00005	0.00005	mg/l		0.0611	0.0611	0.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l		< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l		< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l		< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l		< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l		0.032	0.034	6.06%	Pass
BORON, T	0.01	0.01	mg/l		0.036	0.036	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l		0.053	<0.05	5.83%	Pass
CADMIUM, D	0.000005	0.000005	mg/l		0.000154	0.000146	5.33%	Pass
CADMIUM, T	0.000005	0.000005	mg/l		0.000159	0.000164	3.10%	Pass
CALCIUM, D	0.05	0.05	mg/l		80.9	78.5	3.01%	Pass
CALCIUM, T	0.05	0.05	mg/l		78.6	79.2	0.76%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l		0.83	0.9	8.09%	Pass
Cation - Anion Balance	0	0	%		0.4	-0.8	200.00%	Fail
CHLORIDE, D	0.5	0.5	mg/l		< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l		< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l		0.00018	0.00017	5.71%	Pass
COBALT, D	0.0001	0.0001	mg/l		0.00189	0.00187	1.06%	Pass
COBALT, T	0.0001	0.0001	mg/l		0.00220	0.00218	0.91%	Pass
CONDUCTIVITY, LAB	2	2	us/cm		656	660	0.61%	Pass
COPPER, D	0.0005	0.0005	mg/l		< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l		0.00059	0.00061	3.33%	Pass
FLUORIDE, D	0.02	0.02	mg/l		0.214	0.22	2.76%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l		352	343	2.59%	Pass
IRON, D	0.01	0.01	mg/l		< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l		0.076	0.076	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l		< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l		0.000093	9.3e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l		0.0657	0.066	0.46%	Pass
LITHIUM, T	0.001	0.001	mg/l		0.0648	0.0632	2.50%	Pass
MAGNESIUM, D	0.1	0.1	mg/l		36.3	35.8	1.39%	Pass
MAGNESIUM, T	0.1	0.1	mg/l		34.2	34.4	0.58%	Pass
MAJOR ANION SUM	0	0	meq/l		7.59	7.59	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l		7.65	7.48	2.25%	Pass
MANGANESE, D	0.0001	0.0001	mg/l		0.0399	0.0393	1.52%	Pass
MANGANESE, T	0.0001	0.0001	mg/l		0.0436	0.0445	2.04%	Pass
MERCURY, D	0.000005	0.000005	mg/l		< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l		0.00080	0.00078	2.53%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l		0.00227	0.00221	2.68%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l		0.00226	0.00233	3.05%	Pass
NICKEL, D	0.0005	0.0005	mg/l		0.0213	0.0209	1.90%	Pass
NICKEL, T	0.0005	0.0005	mg/l		0.0212	0.0215	1.41%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l		2.07	2.06	0.48%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l		0.0370	0.0368	0.54%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l		0.188	0.189	0.53%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l		< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv		262	283	7.71%	Pass
pH, LAB	0.1	0.1	ph units		8.06	8.09	0.37%	Pass
PHOSPHORUS	0.001	0.001	mg/l		0.0060	0.0062	3.28%	Pass
POTASSIUM, D	0.05	0.05	mg/l		2.49	2.4	3.68%	Pass
POTASSIUM, T	0.05	0.05	mg/l		2.27	2.26	0.44%	Pass
SELENIUM, D	0.05	0.05	ug/l		10.7	11.1	3.67%	Pass
SELENIUM, T	0.05	0.05	ug/l		9.99	9.93	0.60%	Pass
SILICON, D	0.05	0.05	mg/l		1.63	1.61	1.23%	Pass
SILICON, T	0.1	0.1	mg/l		1.76	1.74	1.14%	Pass
SILVER, D	0.00001	0.00001	mg/l		< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l		< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l		12.6	12.5	0.80%	Pass
SODIUM, T	0.05	0.05	mg/l		12.3	12.4	0.81%	Pass

STRONTIUM, D	0.0002	0.0002	mg/l	0.160	0.158	1.26%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.158	0.158	0.00%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	177	177	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000040	3.8e-005	5.13%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000036	3.8e-005	5.41%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	494	476	3.71%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.317	0.328	3.41%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.12	1.04	7.41%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.7	2.5	38.10%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	5.38	5.79	7.34%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00235	0.00231	1.72%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00227	0.00222	2.23%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0101	0.0094	7.18%	Pass
ZINC, T	0.003	0.003	mg/l	0.0120	0.0137	13.23%	Pass

Location:	LC_HSP	LC_HSP
Sample ID:	LC_HSP_WS_2017-11-06_N	FD_M_20171106_013
Date Sampled:	11/8/2017	11/8/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.6	1.6	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	186	188	1.07%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0314	0.028	11.45%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00057	0.00061	6.78%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00061	0.00062	1.63%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00017	0.00016	6.06%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00019	0.00021	10.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0600	0.0609	1.49%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0615	0.0591	3.98%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.035	0.036	2.82%	Pass
BORON, T	0.01	0.01	mg/l	0.033	0.033	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000166	0.000153	8.15%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000187	0.000183	2.16%	Pass
CALCIUM, D	0.05	0.05	mg/l	80.9	84.7	4.59%	Pass
CALCIUM, T	0.05	0.05	mg/l	87.4	84.5	3.37%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.90	0.92	2.20%	Pass
Cation - Anion Balance	0	0	%	0.6	0.9	40.00%	Fail
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	0.65	26.09%	Pass-1
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00197	0.00197	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00229	0.00225	1.76%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	667	680	1.93%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00066	0.00062	6.25%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.254	0.27	6.11%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	353	360	1.96%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.066	0.066	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000082	9.3e-005	12.57%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0581	0.0578	0.52%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0642	0.0645	0.47%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	36.8	36.1	1.92%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	35.5	35.6	0.28%	Pass
MAJOR ANION SUM	0	0	meq/l	7.63	7.71	1.04%	Pass

MAJOR CATION SUM	0	0	meq/l	7.72	7.86	1.80%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0387	0.0394	1.79%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0454	0.0451	0.66%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00072	0.00072	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00251	0.00262	4.29%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00242	0.00249	2.85%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0219	0.0221	0.91%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0229	0.0224	2.21%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	2.04	2.07	1.46%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0334	0.0374	11.30%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.206	0.202	1.96%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	281	281	0.00%	Pass
pH, LAB	0.1	0.1	ph units	8.18	8.19	0.12%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0060	0.0122	68.13%	Fail
POTASSIUM, D	0.05	0.05	mg/l	2.33	2.36	1.28%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.35	2.27	3.46%	Pass
SELENIUM, D	0.05	0.05	ug/l	10.6	10.4	1.90%	Pass
SELENIUM, T	0.05	0.05	ug/l	10.3	10.1	1.96%	Pass
SILICON, D	0.05	0.05	mg/l	1.68	1.63	3.02%	Pass
SILICON, T	0.1	0.1	mg/l	1.75	1.74	0.57%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	13.4	13.4	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	13.1	13.2	0.76%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.178	0.192	7.57%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.163	0.172	5.37%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	180	181	0.55%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000033	3.6e-005	8.70%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000038	3.8e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	469	470	0.21%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.315	0.374	17.13%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.87	0.85	2.33%	Pass
TOTAL SUSPENDED SOLIDS, LAB	2	1	mg/l	2.3	1.6	35.90%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	4.76	4.83	1.46%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00208	0.00222	6.51%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00221	0.00217	1.83%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0106	0.0113	6.39%	Pass
ZINC, T	0.003	0.003	mg/l	0.0117	0.0123	5.00%	Pass

Location:	LC_HSP	LC_HSP
Sample ID:	LC_HSP_WS_2017-11-28_N	FD_WK_20171128_067
Date Sampled:	11/28/2017	11/28/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.5	<1	40.00%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	194	197	1.53%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	194	197	1.53%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0577	0.051	12.33%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00060	0.00059	1.68%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00063	0.00062	1.60%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00017	0.00018	5.71%	Pass
BARIIUM, D	0.00005	0.00005	mg/l	0.0582	0.0576	1.04%	Pass
BARIIUM, T	0.00005	0.00005	mg/l	0.0606	0.0588	3.02%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.036	0.035	2.82%	Pass
BORON, T	0.01	0.01	mg/l	0.041	0.04	2.47%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000157	0.000169	7.36%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000167	0.000166	0.60%	Pass
CALCIUM, D	0.05	0.05	mg/l	90.4	87.3	3.49%	Pass
CALCIUM, T	0.05	0.05	mg/l	88.8	87.7	1.25%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.62	0.78	22.86%	Pass-1
Cation - Anion Balance	0	0	%	3.8	2.2	53.33%	Fail
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00234	0.00229	2.16%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00244	0.0025	2.43%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	688	689	0.15%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00101	0.00071	34.88%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.246	0.245	0.41%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	399	390	2.28%	Pass
ION BALANCE	100	100	%	108	105	2.82%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.071	0.07	1.42%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000072	6.9e-005	4.26%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0719	0.0713	0.84%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0681	0.0665	2.38%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	42.1	41.7	0.95%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	38.0	38.8	2.08%	Pass
MAJOR ANION SUM	0	0	meq/l	8.00	8.07	0.87%	Pass
MAJOR CATION SUM	0	0	meq/l	8.63	8.44	2.23%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0461	0.0453	1.75%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0464	0.0467	0.64%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00073	0.00074	1.36%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00247	0.00238	3.71%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00260	0.00255	1.94%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0221	0.0218	1.37%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0215	0.0217	0.93%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	2.30	2.3	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0305	0.0312	2.27%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.188	0.187	0.53%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	285	290	1.74%	Pass
pH, LAB	0.1	0.1	ph units	8.08	8.04	0.50%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0057	0.0186	106.17%	Fail
POTASSIUM, D	0.05	0.05	mg/l	2.36	2.32	1.71%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.19	2.2	0.46%	Pass
SELENIUM, D	0.05	0.05	ug/l	10.6	10.7	0.94%	Pass
SELENIUM, T	0.05	0.05	ug/l	10.3	10	2.96%	Pass
SILICON, D	0.05	0.05	mg/l	1.65	1.65	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	1.84	1.8	2.20%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	13.3	13.2	0.75%	Pass
SODIUM, T	0.05	0.05	mg/l	13.0	12.7	2.33%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.169	0.162	4.23%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.183	0.177	3.33%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	190	189	0.53%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000034	3.5e-005	2.90%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000032	3.2e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	0.00024	<0.0001	82.35%	Pass-1
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	461	477	3.41%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.293	0.296	1.02%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.80	1.93	82.78%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	4.51	4.83	6.85%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00211	0.00214	1.41%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00210	0.00209	0.48%	Pass

VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0098	0.0095	3.11%	Pass
ZINC, T	0.003	0.003	mg/l	0.0113	0.0107	5.45%	Pass

Location:	LC_HSP	LC_HSP
Sample ID:	LC_HSP_WS_2017-12-04_N	FD_M_20171204_018
Date Sampled:	12/4/2017	12/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.2	4.3	2.35%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	208	204	1.94%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	208	204	1.94%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0512	0.114	76.03%	Fail
ANTIMONY, D	0.0001	0.0001	mg/l	0.00071	0.00076	6.80%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00066	0.00073	10.07%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00016	0.00015	6.45%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0585	0.0542	7.63%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0590	0.0622	5.28%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.041	0.04	2.47%	Pass
BORON, T	0.01	0.01	mg/l	0.038	0.041	7.59%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000164	0.000141	15.08%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000193	0.000181	6.42%	Pass
CALCIUM, D	0.05	0.05	mg/l	89.6	84.4	5.98%	Pass
CALCIUM, T	0.05	0.05	mg/l	89.2	87.5	1.92%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.84	0.9	6.90%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00020	0.00014	35.29%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00285	0.00264	7.65%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00325	0.00322	0.93%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	758	762	0.53%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00063	0.00068	7.63%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.242	0.246	1.64%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	386	365	5.59%	Pass
ION BALANCE	100	100	%	99.4	94.6	4.95%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.085	0.094	10.06%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000078	7.9e-005	1.27%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0747	0.0699	6.64%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0756	0.0758	0.26%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	39.5	37.3	5.73%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	37.9	41.5	9.07%	Pass
MAJOR ANION SUM	0	0	meq/l	8.51	8.43	0.94%	Pass
MAJOR CATION SUM	0	0	meq/l	8.46	7.98	5.84%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0553	0.0525	5.19%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0626	0.0604	3.58%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00069	0.00075	8.33%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00252	0.00248	1.60%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00256	0.00249	2.77%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0231	0.0218	5.79%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0245	0.0245	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	2.34	2.34	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0314	0.0321	2.20%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.228	0.228	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0013	<0.001	26.09%	Pass-1

OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	293	341	15.14%	Pass
pH, LAB	0.1	0.1	ph units	8.24	8.25	0.12%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0047	0.0062	27.52%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.48	2.29	7.97%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.55	2.47	3.19%	Pass
SELENIUM, D	0.05	0.05	ug/l	10.7	10.8	0.93%	Pass
SELENIUM, T	0.05	0.05	ug/l	10.8	10.8	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	1.63	1.6	1.86%	Pass
SILICON, T	0.1	0.1	mg/l	1.82	1.86	2.17%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	15.1	14.1	6.85%	Pass
SODIUM, T	0.05	0.05	mg/l	14.2	14.1	0.71%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.172	0.177	2.87%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.181	0.17	6.27%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	201	201	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000036	4e-005	10.53%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000040	3.7e-005	7.79%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	511	522	2.13%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.537	0.527	1.88%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.78	0.97	21.71%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.8	1.6	11.76%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	4.85	4.41	9.50%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00215	0.00218	1.39%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00237	0.0021	12.08%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0105	0.0095	10.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0130	0.0121	7.17%	Pass

Location:	LC_LC2	LC_LC2
Sample ID:	LC_LC2_WS_2017-02-06_N	FD_M_20170206_062
Date Sampled:	2/14/2017	2/14/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.1	1.3	16.67%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	141	137	2.88%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	141	137	2.88%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0048	0.0045	6.45%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00011	0.0001	9.52%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0943	0.095	0.74%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0977	0.0965	1.24%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000088	9.8e-006	10.75%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000107	1.02e-005	4.78%	Pass
CALCIUM, D	0.05	0.05	mg/l	56.8	56	1.42%	Pass
CALCIUM, T	0.05	0.05	mg/l	56.6	54.4	3.96%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	0.00014	24.00%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00020	0.00021	4.88%	Pass

COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	395	389	1.53%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.203	0.204	0.49%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	208	205	1.45%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0048	0.0048	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0048	0.0046	4.26%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	16.0	15.8	1.26%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	17.0	16.3	4.20%	Pass
MAJOR ANION SUM	0	0	meq/l	4.36	4.28	1.85%	Pass
MAJOR CATION SUM	0	0	meq/l	4.23	4.18	1.19%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00070	0.00065	7.41%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00089	0.0009	1.12%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000686	0.000671	2.21%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000738	0.000689	6.87%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.399	0.4	0.25%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0182	<0.005	113.79%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0026	0.0022	16.67%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	397	405	2.00%	Pass
pH, LAB	0.1	0.1	ph units	8.10	8.09	0.12%	Pass
PHOSPHORUS	0.005	0.002	mg/l	0.0061	0.0028	74.16%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	0.476	0.472	0.84%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.496	0.48	3.28%	Pass
SELENIUM, D	0.05	0.05	ug/l	7.13	6.44	10.17%	Pass
SELENIUM, T	0.05	0.05	ug/l	5.95	5.8	2.55%	Pass
SILICON, D	0.05	0.05	mg/l	2.05	1.96	4.49%	Pass
SILICON, T	0.05	0.05	mg/l	2.08	2.12	1.90%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.68	1.66	1.20%	Pass
SODIUM, T	0.05	0.05	mg/l	1.75	1.7	2.90%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.139	0.135	2.92%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.142	0.132	7.30%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	72.3	72.3	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	231	242	4.65%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	< 0.50	3.56	150.74%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.26	0.19	31.11%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.000757	0.000746	1.46%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000822	0.000744	9.96%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_LC2	LC_LC2
Sample ID:	LC_LC2_WS_2017-05-01_N	FD_M_20170501_077
Date Sampled:	5/1/2017	5/1/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	139	135	2.92%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	139	135	2.92%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0082	0.0078	5.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0902	0.091	0.88%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0888	0.0879	1.02%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000093	9.8e-006	5.24%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000117	1.15e-005	1.72%	Pass
CALCIUM, D	0.05	0.05	mg/l	52.5	53	0.95%	Pass
CALCIUM, T	0.05	0.05	mg/l	50.9	50.4	0.99%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.92	1.08	16.00%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00017	0.00018	5.71%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00023	0.00022	4.44%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	393	388	1.28%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	0.00057	96.10%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.210	0.21	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	189	193	2.09%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0043	0.0043	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0043	0.0043	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	14.0	14.7	4.88%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	14.9	14.5	2.72%	Pass
MAJOR ANION SUM	0	0	meq/l	4.23	4.14	2.15%	Pass
MAJOR CATION SUM	0	0	meq/l	3.86	3.94	2.05%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00025	0.00028	11.32%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00063	0.00053	17.24%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000688	0.000668	2.95%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000694	0.000679	2.18%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.644	0.642	0.31%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0156	0.0239	42.03%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0021	0.002	4.88%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	353	375	6.04%	Pass
pH, LAB	0.1	0.1	ph units	8.18	8.15	0.37%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0079	0.0069	13.51%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.430	0.452	4.99%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.446	0.434	2.73%	Pass
SELENIUM, D	0.05	0.05	ug/l	5.58	5.41	3.09%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.72	4.56	3.45%	Pass
SILICON, D	0.05	0.05	mg/l	1.87	1.89	1.06%	Pass
SILICON, T	0.05	0.05	mg/l	1.86	1.88	1.07%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.62	1.69	4.23%	Pass

SODIUM, T	0.05	0.05	mg/l	1.66	1.63	1.82%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.148	0.145	2.05%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.145	0.142	2.09%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	66.7	66.7	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	217	706	105.96%	Fail
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.085	0.088	3.47%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.15	0.98	15.96%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.29	0.17	52.17%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.000926	0.000916	1.09%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000923	0.000921	0.22%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	0.0011	9.52%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_LC2	LC_LC2
Sample ID:	LC_LC2_WS_2017-09-04_N	FD_M_20170904_002
Date Sampled:	9/6/2017	9/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.8	2.2	20.00%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	131	135	3.01%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	11.4	8	35.05%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	142	143	0.70%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0965	0.0958	0.73%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0975	0.0965	1.03%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000074	9.5e-006	24.85%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000101	9.4e-006	7.18%	Pass
CALCIUM, D	0.05	0.05	mg/l	56.7	56.6	0.18%	Pass
CALCIUM, T	0.05	0.05	mg/l	54.7	55.6	1.63%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.64	0.63	1.57%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00018	0.00019	5.41%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00024	0.00021	13.33%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	388	389	0.26%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.179	0.17	5.16%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	205	204	0.49%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

LITHIUM, D	0.001	0.001	mg/l	0.0048	0.0051	6.06%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0049	0.0052	5.94%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	15.4	15.3	0.65%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	16.3	16.2	0.62%	Pass
MAJOR ANION SUM	0	0	meq/l	4.20	4.21	0.24%	Pass
MAJOR CATION SUM	0	0	meq/l	4.18	4.16	0.48%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00045	0.00047	4.35%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00083	0.00077	7.50%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000665	0.00069	3.69%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000711	0.000714	0.42%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.324	0.327	0.92%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.013	88.89%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0012	<0.001	18.18%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	251	269	6.92%	Pass
pH, LAB	0.1	0.1	ph units	8.42	8.37	0.60%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0026	0.0034	26.67%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	0.485	0.474	2.29%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.511	0.509	0.39%	Pass
SELENIUM, D	0.05	0.05	ug/l	8.06	7.84	2.77%	Pass
SELENIUM, T	0.05	0.05	ug/l	7.63	7.74	1.43%	Pass
SILICON, D	0.05	0.05	mg/l	2.10	2.1	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	2.19	2.23	1.81%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.59	1.56	1.90%	Pass
SODIUM, T	0.05	0.05	mg/l	1.64	1.69	3.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.134	0.133	0.75%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.134	0.137	2.21%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	63.7	63.4	0.47%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	235	235	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.90	0.93	3.28%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.18	0.14	25.00%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.000732	0.000737	0.68%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000793	0.000803	1.25%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_LC2	LC_LC2
Sample ID:	LC_LC2_WS_2017-10-02_N	FD_M_20171002_007
Date Sampled:	10/3/2017	10/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	144	147	2.06%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	6.1	2.9	71.11%	Fail
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	150	150	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00020	0.00027	29.79%	Pass-1
ARSENIC, T	0.0001	0.0001	mg/l	0.00014	0.00011	24.00%	Pass-1

BARIUM, D	0.00005	0.00005	mg/l	0.0999	0.0997	0.20%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0995	0.0977	1.83%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000073	6.9e-006	5.63%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000085	8e-006	6.06%	Pass
CALCIUM, D	0.05	0.05	mg/l	58.2	57.3	1.56%	Pass
CALCIUM, T	0.05	0.05	mg/l	57.8	57	1.39%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.01	<0.5	67.55%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00014	0.00019	30.30%	Pass-1
CHROMIUM, T	0.0003	0.0004	mg/l	< 0.00030	<0.0004	28.57%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	375	378	0.80%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.165	0.166	0.60%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	213	210	1.42%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0047	0.0047	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0054	0.0054	0.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	16.5	16.2	1.83%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	16.9	16.8	0.59%	Pass
MAJOR ANION SUM	0	0	meq/l	4.52	4.52	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	4.34	4.28	1.39%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00052	0.00047	10.10%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00076	0.00078	2.60%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000696	0.000701	0.72%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000816	0.000808	0.99%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.355	0.355	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0081	0.0083	2.44%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0021	0.0021	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	320	351	9.24%	Pass
pH, LAB	0.1	0.1	ph units	8.41	8.38	0.36%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	<0.002	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.510	0.51	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.537	0.524	2.45%	Pass
SELENIUM, D	0.05	0.05	ug/l	9.44	9.19	2.68%	Pass
SELENIUM, T	0.05	0.05	ug/l	8.5	8.43	0.83%	Pass
SILICON, D	0.05	0.05	mg/l	2.13	2.12	0.47%	Pass
SILICON, T	0.1	0.1	mg/l	2.27	2.25	0.88%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.67	1.69	1.19%	Pass
SODIUM, T	0.05	0.05	mg/l	1.71	1.7	0.59%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.134	0.136	1.48%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.136	0.139	2.18%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	71.5	71.6	0.14%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	258	268	3.80%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.076	0.075	1.32%	Pass

TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.84	<0.5	50.75%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.4	33.33%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.43	0.23	60.61%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.000749	0.000736	1.75%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000755	0.000778	3.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_LC2	LC_LC2
Sample ID:	LC_LC2_WS_2017-11-06_N	FD_M_20171106_012
Date Sampled:	11/8/2017	11/8/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	141	143	1.41%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0065	<0.003	73.68%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.105	0.109	3.74%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.103	0.1	2.96%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000061	8.3e-006	30.56%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000123	9.7e-006	23.64%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	59.6	59.4	0.34%	Pass
CALCIUM, T	0.05	0.05	mg/l	64.3	63.9	0.62%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00017	0.00012	34.48%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00023	0.00023	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	419	408	2.66%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.182	0.184	1.09%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	217	220	1.37%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.014	<0.01	33.33%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0049	0.005	2.02%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0051	0.0051	0.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	16.6	17.4	4.71%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	17.5	17.1	2.31%	Pass
MAJOR ANION SUM	0	0	meq/l	4.48	4.55	1.55%	Pass
MAJOR CATION SUM	0	0	meq/l	4.43	4.49	1.35%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00055	0.00061	10.34%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00081	0.00082	1.23%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000730	0.000729	0.14%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000693	0.000717	3.40%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.369	0.373	1.08%	Pass

NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0081	<0.005	47.33%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0017	0.0019	11.11%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	290	309	6.34%	Pass
pH, LAB	0.1	0.1	ph units	8.23	8.23	0.00%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0036	0.0036	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.515	0.53	2.87%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.497	0.48	3.48%	Pass
SELENIUM, D	0.05	0.05	ug/l	8.75	8.73	0.23%	Pass
SELENIUM, T	0.05	0.05	ug/l	8.24	8.4	1.92%	Pass
SILICON, D	0.05	0.05	mg/l	2.21	2.19	0.91%	Pass
SILICON, T	0.1	0.1	mg/l	2.17	2.19	0.92%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.71	1.75	2.31%	Pass
SODIUM, T	0.05	0.05	mg/l	1.79	1.78	0.56%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.157	0.161	2.52%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.141	0.137	2.88%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	78.4	79.9	1.90%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	258	282	8.89%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.076	0.063	18.71%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.19	0.19	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000744	0.000757	1.73%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000783	0.000797	1.77%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_LC2	LC_LC2
Sample ID:	LC_LC2_WS_2017-12-04_N	FD_M_20171204_017
Date Sampled:	12/4/2017	12/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.6	1.3	20.69%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	146	150	2.70%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	3.0	<1	100.00%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	149	150	0.67%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00012	<0.0001	18.18%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	<0.0001	18.18%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.104	0.107	2.84%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.109	0.109	0.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000094	7.2e-006	26.51%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000062	5.6e-006	10.17%	Pass
CALCIUM, D	0.05	0.05	mg/l	60.4	62.8	3.90%	Pass
CALCIUM, T	0.05	0.05	mg/l	58.2	60	3.05%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	0.83	49.62%	Pass-1

CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00022	0.00023	4.44%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	432	432	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.173	0.175	1.15%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	222	228	2.67%	Pass
ION BALANCE	100	100	%	96.3	98.7	2.46%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0045	0.0047	4.35%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0049	0.0052	5.94%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	17.2	17.2	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	17.8	18.3	2.77%	Pass
MAJOR ANION SUM	0	0	meq/l	4.68	4.7	0.43%	Pass
MAJOR CATION SUM	0	0	meq/l	4.51	4.64	2.84%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00050	0.00051	1.98%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00067	0.00066	1.50%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000690	0.000753	8.73%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000663	0.000696	4.86%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	< 0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.374	0.367	1.89%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0011	<0.001	9.52%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0104	70.13%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0030	0.0027	10.53%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	327	329	0.61%	Pass
pH, LAB	0.1	0.1	ph units	8.29	8.28	0.12%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0034	0.0041	18.67%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.481	0.508	5.46%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.479	0.481	0.42%	Pass
SELENIUM, D	0.05	0.05	ug/l	7.3	7.47	2.30%	Pass
SELENIUM, T	0.05	0.05	ug/l	7.48	7.68	2.64%	Pass
SILICON, D	0.05	0.05	mg/l	2.10	2.15	2.35%	Pass
SILICON, T	0.1	0.1	mg/l	2.14	2.16	0.93%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.58	1.68	6.13%	Pass
SODIUM, T	0.05	0.05	mg/l	1.71	1.79	4.57%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.148	0.156	5.26%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.141	0.147	4.17%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	80.5	80	0.62%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	268	274	2.21%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.086	<0.05	52.94%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.2	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.23	0.28	19.61%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000785	0.000835	6.17%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000757	0.000749	1.06%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location: LC_LC3 LC_LC3

Sample ID:	LC_LC3_WS_2017-01-02_N	FD_M_20170102_057
Date Sampled:	1/9/2017	1/9/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.3	2.3	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	216	213	1.40%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	2.6	5.6	73.17%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	218	219	0.46%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	0.0036	18.18%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00035	0.00036	2.82%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00039	0.00043	9.76%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.00010	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0624	0.0639	2.38%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0650	0.0653	0.46%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.016	0.016	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.017	0.017	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000174	0.000175	0.57%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000189	0.00019	0.53%	Pass
CALCIUM, D	0.05	0.05	mg/l	144	148	2.74%	Pass
CALCIUM, T	0.05	0.05	mg/l	150	154	2.63%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.57	0.51	11.11%	Pass
CHLORIDE, D	0.5	0.5	mg/l	20.3	20.5	0.98%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00014	<0.0001	33.33%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1200	1200	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.23	0.24	4.26%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	643	663	3.06%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.055	0.056	1.80%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0604	0.0612	1.32%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0621	0.0647	4.10%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	68.6	71.2	3.72%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	71.0	73.8	3.87%	Pass
MAJOR ANION SUM	0	0	meq/l	14.5	14.6	0.69%	Pass
MAJOR CATION SUM	0	0	meq/l	13.3	13.7	2.96%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0122	0.0124	1.63%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0164	0.017	3.59%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00239	0.00241	0.83%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00253	0.00254	0.39%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00863	0.0088	1.95%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00920	0.00929	0.97%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	15.3	15.4	0.65%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0067	29.06%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0084	0.008	4.88%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	351	349	0.57%	Pass
pH, LAB	0.1	0.1	ph units	8.30	8.31	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0117	0.0105	10.81%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.03	2.04	0.49%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.04	2.08	1.94%	Pass
SELENIUM, D	0.05	0.05	ug/l	42.6	43	0.93%	Pass
SELENIUM, T	0.05	0.05	ug/l	40.4	41.1	1.72%	Pass
SILICON, D	0.05	0.05	mg/l	1.97	2	1.51%	Pass

SILICON, T	0.05	0.05	mg/l	2.11	2.09	0.95%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	9.64	9.57	0.73%	Pass
SODIUM, T	0.05	0.05	mg/l	9.91	9.84	0.71%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.221	0.225	1.79%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.235	0.238	1.27%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	406	409	0.74%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000017	1.4e-005	19.35%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	895	903	0.89%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.172	0.143	18.41%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.68	0.71	4.32%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.35	0.32	8.96%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00541	0.00554	2.37%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00570	0.00579	1.57%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0058	0.0061	5.04%	Pass
ZINC, T	0.003	0.003	mg/l	0.0073	0.0073	0.00%	Pass

Location:	LC_LC3	LC_LC3
Sample ID:	LC_LC3_WS_2017-03-06_N	FD_M_20170306_067
Date Sampled:	3/6/2017	3/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.5	5	10.53%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	222	224	0.90%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	222	224	0.90%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0035	0.0039	10.81%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00031	0.00032	3.17%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00036	0.00033	8.70%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0723	0.0712	1.53%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0705	0.0729	3.35%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.018	0.018	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.016	0.016	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000148	0.000142	4.14%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000155	0.000158	1.92%	Pass
CALCIUM, D	0.05	0.05	mg/l	154	158	2.56%	Pass
CALCIUM, T	0.05	0.05	mg/l	161	158	1.88%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.62	0.58	6.67%	Pass
CHLORIDE, D	0.5	0.5	mg/l	25.7	25.9	0.78%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00010	0.00012	18.18%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1180	1210	2.51%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.20	0.2	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	726	727	0.14%	Pass

IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.106	0.112	5.50%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0681	0.0637	6.68%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0578	0.0567	1.92%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	82.7	81	2.08%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	70.4	75.6	7.12%	Pass
MAJOR ANION SUM	0	0	meq/l	15.5	15.4	0.65%	Pass
MAJOR CATION SUM	0	0	meq/l	15.0	15	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0262	0.0252	3.89%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0270	0.0279	3.28%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00311	0.00304	2.28%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00310	0.00307	0.97%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00755	0.00751	0.53%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00730	0.00741	1.50%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	14.7	14.2	3.46%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0058	14.81%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0091	0.0103	12.37%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	350	346	1.15%	Pass
pH, LAB	0.1	0.1	ph units	8.09	8.06	0.37%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0144	0.0209	36.83%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	1.91	1.9	0.52%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.89	1.98	4.65%	Pass
SELENIUM, D	0.05	0.05	ug/l	39.1	37.9	3.12%	Pass
SELENIUM, T	0.05	0.05	ug/l	37.7	37	1.87%	Pass
SILICON, D	0.05	0.05	mg/l	1.93	1.97	2.05%	Pass
SILICON, T	0.05	0.05	mg/l	2.12	2.13	0.47%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	9.35	8.98	4.04%	Pass
SODIUM, T	0.05	0.05	mg/l	8.71	9.17	5.15%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.250	0.244	2.43%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.246	0.24	2.47%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	444	441	0.68%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	999	1030	3.06%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.130	0.157	18.82%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.77	0.93	18.82%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.1	1.1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.50	0.51	1.98%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00611	0.00605	0.99%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00623	0.00617	0.97%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0058	0.0057	1.74%	Pass
ZINC, T	0.003	0.003	mg/l	0.0062	0.0069	10.69%	Pass

Location:	LC_LC3	LC_LC3
Sample ID:	LC_LC3_WS_2017-03-13_N	FD_W_20170313_050
Date Sampled:	3/13/2017	3/13/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	6.7	7.2	7.19%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	205	213	3.83%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	205	213	3.83%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0079	0.0073	7.89%	Pass

ANTIMONY, D	0.0001	0.0001	mg/l	0.00031	0.00032	3.17%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00033	0.00035	5.88%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00010	0.00011	9.52%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0811	0.0699	14.83%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0697	0.072	3.25%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.018	0.018	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.018	0.018	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	< 0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000153	0.000142	7.46%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000149	0.000157	5.23%	Pass
CALCIUM, D	0.05	0.05	mg/l	147	149	1.35%	Pass
CALCIUM, T	0.05	0.05	mg/l	149	153	2.65%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.90	1.06	16.33%	Pass
CHLORIDE, D	0.5	0.5	mg/l	26.9	26	3.40%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	< 0.0001	9.52%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00011	< 0.0001	9.52%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00011	0.0001	9.52%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1220	1210	0.82%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	< 0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.193	0.192	0.52%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	712	674	5.48%	Pass
IRON, D	0.01	0.01	mg/l	0.011	< 0.01	9.52%	Pass
IRON, T	0.01	0.01	mg/l	0.089	0.085	4.60%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0581	0.0602	3.55%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0559	0.0585	4.55%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	83.9	73.1	13.76%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	71.7	72.9	1.66%	Pass
MAJOR ANION SUM	0	0	meq/l	15.1	15.1	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	14.7	13.9	5.59%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0184	0.016	13.95%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0202	0.0198	2.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	< 5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	< 0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00312	0.0032	2.53%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00328	0.00336	2.41%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00803	0.00717	11.32%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00718	0.00748	4.09%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	14.3	14.6	2.08%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0022	< 0.001	75.00%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0118	0.0063	60.77%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0211	0.0217	2.80%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	341	324	5.11%	Pass
pH, LAB	0.1	0.1	ph units	8.08	8.04	0.50%	Pass
PHOSPHORUS	0.02	0.02	mg/l	0.044	0.062	33.96%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.04	1.76	14.74%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.94	1.98	2.04%	Pass
SELENIUM, D	0.05	0.05	ug/l	40.3	40.1	0.50%	Pass
SELENIUM, T	0.05	0.05	ug/l	36.8	37.2	1.08%	Pass
SILICON, D	0.05	0.05	mg/l	1.94	1.97	1.53%	Pass
SILICON, T	0.05	0.05	mg/l	1.86	1.92	3.17%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	10.4	9.08	13.55%	Pass
SODIUM, T	0.05	0.05	mg/l	9.02	9.18	1.76%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.240	0.247	2.87%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.245	0.255	4.00%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	443	436	1.59%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass

TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	983	951	3.31%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.863	0.45	62.91%	Fail
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.99	1.27	24.78%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.99	0.81	20.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00552	0.00558	1.08%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00571	0.00597	4.45%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0069	0.006	13.95%	Pass
ZINC, T	0.003	0.003	mg/l	0.0060	0.0064	6.45%	Pass

Location:	LC_LC3	LC_LC3
Sample ID:	LC_LC3_WS_2017-03-27_N	FD_W_20170327_056
Date Sampled:	3/27/2017	3/27/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units	Primary	Secondary	Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.7	4.3	8.89%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	210	213	1.42%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	210	213	1.42%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0014	0.0013	7.41%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0438	0.059	29.57%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00044	0.00045	2.25%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00054	0.00056	3.64%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00011	0.0001	9.52%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0736	0.0733	0.41%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0702	0.0666	5.26%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.022	0.02	9.52%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000201	0.000217	7.66%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000220	0.000209	5.13%	Pass
CALCIUM, D	0.05	0.05	mg/l	153	153	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	157	149	5.23%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.31	1.18	10.44%	Pass
CHLORIDE, D	2.5	2.5	mg/l	19.2	19.4	1.04%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00020	0.00025	22.22%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00021	0.0002	4.88%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1190	1180	0.84%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.15	0.17	12.50%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	715	718	0.42%	Pass
ION BALANCE	0	0	%	0.2	-0.2	200.00%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.115	0.12	4.26%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000098	9.8e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0670	0.0692	3.23%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0727	0.0674	7.57%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	81.0	81.4	0.49%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	87.9	81.9	7.07%	Pass
MAJOR ANION SUM	0	0	meq/l	14.7	14.9	1.35%	Pass
MAJOR CATION SUM	0	0	meq/l	14.8	14.8	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0227	0.0226	0.44%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0271	0.0257	5.30%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00103	0.00113	9.26%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00282	0.00288	2.11%	Pass

MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00330	0.00304	8.20%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00893	0.00906	1.45%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00998	0.00933	6.73%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	17.3	17.7	2.29%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0149	0.0145	2.72%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0086	52.94%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0063	0.0063	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	349	347	0.57%	Pass
pH, LAB	0.1	0.1	ph units	8.12	8.1	0.25%	Pass
PHOSPHORUS	0.01	0.01	mg/l	0.023	0.022	4.44%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.29	2.29	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.37	2.25	5.19%	Pass
SELENIUM, D	0.05	0.05	ug/l	50.5	50.6	0.20%	Pass
SELENIUM, T	0.05	0.05	ug/l	51.2	48.1	6.24%	Pass
SILICON, D	0.05	0.05	mg/l	2.30	2.29	0.44%	Pass
SILICON, T	0.05	0.05	mg/l	2.48	2.34	5.81%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	9.70	9.75	0.51%	Pass
SODIUM, T	0.05	0.05	mg/l	10.2	9.59	6.16%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.256	0.259	1.17%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.268	0.252	6.15%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	419	423	0.95%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000011	1e-005	9.52%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000014	1.5e-005	6.90%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	876	866	1.15%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.602	0.537	11.41%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	4.14	3.84	7.52%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	6.8	6.6	2.99%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	4.95	6.76	30.91%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00518	0.00529	2.10%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00569	0.00539	5.42%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00108	0.00108	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0081	0.0083	2.44%	Pass
ZINC, T	0.003	0.003	mg/l	0.0094	0.0098	4.17%	Pass

Location:	LC_LC3	LC_LC3
Sample ID:	LC_LC3_WS_2017-04-17_N	FD_W_20170417_062
Date Sampled:	4/18/2017	4/18/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.6	3.1	17.54%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	220	218	0.91%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	220	218	0.91%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0012	0.0012	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0114	0.0096	17.14%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00040	0.00042	4.88%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00046	0.00041	11.49%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0777	0.0775	0.26%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0724	0.0647	11.23%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.018	0.018	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.019	0.017	11.11%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000263	0.000257	2.31%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000258	0.000235	9.33%	Pass

CALCIUM, D	0.05	0.05	mg/l	155	155	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	151	136	10.45%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.81	0.94	14.86%	Pass
CHLORIDE, D	2.5	2.5	mg/l	15.7	16	1.89%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00082	0.00013	145.26%	Fail
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00013	0.00011	16.67%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1210	1210	0.00%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00022	< 0.0002	9.52%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.15	0.16	6.45%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	705	703	0.28%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.062	0.053	15.65%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0737	0.0737	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0718	0.0642	11.18%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	77.2	76.6	0.78%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	73.2	66.1	10.19%	Pass
MAJOR ANION SUM	0	0	meq/l	14.9	14.9	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	14.6	14.6	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00503	0.00483	4.06%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00703	0.00648	8.14%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	< 5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	0.00179	112.66%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00271	0.00266	1.86%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00269	0.0024	11.39%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0105	0.0102	2.90%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0106	0.0304	96.59%	Fail
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	21.1	21.3	0.94%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0074	0.0077	3.97%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0075	40.00%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0046	0.0045	2.20%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	512	505	1.38%	Pass
pH, LAB	0.1	0.1	ph units	8.00	8	0.00%	Pass
PHOSPHORUS	0.002	0.004	mg/l	0.0150	0.0159	5.83%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.09	2.04	2.42%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.98	1.8	9.52%	Pass
SELENIUM, D	0.05	0.05	ug/l	55.6	55	1.08%	Pass
SELENIUM, T	0.05	0.05	ug/l	53.7	48.2	10.79%	Pass
SILICON, D	0.05	0.05	mg/l	2.22	2.25	1.34%	Pass
SILICON, T	0.05	0.05	mg/l	2.22	2.03	8.94%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	10.8	10.6	1.87%	Pass
SODIUM, T	0.05	0.05	mg/l	10.4	9.37	10.42%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.259	0.259	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.258	0.228	12.35%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	410	413	0.73%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000012	1.2e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000013	1.6e-005	20.69%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	967	960	0.73%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.783	0.641	19.94%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.13	0.9	22.66%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	2	1	mg/l	< 2.0	2.1	4.88%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.75	1.13	43.06%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00523	0.00522	0.19%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00512	0.00463	10.05%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0102	0.0098	4.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0130	0.0147	12.27%	Pass

Location:	LC_LC3	LC_LC3
Sample ID:	LC_LC3_WS_2017-04-24_N	FD_W_20170424_065
Date Sampled:	4/25/2017	4/25/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	6.9	8.1	16.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	222	222	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	222	222	0.00%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0013	0.0015	14.29%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0125	0.012	4.08%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00045	0.00042	6.90%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00045	0.00047	4.35%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00016	0.00013	20.69%	Pass-1
ARSENIC, T	0.0001	0.0001	mg/l	0.00016	0.00015	6.45%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0622	0.0625	0.48%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0603	0.0593	1.67%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.018	0.019	5.41%	Pass
BORON, T	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000312	0.000311	0.32%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000324	0.00031	4.42%	Pass
CALCIUM, D	0.05	0.05	mg/l	143	146	2.08%	Pass
CALCIUM, T	0.05	0.05	mg/l	140	140	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.99	0.9	9.52%	Pass
CHLORIDE, D	2.5	2.5	mg/l	11.7	11.1	5.26%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	0.00012	8.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00016	0.00013	20.69%	Pass-1
CONDUCTIVITY, LAB	2	2	us/cm	1140	1130	0.88%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00023	0.00025	8.33%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.14	0.14	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	619	635	2.55%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.048	0.031	43.04%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0715	0.0723	1.11%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0738	0.0735	0.41%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	63.7	65.9	3.40%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	66.1	66.7	0.90%	Pass
MAJOR ANION SUM	0	0	meq/l	14.0	13.4	4.38%	Pass
MAJOR CATION SUM	0	0	meq/l	12.8	13.2	3.08%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00215	0.00223	3.65%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00505	0.00417	19.09%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00061	0.0006	1.65%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00264	0.00274	3.72%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00274	0.00274	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00974	0.0101	3.63%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0104	0.0103	0.97%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	21.9	20.9	4.67%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	0.0062	21.43%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0032	0.0038	17.14%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	419	421	0.48%	Pass
pH, LAB	0.1	0.1	ph units	8.02	8	0.25%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0069	0.0049	33.90%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.22	2.25	1.34%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.15	2.17	0.93%	Pass
SELENIUM, D	0.05	0.05	ug/l	65.8	65.2	0.92%	Pass
SELENIUM, T	0.05	0.05	ug/l	56.6	57.5	1.58%	Pass
SILICON, D	0.05	0.05	mg/l	2.22	2.2	0.90%	Pass
SILICON, T	0.05	0.05	mg/l	2.30	2.34	1.72%	Pass

SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	9.70	9.91	2.14%	Pass
SODIUM, T	0.05	0.05	mg/l	10.2	10.2	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.256	0.259	1.17%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.249	0.25	0.40%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	368	343	7.03%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000031	1.3e-005	81.82%	Pass-1
THALLIUM, T	0.00001	0.00001	mg/l	0.000014	1.4e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	869	869	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.728	0.661	9.65%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.24	1.21	2.45%	Pass
TOTAL SUSPENDED SOLIDS, LAB	2	1	mg/l	2.7	1.8	40.00%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	2.42	2.08	15.11%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00453	0.00449	0.89%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00496	0.005	0.80%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0101	0.0104	2.93%	Pass
ZINC, T	0.003	0.003	mg/l	0.0193	0.0136	34.65%	Pass-2

Location:	LC_LC3	LC_LC3
Sample ID:	LC_LC3_WS_2017-05-08_N	FD_W_20170508_068
Date Sampled:	5/9/2017	5/9/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	2.1	70.97%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	166	168	1.20%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	166	168	1.20%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0111	0.0121	8.62%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00043	0.00039	9.76%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00039	0.00037	5.26%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0297	0.0303	2.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0287	0.0298	3.76%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.012	0.011	8.70%	Pass
BORON, T	0.01	0.01	mg/l	0.012	0.012	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000400	0.00039	2.53%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000402	0.000404	0.50%	Pass
CALCIUM, D	0.05	0.05	mg/l	86.9	83.5	3.99%	Pass
CALCIUM, T	0.05	0.05	mg/l	85.0	82	3.59%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.46	1.69	14.60%	Pass
CHLORIDE, D	0.5	0.5	mg/l	3.58	3.55	0.84%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00012	18.18%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00025	0.00025	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	704	709	0.71%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00061	0.00058	5.04%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00099	0.00113	13.21%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.197	0.195	1.02%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	374	365	2.44%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.017	0.018	5.71%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

LEAD, T	0.0005	0.0005	mg/l	< 0.00050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0372	0.0364	2.17%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0357	0.0354	0.84%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	38.2	38.1	0.26%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	39.2	37.7	3.90%	Pass
MAJOR ANION SUM	0	0	meq/l	7.92	7.95	0.38%	Pass
MAJOR CATION SUM	0	0	meq/l	7.74	7.56	2.35%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00065	0.00064	1.55%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00166	0.00138	18.42%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00093	0.00095	2.13%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00207	0.002	3.44%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00206	0.00199	3.46%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00913	0.00892	2.33%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00937	0.00898	4.25%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	11.8	11.8	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0101	0.0118	15.53%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0013	0.0015	14.29%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	415	461	10.50%	Pass
pH, LAB	0.1	0.1	ph units	8.15	8.14	0.12%	Pass
PHOSPHORUS	0.01	0.004	mg/l	0.020	0.0117	52.37%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.54	1.51	1.97%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.55	1.47	5.30%	Pass
SELENIUM, D	0.05	0.05	ug/l	36.9	35.9	2.75%	Pass
SELENIUM, T	0.05	0.05	ug/l	45.3	33.5	29.95%	Pass-2
SILICON, D	0.05	0.05	mg/l	1.92	1.84	4.26%	Pass
SILICON, T	0.05	0.05	mg/l	2.82	1.86	41.03%	Pass-2
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	5.18	5.12	1.17%	Pass
SODIUM, T	0.05	0.05	mg/l	5.09	5.09	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.159	0.152	4.50%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.155	0.152	1.95%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	175	175	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000015	1.2e-005	22.22%	Pass-1
THALLIUM, T	0.00001	0.00001	mg/l	0.000016	1.3e-005	20.69%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	476	465	2.34%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.372	0.492	27.78%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.54	1.68	8.70%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.73	0.78	6.62%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00275	0.00281	2.16%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00305	0.00295	3.33%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0188	0.017	10.06%	Pass
ZINC, T	0.003	0.003	mg/l	0.0176	0.0166	5.85%	Pass

Location:	LC_LC3	LC_LC3
Sample ID:	LC_LC3_WS_2017-05-22_N	FD_W_20170522_074
Date Sampled:	5/23/2017	5/23/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	3.6	3.3	8.70%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	176	173	1.72%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	9.4	10.6	12.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	185	184	0.54%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0054	0.0053	1.87%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00037	0.00037	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00038	0.00038	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass

ARSENIC, T	0.0001	0.0001	mg/l	0.00017	0.00016	6.06%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0316	0.0315	0.32%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0304	0.0305	0.33%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.012	0.012	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.012	0.012	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000486	0.00047	3.35%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000481	0.000484	0.62%	Pass
CALCIUM, D	0.05	0.05	mg/l	83.7	85.3	1.89%	Pass
CALCIUM, T	0.05	0.05	mg/l	83.5	83.1	0.48%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.40	1.09	24.90%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	3.95	3.99	1.01%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00017	0.00017	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	687	682	0.73%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00047	0.00047	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00060	0.00062	3.28%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.188	0.191	1.58%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	365	372	1.90%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.015	0.013	14.29%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0413	0.041	0.73%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0407	0.0405	0.49%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	37.8	38.6	2.09%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	36.3	36.2	0.28%	Pass
MAJOR ANION SUM	0	0	meq/l	8.26	8.24	0.24%	Pass
MAJOR CATION SUM	0	0	meq/l	7.58	7.71	1.70%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00057	0.00062	8.40%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00112	0.00105	6.45%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00084	0.00245	97.87%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00192	0.00194	1.04%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00192	0.00193	0.52%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00903	0.00912	0.99%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00923	0.00925	0.22%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	11.0	11	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0013	0.0014	7.41%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	345	339	1.75%	Pass
pH, LAB	0.1	0.1	ph units	8.34	8.35	0.12%	Pass
PHOSPHORUS	0.002	0.01	mg/l	< 0.0020	<0.01	133.33%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.57	1.5	4.56%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.54	1.57	1.93%	Pass
SELENIUM, D	0.05	0.05	ug/l	39.4	42.9	8.51%	Pass
SELENIUM, T	0.05	0.05	ug/l	34.8	36.4	4.49%	Pass
SILICON, D	0.05	0.05	mg/l	2.02	1.99	1.50%	Pass
SILICON, T	0.05	0.05	mg/l	2.03	2.03	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	5.65	5.49	2.87%	Pass
SODIUM, T	0.05	0.05	mg/l	5.20	5.23	0.58%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.156	0.157	0.64%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.155	0.154	0.65%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	175	176	0.57%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000016	1.4e-005	13.33%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000016	1.6e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	520	540	3.77%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.632	0.599	5.36%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.27	1.18	7.35%	Pass

TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.75	0.6	22.22%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00296	0.0029	2.05%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00294	0.00291	1.03%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0204	0.0199	2.48%	Pass
ZINC, T	0.003	0.003	mg/l	0.0184	0.0184	0.00%	Pass

Location:	LC_LC3	LC_LC3
Sample ID:	LC_LC3_WS_2017-05-29_N	FD_W_20170529_077
Date Sampled:	5/30/2017	5/30/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	155	148	4.62%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.6	6.8	19.35%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	161	155	3.80%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0048	0.004	18.18%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00035	0.00035	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00036	0.00036	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00018	0.00013	32.26%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0280	0.0284	1.42%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0289	0.0276	4.60%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.011	0.011	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.013	0.012	8.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000502	0.000479	4.69%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000465	0.000458	1.52%	Pass
CALCIUM, D	0.05	0.05	mg/l	68.8	68.8	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	65.6	64.3	2.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.78	0.94	18.60%	Pass
CHLORIDE, D	0.5	0.5	mg/l	2.75	2.76	0.36%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	<0.0001	9.52%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.00017	34.48%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00016	0.00014	13.33%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	603	601	0.33%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00041	0.00043	4.76%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00050	0.00055	9.52%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.188	0.198	5.18%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	298	301	1.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0323	0.0321	0.62%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0345	0.0331	4.14%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	30.6	31.3	2.26%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	28.8	27.7	3.89%	Pass
MAJOR ANION SUM	0	0	meq/l	6.93	6.8	1.89%	Pass
MAJOR CATION SUM	0	0	meq/l	6.16	6.23	1.13%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00049	0.00053	7.84%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00092	0.00082	11.49%	Pass
MERCURY, D	0.000005	0.000005	mg/l	0.0000052	<5e-006	3.92%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00088	0.00095	7.65%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00177	0.00179	1.12%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00184	0.00176	4.44%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00923	0.00912	1.20%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00889	0.00861	3.20%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	8.52	8.53	0.12%	Pass

NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	0.0013	26.09%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0016	0.002	22.22%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	438	352	21.77%	Pass-1
pH, LAB	0.1	0.1	ph units	8.32	8.32	0.00%	Pass
PHOSPHORUS	0.004	0.004	mg/l	< 0.0040	0.0041	2.47%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.38	1.43	3.56%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.33	1.31	1.52%	Pass
SELENIUM, D	0.05	0.05	ug/l	41.2	40.7	1.22%	Pass
SELENIUM, T	0.05	0.05	ug/l	35.2	34.6	1.72%	Pass
SILICON, D	0.05	0.05	mg/l	1.66	1.68	1.20%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	4.08	4.2	2.90%	Pass
SODIUM, T	0.05	0.05	mg/l	3.81	3.7	2.93%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.145	0.144	0.69%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.146	0.143	2.08%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	145	145	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000011	1.1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000027	1.2e-005	76.92%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	424	421	0.71%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.644	0.79	20.36%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.80	1.24	43.14%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.92	0.81	12.72%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00237	0.00238	0.42%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00251	0.0024	4.48%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0220	0.0226	2.69%	Pass
ZINC, T	0.003	0.003	mg/l	0.0203	0.0203	0.00%	Pass

Location:	LC_LC3	LC_LC3
Sample ID:	LC_LC3_WS_2017-06-05_N	FD_M_20170605_082
Date Sampled:	6/7/2017	6/7/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.2	3.2	37.04%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	175	161	8.33%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	10.2	6.2	48.78%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	185	167	10.23%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0011	0.0012	8.70%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0054	0.0087	46.81%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00033	0.00034	2.99%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00038	0.00037	2.67%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00016	0.00014	13.33%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0284	0.0294	3.46%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0267	0.0298	10.97%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.011	0.011	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.011	0.012	8.70%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000639	0.000652	2.01%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000530	0.000633	17.71%	Pass
CALCIUM, D	0.05	0.05	mg/l	74.8	75.1	0.40%	Pass
CALCIUM, T	0.05	0.05	mg/l	73.3	73.4	0.14%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.04	0.97	6.97%	Pass
CHLORIDE, D	0.5	0.5	mg/l	2.89	2.87	0.69%	Pass

CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00017	0.00017	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00018	0.00019	5.41%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	641	640	0.16%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00051	0.00051	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00063	0.00068	7.63%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.177	0.178	0.56%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	327	328	0.31%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0387	0.0389	0.52%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0349	0.0338	3.20%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	34.1	34	0.29%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	30.4	35.3	14.92%	Pass
MAJOR ANION SUM	0	0	meq/l	7.51	7.14	5.05%	Pass
MAJOR CATION SUM	0	0	meq/l	6.79	6.79	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00068	0.00064	6.06%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00084	0.00174	69.77%	Fail
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00060	0.0006	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00163	0.00155	5.03%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00170	0.00178	4.60%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0110	0.0108	1.83%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00975	0.0113	14.73%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	8.86	8.77	1.02%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0013	<0.001	26.09%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0068	<0.005	30.51%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0021	0.0026	21.28%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	473	271	54.30%	Pass-1
pH, LAB	0.1	0.1	ph units	8.35	8.3	0.60%	Pass
PHOSPHORUS	0.004	0.004	mg/l	< 0.0040	0.0072	57.14%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.55	1.54	0.65%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.35	1.48	9.19%	Pass
SELENIUM, D	0.05	0.05	ug/l	39.1	40.2	2.77%	Pass
SELENIUM, T	0.05	0.05	ug/l	37.2	39.7	6.50%	Pass
SILICON, D	0.05	0.05	mg/l	1.78	1.77	0.56%	Pass
SILICON, T	0.1	0.1	mg/l	1.81	1.91	5.38%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	4.90	4.74	3.32%	Pass
SODIUM, T	0.05	0.05	mg/l	4.69	5.17	9.74%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.145	0.144	0.69%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.145	0.144	0.69%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	148	148	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000015	1.6e-005	6.45%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000015	1.6e-005	6.45%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	464	450	3.06%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.368	0.43	15.54%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.83	1.2	36.45%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.37	0.39	5.26%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00237	0.0022	7.44%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00277	0.00288	3.89%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0263	0.0275	4.46%	Pass
ZINC, T	0.003	0.003	mg/l	0.0237	0.0278	15.92%	Pass

Location:	LC_LC3	LC_LC3
Sample ID:	LC_LC3_WS_2017-06-12_N	FD_W_20170612_080
Date Sampled:	6/13/2017	6/13/2017

Analyte	Sample Type:			Primary	Secondary	Primary vs. Duplicate	Category1
	Detection Limit Pri.	Detection Limit Dup.	Units				
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	7.7	5.6	31.58%	Pass-2
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	189	189	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	189	189	0.00%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0032	0.0029	9.84%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0043	0.0047	8.89%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00036	0.00037	2.74%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00035	0.00036	2.82%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00016	0.00015	6.45%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0338	0.0345	2.05%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0325	0.0321	1.24%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.011	0.011	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.011	0.011	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000654	0.000673	2.86%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000629	0.000655	4.05%	Pass
CALCIUM, D	0.05	0.05	mg/l	84.1	85.2	1.30%	Pass
CALCIUM, T	0.05	0.05	mg/l	85.6	85.4	0.23%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.76	0.85	11.18%	Pass
CHLORIDE, D	0.5	0.5	mg/l	4.09	4.11	0.49%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	710	719	1.26%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00043	0.00043	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00057	0.00062	8.40%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.179	0.178	0.56%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	372	381	2.39%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0426	0.0422	0.94%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0399	0.0394	1.26%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	39.4	40.7	3.25%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	38.4	38.8	1.04%	Pass
MAJOR ANION SUM	0	0	meq/l	8.42	8.43	0.12%	Pass
MAJOR CATION SUM	0	0	meq/l	7.76	7.93	2.17%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00125	0.00124	0.80%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00145	0.00155	6.67%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.0007000000	0.0007	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00187	0.00188	0.53%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00187	0.00186	0.54%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0119	0.0119	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0117	0.012	2.53%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	10.7	10.7	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	345	360	4.26%	Pass
pH, LAB	0.1	0.1	ph units	8.17	8.11	0.74%	Pass
PHOSPHORUS	0.002	0.01	mg/l	< 0.0020	0.019	161.90%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.65	1.71	3.57%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.54	1.57	1.93%	Pass
SELENIUM, D	0.05	0.05	ug/l	48.4	49.3	1.84%	Pass
SELENIUM, T	0.05	0.05	ug/l	41.9	42.3	0.95%	Pass
SILICON, D	0.05	0.05	mg/l	1.91	1.93	1.04%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	6.37	6.48	1.71%	Pass
SODIUM, T	0.05	0.05	mg/l	6.20	6.21	0.16%	Pass

STRONTIUM, D	0.0002	0.0002	mg/l	0.169	0.17	0.59%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.171	0.169	1.18%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	180	181	0.55%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000016	1.6e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000017	1.7e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	490	479	2.27%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.354	0.47	28.16%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.67	0.9	29.30%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.31	0.34	9.23%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00270	0.00268	0.74%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00318	0.00317	0.31%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0269	0.0275	2.21%	Pass
ZINC, T	0.003	0.003	mg/l	0.0268	0.0271	1.11%	Pass

Location:	LC_LC3	LC_LC3
Sample ID:	LC_LC3_WS_2017-07-03_N	FD_M_20170703_087
Date Sampled:	7/6/2017	7/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.3	<1	26.09%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	192	193	0.52%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	192	193	0.52%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	0.0011	9.52%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	0.0034	12.50%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00036	0.00037	2.74%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00034	0.00034	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00019	0.00018	5.41%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0404	0.0408	0.99%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0442	0.0423	4.39%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.015	0.015	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.015	0.014	6.90%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000488	0.000507	3.82%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000550	0.00051	7.55%	Pass
CALCIUM, D	0.05	0.05	mg/l	101	102	0.99%	Pass
CALCIUM, T	0.05	0.05	mg/l	97.1	97.8	0.72%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.27	1.83	36.13%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	6.36	6.36	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00012	15.38%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	884	892	0.90%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00024	0.00024	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.189	0.187	1.06%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	409	414	1.22%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0518	0.0515	0.58%	Pass

LITHIUM, T	0.001	0.001	mg/l	0.0503	0.0495	1.60%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	38.0	38.7	1.83%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	43.8	41.9	4.43%	Pass
MAJOR ANION SUM	0	0	meq/l	9.85	9.88	0.30%	Pass
MAJOR CATION SUM	0	0	meq/l	8.46	8.58	1.41%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00102	0.00109	6.64%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00145	0.00158	8.58%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	0.00057	13.08%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00185	0.00193	4.23%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00189	0.00187	1.06%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0104	0.0104	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0113	0.0109	3.60%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	13.0	13	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0029	0.0028	3.51%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0060	0.0072	18.18%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0017	0.002	16.22%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	217	232	6.68%	Pass
pH, LAB	0.1	0.1	ph units	8.09	8.15	0.74%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	<0.002	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.50	1.53	1.98%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.60	1.54	3.82%	Pass
SELENIUM, D	0.05	0.05	ug/l	45.2	45	0.44%	Pass
SELENIUM, T	0.05	0.05	ug/l	42.3	41.6	1.67%	Pass
SILICON, D	0.05	0.05	mg/l	2.01	2.04	1.48%	Pass
SILICON, T	0.1	0.1	mg/l	2.07	2.09	0.96%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	5.90	5.99	1.51%	Pass
SODIUM, T	0.05	0.05	mg/l	6.81	6.62	2.83%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.185	0.187	1.08%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.181	0.178	1.67%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	235	235	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000015	1.7e-005	12.50%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000014	1.5e-005	6.90%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	603	593	1.67%	Pass
TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.170	0.576	108.85%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.17	1.57	29.20%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.27	0.42	43.48%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.00344	0.00352	2.30%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00354	0.00366	3.33%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0197	0.0203	3.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0227	0.0219	3.59%	Pass

Location:	LC_LC3	LC_LC3
Sample ID:	LC_LC3_WS_2017-08-08_N	FD_WK_20170808_050
Date Sampled:	8/8/2017	8/8/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	220	215	2.30%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	220	215	2.30%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0038	0.0037	2.67%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00040	0.00041	2.47%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00043	0.00043	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00010	0.00011	9.52%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0680	0.0698	2.61%	Pass

BARIUM, T	0.00005	0.00005	mg/l	0.0667	0.066	1.06%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.017	0.017	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BROMIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000512	0.000526	2.70%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000497	0.000522	4.91%	Pass
CALCIUM, D	0.05	0.05	mg/l	127	124	2.39%	Pass
CALCIUM, D	0.05	0.05	mg/l	127	129	1.56%	Pass
CALCIUM, D	0.05	0.05	mg/l	128	124	3.17%	Pass
CALCIUM, D	0.05	0.05	mg/l	128	129	0.78%	Pass
CALCIUM, T	0.05	0.05	mg/l	131	128	2.32%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.84	1.09	25.91%	Pass-1
Cation - Anion Balance	0	0	%	1.3	-0.5	200.00%	Fail
CHLORIDE, D	2.5	2.5	mg/l	6.3	6.6	4.65%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00012	<0.0001	18.18%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1010	1030	1.96%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.16	0.17	6.06%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	574	581	1.21%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.015	0.013	14.29%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0616	0.063	2.25%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0636	0.0627	1.43%	Pass
MAGNESIUM, D	0.1	0.005	mg/l	62.3	63.5	1.91%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	62.3	62.8	0.80%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	63.9	63.5	0.63%	Pass
MAGNESIUM, D	0.005	0.1	mg/l	63.9	62.8	1.74%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	61.7	62	0.49%	Pass
MAJOR ANION SUM	0	0	meq/l	11.8	11.9	0.84%	Pass
MAJOR CATION SUM	0	0	meq/l	12.1	11.8	2.51%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00246	0.00224	9.36%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00382	0.00376	1.58%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00067	0.00083	21.33%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00189	0.00187	1.06%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00195	0.00186	4.72%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0133	0.0139	4.41%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0136	0.0137	0.73%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	14.6	15.3	4.68%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0077	0.0103	28.89%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0020	0.002	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	276	250	9.89%	Pass
pH, LAB	0.1	0.1	ph units	8.23	8.22	0.12%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0047	0.0055	15.69%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.87	1.81	3.26%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.87	1.95	4.19%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.93	1.81	6.42%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.93	1.95	1.03%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.78	1.88	5.46%	Pass
SELENIUM, D	0.05	0.05	ug/l	63.1	67.5	6.74%	Pass
SELENIUM, T	0.05	0.05	ug/l	64.6	64.8	0.31%	Pass
SILICON, D	0.05	0.05	mg/l	2.18	2.25	3.16%	Pass
SILICON, T	0.1	0.1	mg/l	2.28	2.22	2.67%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.26	8.2	0.73%	Pass
SODIUM, D	0.05	0.05	mg/l	8.26	8.28	0.24%	Pass
SODIUM, D	0.05	0.05	mg/l	8.30	8.2	1.21%	Pass
SODIUM, D	0.05	0.05	mg/l	8.30	8.28	0.24%	Pass
SODIUM, T	0.05	0.05	mg/l	8.10	8	1.24%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.223	0.225	0.89%	Pass

STRONTIUM, T	0.0002	0.0002	mg/l	0.230	0.218	5.36%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	295	306	3.66%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000017	1.7e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000019	1.9e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	743	744	0.13%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.74	0.93	22.75%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.3	<1	26.09%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.45	0.46	2.20%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00503	0.0051	1.38%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00524	0.00528	0.76%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0203	0.0212	4.34%	Pass
ZINC, T	0.003	0.003	mg/l	0.0206	0.0206	0.00%	Pass

Location:	LC_LC3	LC_LC3
Sample ID:	LC_LC3_WS_2017-08-28_N	FD_WK_20170828_024
Date Sampled:	8/30/2017	8/30/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.6	2.2	16.67%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	218	228	4.48%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	218	228	4.48%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00038	0.00038	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00042	0.00042	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0617	0.0603	2.30%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0575	0.0579	0.69%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.018	0.017	5.71%	Pass
BORON, T	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000326	0.000343	5.08%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000335	0.000324	3.34%	Pass
CALCIUM, D	0.05	0.05	mg/l	128	128	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	126	128	1.57%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.60	0.67	11.02%	Pass
CHLORIDE, D	2.5	2.5	mg/l	10.8	10.7	0.93%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	995	992	0.30%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.15	0.15	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	583	580	0.52%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0494	0.0506	2.40%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0500	0.0512	2.37%	Pass

MAGNESIUM, D	0.1	0.1	mg/l	63.8	63.2	0.94%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	54.1	53.9	0.37%	Pass
MAJOR ANION SUM	0	0	meq/l	12.4	12.7	2.39%	Pass
MAJOR CATION SUM	0	0	meq/l	12.0	12	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00537	0.00562	4.55%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00615	0.00649	5.38%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	0.00054	7.69%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00178	0.00178	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00181	0.00185	2.19%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0104	0.0104	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00968	0.0098	1.23%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	12.2	12.5	2.43%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0178	0.0205	14.10%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0012	0.0011	8.70%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	263	266	1.13%	Pass
pH, LAB	0.1	0.1	ph units	8.19	8.23	0.49%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0039	0.0034	13.70%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.87	1.86	0.54%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.84	1.85	0.54%	Pass
SELENIUM, D	0.05	0.05	ug/l	44.7	44	1.58%	Pass
SELENIUM, T	0.05	0.05	ug/l	40	40.5	1.24%	Pass
SILICON, D	0.05	0.05	mg/l	2.14	2.13	0.47%	Pass
SILICON, T	0.1	0.1	mg/l	2.24	2.27	1.33%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.20	7.32	1.65%	Pass
SODIUM, T	0.05	0.05	mg/l	6.93	6.94	0.14%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.208	0.207	0.48%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.205	0.207	0.97%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	329	334	1.51%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000017	1.6e-005	6.06%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000016	1.5e-005	6.45%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	735	721	1.92%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.375	0.351	6.61%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.63	0.71	11.94%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.34	0.29	15.87%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00489	0.00507	3.61%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00501	0.00515	2.76%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0126	0.0124	1.60%	Pass
ZINC, T	0.003	0.003	mg/l	0.0141	0.0157	10.74%	Pass

Location:	LC_LC3	LC_LC3
Sample ID:	LC_LC3_WS_2017-09-12_N	FD_WK_20170912_040
Date Sampled:	9/12/2017	9/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	3.1	2.5	21.43%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	237	239	0.84%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	237	239	0.84%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0131	0.0112	15.64%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00036	0.00037	2.74%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00046	0.00045	2.20%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00015	0.00017	12.50%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0638	0.0684	6.96%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0671	0.0648	3.49%	Pass

BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.018	0.018	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000482	0.000495	2.66%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000514	0.000511	0.59%	Pass
CALCIUM, D	0.05	0.05	mg/l	137	144	4.98%	Pass
CALCIUM, T	0.05	0.05	mg/l	146	144	1.38%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.78	0.7	10.81%	Pass
CHLORIDE, D	2.5	2.5	mg/l	9.4	8.8	6.59%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0005	mg/l	0.00016	<0.0005	103.03%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1030	1060	2.87%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	0.00053	5.83%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.12	0.12	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	637	671	5.20%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.029	0.03	3.39%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0493	0.0523	5.91%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0527	0.0525	0.38%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	71.5	75.8	5.84%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	73.5	74.1	0.81%	Pass
MAJOR ANION SUM	0	0	meq/l	14.1	13.7	2.88%	Pass
MAJOR CATION SUM	0	0	meq/l	13.1	13.8	5.20%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00622	0.00664	6.53%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00755	0.00744	1.47%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00176	0.00171	2.88%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00183	0.00187	2.16%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0129	0.0136	5.28%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0141	0.0134	5.09%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	13.4	12.8	4.58%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0059	<0.005	16.51%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0016	0.0015	6.45%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	302	290	4.05%	Pass
pH, LAB	0.1	0.1	ph units	8.30	8.22	0.97%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0051	0.0041	21.74%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	1.91	2.01	5.10%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.03	1.99	1.99%	Pass
SELENIUM, D	0.05	0.05	ug/l	76.7	79.2	3.21%	Pass
SELENIUM, T	0.05	0.05	ug/l	78.3	74.4	5.11%	Pass
SILICON, D	0.05	0.05	mg/l	2.19	2.24	2.26%	Pass
SILICON, T	0.1	0.1	mg/l	2.30	2.29	0.44%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.17	7.55	5.16%	Pass
SODIUM, T	0.05	0.05	mg/l	7.34	7.2	1.93%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.202	0.204	0.99%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.220	0.211	4.18%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	390	371	4.99%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000015	1.5e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000020	1.8e-005	10.53%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	849	885	4.15%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.435	0.465	6.67%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.93	0.69	29.63%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1	0.00%	Pass

TURBIDITY, LAB	0.1	0.1	ntu	1.30	0.98	28.07%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00531	0.0054	1.68%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00597	0.0058	2.89%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0186	0.0196	5.24%	Pass
ZINC, T	0.003	0.003	mg/l	0.0213	0.0212	0.47%	Pass

Location:	LC_LC3	LC_LC3
Sample ID:	LC_LC3_WS_2017-11-14_N	FD_WK_20171114_063
Date Sampled:	11/14/2017	11/14/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.2	1.1	8.70%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	208	206	0.97%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	4.0	9	76.92%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	212	215	1.41%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0045	0.0047	4.35%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00039	0.0004	2.53%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00045	0.00045	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0696	0.072	3.39%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0689	0.066	4.30%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.020	0.021	4.88%	Pass
BROMIDE, D	0.25	0.05	mg/l	< 0.25	<0.05	133.33%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	0.000306	0.000284	7.46%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000313	0.000274	13.29%	Pass
CALCIUM, D	0.05	0.05	mg/l	142	142	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	139	141	1.43%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.57	0.55	3.57%	Pass
CHLORIDE, D	2.5	0.5	mg/l	9.4	10.3	9.14%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00013	14.29%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1080	1090	0.92%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.02	mg/l	0.15	0.147	2.02%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	635	641	0.94%	Pass
ION BALANCE	100	100	%	99.4	103	3.56%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.016	0.015	6.45%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0634	0.0643	1.41%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0843	0.0801	5.11%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	68.5	69.8	1.88%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	71.6	69.2	3.41%	Pass
MAJOR ANION SUM	0	0	meq/l	13.3	13	2.28%	Pass
MAJOR CATION SUM	0	0	meq/l	13.2	13.3	0.75%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00187	0.0015	21.96%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.00287	0.00299	4.10%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00232	0.00234	0.86%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00261	0.00252	3.51%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0108	0.0105	2.82%	Pass

NICKEL, T	0.0005	0.0005	mg/l	0.0115	0.0111	3.54%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.005	mg/l	15.6	14.9	4.59%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.001	mg/l	0.0060	0.0019	103.80%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0127	0.0151	17.27%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0015	0.0015	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	323	397	20.56%	Pass-1
pH, LAB	0.1	0.1	ph units	8.29	8.38	1.08%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0029	0.0007	82.83%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.01	2.02	0.50%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.13	2.04	4.32%	Pass
SELENIUM, D	0.05	0.05	ug/l	79.6	76.9	3.45%	Pass
SELENIUM, T	0.05	0.05	ug/l	80.2	77.2	3.81%	Pass
SILICON, D	0.05	0.05	mg/l	2.02	2.05	1.47%	Pass
SILICON, T	0.1	0.1	mg/l	2.31	2.22	3.97%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	10.5	10.6	0.95%	Pass
SODIUM, T	0.05	0.05	mg/l	10.3	10.2	0.98%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.238	0.237	0.42%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.251	0.233	7.44%	Pass
SULFATE (AS SO4), D	1.5	0.3	mg/l	368	351	4.73%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000014	1.7e-005	19.35%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000017	1.4e-005	19.35%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	813	815	0.25%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.070	<0.05	33.33%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.54	0.63	15.38%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.68	0.39	54.21%	Fail
URANIUM, D	0.00001	0.00001	mg/l	0.00546	0.00565	3.42%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00556	0.00573	3.01%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0105	0.0095	10.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0132	0.0108	20.00%	Pass

Location:	LC_LC4	LC_LC4
Sample ID:	LC_LC4_WS_2017-12-27_N	FD_WK_20171218_073
Date Sampled:	12/27/2017	12/27/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.7	1.1	42.86%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	191	193	1.04%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	191	193	1.04%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0071	0.004	55.86%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00021	0.0002	4.88%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00022	0.00021	4.65%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00011	0.0001	9.52%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00015	0.00017	12.50%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0877	0.0874	0.34%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0824	0.0856	3.81%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.012	0.011	8.70%	Pass
BORON, T	0.01	0.01	mg/l	0.012	0.012	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000225	1.82e-005	21.13%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000767	7.59e-005	1.05%	Pass
CALCIUM, D	0.05	0.05	mg/l	110	109	0.91%	Pass
CALCIUM, T	0.05	0.05	mg/l	109	107	1.85%	Pass

CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.61	0.6	1.65%	Pass
Cation - Anion Balance	0	0	%	1.2	0	200.00%	Fail
CHLORIDE, D	0.5	0.5	mg/l	5.65	5.6	0.89%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00016	0.00043	91.53%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	815	829	1.70%	Pass
COPPER, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.214	0.224	4.57%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	463	454	1.96%	Pass
ION BALANCE	100	100	%	102	100	1.98%	Pass
IRON, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.012	<0.01	18.18%	Pass
LEAD, D	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0418	0.0389	7.19%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0401	0.038	5.38%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	46.0	44.4	3.54%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	44.8	43.8	2.26%	Pass
MAJOR ANION SUM	0	0	meq/l	9.38	9.4	0.21%	Pass
MAJOR CATION SUM	0	0	meq/l	9.61	9.41	2.10%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00022	0.00023	4.44%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00076	0.00049	43.20%	Pass-2
MERCURY, D	0.000005	0.000005	mg/l	<0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	<0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00200	0.00191	4.60%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00189	0.00195	3.13%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00319	0.00315	1.26%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00329	0.00326	0.92%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	9.44	9.45	0.11%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0015	0.0017	12.50%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0103	<0.005	69.28%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0024	0.0022	8.70%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	287	267	7.22%	Pass
pH, LAB	0.1	0.1	ph units	8.15	8.13	0.25%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0044	0.0045	2.25%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.32	1.32	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.22	1.22	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	47.4	48.9	3.12%	Pass
SELENIUM, T	0.05	0.05	ug/l	46	44.6	3.09%	Pass
SILICON, D	0.05	0.05	mg/l	2.31	2.3	0.43%	Pass
SILICON, T	0.1	0.1	mg/l	2.36	2.39	1.26%	Pass
SILVER, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.22	6.93	4.10%	Pass
SODIUM, T	0.05	0.05	mg/l	6.80	6.87	1.02%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.245	0.242	1.23%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.234	0.236	0.85%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	226	226	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	585	587	0.34%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.419	0.42	0.24%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.74	0.53	33.07%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	<1.0	1.6	46.15%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.91	0.66	31.85%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00370	0.0037	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00366	0.00364	0.55%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	<0.0030	0.0045	40.00%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.0069	0.0034	67.96%	Pass-1

Location:	LC_LC5	LC_LC5
Sample ID:	LC_LC5_WS_2017-07-24_N	FD_W_20170724_095
Date Sampled:	7/25/2017	7/25/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units	Primary	Secondary	Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	177	179	1.12%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	8.2	8	2.47%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	185	187	1.08%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0012	0.0011	8.70%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0048	0.0086	56.72%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0865	0.086	0.58%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0834	0.0824	1.21%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.011	<0.01	9.52%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000340	2.73e-005	21.86%	Pass-2
CADMIUM, T	0.000005	0.000005	mg/l	0.0000367	4.42e-005	18.54%	Pass
CALCIUM, D	0.05	0.05	mg/l	80.3	81	0.87%	Pass
CALCIUM, T	0.05	0.05	mg/l	79.1	78.5	0.76%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.13	1.89	11.94%	Pass
CHLORIDE, D	0.5	0.5	mg/l	2.02	2.02	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00022	0.00013	51.43%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	668	670	0.30%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.181	0.179	1.11%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	338	341	0.88%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	0.011	9.52%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0211	0.0211	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0205	0.0208	1.45%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	33.4	33.7	0.89%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	31.6	30.8	2.56%	Pass
MAJOR ANION SUM	0	0	meq/l	7.57	7.61	0.53%	Pass
MAJOR CATION SUM	0	0	meq/l	6.90	6.96	0.87%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00031	0.0004	25.35%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00108	0.00091	17.09%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00050	0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00116	0.0012	3.39%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00106	0.0011	3.70%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00128	0.00134	4.58%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00139	0.00135	2.92%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	8.57	8.56	0.12%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0050	0.0053	5.83%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0081	0.007	14.57%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0013	0.0011	16.67%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	226	241	6.42%	Pass
pH, LAB	0.1	0.1	ph units	8.45	8.41	0.47%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0161	0.006	91.40%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.10	1.12	1.80%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.07	1.04	2.84%	Pass
SELENIUM, D	0.05	0.05	ug/l	36	36.5	1.38%	Pass
SELENIUM, T	0.05	0.05	ug/l	30.8	30.6	0.65%	Pass
SILICON, D	0.05	0.05	mg/l	1.84	1.87	1.62%	Pass
SILICON, T	0.1	0.1	mg/l	1.83	1.79	2.21%	Pass

SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.82	2.86	1.41%	Pass
SODIUM, T	0.05	0.05	mg/l	2.72	2.67	1.86%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.155	0.154	0.65%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.150	0.151	0.66%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	153	153	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	443	443	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.713	0.769	7.56%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.29	1.55	18.31%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.4	33.33%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.53	0.36	38.20%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00177	0.00174	1.71%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00180	0.00183	1.65%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0019	0.0018	5.41%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_LC7	LC_LC7
Sample ID:	LC_LC7_WS_2017-08-07_N	FD_M_20170807_093
Date Sampled:	8/2/2017	8/2/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	120	120	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	9.6	8.6	10.99%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	130	128	1.55%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0141	0.0205	36.99%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00013	0.00012	8.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00018	0.00019	5.41%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0740	0.0753	1.74%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0745	0.0746	0.13%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000132	1.4e-005	5.88%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000234	2.48e-005	5.81%	Pass
CALCIUM, D	0.05	0.05	mg/l	42.4	41	3.36%	Pass
CALCIUM, D	0.05	0.05	mg/l	42.4	43.8	3.25%	Pass
CALCIUM, D	0.05	0.05	mg/l	42.6	41	3.83%	Pass
CALCIUM, D	0.05	0.05	mg/l	42.6	43.8	2.78%	Pass
CALCIUM, T	0.05	0.05	mg/l	43.5	44.5	2.27%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.67	1.34	21.93%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00018	0.00017	5.71%	Pass
CHROMIUM, T	0.0003	0.0003	mg/l	< 0.00030	<0.0003	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	289	291	0.69%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.225	0.214	5.01%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	158	161	1.88%	Pass

IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.017	0.027	45.45%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0045	0.0044	2.25%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0046	0.0044	4.44%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	12.2	12.5	2.43%	Pass
MAGNESIUM, D	0.005	0.1	mg/l	12.2	12.7	4.02%	Pass
MAGNESIUM, D	0.1	0.005	mg/l	12.6	12.5	0.80%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	12.6	12.7	0.79%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	12.6	12.4	1.60%	Pass
MAJOR ANION SUM	0	0	meq/l	3.36	3.34	0.60%	Pass
MAJOR CATION SUM	0	0	meq/l	3.20	3.15	1.57%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00018	0.00021	15.38%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00228	0.00251	9.60%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00056	0.00059	5.22%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000949	0.000923	2.78%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000964	0.000993	2.96%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00058	0.00059	1.71%	Pass
NICKEL, T	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0484	0.0487	0.62%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0075	0.0064	15.83%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	493	531	7.42%	Pass
pH, LAB	0.1	0.1	ph units	8.43	8.42	0.12%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0066	0.0074	11.43%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.433	0.438	1.15%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.433	0.462	6.48%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.441	0.438	0.68%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.441	0.462	4.65%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.442	0.459	3.77%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.65	2.43	8.66%	Pass
SELENIUM, T	0.05	0.05	ug/l	2.46	2.69	8.93%	Pass
SILICON, D	0.05	0.05	mg/l	1.75	1.76	0.57%	Pass
SILICON, T	0.1	0.1	mg/l	1.74	1.81	3.94%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.42	1.43	0.70%	Pass
SODIUM, D	0.05	0.05	mg/l	1.42	1.46	2.78%	Pass
SODIUM, D	0.05	0.05	mg/l	1.49	1.43	4.11%	Pass
SODIUM, D	0.05	0.05	mg/l	1.49	1.46	2.03%	Pass
SODIUM, T	0.05	0.05	mg/l	1.50	1.54	2.63%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.128	0.125	2.37%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.126	0.13	3.13%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	36.4	36.5	0.27%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	187	193	3.16%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	0.071	34.71%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.68	1.3	25.50%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.6	1.6	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.66	1.01	41.92%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.000870	0.00086	1.16%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000859	0.000838	2.47%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00055	0.00056	1.80%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location: Sample ID: Date Sampled: Sample Type:	LC_LCDSSLCC	LC_LCDSSLCC
	LC_LCDSSLCC_WS_2017-04-10_N	FD_W_20170410_059
	4/10/2017	4/10/2017
	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.1	1.8	15.38%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	194	198	2.04%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	194	198	2.04%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0070	0.0136	64.08%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00029	0.00031	6.67%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00028	0.00032	13.33%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00010	0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0886	0.0881	0.57%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0789	0.0809	2.50%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.014	0.014	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000136	0.000139	2.18%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000132	0.000135	2.25%	Pass
CALCIUM, D	0.05	0.05	mg/l	126	126	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	115	118	2.58%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.01	1.43	33.72%	Pass-1
CHLORIDE, D	2.5	2.5	mg/l	9.8	10.2	4.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	950	945	0.53%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.17	0.19	11.11%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	544	542	0.37%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.028	0.038	30.30%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000054	<5e-005	7.69%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0520	0.0517	0.58%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0496	0.0502	1.20%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	55.3	55	0.54%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	50.4	52.3	3.70%	Pass
MAJOR ANION SUM	0	0	meq/l	11.3	11.4	0.88%	Pass
MAJOR CATION SUM	0	0	meq/l	11.2	11.2	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00144	0.00147	2.06%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00316	0.00363	13.84%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	0.00054	7.69%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00217	0.00216	0.46%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00208	0.00212	1.90%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00529	0.00527	0.38%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00497	0.00517	3.94%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	15.0	15	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0293	0.0211	32.54%	Pass-2
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0017	0.0015	12.50%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	507	500	1.39%	Pass
pH, LAB	0.1	0.1	ph units	8.20	8.19	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0035	0.0036	2.82%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.58	1.61	1.88%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.44	1.5	4.08%	Pass
SELENIUM, D	0.05	0.05	ug/l	45.8	45.6	0.44%	Pass
SELENIUM, T	0.05	0.05	ug/l	41.3	42.3	2.39%	Pass
SILICON, D	0.05	0.05	mg/l	2.28	2.32	1.74%	Pass
SILICON, T	0.05	0.05	mg/l	2.12	2.21	4.16%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.70	7.65	0.65%	Pass
SODIUM, T	0.05	0.05	mg/l	7.20	7.31	1.52%	Pass

STRONTIUM, D	0.0002	0.0002	mg/l	0.236	0.236	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.217	0.221	1.83%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	292	293	0.34%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	674	707	4.78%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.98	2.09	5.41%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.1	2	4.88%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.24	1.09	127.82%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.00387	0.00385	0.52%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00362	0.00374	3.26%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0050	0.005	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0071	0.0068	4.32%	Pass

Location:	LC_LCDSSLCC	LC_LCDSSLCC
Sample ID:	LC_LCDSSLCC_WS_2017-08-07_N	FD_M_20170807_092
Date Sampled:	8/2/2017	8/2/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.2	<1	18.18%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	186	193	3.69%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	8.8	4.2	70.77%	Fail
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	195	197	1.02%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0038	0.004	5.13%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00026	0.00024	8.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00029	0.00029	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00016	0.00015	6.45%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0691	0.0688	0.44%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0660	0.0697	5.45%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.013	0.012	8.00%	Pass
BORON, T	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000217	0.000202	7.16%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000203	0.000215	5.74%	Pass
CALCIUM, D	0.05	0.05	mg/l	102	101	0.99%	Pass
CALCIUM, D	0.05	0.05	mg/l	102	103	0.98%	Pass
CALCIUM, D	0.05	0.05	mg/l	104	101	2.93%	Pass
CALCIUM, D	0.05	0.05	mg/l	104	103	0.97%	Pass
CALCIUM, T	0.05	0.05	mg/l	103	104	0.97%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.76	1.49	59.76%	Fail
CHLORIDE, D	0.5	0.5	mg/l	6.18	6.2	0.32%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00013	<0.0001	26.09%	Pass-1
CHROMIUM, T	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	790	802	1.51%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.182	0.185	1.63%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	451	443	1.79%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0365	0.0358	1.94%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0371	0.037	0.27%	Pass
MAGNESIUM, D	0.1	0.005	mg/l	46.2	46.9	1.50%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	46.2	45.2	2.19%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	47.3	46.9	0.85%	Pass
MAGNESIUM, D	0.005	0.1	mg/l	47.3	45.2	4.54%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	47.1	44.6	5.45%	Pass
MAJOR ANION SUM	0	0	meq/l	9.37	9.41	0.43%	Pass
MAJOR CATION SUM	0	0	meq/l	9.29	9.23	0.65%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00073	0.00075	2.70%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00151	0.00156	3.26%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00167	0.00162	3.04%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00161	0.00167	3.66%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00589	0.00581	1.37%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00626	0.00634	1.27%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	10.3	10.3	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0014	0.0016	13.33%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0156	0.0101	42.80%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	495	527	6.26%	Pass
pH, LAB	0.1	0.1	ph units	8.33	8.29	0.48%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0046	<0.004	13.95%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.35	1.36	0.74%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.35	1.45	7.14%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.45	1.36	6.41%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.45	1.45	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.33	1.36	2.23%	Pass
SELENIUM, D	0.05	0.05	ug/l	40.3	40.8	1.23%	Pass
SELENIUM, T	0.05	0.05	ug/l	38	39.8	4.63%	Pass
SILICON, D	0.05	0.05	mg/l	2.30	2.32	0.87%	Pass
SILICON, T	0.1	0.1	mg/l	2.30	2.38	3.42%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	6.00	5.86	2.36%	Pass
SODIUM, D	0.05	0.05	mg/l	6.00	6.27	4.40%	Pass
SODIUM, D	0.05	0.05	mg/l	6.20	5.86	5.64%	Pass
SODIUM, D	0.05	0.05	mg/l	6.20	6.27	1.12%	Pass
SODIUM, T	0.05	0.05	mg/l	6.31	6.06	4.04%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.204	0.203	0.49%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.202	0.21	3.88%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	219	219	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	587	579	1.37%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.403	0.404	0.25%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.86	1.39	69.18%	Fail
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.25	0.37	38.71%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.00347	0.00356	2.56%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00343	0.00366	6.49%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0085	0.0085	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0089	0.0111	22.00%	Pass-1

Location:	LC_LCDSSLCC	LC_LCDSSLCC
Sample ID:	LC_LCDSSLCC_WS_2017-10-10_N	FD_WK_20171010_055
Date Sampled:	10/10/2017	10/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units	Primary vs. Duplicate	Category1
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ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	191	169	12.22%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	191	169	12.22%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0055	<0.003	58.82%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00023	0.00024	4.26%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00024	0.00024	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00014	0.00012	15.38%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0769	0.076	1.18%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0742	0.0746	0.54%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.012	0.012	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.014	0.015	6.90%	Pass
BROMIDE, D	0.05	0.05	mg/l	0.067	<0.05	29.06%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	0.000136	0.000137	0.73%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000154	0.000148	3.97%	Pass
CALCIUM, D	0.05	0.05	mg/l	107	109	1.85%	Pass
CALCIUM, T	0.05	0.05	mg/l	112	116	3.51%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.77	0.82	6.29%	Pass
CHLORIDE, D	0.5	0.5	mg/l	8.44	8.43	0.12%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	<0.0001	9.52%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00017	0.00018	5.71%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	867	725	17.84%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.171	0.159	7.27%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	471	471	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0382	0.0385	0.78%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0410	0.0407	0.73%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	49.3	48.3	2.05%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	52.0	51.8	0.39%	Pass
MAJOR ANION SUM	0	0	meq/l	10.1	9.62	4.87%	Pass
MAJOR CATION SUM	0	0	meq/l	9.72	9.71	0.10%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00119	0.0012	0.84%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00180	0.00144	22.22%	Pass-2
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00156	0.00152	2.60%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00174	0.00181	3.94%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00473	0.00469	0.85%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00514	0.00506	1.57%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	9.86	10	1.41%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0012	0.0015	22.22%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0173	0.0053	106.19%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	0.0011	9.52%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	307	388	23.31%	Pass-1
pH, LAB	0.1	0.1	ph units	8.23	8.18	0.61%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0035	<0.001	111.11%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.32	1.31	0.76%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.46	1.48	1.36%	Pass
SELENIUM, D	0.05	0.05	ug/l	39.5	40.2	1.76%	Pass
SELENIUM, T	0.05	0.05	ug/l	36.2	37.1	2.46%	Pass
SILICON, D	0.05	0.05	mg/l	2.14	2.11	1.41%	Pass
SILICON, T	0.1	0.1	mg/l	2.34	2.44	4.18%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	6.14	6.11	0.49%	Pass
SODIUM, T	0.05	0.05	mg/l	6.42	6.51	1.39%	Pass

STRONTIUM, D	0.0002	0.0002	mg/l	0.198	0.197	0.51%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.210	0.22	4.65%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	255	253	0.79%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	670	616	8.40%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.603	0.58	3.89%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.82	0.86	4.76%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.19	0.22	14.63%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00387	0.00367	5.31%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00392	0.00394	0.51%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0054	0.0054	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0083	0.0064	25.85%	Pass-1

Location:	LC_LCUSWLC	LC_LCUSWLC
Sample ID:	LC_LCUSWLC_WS_2017-07-10_N	FD_W_20170710_089
Date Sampled:	7/11/2017	7/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	3.8	4	5.13%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	187	185	1.08%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	187	185	1.08%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0011	0.0011	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0041	0.0045	9.30%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00041	0.00041	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00040	0.00042	4.88%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00013	0.00014	7.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00017	0.00016	6.06%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0518	0.0517	0.19%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0488	0.0495	1.42%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.013	0.014	7.41%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000519	0.000514	0.97%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000494	0.000516	4.36%	Pass
CALCIUM, D	0.05	0.05	mg/l	90.9	89.7	1.33%	Pass
CALCIUM, T	0.05	0.05	mg/l	87.0	89.2	2.50%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.73	1.4	62.91%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	3.04	3.04	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00016	0.00014	13.33%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	777	772	0.65%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00034	0.00036	5.71%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.155	0.162	4.42%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	383	381	0.52%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0504	0.0502	0.40%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0478	0.0497	3.90%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	38.0	38.1	0.26%	Pass

MAGNESIUM, T	0.005	0.005	mg/l	36.8	37.7	2.42%	Pass
MAJOR ANION SUM	0	0	meq/l	8.70	8.65	0.58%	Pass
MAJOR CATION SUM	0	0	meq/l	8.00	7.95	0.63%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00012	0.00016	28.57%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00188	0.00367	64.50%	Fail
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00058	<0.0005	14.81%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00193	0.00194	0.52%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00200	0.00198	1.01%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0122	0.012	1.65%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0117	0.0121	3.36%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	13.3	13.1	1.52%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0031	0.0033	6.25%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	384	286	29.25%	Pass-1
pH, LAB	0.1	0.1	ph units	7.76	7.7	0.78%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0053	0.0069	26.23%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.62	1.61	0.62%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.55	1.59	2.55%	Pass
SELENIUM, D	0.05	0.05	ug/l	40.8	40.7	0.25%	Pass
SELENIUM, T	0.05	0.05	ug/l	36.8	36.9	0.27%	Pass
SILICON, D	0.05	0.05	mg/l	2.03	2.02	0.49%	Pass
SILICON, T	0.1	0.1	mg/l	1.99	2	0.50%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	6.98	6.95	0.43%	Pass
SODIUM, T	0.05	0.05	mg/l	6.69	6.93	3.52%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.190	0.187	1.59%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.185	0.189	2.14%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	189	188	0.53%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000017	1.8e-005	5.71%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000018	1.8e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	528	529	0.19%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.142	<0.05	95.83%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.81	1.28	44.98%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.41	0.37	10.26%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00299	0.00303	1.33%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00295	0.00305	3.33%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0226	0.023	1.75%	Pass
ZINC, T	0.003	0.003	mg/l	0.0212	0.0221	4.16%	Pass

Location:	LC_LCUSWLC	LC_LCUSWLC
Sample ID:	LC_LCUSWLC_WS_2017-09-18_N	FD_WK_20170918_042
Date Sampled:	9/20/2017	9/20/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.5	5.1	12.50%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	194	171	12.60%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	194	171	12.60%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0041	0.0042	2.41%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00046	0.00047	2.15%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00048	0.00048	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0684	0.0679	0.73%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0683	0.0672	1.62%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass

BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.017	0.017	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000361	0.00036	0.28%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000361	0.000364	0.83%	Pass
CALCIUM, D	0.05	0.05	mg/l	106	105	0.95%	Pass
CALCIUM, T	0.05	0.05	mg/l	109	109	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.86	0.87	1.16%	Pass
CHLORIDE, D	0.5	0.5	mg/l	3.29	3.18	3.40%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00016	0.00014	13.33%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	837	779	7.18%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.183	0.189	3.23%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	449	449	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0499	0.0495	0.80%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0487	0.0491	0.82%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	44.8	45.2	0.89%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	46.5	45.5	2.17%	Pass
MAJOR ANION SUM	0	0	meq/l	9.91	9.45	4.75%	Pass
MAJOR CATION SUM	0	0	meq/l	9.34	9.34	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00021	0.00014	40.00%	Pass-1
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00188	0.00194	3.14%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00204	0.00201	1.48%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0112	0.0109	2.71%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0116	0.0114	1.74%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	14.5	14.5	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0050	0.0055	9.52%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	0.0011	9.52%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	296	308	3.97%	Pass
pH, LAB	0.1	0.1	ph units	8.23	7.84	4.85%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0028	<0.002	33.33%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.69	1.69	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.74	1.7	2.33%	Pass
SELENIUM, D	0.05	0.05	ug/l	47.3	46.8	1.06%	Pass
SELENIUM, T	0.05	0.05	ug/l	42.3	40.6	4.10%	Pass
SILICON, D	0.05	0.05	mg/l	2.08	2.08	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	2.18	2.14	1.85%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.22	7.23	0.14%	Pass
SODIUM, T	0.05	0.05	mg/l	7.60	7.51	1.19%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.193	0.194	0.52%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.202	0.202	0.00%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	235	236	0.42%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000018	1.9e-005	5.41%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000016	1.8e-005	11.76%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	603	624	3.42%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.173	0.09	63.12%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.58	0.74	24.24%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.35	0.32	8.96%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00355	0.00362	1.95%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00363	0.00368	1.37%	Pass

VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0161	0.0154	4.44%	Pass
ZINC, T	0.003	0.003	mg/l	0.0143	0.0143	0.00%	Pass

Location:	LC_LCUSWLC	LC_LCUSWLC
Sample ID:	LC_LCUSWLC_WS_2017-09-25_N	FD_WK_20170925_044
Date Sampled:	9/25/2017	9/25/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.5	2	28.57%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	190	189	0.53%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	190	189	0.53%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0035	0.0035	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00042	0.00042	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00046	0.00047	2.15%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00011	0.00011	9.52%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0734	0.0726	1.10%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0706	0.0744	5.24%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.016	0.017	6.06%	Pass
BORON, T	0.01	0.01	mg/l	0.018	0.018	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	0.077	0.065	16.90%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000366	0.000358	2.21%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000363	0.000358	1.39%	Pass
CALCIUM, D	0.05	0.05	mg/l	108	110	1.83%	Pass
CALCIUM, T	0.05	0.05	mg/l	112	113	0.89%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.77	0.59	26.47%	Pass-1
Cation - Anion Balance	0	0	%	0	0.6	200.00%	Fail
CHLORIDE, D	0.5	0.5	mg/l	3.24	3.26	0.62%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.00014	15.38%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	837	839	0.24%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.197	0.183	7.37%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	468	471	0.64%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0484	0.0502	3.65%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0520	0.0519	0.19%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	48.4	47.8	1.25%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	46.1	47.6	3.20%	Pass
MAJOR ANION SUM	0	0	meq/l	9.74	9.69	0.51%	Pass
MAJOR CATION SUM	0	0	meq/l	9.74	9.81	0.72%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00013	0.00011	16.67%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00178	0.00183	2.77%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00197	0.002	1.51%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0118	0.0115	2.58%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0116	0.0117	0.86%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	14.4	14.4	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass

NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0028	0.0029	3.51%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	285	299	4.79%	Pass
pH, LAB	0.1	0.1	ph units	8.03	8	0.37%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0028	0.003	6.90%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.87	1.82	2.71%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.76	1.81	2.80%	Pass
SELENIUM, D	0.05	0.05	ug/l	45.9	44.5	3.10%	Pass
SELENIUM, T	0.05	0.05	ug/l	40.7	41.6	2.19%	Pass
SILICON, D	0.05	0.05	mg/l	2.09	2.06	1.45%	Pass
SILICON, T	0.1	0.1	mg/l	2.11	2.19	3.72%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.05	7.96	1.12%	Pass
SODIUM, T	0.05	0.05	mg/l	7.71	7.97	3.32%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.193	0.197	2.05%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.205	0.205	0.00%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	231	231	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000018	1.7e-005	5.71%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000017	1.8e-005	5.71%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	596	621	4.11%	Pass
TOTAL KJELDAHL NITROGEN	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.74	0.56	27.69%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.37	0.5	29.89%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.00345	0.00342	0.87%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00354	0.00363	2.51%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0165	0.0151	8.86%	Pass
ZINC, T	0.003	0.003	mg/l	0.0168	0.0158	6.13%	Pass

Location:	LC_LCUSWLC	LC_LCUSWLC
Sample ID:	LC_LCUSWLC_WS_2017-10-17_N	FD_WK_20171017_057
Date Sampled:	10/17/2017	10/17/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.2	<1	18.18%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	185	184	0.54%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	10.6	7	40.91%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	196	191	2.58%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0033	<0.003	9.52%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00040	0.00041	2.47%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00045	0.00046	2.20%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0780	0.0793	1.65%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0749	0.0753	0.53%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.015	0.016	6.45%	Pass
BORON, T	0.01	0.01	mg/l	0.016	0.017	6.06%	Pass
BROMIDE, D	0.05	0.25	mg/l	< 0.050	<0.25	133.33%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	0.000374	0.000361	3.54%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000357	0.000363	1.67%	Pass
CALCIUM, D	0.05	0.05	mg/l	122	118	3.33%	Pass
CALCIUM, T	0.05	0.05	mg/l	120	117	2.53%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	1.48	98.99%	Pass-1
CHLORIDE, D	0.5	2.5	mg/l	4.29	4.2	2.12%	Pass

CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
COBALT, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	888	893	0.56%	Pass
COPPER, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.1	mg/l	0.178	0.18	1.12%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	526	507	3.68%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0577	0.0608	5.23%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0566	0.0631	10.86%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	53.7	51.8	3.60%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	52.0	53.1	2.09%	Pass
MAJOR ANION SUM	0	0	meq/l	11.1	11.5	3.54%	Pass
MAJOR CATION SUM	0	0	meq/l	11.0	10.6	3.70%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00181	0.00182	0.55%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00187	0.00187	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0117	0.0118	0.85%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0117	0.0117	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.025	mg/l	18.1	19.1	5.38%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.005	mg/l	< 0.0010	<0.005	133.33%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0054	0.0088	47.89%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0024	0.0025	4.08%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	306	343	11.40%	Pass
pH, LAB	0.1	0.1	ph units	8.40	8.36	0.48%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0025	0.0026	3.92%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.82	1.79	1.66%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.75	1.74	0.57%	Pass
SELENIUM, D	0.05	0.05	ug/l	54.6	54.8	0.37%	Pass
SELENIUM, T	0.05	0.05	ug/l	52.9	52.6	0.57%	Pass
SILICON, D	0.05	0.05	mg/l	2.23	2.31	3.52%	Pass
SILICON, T	0.1	0.1	mg/l	2.32	2.39	2.97%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	9.05	8.98	0.78%	Pass
SODIUM, T	0.05	0.05	mg/l	8.94	9.25	3.41%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.231	0.225	2.63%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.227	0.223	1.78%	Pass
SULFATE (AS SO4), D	0.3	1.5	mg/l	277	296	6.63%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000014	1.5e-005	6.90%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000017	1.6e-005	6.06%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	755	761	0.79%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.570	0.83	37.14%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	< 0.50	1.43	96.37%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.46	0.4	13.95%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00416	0.0039	6.45%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00424	0.00387	9.12%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0147	0.0147	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0168	0.0159	5.50%	Pass

Location:	LC_LCUSWLC	LC_LCUSWLC
Sample ID:	LC_LCUSWLC_WS_2017-10-24_N	FD_WK_20171024_059
Date Sampled:	10/24/2017	10/24/2017

Analyte	Sample Type:			Primary	Secondary	Primary vs. Duplicate	Category1
	Detection Limit Pri.	Detection Limit Dup.	Units				
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	3.1	3.2	3.17%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	212	208	1.90%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	212	208	1.90%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0050	0.0054	7.69%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00046	0.00046	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00047	0.00046	2.15%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	0.00012	18.18%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00013	0.00014	7.41%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0801	0.0856	6.64%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0827	0.0836	1.08%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.019	0.018	5.41%	Pass
BORON, T	0.01	0.01	mg/l	0.019	0.02	5.13%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000402	0.000387	3.80%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000371	0.000382	2.92%	Pass
CALCIUM, D	0.05	0.05	mg/l	132	126	4.65%	Pass
CALCIUM, T	0.05	0.05	mg/l	116	127	9.05%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.56	<0.5	11.32%	Pass
Cation - Anion Balance	0	0	%	1.2	1.3	8.00%	Pass
CHLORIDE, D	0.5	0.5	mg/l	5.38	5.36	0.37%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00015	6.90%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	935	935	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00118	<0.0005	80.95%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.174	0.175	0.57%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	544	542	0.37%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0639	0.0638	0.16%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0623	0.0667	6.82%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	51.9	55.5	6.70%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	52.4	54.1	3.19%	Pass
MAJOR ANION SUM	0	0	meq/l	11.1	11.1	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	11.4	11.3	0.88%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00015	0.00026	53.66%	Pass-1
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00219	0.00214	2.31%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00233	0.00217	7.11%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0130	0.0135	3.77%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0131	0.0131	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	17.4	17.3	0.58%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0011	<0.001	9.52%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0026	0.0029	10.91%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	375	395	5.19%	Pass
pH, LAB	0.1	0.1	ph units	8.11	8.11	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0028	0.0027	3.64%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.00	2.08	3.92%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.94	1.96	1.03%	Pass
SELENIUM, D	0.05	0.05	ug/l	49.6	46.9	5.60%	Pass
SELENIUM, T	0.05	0.05	ug/l	49.3	49.7	0.81%	Pass
SILICON, D	0.05	0.05	mg/l	2.23	2.23	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	2.31	2.34	1.29%	Pass

SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	10.3	10.5	1.92%	Pass
SODIUM, T	0.05	0.05	mg/l	10.1	10.4	2.93%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.232	0.232	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.229	0.215	6.31%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	265	264	0.38%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000017	2e-005	16.22%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000016	1.8e-005	11.76%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	695	689	0.87%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.238	0.255	6.90%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.67	0.81	18.92%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.15	0.9	24.39%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00406	0.00425	4.57%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00403	0.00414	2.69%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0169	0.0165	2.40%	Pass
ZINC, T	0.003	0.003	mg/l	0.0170	0.018	5.71%	Pass

Location:	LC_SPDC	LC_SPDC
Sample ID:	LC_SPDC_WS_2017-05-09_N	FD_WK_20170509_068
Date Sampled:	5/8/2017	5/8/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.5	1.3	14.29%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	88.3	86.6	1.94%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	88.3	86.6	1.94%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0173	0.017	1.75%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.200	0.445	75.97%	Fail
ANTIMONY, D	0.0001	0.0001	mg/l	0.00026	0.00031	17.54%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00013	0.00034	89.36%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	0.00031	0.00034	9.23%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00026	0.00061	80.46%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0838	0.0861	2.71%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0809	0.0975	18.61%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000023	6e-005	89.16%	Pass-1
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000420	4.42e-005	5.10%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000696	0.000201	97.12%	Fail
CALCIUM, D	0.05	0.05	mg/l	23.6	25.5	7.74%	Pass
CALCIUM, T	0.05	0.05	mg/l	62.5	25.7	83.45%	Fail
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	4.24	4.48	5.50%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.78	0.78	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00047	0.00125	90.70%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00022	0.00047	72.46%	Pass-1
CONDUCTIVITY, LAB	2	2	us/cm	199	196	1.52%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00055	0.00036	41.76%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	0.00093	0.0019	68.55%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.072	0.071	1.40%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	94.6	102	7.53%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	0.012	0.011	8.70%	Pass
IRON, T	0.01	0.01	mg/l	0.331	0.687	69.94%	Fail

LEAD, D	0.0005	0.0005	mg/l	< 0.00050	<5e-005	0.00%	Pass
LEAD, T	0.0005	0.0005	mg/l	0.000244	0.000648	90.58%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0044	0.0045	2.25%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0127	0.0045	95.35%	Fail
MAGNESIUM, D	0.005	0.005	mg/l	8.64	9.3	7.36%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	25.0	9.01	94.03%	Fail
MAJOR ANION SUM	0	0	meq/l	2.11	2.07	1.91%	Pass
MAJOR CATION SUM	0	0	meq/l	1.95	2.1	7.41%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00334	0.004	17.98%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0166	0.0165	0.60%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00855	0.00861	0.70%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00104	0.00114	9.17%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000863	0.0012	32.67%	Pass-2
NICKEL, D	0.0005	0.0005	mg/l	0.00120	0.00116	3.39%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00225	0.00316	33.64%	Pass-1
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.40	1.4	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0144	0.0153	6.06%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0141	0.0166	16.29%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0344	0.035	1.73%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	478	487	1.87%	Pass
pH, LAB	0.1	0.1	ph units	8.14	8.09	0.62%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.105	0.112	6.45%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.10	1.14	3.57%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.00	1.39	32.64%	Pass-2
SELENIUM, D	0.05	0.05	ug/l	3.11	3.2	2.85%	Pass
SELENIUM, T	0.05	0.05	ug/l	23.3	2.81	156.95%	Fail
SILICON, D	0.05	0.05	mg/l	2.40	2.58	7.23%	Pass
SILICON, T	0.05	0.05	mg/l	2.30	3.08	29.00%	Pass-2
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	3.4e-005	109.09%	Pass-1
SODIUM, D	0.05	0.05	mg/l	0.618	0.638	3.18%	Pass
SODIUM, T	0.05	0.05	mg/l	1.38	0.621	75.86%	Fail
STRONTIUM, D	0.0002	0.0002	mg/l	0.0336	0.0347	3.22%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.103	0.0366	95.13%	Fail
SULFATE (AS SO4), D	0.3	0.3	mg/l	10.4	10.3	0.97%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	1.1e-005	9.52%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.00001	4.5e-005	127.27%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	13	13	mg/l	129	130	0.77%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.204	0.207	1.46%	Pass
TOTAL ORGANIC CARBON, T	0.5	5	mg/l	7.65	7.7	0.65%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	33.2	34.8	4.71%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	53.8	54.3	0.93%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000202	0.000204	0.99%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00125	0.000286	125.52%	Fail
VANADIUM, D	0.0005	0.0005	mg/l	0.00133	0.00134	0.75%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00122	0.00455	115.42%	Pass-1
ZINC, D	0.001	0.001	mg/l	0.0012	0.0011	8.70%	Pass
ZINC, T	0.003	0.003	mg/l	0.0045	0.0124	93.49%	Pass-1

Location:	LC_SPDC	LC_SPDC
Sample ID:	LC_SPDC_WS_2017-06-13_N	FD_WK_20170613_080
Date Sampled:	6/12/2017	6/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	106	109	2.79%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	106	109	2.79%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0845	0.0871	3.03%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0719	0.0792	9.66%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00025	0.00027	7.69%	Pass

ANTIMONY, T	0.0001	0.0001	mg/l	0.00024	0.00025	4.08%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00035	0.00034	2.90%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00034	0.00033	2.99%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.119	0.127	6.50%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.112	0.109	2.71%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000702	8.34e-005	17.19%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000877	8.73e-005	0.46%	Pass
CALCIUM, D	0.05	0.05	mg/l	35.8	34	5.16%	Pass
CALCIUM, T	0.05	0.05	mg/l	33.1	33	0.30%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.44	2.09	15.45%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.65	1.64	0.61%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00017	0.00015	12.50%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00022	0.00021	4.65%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00012	0.00014	15.38%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00016	0.00015	6.45%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	278	274	1.45%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00024	0.00026	8.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.079	0.08	1.26%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	143	136	5.02%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	0.027	0.032	16.95%	Pass
IRON, T	0.01	0.01	mg/l	0.072	0.065	10.22%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000068	5.8e-005	15.87%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0053	0.0062	15.65%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0048	0.0051	6.06%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	12.9	12.4	3.95%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	12.1	12	0.83%	Pass
MAJOR ANION SUM	0	0	meq/l	3.01	3.08	2.30%	Pass
MAJOR CATION SUM	0	0	meq/l	2.92	2.79	4.55%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00262	0.00309	16.46%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00458	0.00431	6.07%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.002000000	0.0022	9.52%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00136	0.00136	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00134	0.00133	0.75%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00145	0.00152	4.71%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00172	0.00162	5.99%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	4.54	4.56	0.44%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0568	0.0572	0.70%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0055	0.0074	29.46%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0294	0.0295	0.34%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	501	319	44.39%	Pass-1
pH, LAB	0.1	0.1	ph units	8.19	8.16	0.37%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0389	0.0397	2.04%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.28	1.33	3.83%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.20	1.15	4.26%	Pass
SELENIUM, D	0.05	0.05	ug/l	9.22	9.82	6.30%	Pass
SELENIUM, T	0.05	0.05	ug/l	8.46	8.45	0.12%	Pass
SILICON, D	0.05	0.05	mg/l	2.66	2.66	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.646	0.655	1.38%	Pass
SODIUM, T	0.05	0.05	mg/l	0.628	0.612	2.58%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0483	0.0481	0.41%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0472	0.0467	1.06%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	24.9	24.9	0.00%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000010	1.1e-005	9.52%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000013	1.1e-005	16.67%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	167	135	21.19%	Pass-2
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.493	0.348	34.48%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.85	2.16	27.54%	Pass-2
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.9	1.9	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	3.73	4.24	12.80%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000222	0.000253	13.05%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000325	0.000303	7.01%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00163	0.00173	5.95%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00198	0.00194	2.04%	Pass
ZINC, D	0.001	0.001	mg/l	0.0016	0.0023	35.90%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.0040	0.003	28.57%	Pass-1

Location:	LC_SPDC	LC_SPDC
Sample ID:	LC_SPDC_WS_2017-09-05_N	FD_M_2017-09-05_056
Date Sampled:	9/11/2017	9/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	130	128	1.55%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	10.0	10.2	1.98%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	140	138	1.44%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0051	0.0053	3.85%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0157	0.0166	5.57%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00028	0.00028	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00030	0.0003	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00029	0.0003	3.39%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00034	0.00036	5.71%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.183	0.184	0.54%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.172	0.181	5.10%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000209	2.11e-005	0.95%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000478	5.04e-005	5.30%	Pass
CALCIUM, D	0.05	0.05	mg/l	48.9	50	2.22%	Pass
CALCIUM, T	0.05	0.05	mg/l	47.8	48.2	0.83%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.46	2.74	10.77%	Pass
Cation - Anion Balance	0	0	%	0	1.4	200.00%	Fail
CHLORIDE, D	0.5	0.5	mg/l	3.44	3.49	1.44%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00011	0.00015	30.77%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	354	361	1.96%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.074	0.077	3.97%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	193	197	2.05%	Pass
HYDROGEN SULFIDE	0.021	0.021	mg/l	< 0.021	<0.021	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	0.011	9.52%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0077	0.008	3.82%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0076	0.008	5.13%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	17.3	17.4	0.58%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	16.3	17.2	5.37%	Pass
MAJOR ANION SUM	0	0	meq/l	3.95	3.91	1.02%	Pass
MAJOR CATION SUM	0	0	meq/l	3.95	4.02	1.76%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00011	<0.0001	9.52%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00234	0.00252	7.41%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00085	0.00087	2.33%	Pass

MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00169	0.00172	1.76%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00175	0.00177	1.14%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00102	0.00102	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00119	0.00155	26.28%	Pass-1
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	3.60	3.6	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0370	0.0374	1.08%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0606	0.0653	7.47%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	251	273	8.40%	Pass
pH, LAB	0.1	0.1	ph units	8.49	8.44	0.59%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0081	0.0095	15.91%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.78	1.81	1.67%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.63	1.74	6.53%	Pass
SELENIUM, D	0.05	0.05	ug/l	7.76	7.75	0.13%	Pass
SELENIUM, T	0.05	0.05	ug/l	7.8	8.03	2.91%	Pass
SILICON, D	0.05	0.05	mg/l	2.23	2.26	1.34%	Pass
SILICON, T	0.1	0.1	mg/l	2.27	2.39	5.15%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.855	0.865	1.16%	Pass
SODIUM, T	0.05	0.05	mg/l	0.803	0.845	5.10%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0667	0.0682	2.22%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0661	0.0674	1.95%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	38.1	38.1	0.00%	Pass
SULFIDE (as S), T	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000016	1.6e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000016	1.6e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	202	222	9.43%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.610	0.46	28.04%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.57	4.15	15.03%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.7	3.3	20.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.75	1.86	6.09%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000665	0.00067	0.75%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000638	0.000641	0.47%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00134	0.00136	1.48%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00156	0.00154	1.29%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_SPDC	LC_SPDC
Sample ID:	LC_SPDC_WS_2017-10-11_N	FD_M_2017-10-11_023
Date Sampled:	10/11/2017	10/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	149	149	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	149	149	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0123	0.0147	17.78%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0222	0.0209	6.03%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00030	0.00031	3.28%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00035	0.00039	10.81%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00030	0.00027	10.53%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00035	0.00031	12.12%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.181	0.172	5.10%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.183	0.185	1.09%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	0.059	<0.05	16.51%	Pass

CADMIUM, D	0.000005	0.000005	mg/l	0.0000531	4.92e-005	7.62%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000617	6.98e-005	12.32%	Pass
CALCIUM, D	0.05	0.05	mg/l	51.6	52	0.77%	Pass
CALCIUM, T	0.05	0.05	mg/l	53.6	54.1	0.93%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.42	2.5	3.25%	Pass
CHLORIDE, D	0.5	0.5	mg/l	4.40	4.37	0.68%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00015	0.00014	6.90%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	387	392	1.28%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.075	0.074	1.34%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	203	203	0.00%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	< 0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.015	0.016	6.45%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0080	0.0081	1.24%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0083	0.0085	2.38%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	18.0	17.7	1.68%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	19.6	19.7	0.51%	Pass
MAJOR ANION SUM	0	0	meq/l	4.38	4.38	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	4.15	4.14	0.24%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00190	0.00237	22.01%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.00323	0.00312	3.46%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	< 5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00088	0.00096	8.70%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00186	0.00182	2.17%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00192	0.00194	1.04%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00129	0.00129	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00150	0.00144	4.08%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	4.84	4.84	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0647	0.0637	1.56%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0915	0.0786	15.17%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0116	0.0115	0.87%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	215	233	8.04%	Pass
pH, LAB	0.1	0.1	ph units	8.28	8.25	0.36%	Pass
PHOSPHORUS	0.02	0.002	mg/l	0.143	0.0156	160.66%	Fail
POTASSIUM, D	0.05	0.05	mg/l	1.59	1.58	0.63%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.77	1.78	0.56%	Pass
SELENIUM, D	0.05	0.05	ug/l	9.36	9.2	1.72%	Pass
SELENIUM, T	0.05	0.05	ug/l	8.59	8.82	2.64%	Pass
SILICON, D	0.05	0.05	mg/l	2.25	2.31	2.63%	Pass
SILICON, T	0.1	0.1	mg/l	2.47	2.51	1.61%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.885	0.867	2.05%	Pass
SODIUM, T	0.05	0.05	mg/l	0.957	0.973	1.66%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0665	0.0666	0.15%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0695	0.0705	1.43%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	44.4	44.4	0.00%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	< 0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000012	1.3e-005	8.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000014	1.5e-005	6.90%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	237	250	5.34%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.684	0.833	19.64%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.54	2.52	0.79%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.6	1.8	11.76%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.42	1.58	10.67%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000748	0.000756	1.06%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000737	0.00074	0.41%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00120	0.00115	4.26%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00135	0.00136	0.74%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	< 0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0031	0.0061	65.22%	Pass-1

Location:	LC_SPDC	LC_SPDC
Sample ID:	LC_SPDC_WS_2017-11-27_N	FD_WK_2017-11-27_033
Date Sampled:	11/27/2017	11/27/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	138	140	1.44%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	138	140	1.44%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0079	0.008	1.26%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.101	0.0934	7.82%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00044	0.00046	4.44%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00046	0.00046	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00035	0.00035	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00038	0.00038	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.161	0.168	4.26%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.175	0.173	1.15%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000599	6.85e-005	13.40%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000814	7.42e-005	9.25%	Pass
CALCIUM, D	0.05	0.05	mg/l	54.0	56.5	4.52%	Pass
CALCIUM, T	0.05	0.05	mg/l	54.9	54.8	0.18%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	6.27	6.47	3.14%	Pass
Cation - Anion Balance	0	0	%	1.6	3.3	69.39%	Fail
CHLORIDE, D	0.5	0.5	mg/l	4.78	4.79	0.21%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00029	0.00024	18.87%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00041	0.00039	5.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	382	389	1.82%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00059	0.00055	7.02%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.076	0.075	1.32%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	216	226	4.52%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
ION BALANCE	100	100	%	103	107	3.81%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.103	0.1	2.96%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000124	0.000134	7.75%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0079	0.0081	2.50%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0088	0.0085	3.47%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	19.8	20.5	3.47%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	19.2	18.9	1.57%	Pass
MAJOR ANION SUM	0	0	meq/l	4.27	4.31	0.93%	Pass
MAJOR CATION SUM	0	0	meq/l	4.42	4.6	3.99%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00180	0.00227	23.10%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.0177	0.0174	1.71%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00172	0.00139	21.22%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00251	0.00251	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00264	0.00254	3.86%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00250	0.00263	5.07%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00315	0.00302	4.21%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	5.79	5.81	0.34%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.135	0.135	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0375	0.0364	2.98%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0216	0.0212	1.87%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	312	330	5.61%	Pass
pH, LAB	0.1	0.1	ph units	8.22	8.24	0.24%	Pass

PHOSPHORUS	0.001	0.001	mg/l	0.0332	0.0372	11.36%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.68	1.81	7.45%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.80	1.72	4.55%	Pass
SELENIUM, D	0.05	0.05	ug/l	8.53	8.5	0.35%	Pass
SELENIUM, T	0.05	0.05	ug/l	8.48	8.04	5.33%	Pass
SILICON, D	0.05	0.05	mg/l	2.58	2.58	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	2.85	2.76	3.21%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.07	1.11	3.67%	Pass
SODIUM, T	0.05	0.05	mg/l	1.01	0.97	4.04%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0694	0.0718	3.40%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0746	0.0741	0.67%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	45.6	45.6	0.00%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000010	1.1e-005	9.52%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000012	1.3e-005	8.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	253	257	1.57%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.506	0.365	32.38%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	6.21	6.47	4.10%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	3.3	4.1	21.62%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	13.7	14.6	6.36%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000875	0.00089	1.70%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000879	0.000905	2.91%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00113	0.00117	3.48%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00167	0.00159	4.91%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0031	0.0036	14.93%	Pass

Location:	LC_SPDC	LC_SPDC
Sample ID:	LC_SPDC_WS_2017-12-12_N	FD_WK_2017-12-12_035
Date Sampled:	12/12/2017	12/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	141	141	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	141	141	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0055	0.0061	10.34%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0911	0.0933	2.39%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00039	0.00039	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00040	0.00044	9.52%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00034	0.00031	9.23%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00039	0.0004	2.53%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.189	0.187	1.06%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.180	0.191	5.93%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000681	6.56e-005	3.74%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000835	9.11e-005	8.71%	Pass
CALCIUM, D	0.05	0.05	mg/l	55.6	54.2	2.55%	Pass
CALCIUM, T	0.05	0.05	mg/l	62.0	63.4	2.23%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.55	2.47	3.19%	Pass
CHLORIDE, D	0.5	0.5	mg/l	4.74	4.73	0.21%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00020	0.00024	18.18%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00026	0.00027	3.77%	Pass

CONDUCTIVITY, LAB	2	2	us/cm	445	443	0.45%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.069	0.063	9.09%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	215	210	2.35%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
ION BALANCE	100	100	%	96.0	93.9	2.21%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.046	0.051	10.31%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000060	0.000147	84.06%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0081	0.0085	4.82%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0085	0.0083	2.38%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	18.4	18.1	1.64%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	19.7	19.8	0.51%	Pass
MAJOR ANION SUM	0	0	meq/l	4.56	4.56	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	4.38	4.28	2.31%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00553	0.00566	2.32%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0118	0.0119	0.84%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00125	0.00122	2.43%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00233	0.00239	2.54%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00240	0.00248	3.28%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00243	0.00243	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00275	0.00271	1.47%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	7.95	7.95	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0540	0.0578	6.80%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0184	0.0157	15.84%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0254	0.0265	4.24%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	283	303	6.83%	Pass
pH, LAB	0.1	0.1	ph units	8.12	8.15	0.37%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0327	0.032	2.16%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.78	1.79	0.56%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.89	1.86	1.60%	Pass
SELENIUM, D	0.05	0.05	ug/l	11.1	10.8	2.74%	Pass
SELENIUM, T	0.05	0.05	ug/l	9.8	9.91	1.12%	Pass
SILICON, D	0.05	0.05	mg/l	2.68	2.68	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	3.14	3.1	1.28%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.984	0.967	1.74%	Pass
SODIUM, T	0.05	0.05	mg/l	1.02	1.04	1.94%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0715	0.0756	5.57%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0785	0.0806	2.64%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	49.8	49.8	0.00%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000011	1e-005	9.52%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000014	1.4e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	274	287	4.63%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.602	0.547	9.57%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.59	2.76	6.36%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.6	2.4	8.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	6.62	7.14	7.56%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000881	0.000882	0.11%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000993	0.00102	2.68%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00123	0.00118	4.15%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00179	0.00183	2.21%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0041	0.0092	76.69%	Pass-1

Location:	LC_WLC	LC_WLC
Sample ID:	LC_WLC_WS_2017-01-02_N	FD_M_20170102_058
Date Sampled:	1/9/2017	1/9/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	308	315	2.25%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	14.0	13.6	2.90%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	322	329	2.15%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00053	0.00048	9.90%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00050	0.00054	7.69%	Pass
ARSENIC, D	0.0001	0.0003	mg/l	0.00026	<0.0003	14.29%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00026	0.00028	7.41%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0260	0.0238	8.84%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0240	0.0247	2.87%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.012	0.011	8.70%	Pass
BORON, T	0.01	0.01	mg/l	0.012	0.011	8.70%	Pass
BROMIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000546	0.000567	3.77%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000630	0.000636	0.95%	Pass
CALCIUM, D	0.05	0.05	mg/l	284	285	0.35%	Pass
CALCIUM, T	0.05	0.05	mg/l	289	296	2.39%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.24	1.19	4.12%	Pass
CHLORIDE, D	1	1	mg/l	5.8	5.7	1.74%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00012	<0.0001	18.18%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	2250	2250	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00070	0.0008	13.33%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00088	0.00088	0.00%	Pass
FLUORIDE, D	0.2	0.2	mg/l	0.27	0.26	3.77%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1440	1490	3.41%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0310	0.0305	1.63%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0322	0.0322	0.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	178	190	6.52%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	193	196	1.54%	Pass
MAJOR ANION SUM	0	0	meq/l	31.6	31	1.92%	Pass
MAJOR CATION SUM	0	0	meq/l	29.0	30	3.39%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00101	0.00109	7.62%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00485	0.00483	0.41%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00500	0.00508	1.59%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0183	0.0208	12.79%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0212	0.0214	0.94%	Pass
NITRATE NITROGEN (NO3), AS N	0.05	0.05	mg/l	24.5	23.9	2.48%	Pass
NITRITE NITROGEN (NO2), AS N	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0064	0.0065	1.55%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	353	429	19.44%	Pass
pH, LAB	0.1	0.1	ph units	8.36	8.35	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0059	0.0051	14.55%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.62	2.52	3.89%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.57	2.56	0.39%	Pass
SELENIUM, D	0.05	0.05	ug/l	474	533	11.72%	Pass
SELENIUM, T	0.05	0.05	ug/l	501	499	0.40%	Pass
SILICON, D	0.05	0.05	mg/l	1.86	1.88	1.07%	Pass
SILICON, T	0.05	0.05	mg/l	2.06	1.99	3.46%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.91	2.03	6.09%	Pass
SODIUM, T	0.05	0.05	mg/l	2.12	2.08	1.90%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.184	0.184	0.00%	Pass

STRONTIUM, T	0.0002	0.0002	mg/l	0.187	0.191	2.12%	Pass
SULFATE (AS SO4), D	3	3	mg/l	1120	1090	2.71%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000025	2.4e-005	4.08%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000025	2.5e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	2040	2030	0.49%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.168	0.134	22.52%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.25	1.32	5.45%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	<1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.10	<0.1	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0190	0.0186	2.13%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0193	0.0195	1.03%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0143	0.0144	0.70%	Pass
ZINC, T	0.003	0.003	mg/l	0.0151	0.0153	1.32%	Pass

Location:	LC_WLC	LC_WLC
Sample ID:	LC_WLC_WS_2017-02-06_N	FD_M_20170206_063
Date Sampled:	2/14/2017	2/14/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.6	3.1	38.96%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	316	323	2.19%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	<1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	<1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	316	323	2.19%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0011	<0.001	9.52%	Pass
ALUMINUM, T	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00050	0.0005	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00052	0.00054	3.77%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00031	0.00028	10.17%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00038	0.00038	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0262	0.0233	11.72%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0265	0.0267	0.75%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	<0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	<0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.012	0.012	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	<0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000336	0.000293	13.67%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000334	0.00034	1.78%	Pass
CALCIUM, D	0.05	0.05	mg/l	290	288	0.69%	Pass
CALCIUM, T	0.05	0.05	mg/l	288	299	3.75%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.86	0.8	7.23%	Pass
CHLORIDE, D	2.5	2.5	mg/l	4.8	4.8	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	0.00016	20.69%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	2280	2240	1.77%	Pass
COPPER, D	0.0002	0.0002	mg/l	<0.00020	0.00043	73.02%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	0.00071	0.00082	14.38%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.20	0.2	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1550	1520	1.95%	Pass
IRON, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.012	0.012	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0353	0.0332	6.13%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0325	0.0343	5.39%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	199	196	1.52%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	205	232	12.36%	Pass

MAJOR ANION SUM	0	0	meq/l	31.7	31.6	0.32%	Pass
MAJOR CATION SUM	0	0	meq/l	31.0	30.6	1.30%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00105	0.00109	3.74%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00500	0.00478	4.50%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00520	0.00521	0.19%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0200	0.0183	8.88%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0208	0.0219	5.15%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	24.6	24.4	0.82%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	0.0052	3.92%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0126	86.36%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0049	0.0053	7.84%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	363	408	11.67%	Pass
pH, LAB	0.1	0.1	ph units	8.19	8.13	0.74%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0055	0.0295	137.14%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.58	2.36	8.91%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.72	2.75	1.10%	Pass
SELENIUM, D	0.05	0.05	ug/l	572	569	0.53%	Pass
SELENIUM, T	0.05	0.05	ug/l	540	525	2.82%	Pass
SILICON, D	0.05	0.05	mg/l	2.27	2.01	12.15%	Pass
SILICON, T	0.05	0.05	mg/l	2.29	2.15	6.31%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.21	2.1	5.10%	Pass
SODIUM, T	0.05	0.05	mg/l	2.29	2.44	6.34%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.198	0.193	2.56%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.199	0.201	1.00%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	1130	1120	0.89%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000025	2.6e-005	3.92%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000026	2.7e-005	3.77%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	40	40	mg/l	1910	1980	3.60%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.91	0.79	14.12%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.11	<0.1	9.52%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0185	0.018	2.74%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0191	0.0195	2.07%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0103	0.0095	8.08%	Pass
ZINC, T	0.003	0.003	mg/l	0.0099	0.0109	9.62%	Pass

Location:	LC_WLC	LC_WLC
Sample ID:	LC_WLC_WS_2017-03-06_N	FD_M_20170306_068
Date Sampled:	3/6/2017	3/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.1	5.4	27.37%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	319	328	2.78%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	11.0	<1	166.67%	Fail
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	330	328	0.61%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	< 0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00051	0.00051	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00055	0.00056	1.80%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00025	0.00027	7.69%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00032	0.00027	16.95%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0248	0.0249	0.40%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0272	0.0263	3.36%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass

BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.014	0.014	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.012	0.012	0.00%	Pass
BROMIDE, D	1	1	mg/l	< 1.0	<1	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000214	0.00021	1.89%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000224	0.000231	3.08%	Pass
CALCIUM, D	0.05	0.05	mg/l	292	293	0.34%	Pass
CALCIUM, T	0.05	0.05	mg/l	298	293	1.69%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.16	1.19	2.55%	Pass
CHLORIDE, D	2	2	mg/l	6.5	6.3	3.13%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	2180	2190	0.46%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00069	0.00075	8.33%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00081	0.00084	3.64%	Pass
FLUORIDE, D	0.4	0.4	mg/l	< 0.40	<0.4	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1570	1580	0.63%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.011	<0.01	9.52%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0366	0.0351	4.18%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0325	0.0331	1.83%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	205	205	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	199	196	1.52%	Pass
MAJOR ANION SUM	0	0	meq/l	34.0	32.6	4.20%	Pass
MAJOR CATION SUM	0	0	meq/l	31.5	31.7	0.63%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00103	0.00091	12.37%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00523	0.00513	1.93%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00508	0.00502	1.19%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0200	0.0203	1.49%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0205	0.0203	0.98%	Pass
NITRATE NITROGEN (NO3), AS N	0.1	0.1	mg/l	26.3	25.2	4.27%	Pass
NITRITE NITROGEN (NO2), AS N	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0054	0.0059	8.85%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	367	349	5.03%	Pass
pH, LAB	0.1	0.1	ph units	8.20	8.18	0.24%	Pass
PHOSPHORUS	0.01	0.002	mg/l	< 0.010	0.0059	51.57%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.43	2.35	3.35%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.58	2.53	1.96%	Pass
SELENIUM, D	0.05	0.05	ug/l	535	537	0.37%	Pass
SELENIUM, T	0.05	0.05	ug/l	495	495	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	1.94	1.92	1.04%	Pass
SILICON, T	0.05	0.05	mg/l	2.12	2.11	0.47%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.25	2.19	2.70%	Pass
SODIUM, T	0.05	0.05	mg/l	2.13	2.22	4.14%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.201	0.204	1.48%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.200	0.199	0.50%	Pass
SULFATE (AS SO4), D	6	6	mg/l	1220	1160	5.04%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000028	2.8e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000029	3e-005	3.39%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	2210	2240	1.35%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.113	0.158	33.21%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.19	1.48	21.72%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.11	0.11	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0200	0.0196	2.02%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0184	0.0185	0.54%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0085	0.0085	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0087	0.0086	1.16%	Pass

Location:	LC_WLC	LC_WLC
Sample ID:	LC_WLC_WS_2017-05-01_N	FD_M_20170501_078
Date Sampled:	5/1/2017	5/1/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	6.5	2.4	92.13%	Fail
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	304	309	1.63%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	304	309	1.63%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0035	0.0033	5.88%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00051	0.00054	5.71%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00048	0.00049	2.06%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00027	0.00029	7.14%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00034	0.00032	6.06%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0253	0.0253	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0247	0.0248	0.40%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.014	0.014	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.015	0.015	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000283	0.000269	5.07%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000281	0.000276	1.80%	Pass
CALCIUM, D	0.05	0.05	mg/l	273	273	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	267	267	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.32	1.63	21.02%	Pass-1
CHLORIDE, D	2.5	2.5	mg/l	4.3	4.2	2.35%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	<0.0001	9.52%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00044	0.00015	98.31%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	2290	2280	0.44%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00067	0.00064	4.58%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00075	0.00082	8.92%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.15	0.15	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1440	1470	2.06%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.017	0.012	34.48%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0379	0.0378	0.26%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0368	0.0368	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	183	192	4.80%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	192	197	2.57%	Pass
MAJOR ANION SUM	0	0	meq/l	32.0	32	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	28.8	29.6	2.74%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00018	0.00016	11.76%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00113	0.0012	6.01%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00474	0.00468	1.27%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00478	0.00482	0.83%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0183	0.0192	4.80%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0190	0.0194	2.08%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	25.7	25.6	0.39%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0071	0.009	23.60%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0061	0.0061	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	502	370	30.28%	Pass-1
pH, LAB	0.1	0.1	ph units	8.20	8.19	0.12%	Pass

PHOSPHORUS	0.004	0.002	mg/l	0.0110	0.0102	7.55%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.70	2.76	2.20%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.67	2.69	0.75%	Pass
SELENIUM, D	0.05	0.05	ug/l	582	575	1.21%	Pass
SELENIUM, T	0.05	0.05	ug/l	491	488	0.61%	Pass
SILICON, D	0.05	0.05	mg/l	2.27	2.25	0.88%	Pass
SILICON, T	0.05	0.05	mg/l	2.22	2.23	0.45%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.26	2.32	2.62%	Pass
SODIUM, T	0.05	0.05	mg/l	2.27	2.22	2.23%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.201	0.198	1.50%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.198	0.198	0.00%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	1150	1150	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000023	2.5e-005	8.33%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000024	2.7e-005	11.76%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	2130	2010	5.80%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.470	0.394	17.59%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.37	1.67	19.74%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.12	0.12	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0193	0.0192	0.52%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0193	0.0193	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0109	0.011	0.91%	Pass
ZINC, T	0.003	0.003	mg/l	0.0110	0.0146	28.13%	Pass-1

Location:	LC_WLC	LC_WLC
Sample ID:	LC_WLC_WS_2017-06-05_N	FD_M_20170605_083
Date Sampled:	6/6/2017	6/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	7.8	9.4	18.60%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	307	284	7.78%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	9.4	<1	161.54%	Fail
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	317	284	10.98%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00050	0.00051	1.98%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00052	0.00056	7.41%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00011	0.00013	16.67%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00016	0.00021	27.03%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0167	0.0163	2.42%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0158	0.0163	3.12%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.018	0.018	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.019	0.02	5.13%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.00196	0.00201	2.52%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.00186	0.00191	2.65%	Pass
CALCIUM, D	0.05	0.05	mg/l	138	137	0.73%	Pass
CALCIUM, T	0.05	0.05	mg/l	137	142	3.58%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.25	1.22	2.43%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	3.1	21.43%	Pass-1
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00026	0.00027	3.77%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00030	0.00027	10.53%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1170	1160	0.86%	Pass

COPPER, D	0.0002	0.0002	mg/l	0.00086	0.00088	2.30%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00100	0.00105	4.88%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.14	<0.1	33.33%	Pass-1
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	696	693	0.43%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0236	0.0241	2.10%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0212	0.0222	4.61%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	85.1	84.9	0.24%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	83.4	87.5	4.80%	Pass
MAJOR ANION SUM	0	0	meq/l	15.1	15.7	3.90%	Pass
MAJOR CATION SUM	0	0	meq/l	14.0	13.9	0.72%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00105	0.00105	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00105	0.00117	10.81%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00050	0.0011	75.00%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00153	0.00151	1.32%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00149	0.00154	3.30%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0307	0.0306	0.33%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0292	0.0304	4.03%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	9.72	10.5	7.72%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0084	<0.005	50.75%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0035	0.0039	10.81%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	508	287	55.60%	Pass-1
pH, LAB	0.1	0.1	ph units	8.32	8.21	1.33%	Pass
PHOSPHORUS	0.002	0.004	mg/l	0.0032	<0.004	22.22%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.22	2.17	2.28%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.00	2.08	3.92%	Pass
SELENIUM, D	0.05	0.05	ug/l	203	188	7.67%	Pass
SELENIUM, T	0.05	0.05	ug/l	178	185	3.86%	Pass
SILICON, D	0.05	0.05	mg/l	2.28	2.15	5.87%	Pass
SILICON, T	0.1	0.1	mg/l	2.22	2.34	5.26%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.07	1.08	0.93%	Pass
SODIUM, T	0.05	0.05	mg/l	1.12	1.18	5.22%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0940	0.0946	0.64%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0948	0.0983	3.63%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	389	440	12.30%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000025	2.5e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000025	2.6e-005	3.92%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	939	926	1.39%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.420	0.44	4.65%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.98	1.13	14.22%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.15	0.18	18.18%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00501	0.00483	3.66%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00699	0.00717	2.54%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0881	0.0893	1.35%	Pass
ZINC, T	0.003	0.003	mg/l	0.0856	0.0879	2.65%	Pass

Location:	LC_WLC	LC_WLC
Sample ID:	LC_WLC_WS_2017-06-19_N	FD_W_20170619_083
Date Sampled:	6/19/2017	6/19/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	6.3	1.8	111.11%	Fail
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	341	334	2.07%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass

ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	341	334	2.07%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00050	0.0005	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00047	0.0005	6.19%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0188	0.018	4.35%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0168	0.0167	0.60%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.015	0.016	6.45%	Pass
BORON, T	0.01	0.01	mg/l	0.016	0.016	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.00210	0.0021	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.00199	0.00199	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	167	168	0.60%	Pass
CALCIUM, T	0.05	0.05	mg/l	164	170	3.59%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.02	0.92	10.31%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1500	1410	6.19%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00081	0.00089	9.41%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00085	0.0009	5.71%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	811	845	4.11%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0195	0.0205	5.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0197	0.0207	4.95%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	95.9	103	7.14%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	90.7	95.5	5.16%	Pass
MAJOR ANION SUM	0	0	meq/l	18.6	12.5	39.23%	Fail
MAJOR CATION SUM	0	0	meq/l	16.3	17	4.20%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00093	0.00092	1.08%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00085	0.00085	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.0015000000	0.0015	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00158	0.00157	0.63%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00160	0.00166	3.68%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0330	0.0348	5.31%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0313	0.0322	2.83%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	12.3	7.86	44.05%	Pass-2
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0025	0.0022	12.77%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	519	518	0.19%	Pass
pH, LAB	0.1	0.1	ph units	8.06	8.06	0.00%	Pass
PHOSPHORUS	0.004	0.004	mg/l	< 0.0040	<0.004	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.19	2.27	3.59%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.03	2.07	1.95%	Pass
SELENIUM, D	0.05	0.05	ug/l	252	254	0.79%	Pass
SELENIUM, T	0.05	0.05	ug/l	235	232	1.28%	Pass
SILICON, D	0.05	0.05	mg/l	2.18	2.27	4.04%	Pass
SILICON, T	0.1	0.1	mg/l	2.20	2.18	0.91%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.21	1.4	14.56%	Pass
SODIUM, T	0.05	0.05	mg/l	1.26	1.31	3.89%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.122	0.122	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.123	0.122	0.82%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	524	254	69.41%	Fail
THALLIUM, D	0.00001	0.00001	mg/l	0.000027	2.7e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000026	2.6e-005	0.00%	Pass

TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1150	1140	0.87%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.511	0.59	14.35%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.03	0.87	16.84%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	< 0.10	0.12	18.18%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00779	0.00816	4.64%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00763	0.00789	3.35%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0807	0.0848	4.95%	Pass
ZINC, T	0.003	0.003	mg/l	0.0754	0.0778	3.13%	Pass

Location:	LC_WLC	LC_WLC
Sample ID:	LC_WLC_WS_2017-06-26_N	FD_W_20170626_086
Date Sampled:	6/26/2017	6/26/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units	Primary	Secondary	Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	12.3	13.1	6.30%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	352	348	1.14%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	352	348	1.14%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00047	0.00048	2.11%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00044	0.00044	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.00014	25.00%	Pass-1
ARSENIC, T	0.0001	0.0001	mg/l	0.00021	0.0002	4.88%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0192	0.0194	1.04%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0183	0.0174	5.04%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.018	0.017	5.71%	Pass
BORON, T	0.01	0.01	mg/l	0.018	0.017	5.71%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.00227	0.00227	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.00215	0.00199	7.73%	Pass
CALCIUM, D	0.05	0.05	mg/l	189	186	1.60%	Pass
CALCIUM, T	0.05	0.05	mg/l	179	175	2.26%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.42	1.35	5.05%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00011	<0.0001	9.52%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1540	1530	0.65%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00094	0.0009	4.35%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00101	0.00087	14.89%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	0.12	18.18%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	969	988	1.94%	Pass
IRON, D	0.01	0.01	mg/l	0.023	<0.01	78.79%	Pass-1
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0238	0.0237	0.42%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0226	0.022	2.69%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	121	127	4.84%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	118	112	5.22%	Pass
MAJOR ANION SUM	0	0	meq/l	20.5	20.5	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	19.5	19.9	2.03%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00102	0.00099	2.99%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00099	0.00086	14.05%	Pass

MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00110	0.00103	6.57%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00144	0.00145	0.69%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00145	0.00141	2.80%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0377	0.0383	1.58%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0361	0.0348	3.67%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	13.4	14.6	8.57%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	0.0505	163.96%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0082	48.48%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0028	0.003	6.90%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	529	500	5.64%	Pass
pH, LAB	0.1	0.1	ph units	8.08	8.1	0.25%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0041	0.0056	30.93%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.28	2.31	1.31%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.13	2.05	3.83%	Pass
SELENIUM, D	0.05	0.05	ug/l	278	284	2.14%	Pass
SELENIUM, T	0.05	0.05	ug/l	250	246	1.61%	Pass
SILICON, D	0.05	0.05	mg/l	2.41	2.43	0.83%	Pass
SILICON, T	0.1	0.1	mg/l	2.31	2.26	2.19%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.43	1.48	3.44%	Pass
SODIUM, T	0.05	0.05	mg/l	1.33	1.3	2.28%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.133	0.132	0.75%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.127	0.125	1.59%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	603	599	0.67%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000025	2.7e-005	7.69%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000025	2.6e-005	3.92%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1270	1340	5.36%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.150	0.27	57.14%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.45	1.63	11.69%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.52	0.41	23.66%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00902	0.00898	0.44%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00878	0.0087	0.92%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0915	0.0939	2.59%	Pass
ZINC, T	0.003	0.003	mg/l	0.0887	0.0819	7.97%	Pass

Location:	LC_WLC	LC_WLC
Sample ID:	LC_WLC_WS_2017-07-03_N	FD_M_20170703_088
Date Sampled:	7/6/2017	7/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.4	2.6	60.00%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	351	361	2.81%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	351	361	2.81%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00042	0.00042	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00041	0.0004	2.47%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00015	0.00013	14.29%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00025	0.00022	12.77%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0219	0.0198	10.07%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0208	0.0197	5.43%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.020	0.019	5.13%	Pass

BROMIDE, D	0.25	0.05	mg/l	< 0.25	<0.05	133.33%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	0.00258	0.00257	0.39%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.00247	0.00236	4.55%	Pass
CALCIUM, D	0.05	0.05	mg/l	201	210	4.38%	Pass
CALCIUM, T	0.05	0.05	mg/l	196	200	2.02%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.48	1.17	23.40%	Pass-1
CHLORIDE, D	2.5	0.5	mg/l	2.7	2.76	2.20%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1740	1720	1.16%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00097	0.00086	12.02%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00107	0.00095	11.88%	Pass
FLUORIDE, D	0.1	0.02	mg/l	< 0.10	0.103	2.96%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	971	1010	3.94%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0273	0.0274	0.37%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0263	0.0261	0.76%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	114	118	3.45%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	112	119	6.06%	Pass
MAJOR ANION SUM	0	0	meq/l	22.9	22	4.01%	Pass
MAJOR CATION SUM	0	0	meq/l	19.5	20.3	4.02%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00142	0.00126	11.94%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00140	0.0014	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00109	0.00103	5.66%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00140	0.00132	5.88%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00138	0.00133	3.69%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0419	0.0392	6.66%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0412	0.0385	6.78%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.005	mg/l	14.8	14	5.56%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.001	mg/l	0.0054	<0.001	137.50%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0028	0.0032	13.33%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	219	238	8.32%	Pass
pH, LAB	0.1	0.1	ph units	8.05	8.05	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0049	0.0038	25.29%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.51	2.21	12.71%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.41	2.18	10.02%	Pass
SELENIUM, D	0.05	0.05	ug/l	303	282	7.18%	Pass
SELENIUM, T	0.05	0.05	ug/l	285	269	5.78%	Pass
SILICON, D	0.05	0.05	mg/l	2.72	2.6	4.51%	Pass
SILICON, T	0.1	0.1	mg/l	2.69	2.64	1.88%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.43	1.39	2.84%	Pass
SODIUM, T	0.05	0.05	mg/l	1.42	1.48	4.14%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.143	0.14	2.12%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.140	0.136	2.90%	Pass
SULFATE (AS SO4), D	1.5	0.3	mg/l	710	659	7.45%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000025	2.8e-005	11.32%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000024	2.7e-005	11.76%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1450	1340	7.89%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.618	0.06	164.60%	Fail
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.39	1.52	8.93%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.34	0.12	95.65%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.0108	0.0104	3.77%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0106	0.0107	0.94%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00052	<0.0005	3.92%	Pass
ZINC, D	0.001	0.001	mg/l	0.108	0.0996	8.09%	Pass
ZINC, T	0.003	0.003	mg/l	0.102	0.098	4.00%	Pass

Location:	LC_WLC	LC_WLC
Sample ID:	LC_WLC_WS_2017-10-02_N	FD_M_20171002_008
Date Sampled:	10/3/2017	10/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.2	5.4	25.00%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	250	223	11.42%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	250	223	11.42%	Pass
ALUMINIUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINIUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00050	0.0005	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00053	0.00053	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00022	0.00039	55.74%	Pass-1
ARSENIC, T	0.0001	0.0001	mg/l	0.00031	0.00031	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0237	0.0246	3.73%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0270	0.0274	1.47%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.016	0.016	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.017	0.017	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	6.3e-006	23.01%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.00184	0.00186	1.08%	Pass
CALCIUM, D	0.05	0.05	mg/l	269	278	3.29%	Pass
CALCIUM, T	0.05	0.05	mg/l	299	306	2.31%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.27	1.51	17.27%	Pass
CHLORIDE, D	2.5	2.5	mg/l	4.0	4	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0003	mg/l	0.00020	<0.0003	40.00%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1980	1930	2.56%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00117	0.0014	17.90%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1490	1510	1.33%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0364	0.0372	2.17%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0394	0.0391	0.76%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	199	198	0.50%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	199	209	4.90%	Pass
MAJOR ANION SUM	0	0	meq/l	30.5	30	1.65%	Pass
MAJOR CATION SUM	0	0	meq/l	29.9	30.3	1.33%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00013	0.00019	37.50%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00038	0.00042	10.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00114	0.00113	0.88%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00249	0.00258	3.55%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00260	0.00278	6.69%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0384	0.0383	0.26%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0415	0.0422	1.67%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	22.7	22.6	0.44%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	0.0135	91.89%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0140	0.0059	81.41%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0044	0.0048	8.70%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	310	350	12.12%	Pass
pH, LAB	0.1	0.1	ph units	8.08	8.11	0.37%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0042	0.0038	10.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.51	2.5	0.40%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.68	2.73	1.85%	Pass
SELENIUM, D	0.05	0.05	ug/l	586	591	0.85%	Pass

SELENIUM, T	0.05	0.05	ug/l	490	505	3.02%	Pass
SILICON, D	0.05	0.05	mg/l	2.40	2.35	2.11%	Pass
SILICON, T	0.1	0.1	mg/l	2.53	2.56	1.18%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.20	2.06	6.57%	Pass
SODIUM, T	0.05	0.05	mg/l	2.12	2.21	4.16%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.183	0.185	1.09%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.193	0.197	2.05%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	1140	1140	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000030	2.9e-005	3.39%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000030	2.9e-005	3.39%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	2140	2120	0.94%	Pass
TOTAL KJELDAHL NITROGEN	0.25	0.05	mg/l	0.92	0.485	61.92%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.15	1.21	5.08%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.13	0.36	93.88%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.0213	0.0203	4.81%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0209	0.0211	0.95%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0610	0.0635	4.02%	Pass

Location:	LC_WLC	LC_WLC
Sample ID:	LC_WLC_WS_2017-11-20_N	FD_WK_201711120_065
Date Sampled:	11/21/2017	11/21/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	1.6	46.15%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	328	335	2.11%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	12.8	10.2	22.61%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	341	345	1.17%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.006	mg/l	0.0034	<0.006	55.32%	Pass-1
ANTIMONY, D	0.0002	0.0002	mg/l	0.00054	0.00048	11.76%	Pass
ANTIMONY, T	0.0001	0.0002	mg/l	0.00058	0.00057	1.74%	Pass
ARSENIC, D	0.0002	0.0002	mg/l	< 0.00020	0.00021	4.88%	Pass
ARSENIC, T	0.0001	0.0002	mg/l	0.00028	0.00025	11.32%	Pass
BARIUM, D	0.0001	0.0001	mg/l	0.0257	0.0242	6.01%	Pass
BARIUM, T	0.00005	0.0001	mg/l	0.0268	0.0266	0.75%	Pass
BERYLLIUM, D	0.00004	0.00004	mg/l	< 0.000040	<4e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00004	mg/l	< 0.000020	<4e-005	66.67%	Pass-1
BISMUTH, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BISMUTH, T	0.00005	0.0001	mg/l	< 0.000050	<0.0001	66.67%	Pass-1
BORON, D	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
BORON, T	0.01	0.02	mg/l	0.014	<0.02	35.29%	Pass-1
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.00001	0.00001	mg/l	0.000146	0.000217	39.12%	Pass-2
CADMIUM, T	0.000005	0.00001	mg/l	0.000814	0.000812	0.25%	Pass
CALCIUM, D	0.1	0.1	mg/l	303	323	6.39%	Pass
CALCIUM, T	0.05	0.1	mg/l	300	294	2.02%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.22	1.07	13.10%	Pass
CHLORIDE, D	2.5	2.5	mg/l	4.2	4.1	2.41%	Pass
CHROMIUM, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
CHROMIUM, T	0.0001	0.0002	mg/l	0.00065	<0.0002	105.88%	Fail
COBALT, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COBALT, T	0.0001	0.0002	mg/l	< 0.00010	<0.0002	66.67%	Pass-1
CONDUCTIVITY, LAB	2	2	us/cm	2190	2230	1.81%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00073	0.00061	17.91%	Pass
COPPER, T	0.0005	0.001	mg/l	0.00096	0.001	4.08%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.19	0.19	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1620	1710	5.41%	Pass

ION BALANCE	100	100	%	97.9	106	7.95%	Pass
IRON, D	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
IRON, T	0.01	0.02	mg/l	0.014	<0.02	35.29%	Pass-1
LEAD, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
LEAD, T	0.00005	0.0001	mg/l	< 0.000050	<0.0001	66.67%	Pass-1
LITHIUM, D	0.002	0.002	mg/l	0.0380	0.0349	8.50%	Pass
LITHIUM, T	0.001	0.002	mg/l	0.0360	0.0344	4.55%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	210	220	4.65%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	217	221	1.83%	Pass
MAJOR ANION SUM	0	0	meq/l	33.2	32.4	2.44%	Pass
MAJOR CATION SUM	0	0	meq/l	32.5	34.4	5.68%	Pass
MANGANESE, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
MANGANESE, T	0.0001	0.0002	mg/l	0.00015	<0.0002	28.57%	Pass-1
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00110	0.00115	4.44%	Pass
MOLYBDENUM, D	0.0001	0.0001	mg/l	0.00470	0.00448	4.79%	Pass
MOLYBDENUM, T	0.00005	0.0001	mg/l	0.00489	0.00485	0.82%	Pass
NICKEL, D	0.001	0.001	mg/l	0.0270	0.0256	5.32%	Pass
NICKEL, T	0.0005	0.001	mg/l	0.0257	0.0264	2.69%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	23.6	22.7	3.89%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0083	<0.005	49.62%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0051	<0.005	1.98%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0068	0.0065	4.51%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	304	326	6.98%	Pass
pH, LAB	0.1	0.1	ph units	8.35	8.3	0.60%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0033	0.0067	68.00%	Pass-1
POTASSIUM, D	0.1	0.1	mg/l	2.67	2.64	1.13%	Pass
POTASSIUM, T	0.05	0.1	mg/l	2.28	2.37	3.87%	Pass
SELENIUM, D	0.1	0.1	ug/l	491	508	3.40%	Pass
SELENIUM, T	0.05	0.1	ug/l	539	511	5.33%	Pass
SILICON, D	0.1	0.1	mg/l	2.34	2.14	8.93%	Pass
SILICON, T	0.1	0.2	mg/l	2.17	2.14	1.39%	Pass
SILVER, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
SILVER, T	0.00001	0.00002	mg/l	< 0.000010	<2e-005	66.67%	Pass-1
SODIUM, D	0.1	0.1	mg/l	2.19	2.06	6.12%	Pass
SODIUM, T	0.05	0.1	mg/l	2.16	2.08	3.77%	Pass
STRONTIUM, D	0.0004	0.0004	mg/l	0.205	0.198	3.47%	Pass
STRONTIUM, T	0.0002	0.0004	mg/l	0.216	0.222	2.74%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	1180	1140	3.45%	Pass
THALLIUM, D	0.00002	0.00002	mg/l	0.000028	2.4e-005	15.38%	Pass
THALLIUM, T	0.00001	0.00002	mg/l	0.000030	3.1e-005	3.28%	Pass
TIN, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
TIN, T	0.0001	0.0002	mg/l	< 0.00010	<0.0002	66.67%	Pass-1
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	40	40	mg/l	2100	2190	4.20%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.341	0.3	12.79%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.11	1.18	6.11%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.16	0.25	43.90%	Pass-1
URANIUM, D	0.00002	0.00002	mg/l	0.0214	0.0195	9.29%	Pass
URANIUM, T	0.00001	0.00002	mg/l	0.0241	0.0232	3.81%	Pass
VANADIUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
VANADIUM, T	0.0005	0.001	mg/l	< 0.00050	<0.001	66.67%	Pass-1
ZINC, D	0.003	0.003	mg/l	0.0045	0.006	28.57%	Pass-1
ZINC, T	0.003	0.006	mg/l	0.0213	0.0226	5.92%	Pass

Location:	LC_WLC	LC_WLC
Sample ID:	LC_WLC_WS_2017-12-11_N	FD_WK_20171211_069
Date Sampled:	12/12/2017	12/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	3.4	109.09%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	337	336	0.30%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	337	336	0.30%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

ALUMINUM, T	0.006	0.006	mg/l	< 0.0060	<0.006	0.00%	Pass
ANTIMONY, D	0.0002	0.0002	mg/l	0.00052	0.00052	0.00%	Pass
ANTIMONY, T	0.0002	0.0002	mg/l	0.00056	0.00056	0.00%	Pass
ARSENIC, D	0.0002	0.0002	mg/l	0.00025	0.00031	21.43%	Pass-1
ARSENIC, T	0.0002	0.0002	mg/l	0.00037	0.00031	17.65%	Pass
BARIUM, D	0.0001	0.0001	mg/l	0.0270	0.0258	4.55%	Pass
BARIUM, T	0.0001	0.0001	mg/l	0.0253	0.0249	1.59%	Pass
BERYLLIUM, D	0.00004	0.00004	mg/l	< 0.000040	<4e-005	0.00%	Pass
BERYLLIUM, T	0.00004	0.00004	mg/l	< 0.000040	<4e-005	0.00%	Pass
BISMUTH, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BISMUTH, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BORON, D	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
BORON, T	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
BROMIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
CADMIUM, D	0.00001	0.00001	mg/l	0.000609	0.000582	4.53%	Pass
CADMIUM, T	0.00001	0.00001	mg/l	0.000621	0.000662	6.39%	Pass
CALCIUM, D	0.1	0.1	mg/l	304	309	1.63%	Pass
CALCIUM, T	0.1	0.1	mg/l	324	332	2.44%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.50	1.24	18.98%	Pass
CHLORIDE, D	2.5	2.5	mg/l	4.4	4.5	2.25%	Pass
CHROMIUM, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
CHROMIUM, T	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COBALT, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COBALT, T	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	2450	2460	0.41%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00080	0.00077	3.82%	Pass
COPPER, T	0.001	0.001	mg/l	0.0013	0.001	26.09%	Pass-1
FLUORIDE, D	0.1	0.1	mg/l	0.12	0.17	34.48%	Pass-1
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1560	1580	1.27%	Pass
ION BALANCE	100	100	%	92.7	93.9	1.29%	Pass
IRON, D	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
IRON, T	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
LEAD, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
LEAD, T	0.0001	0.00015	mg/l	< 0.00010	<0.00015	40.00%	Pass-1
LITHIUM, D	0.002	0.002	mg/l	0.0346	0.0355	2.57%	Pass
LITHIUM, T	0.002	0.002	mg/l	0.0365	0.0375	2.70%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	196	197	0.51%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	214	216	0.93%	Pass
MAJOR ANION SUM	0	0	meq/l	33.9	33.8	0.30%	Pass
MAJOR CATION SUM	0	0	meq/l	31.4	31.7	0.95%	Pass
MANGANESE, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
MANGANESE, T	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00114	0.00117	2.60%	Pass
MOLYBDENUM, D	0.0001	0.0001	mg/l	0.00527	0.00517	1.92%	Pass
MOLYBDENUM, T	0.0001	0.0001	mg/l	0.00486	0.00494	1.63%	Pass
NICKEL, D	0.001	0.001	mg/l	0.0227	0.0223	1.78%	Pass
NICKEL, T	0.001	0.001	mg/l	0.0229	0.0232	1.30%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	24.3	24.2	0.41%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0059	16.51%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0051	0.0049	4.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	350	344	1.73%	Pass
pH, LAB	0.1	0.1	ph units	8.16	8.12	0.49%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0061	0.0059	3.33%	Pass
POTASSIUM, D	0.1	0.1	mg/l	2.55	2.53	0.79%	Pass
POTASSIUM, T	0.1	0.1	mg/l	2.54	2.58	1.56%	Pass
SELENIUM, D	0.1	0.1	ug/l	546	544	0.37%	Pass
SELENIUM, T	0.1	0.1	ug/l	514	514	0.00%	Pass
SILICON, D	0.1	0.1	mg/l	2.07	2.07	0.00%	Pass
SILICON, T	0.2	0.2	mg/l	2.24	2.27	1.33%	Pass
SILVER, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
SILVER, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
SODIUM, D	0.1	0.1	mg/l	2.09	2.1	0.48%	Pass
SODIUM, T	0.1	0.1	mg/l	2.15	2.23	3.65%	Pass
STRONTIUM, D	0.0004	0.0004	mg/l	0.207	0.195	5.97%	Pass
STRONTIUM, T	0.0004	0.0004	mg/l	0.207	0.207	0.00%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	1210	1210	0.00%	Pass
THALLIUM, D	0.00002	0.00002	mg/l	0.000028	2.9e-005	3.51%	Pass
THALLIUM, T	0.00002	0.00002	mg/l	0.000030	2.6e-005	14.29%	Pass
TIN, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
TIN, T	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass

TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	2210	2220	0.45%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.254	0.172	38.50%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.50	1.26	17.39%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.6	46.15%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.15	0.21	33.33%	Pass-1
URANIUM, D	0.00002	0.00002	mg/l	0.0208	0.0201	3.42%	Pass
URANIUM, T	0.00002	0.00002	mg/l	0.0214	0.0222	3.67%	Pass
VANADIUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
VANADIUM, T	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0152	0.016	5.13%	Pass
ZINC, T	0.006	0.006	mg/l	0.0167	0.0177	5.81%	Pass

Location:	LC_WLC	LC_WLC
Sample ID:	LC_WLC_WS_2017-12-18_N	FD_WK_20171218_071
Date Sampled:	12/18/2017	12/18/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	1.7	51.85%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	340	323	5.13%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	340	323	5.13%	Pass
ALUMINIUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINIUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00052	0.00052	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00052	0.00052	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00025	0.00027	7.69%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00026	0.00026	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0241	0.0258	6.81%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0267	0.0281	5.11%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000543	0.000491	10.06%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000583	0.000614	5.18%	Pass
CALCIUM, D	0.05	0.05	mg/l	315	314	0.32%	Pass
CALCIUM, T	0.05	0.05	mg/l	308	312	1.29%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.48	1.37	7.72%	Pass
CHLORIDE, D	0.5	0.5	mg/l	5.05	5.02	0.60%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00012	15.38%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	2480	2470	0.40%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00077	0.001	25.99%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	0.00109	0.00137	22.76%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.194	0.193	0.52%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1620	1660	2.44%	Pass
ION BALANCE	100	100	%	94.1	98.7	4.77%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0350	0.0357	1.98%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0366	0.0373	1.89%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	201	214	6.27%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	217	223	2.73%	Pass
MAJOR ANION SUM	0	0	meq/l	34.5	33.8	2.05%	Pass
MAJOR CATION SUM	0	0	meq/l	32.4	33.4	3.04%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	0.00012	18.18%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	< 0.00010	0.00015	40.00%	Pass-1
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass

MERCURY, T	0.0005	0.0005	ug/l	0.00109	0.0011	0.91%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00512	0.00512	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00503	0.00511	1.58%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0219	0.0224	2.26%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0237	0.0238	0.42%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	23.5	23.2	1.28%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0054	7.69%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0059	0.0058	1.71%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	278	343	20.93%	Pass-1
pH, LAB	0.1	0.1	ph units	8.24	8.21	0.36%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0060	0.0059	1.68%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.57	2.69	4.56%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.76	2.71	1.83%	Pass
SELENIUM, D	0.05	0.05	ug/l	569	591	3.79%	Pass
SELENIUM, T	0.05	0.05	ug/l	548	546	0.37%	Pass
SILICON, D	0.05	0.05	mg/l	1.96	2.03	3.51%	Pass
SILICON, T	0.1	0.1	mg/l	2.13	2.16	1.40%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00008	mg/l	< 0.000010	<8e-005	155.56%	Pass-1
SODIUM, D	0.05	0.05	mg/l	2.05	2.18	6.15%	Pass
SODIUM, T	0.05	0.05	mg/l	2.34	2.31	1.29%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.206	0.203	1.47%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.211	0.208	1.43%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	1240	1230	0.81%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000026	2.7e-005	3.77%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000027	2.8e-005	3.64%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.010	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.010	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	2150	2110	1.88%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.447	<0.05	159.76%	Fail
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.22	1.14	6.78%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.36	0.44	20.00%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.0205	0.0202	1.47%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0201	0.0204	1.48%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0146	0.0151	3.37%	Pass
ZINC, T	0.003	0.003	mg/l	0.0171	0.0181	5.68%	Pass

Location:	EV_AQ6	EV_AQ6
Sample ID:	EV_AQ6_WS_2017-03-08_N	EV_MC5_WS_2017-03-08_N
Date Sampled:	3/8/2017	3/8/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	240	239	0.42%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	9.8	11	11.54%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	249	250	0.40%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0201	0.0188	6.68%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00020	0.00018	10.53%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00020	0.00021	4.88%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.165	0.166	0.60%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.160	0.147	8.47%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.013	0.014	7.41%	Pass
BORON, T	0.01	0.01	mg/l	0.014	0.015	6.90%	Pass
BROMIDE, D	0.25	0.05	mg/l	< 0.25	0.174	35.85%	Pass-1

CADMIUM, D	0.000005	0.000005	mg/l	0.0000290	2.99e-005	3.06%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000362	3.06e-005	16.77%	Pass
CALCIUM, D	0.05	0.05	mg/l	72.8	73.3	0.68%	Pass
CALCIUM, T	0.05	0.05	mg/l	70.5	75.7	7.11%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.02	1.73	15.47%	Pass
CHLORIDE, D	0.5	0.1	mg/l	43.5	41.4	4.95%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	653	649	0.61%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.02	mg/l	0.20	0.207	3.44%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	327	332	1.52%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.021	0.02	4.88%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0171	0.0188	9.47%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0203	0.022	8.04%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	35.1	36.1	2.81%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	36.4	32.9	10.10%	Pass
MAJOR ANION SUM	0	0	meq/l	7.36	7.27	1.23%	Pass
MAJOR CATION SUM	0	0	meq/l	6.81	6.92	1.60%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00071	0.00073	2.78%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00124	0.00118	4.96%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.000050	< 5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	< 0.0005	0.00%	Pass
Methyl Mercury, T	0.00005	0.00005	ug/l	< 0.000050	< 5e-005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00122	0.00126	3.23%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00127	0.00133	4.62%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00099	0.00096	3.08%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00107	0.00105	1.89%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.005	mg/l	0.155	0.147	5.30%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.001	mg/l	< 0.0050	< 0.001	133.33%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0054	7.69%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0092	0.0095	3.21%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	354	354	0.00%	Pass
pH, LAB	0.1	0.1	ph units	8.38	8.37	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0085	0.008	6.06%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.53	1.66	8.15%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.51	1.39	8.28%	Pass
SELENIUM, D	0.05	0.05	ug/l	7.96	8.32	4.42%	Pass
SELENIUM, T	0.05	0.05	ug/l	7.17	7.19	0.28%	Pass
SILICON, D	0.05	0.05	mg/l	3.24	3.16	2.50%	Pass
SILICON, T	0.05	0.05	mg/l	3.29	3.26	0.92%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	5.58	5.67	1.60%	Pass
SODIUM, T	0.05	0.05	mg/l	6.00	5.48	9.06%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.207	0.212	2.39%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.217	0.215	0.93%	Pass
SULFATE (AS SO4), D	1.5	0.3	mg/l	54.0	51.8	4.16%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	385	385	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.068	0.066	2.99%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.94	1.97	1.53%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	< 1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.55	1.46	5.98%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000914	0.000954	4.28%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00101	0.000942	6.97%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0229	0.0228	0.44%	Pass
ZINC, T	0.003	0.003	mg/l	0.0245	0.0221	10.30%	Pass

Location:	EV_BC1	EV_BC1
Sample ID:	EV_BC1_WS_2017-03-20_N	EV_ER5_WS_2017-03-20_N
Date Sampled:	3/20/2017	3/20/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.1	1.5	33.33%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	170	167	1.78%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	170	167	1.78%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0034	0.0033	2.99%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0256	0.02	24.56%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00148	0.00148	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00160	0.00129	21.45%	Pass-2
ARSENIC, D	0.0001	0.0001	mg/l	0.00023	0.00024	4.26%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00028	0.00025	11.32%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.249	0.253	1.59%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.241	0.261	7.97%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.033	0.034	2.99%	Pass
BORON, T	0.01	0.01	mg/l	0.036	0.03	18.18%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	0.31	21.43%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	0.000178	0.000175	1.70%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000209	0.000171	20.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	157	159	1.27%	Pass
CALCIUM, T	0.05	0.05	mg/l	171	139	20.65%	Fail
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.23	1.86	18.09%	Pass
CHLORIDE, D	2.5	2.5	mg/l	31.3	31.6	0.95%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00051	0.00048	6.06%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00059	0.00052	12.61%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1440	1430	0.70%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00050	0.00049	2.02%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00078	0.00069	12.24%	Pass
Extractable Petroleum Hydrocarbons C10-C19	0.25	0.25	mg/l	< 0.25	< 0.25	0.00%	Pass
Extractable Petroleum Hydrocarbons C19-C32	0.25	0.25	mg/l	< 0.25	< 0.25	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.25	0.25	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	802	813	1.36%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.063	0.049	25.00%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000101	7.6e-005	28.25%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0903	0.0923	2.19%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.101	0.0802	22.96%	Pass-2
MAGNESIUM, D	0.005	0.005	mg/l	99.7	101	1.30%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	102	88.7	13.95%	Pass
MAJOR ANION SUM	0	0	meq/l	18.1	18.1	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	16.5	16.7	1.20%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0167	0.0169	1.19%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0192	0.017	12.15%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.000050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00118	0.00116	1.71%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00905	0.00899	0.67%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00991	0.00806	20.59%	Pass-2
NICKEL, D	0.0005	0.0005	mg/l	0.0221	0.0222	0.45%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0232	0.0203	13.33%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	23.7	23.8	0.42%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0128	0.0209	48.07%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.132	0.126	4.65%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0056	0.0115	69.01%	Fail
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	320	349	8.67%	Pass
pH, LAB	0.1	0.1	ph units	8.10	8.09	0.12%	Pass
PHOSPHORUS	0.004	0.01	mg/l	0.0206	0.02	2.96%	Pass
POTASSIUM, D	0.05	0.05	mg/l	5.13	5.23	1.93%	Pass

POTASSIUM, T	0.05	0.05	mg/l	5.24	4.59	13.22%	Pass
SELENIUM, D	0.05	0.05	ug/l	136	137	0.73%	Pass
SELENIUM, T	0.05	0.05	ug/l	140	120	15.38%	Pass
SILICON, D	0.05	0.05	mg/l	2.17	2.22	2.28%	Pass
SILICON, T	0.05	0.05	mg/l	2.32	1.95	17.33%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.22	8.33	1.33%	Pass
SODIUM, T	0.05	0.05	mg/l	8.33	7.32	12.91%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.574	0.584	1.73%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.643	0.522	20.77%	Fail
SULFATE (AS SO4), D	1.5	1.5	mg/l	582	585	0.51%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000036	3.7e-005	2.74%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000042	3.3e-005	24.00%	Pass-1
The sum of extractable petroleum hydrocarbons C10-C19 and C19-C32.	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1130	1140	0.88%	Pass
TOTAL EXTRACTABLE HYDROCARBONS (TEH 10-30)	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.2	0.2	mg/l	0.69	1.01	37.65%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.58	1.99	25.82%	Pass-2
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	5.4	5.6	3.64%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	7.69	7.75	0.78%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00611	0.00609	0.33%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00682	0.0054	23.24%	Pass-2
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00055	<0.0005	9.52%	Pass
ZINC, D	0.001	0.001	mg/l	0.0076	0.0072	5.41%	Pass
ZINC, T	0.003	0.003	mg/l	0.0085	0.0075	12.50%	Pass

Location:	EV_EC1	EV_EC1
Sample ID:	EV_EC1_WS_2017-01-18_N	EV_MC5_WS_2017-01-18_N
Date Sampled:	1/18/2017	1/18/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
2-Bromobenzotrifluoride	1	1	%	91.6	90.3	1.43%	Pass
ACENAPHTHENE	0.01	0.01	ug/l	< 0.000010	<1e-005	0.00%	Pass
ACENAPHTHYLENE	0.01	0.01	ug/l	< 0.000010	<1e-005	199.60%	Pass-1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.2	1.3	8.00%	Pass
ACRIDINE	0.01	0.01	ug/l	< 0.000010	<1e-005	199.60%	Pass-1
Acridine (d9)	1	1	%	83.7	89.6	6.81%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	280	285	1.77%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	7.8	5.6	32.84%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	288	291	1.04%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTHRACENE	0.01	0.01	ug/l	< 0.000010	<1e-005	199.60%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00019	0.00019	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00023	0.00024	4.26%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00031	0.00028	10.17%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0631	0.0611	3.22%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0621	0.0625	0.64%	Pass
BENZO(A)ANTHRACENE	0.01	0.01	ug/l	< 0.000010	<1e-005	199.60%	Pass-1
BENZO(A)PYRENE	0.005	0.005	ug/l	< 0.0000050	<5e-006	199.60%	Pass-1
BENZO(B)FLUORANTHENE	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
BENZO(G,H,I)PERYLENE	0.01	0.01	ug/l	< 0.000010	<1e-005	199.60%	Pass-1
BENZO(K)FLUORANTHENE	0.01	0.01	ug/l	< 0.000010	<1e-005	199.60%	Pass-1
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.012	0.012	0.00%	Pass
BROMIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass

CADMIUM, D	0.000005	0.000005	mg/l	< 0.000050	5.4e-006	7.69%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000070	7.4e-006	5.56%	Pass
CALCIUM, D	0.05	0.05	mg/l	223	216	3.19%	Pass
CALCIUM, T	0.05	0.05	mg/l	222	222	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.70	0.59	17.05%	Pass
CHLORIDE, D	1	1	mg/l	5.4	5.2	3.77%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00023	0.00019	19.05%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00019	0.00021	10.00%	Pass
CHRYSENE	0.01	0.01	ug/l	< 0.000010	<1e-005	199.60%	Pass-1
CHRYSENE-D12	1	1	%	76.7	84.8	10.03%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1660	1660	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
DIBENZ(A,H)ANTHRACENE	0.005	0.005	ug/l	< 0.000050	<5e-006	199.60%	Pass-1
Extractable Petroleum Hydrocarbons C10-C19	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
Extractable Petroleum Hydrocarbons C19-C32	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
FLUORANTHENE	0.01	0.01	ug/l	< 0.000010	<1e-005	199.60%	Pass-1
FLUORENE	0.01	0.01	ug/l	< 0.000010	<1e-005	199.60%	Pass-1
FLUORIDE, D	0.2	0.2	mg/l	< 0.20	<0.2	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1130	1110	1.79%	Pass
HEAVY EXTRACTABLE PETROLEUM HYDROCARBONS (Calculated from C19-C32)	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
INDENO(1,2,3-C,D)PYRENE	0.01	0.01	ug/l	< 0.000010	<1e-005	199.60%	Pass-1
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LIGHT EXTRACTABLE PETROLEUM HYDROCARBONS (Calculated from C10-C19)	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0181	0.0184	1.64%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0217	0.0216	0.46%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	138	139	0.72%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	139	138	0.72%	Pass
MAJOR ANION SUM	0	0	meq/l	23.7	23.1	2.56%	Pass
MAJOR CATION SUM	0	0	meq/l	22.7	22.4	1.33%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00162	0.00157	3.13%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00167	0.00165	1.20%	Pass
NAPHTHALENE	0.05	0.05	ug/l	< 0.000050	<5e-005	199.60%	Pass-1
NAPHTHALENE-D8	1	1	%	75.0	83.3	10.49%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00058	<0.0005	14.81%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00053	0.00054	1.87%	Pass
NITRATE NITROGEN (NO3), AS N	0.05	0.05	mg/l	15.6	15.1	3.26%	Pass
NITRITE NITROGEN (NO2), AS N	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0078	0.0083	6.21%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	359	351	2.25%	Pass
pH, LAB	0.1	0.1	ph units	8.27	8.26	0.12%	Pass
PHENANTHRENE	0.02	0.02	ug/l	< 0.000020	<2e-005	199.60%	Pass-1
PHENANTHRENE-D10	1	1	%	82.5	92.3	11.21%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0087	0.0093	6.67%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.55	2.46	3.59%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.46	2.46	0.00%	Pass
PYRENE	0.01	0.01	ug/l	< 0.000010	<1e-005	199.60%	Pass-1
QUINOLINE	0.05	0.05	ug/l	< 0.000050	<5e-005	199.60%	Pass-1
SELENIUM, D	0.05	0.05	ug/l	134	142	5.80%	Pass
SELENIUM, T	0.05	0.05	ug/l	140	140	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	3.20	3.29	2.77%	Pass
SILICON, T	0.05	0.05	mg/l	3.75	3.75	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	3.13	3.06	2.26%	Pass
SODIUM, T	0.05	0.05	mg/l	3.26	3.29	0.92%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.209	0.204	2.42%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.209	0.208	0.48%	Pass
SULFATE (AS SO4), D	3	3	mg/l	799	773	3.31%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1410	1440	2.11%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.078	0.09	14.29%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.75	0.68	9.79%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	< 0.10	<0.1	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00773	0.00761	1.56%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00768	0.00754	1.84%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_EC1	EV_EC1
Sample ID:	EV_EC1_WS_2017-10-03_N	EV_MC5_WS_2017-10-03_N
Date Sampled:	10/3/2017	10/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
2-METHYLNAPHTHALENE	0.02	0.02	ug/l	< 0.020	<0.02	0.00%	Pass
ACENAPHTHENE	0.01	0.01	ug/l	< 0.010	<0.01	0.00%	Pass
ACENAPHTHENE-D10	1	1	%	90.9	92.1	1.31%	Pass
ACENAPHTHYLENE	0.01	0.01	ug/l	< 0.010	<0.01	0.00%	Pass
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.2	5.3	82.67%	Pass-1
ACRIDINE	0.01	0.01	ug/l	< 0.010	<0.01	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	228	230	0.87%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	228	230	0.87%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTHRACENE	0.01	0.01	ug/l	< 0.010	<0.01	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00024	0.00021	13.33%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00019	0.00024	23.26%	Pass-1
BARIIUM, D	0.00005	0.00005	mg/l	0.0584	0.0589	0.85%	Pass
BARIIUM, T	0.00005	0.00005	mg/l	0.0582	0.0588	1.03%	Pass
BENZO(A)ANTHRACENE	0.01	0.01	ug/l	< 0.010	<0.01	0.00%	Pass
BENZO(A)PYRENE	0.005	0.005	ug/l	< 0.0050	<0.005	0.00%	Pass
BENZO(B&J)FLUORANTHENE	0.01	0.01	ug/l	< 0.010	<0.01	0.00%	Pass
BENZO(G,H,I)PERYLENE	0.01	0.01	ug/l	< 0.010	<0.01	0.00%	Pass
BENZO(K)FLUORANTHENE	0.01	0.01	ug/l	< 0.010	<0.01	0.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000089	8.6e-006	3.43%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000107	1.02e-005	4.78%	Pass
CALCIUM, D	0.05	0.05	mg/l	199	197	1.01%	Pass
CALCIUM, T	0.05	0.05	mg/l	210	201	4.38%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.34	0.98	31.03%	Pass-1
Cation - Anion Balance	0	0	%	3.5	3.2	8.96%	Pass
CHLORIDE, D	2.5	2.5	mg/l	3.8	3.8	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00014	0.00016	13.33%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00025	0.00022	12.77%	Pass
CHRYSENE	0.01	0.01	ug/l	< 0.010	<0.01	0.00%	Pass
CHRYSENE-D12	1	1	%	86.3	91.9	6.29%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1370	1360	0.73%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
DIBENZ(A,H)ANTHRACENE	0.005	0.005	ug/l	< 0.0050	<0.005	0.00%	Pass

Extractable Petroleum Hydrocarbons C10-C19	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
Extractable Petroleum Hydrocarbons C19-C32	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
FLUORANTHENE	0.01	0.01	ug/l	< 0.010	<0.01	0.00%	Pass
FLUORENE	0.01	0.01	ug/l	< 0.010	<0.01	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1040	1020	1.94%	Pass
INDENO(1,2,3-C,D)PYRENE	0.01	0.01	ug/l	< 0.010	<0.01	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0191	0.0187	2.12%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0186	0.0197	5.74%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	131	129	1.54%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	134	131	2.26%	Pass
MAJOR ANION SUM	0	0	meq/l	19.5	19.3	1.03%	Pass
MAJOR CATION SUM	0	0	meq/l	20.9	20.6	1.45%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00131	0.00125	4.69%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00125	0.0013	3.92%	Pass
NAPHTHALENE	0.05	0.05	ug/l	< 0.050	<0.05	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00063	0.00055	13.56%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00060	0.0006	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	13.0	12.8	1.55%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0058	<0.005	14.81%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0089	0.009	1.12%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	244	355	37.06%	Pass-1
pH, LAB	0.1	0.1	ph units	8.18	8.16	0.24%	Pass
PHENANTHRENE	0.02	0.02	ug/l	< 0.020	<0.02	0.00%	Pass
PHENANTHRENE-D10	1	1	%	111.4	114.4	2.66%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0108	0.0094	13.86%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.28	2.18	4.48%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.21	2.18	1.37%	Pass
PYRENE	0.01	0.01	ug/l	< 0.010	<0.01	0.00%	Pass
QUINOLINE	0.05	0.05	ug/l	< 0.050	<0.05	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	134	133	0.75%	Pass
SELENIUM, T	0.05	0.05	ug/l	125	126	0.80%	Pass
SILICON, D	0.05	0.05	mg/l	3.58	3.54	1.12%	Pass
SILICON, T	0.1	0.1	mg/l	3.99	3.56	11.39%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	1.6e-005	46.15%	Pass-1
SODIUM, D	0.05	0.05	mg/l	2.89	2.99	3.40%	Pass
SODIUM, T	0.05	0.05	mg/l	3.16	2.91	8.24%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.190	0.185	2.67%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.183	0.191	4.28%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	669	657	1.81%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
The sum of extractable petroleum hydrocarbons C10-C19 and C19-C32.	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1340	1270	5.36%	Pass
TOTAL EXTRACTABLE HYDROCARBONS (TEH 10-30)	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.680	0.49	32.48%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.16	1	14.81%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	< 0.10	<0.1	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00606	0.00604	0.33%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00584	0.00593	1.53%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_ER4	EV_ER4
Sample ID:	EV_ER4_WS_2017-05-23_N	EV_ER5_WS_2017-05-23_N
Date Sampled:	5/23/2017	5/23/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	145	146	0.69%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	7.6	8.8	14.63%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	153	155	1.30%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0038	0.0036	5.41%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.554	0.523	5.76%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00010	0.00012	18.18%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00016	0.00014	13.33%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00052	0.00054	3.77%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0613	0.054	12.66%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0655	0.066	0.76%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000038	3.9e-005	2.60%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000133	1.14e-005	15.38%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000115	0.00011	4.44%	Pass
CALCIUM, D	0.05	0.05	mg/l	53.6	54.9	2.40%	Pass
CALCIUM, T	0.05	0.05	mg/l	58.7	61.5	4.66%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.60	1.64	2.47%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.96	0.96	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00017	0.00016	6.06%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00132	0.00122	7.87%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00038	0.00037	2.67%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	379	374	1.33%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00112	0.00104	7.41%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.154	0.155	0.65%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	200	210	4.88%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.791	0.8	1.13%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000510	0.000514	0.78%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0067	0.0069	2.94%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0080	0.0084	4.88%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	16.1	17.7	9.47%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	18.8	19	1.06%	Pass
MAJOR ANION SUM	0	0	meq/l	4.26	4.32	1.40%	Pass
MAJOR CATION SUM	0	0	meq/l	4.07	4.27	4.80%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00026	0.00048	59.46%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.0459	0.0463	0.87%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00345	0.00379	9.39%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00103	0.001	2.96%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00101	0.0011	8.53%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00062	0.00062	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00226	0.00223	1.34%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	2.39	2.41	0.83%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	350	324	7.72%	Pass
pH, LAB	0.1	0.1	ph units	8.44	8.46	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0634	0.0736	14.89%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.571	0.593	3.78%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.812	0.818	0.74%	Pass
SELENIUM, D	0.05	0.05	ug/l	9.19	9.58	4.16%	Pass
SELENIUM, T	0.05	0.05	ug/l	9.07	9.23	1.75%	Pass
SILICON, D	0.05	0.05	mg/l	1.93	1.93	0.00%	Pass

SILICON, T	0.1	0.1	mg/l	2.74	2.75	0.36%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000012	1.4e-005	15.38%	Pass
SODIUM, D	0.05	0.05	mg/l	1.36	1.41	3.61%	Pass
SODIUM, T	0.05	0.05	mg/l	1.38	1.38	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.168	0.159	5.50%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.165	0.173	4.73%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	48.3	48.6	0.62%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000025	2.9e-005	14.81%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	247	236	4.55%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.296	0.279	5.91%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.36	3.61	7.17%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	52.7	61.6	15.57%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	22.5	9.82	78.47%	Fail
URANIUM, D	0.00001	0.00001	mg/l	0.00102	0.00104	1.94%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00104	0.00109	4.69%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00234	0.00231	1.29%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0100	0.009	10.53%	Pass

Location:	EV_ER4	EV_ER4
Sample ID:	EV_ER4_WS_2017-06-21_N	EV_ER5_WS_2017-06-21_N
Date Sampled:	6/21/2017	6/21/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
MERCURY, D	0.0000005	0.0000005	mg/l	0.0007000000	8E-07	199.54%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.0087000000	0.0017	134.62%	Fail
Methyl Mercury, T	0.00005	0.00005	ug/l	< 0.000050	<5e-005	0.00%	Pass

Location:	EV_ER4	EV_ER4
Sample ID:	EV_ER4_WS_2017-06-27_N	EV_ER5_WS_2017-06-27_N
Date Sampled:	6/27/2017	6/27/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	141	139	1.43%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	4.2	4.2	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	145	144	0.69%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.153	0.161	5.10%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00027	0.00027	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0490	0.0499	1.82%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0520	0.0524	0.77%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000128	1.2e-005	6.45%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000467	5.23e-005	11.31%	Pass
CALCIUM, D	0.05	0.05	mg/l	53.2	52.8	0.75%	Pass
CALCIUM, T	0.05	0.05	mg/l	55.2	55	0.36%	Pass

CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.78	1.04	28.57%	Pass-1
Cation - Anion Balance	0	0	%	0.7	1.3	60.00%	Fail
CHLORIDE, D	0.1	0.1	mg/l	0.85	0.85	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00017	0.00016	6.06%	Pass
CHROMIUM, T	0.0005	0.0006	mg/l	<0.00050	<0.0006	18.18%	Pass
COBALT, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00010	0.00011	9.52%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	337	339	0.59%	Pass
COPPER, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.179	0.179	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	197	198	0.51%	Pass
IRON, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.177	0.197	10.70%	Pass
LEAD, D	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000153	0.000159	3.85%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0062	0.006	3.28%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0064	0.0063	1.57%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	15.6	16	2.53%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	15.8	16	1.26%	Pass
MAJOR ANION SUM	0	0	meq/l	3.94	3.91	0.76%	Pass
MAJOR CATION SUM	0	0	meq/l	4.00	4.02	0.50%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00174	0.00033	136.23%	Fail
MANGANESE, T	0.0001	0.0001	mg/l	0.0151	0.0157	3.90%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	<0.000050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00127	0.00122	4.02%	Pass
Methyl Mercury, T	0.00005	0.00005	ug/l	<0.000050	<5e-005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00110	0.00103	6.57%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00117	0.000999	15.77%	Pass
NICKEL, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00087	0.00092	5.59%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.71	1.71	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	<0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	<0.0050	0.0053	5.83%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	<0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	297	232	24.57%	Pass-1
pH, LAB	0.1	0.1	ph units	8.37	8.37	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0240	0.0185	25.88%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	0.523	0.539	3.01%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.555	0.576	3.71%	Pass
SELENIUM, D	0.05	0.05	ug/l	6.58	6.59	0.15%	Pass
SELENIUM, T	0.05	0.05	ug/l	6.98	7.04	0.86%	Pass
SILICON, D	0.05	0.05	mg/l	1.74	1.75	0.57%	Pass
SILICON, T	0.1	0.1	mg/l	2.12	2.13	0.47%	Pass
SILVER, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.17	1.21	3.36%	Pass
SODIUM, T	0.05	0.05	mg/l	1.17	1.21	3.36%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.189	0.188	0.53%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.192	0.193	0.52%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	42.8	42.7	0.23%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	<0.000010	1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	230	229	0.44%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.162	0.209	25.34%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.78	1.52	15.76%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	17.6	19.1	8.17%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	6.82	7	2.60%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000933	0.00094	0.75%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000992	0.00102	2.78%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00089	0.00094	5.46%	Pass
ZINC, D	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass

Location:	EV_ER4	EV_ER4
Sample ID:	EV_ER4_WS_2017-08-15_N	EV_ER5_WS_2017-08-15_N
Date Sampled:	8/15/2017	8/15/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass

Location:	EV_GC2	EV_GC2
Sample ID:	EV_GC2_WS_2017-01-31_N	EV_ER5_WS_2017-01-31_N
Date Sampled:	1/31/2017	1/31/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	1.4	33.33%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	247	247	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	247	247	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0036	0.0034	5.71%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0745	0.0759	1.86%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00035	0.00035	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00043	0.00043	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00019	0.0002	5.13%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.102	0.102	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0968	0.0967	0.10%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.023	0.023	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.024	0.024	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000163	1.85e-005	12.64%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000588	5.43e-005	7.96%	Pass
CALCIUM, D	0.05	0.05	mg/l	133	135	1.49%	Pass
CALCIUM, T	0.05	0.05	mg/l	127	130	2.33%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.69	0.89	25.32%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	34.5	34.7	0.58%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00018	0.00016	11.76%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1040	1040	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00057	0.00058	1.74%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.14	0.18	25.00%	Pass-1
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	597	607	1.66%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.080	0.081	1.24%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000098	0.000108	9.71%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0272	0.0271	0.37%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0278	0.028	0.72%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	64.6	65.7	1.69%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	61.6	60.5	1.80%	Pass
MAJOR ANION SUM	0	0	meq/l	12.5	12.5	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	12.4	12.6	1.60%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00306	0.00378	21.05%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.00906	0.00891	1.67%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.005	0.005	ug/l	< 0.0000050	<5e-006	199.60%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00212	0.00214	0.94%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00202	0.00204	0.99%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00115	0.00118	2.58%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00114	0.00115	0.87%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	1.48	1.48	0.00%	Pass

NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	0.0052	3.92%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0095	0.008	17.14%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0087	0.0085	2.33%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	443	339	26.60%	Pass-1
pH, LAB	0.1	0.1	ph units	8.26	8.23	0.36%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0169	0.0148	13.25%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.75	1.71	2.31%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.69	1.73	2.34%	Pass
SELENIUM, D	0.05	0.05	ug/l	41	41.5	1.21%	Pass
SELENIUM, T	0.05	0.05	ug/l	39.5	40.4	2.25%	Pass
SILICON, D	0.05	0.05	mg/l	3.16	3.25	2.81%	Pass
SILICON, T	0.05	0.05	mg/l	3.38	3.54	4.62%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	9.73	9.86	1.33%	Pass
SODIUM, T	0.05	0.05	mg/l	9.64	9.64	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.432	0.438	1.38%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.423	0.427	0.94%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	310	313	0.96%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	678	716	5.45%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.118	0.147	21.89%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.14	3.11	0.96%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	10.0	11.5	13.95%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	5.66	4.62	20.23%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00266	0.00275	3.33%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00283	0.00289	2.10%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	0.00052	3.92%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0053	0.0058	9.01%	Pass

Location:	EV_GC2	EV_GC2
Sample ID:	EV_GC2_WS_2017-02-08_N	EV_ER5_WS_2017-02-08_N
Date Sampled:	2/8/2017	2/8/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	3.2	2.1	41.51%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	245	250	2.02%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	245	250	2.02%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0037	0.0039	5.26%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.135	0.137	1.47%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00037	0.00036	2.74%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00049	0.00047	4.17%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00017	0.00014	19.35%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00020	0.00022	9.52%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0935	0.0931	0.43%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0974	0.0946	2.92%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.024	0.024	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.027	0.026	3.77%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000266	3.12e-005	15.92%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000719	7.31e-005	1.66%	Pass
CALCIUM, D	0.05	0.05	mg/l	133	134	0.75%	Pass
CALCIUM, T	0.05	0.05	mg/l	139	136	2.18%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.88	1.02	14.74%	Pass
CHLORIDE, D	0.5	0.5	mg/l	35.3	35.7	1.13%	Pass

CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1020	1030	0.98%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00069	0.00068	1.46%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.18	0.16	11.76%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	608	614	0.98%	Pass
ION BALANCE	0	0	%	0.7	0.5	33.33%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.095	0.088	7.65%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000123	0.000101	19.64%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0292	0.0292	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0310	0.0305	1.63%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	67.3	68.1	1.18%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	70.4	70.2	0.28%	Pass
MAJOR ANION SUM	0	0	meq/l	12.4	12.6	1.60%	Pass
MAJOR CATION SUM	0	0	meq/l	12.6	12.8	1.57%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00683	0.00688	0.73%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00986	0.00965	2.15%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00071	0.00067	5.80%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00185	0.00184	0.54%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00192	0.00189	1.57%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00104	0.00105	0.96%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00136	0.00137	0.73%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	1.48	1.51	2.01%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	0.0052	3.92%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0086	0.009	4.55%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0109	0.011	0.91%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	359	381	5.95%	Pass
pH, LAB	0.1	0.1	ph units	8.23	8.23	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0203	0.0167	19.46%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.74	1.78	2.27%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.79	1.77	1.12%	Pass
SELENIUM, D	0.05	0.05	ug/l	39.7	38.9	2.04%	Pass
SELENIUM, T	0.05	0.05	ug/l	37.8	37.6	0.53%	Pass
SILICON, D	0.05	0.05	mg/l	3.15	3.16	0.32%	Pass
SILICON, T	0.05	0.05	mg/l	3.61	3.65	1.10%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	9.93	10.2	2.68%	Pass
SODIUM, T	0.05	0.05	mg/l	10.4	10.4	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.424	0.424	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.439	0.428	2.54%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	310	313	0.96%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	782	810	3.52%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.131	0.138	5.20%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	4.23	3	34.02%	Pass-2
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	9.7	7.8	21.71%	Pass-2
TURBIDITY, LAB	0.1	0.1	ntu	13.2	9.22	35.50%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00280	0.00275	1.80%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00288	0.00281	2.46%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00062	0.00057	8.40%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0063	0.0061	3.23%	Pass

Location:	EV_GC2	EV_GC2
Sample ID:	EV_GC2_WS_2017-02-16_N	EV_ER5_WS_2017-02-16_N
Date Sampled:	2/16/2017	2/16/2017

Analyte	Sample Type:		Units	Primary	Secondary	Primary vs. Duplicate	Category1
	Detection Limit Pri.	Detection Limit Dup.					
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	203	205	0.98%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	6.0	6	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	209	211	0.95%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0042	0.0047	11.24%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.158	0.209	27.79%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00073	0.0008	9.15%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00071	0.0008	11.92%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00025	0.00025	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00036	0.00039	8.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0909	0.097	6.49%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0929	0.105	12.23%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	2.4e-005	18.18%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.025	0.026	3.92%	Pass
BORON, T	0.01	0.01	mg/l	0.023	0.025	8.33%	Pass
BROMIDE, D	0.05	0.05	mg/l	0.071	0.084	16.77%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000466	5.52e-005	16.90%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000951	9.37e-005	1.48%	Pass
CALCIUM, D	0.05	0.05	mg/l	101	106	4.83%	Pass
CALCIUM, T	0.05	0.05	mg/l	89.4	97.6	8.77%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.75	0.9	18.18%	Pass
CHLORIDE, D	0.5	0.5	mg/l	33.3	33.2	0.30%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00087	0.00038	78.40%	Fail
COBALT, D	0.0001	0.0001	mg/l	0.00030	0.0003	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00046	0.0005	8.33%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	877	882	0.57%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00104	0.00117	11.76%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.182	0.175	3.92%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	471	493	4.56%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.222	0.25	11.86%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000302	0.000337	10.95%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0302	0.0324	7.03%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0270	0.0292	7.83%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	53.1	55.1	3.70%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	47.8	52.2	8.80%	Pass
MAJOR ANION SUM	0	0	meq/l	10.2	10.3	0.98%	Pass
MAJOR CATION SUM	0	0	meq/l	10.0	10.5	4.88%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0123	0.0128	3.98%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0155	0.0173	10.98%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.000050	<5E-07	199.60%	Fail
MERCURY, T	0.001	0.001	ug/l	0.0021	0.0022	4.65%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00293	0.00309	5.32%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00263	0.00286	8.38%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00166	0.0018	8.09%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00223	0.00241	7.76%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.22	1.22	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0160	0.0162	1.24%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0661	0.0626	5.44%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0096	0.0095	1.05%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	331	333	0.60%	Pass
pH, LAB	0.1	0.1	ph units	8.30	8.32	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0336	0.033	1.80%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.37	2.49	4.94%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.20	2.42	9.52%	Pass
SELENIUM, D	0.05	0.05	ug/l	34.8	35.1	0.86%	Pass
SELENIUM, T	0.05	0.05	ug/l	28.5	27.8	2.49%	Pass
SILICON, D	0.05	0.05	mg/l	2.92	2.89	1.03%	Pass
SILICON, T	0.05	0.05	mg/l	3.04	3.03	0.33%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000010	2.5e-005	85.71%	Pass-1
SODIUM, D	0.05	0.05	mg/l	12.2	12.7	4.02%	Pass

SODIUM, T	0.05	0.05	mg/l	11.0	12.1	9.52%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.400	0.42	4.88%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.359	0.393	9.04%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	241	242	0.41%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000016	1.8e-005	11.76%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	597	589	1.35%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	0.052	3.92%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.49	3.14	10.56%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	27.1	26.6	1.86%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	25.7	26.1	1.54%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00216	0.00226	4.52%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00195	0.00211	7.88%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00098	0.00119	19.35%	Pass
ZINC, D	0.001	0.001	mg/l	0.0024	0.0023	4.26%	Pass
ZINC, T	0.003	0.003	mg/l	0.0047	0.0057	19.23%	Pass

Location:	EV_GC2	EV_GC2
Sample ID:	EV_GC2_WS_2017-03-15_N	EV_MC6_WS_2017-03-15_N
Date Sampled:	3/15/2017	3/15/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	2	1	mg/l	32.0	32.5	1.55%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	33.2	22.2	39.71%	Pass-2

Location:	EV_GC2	EV_GC2
Sample ID:	EV_GC2_WS_2017-03-20_N	EV_ER6_WS_2017-03-20_N
Date Sampled:	3/20/2017	3/20/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	10.0	10.8	7.69%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	9.56	6.21	42.49%	Pass-2

Location:	EV_GC2	EV_GC2
Sample ID:	EV_GC2_WS_2017-03-28_N	EV_ER6_WS_2017-03-28_N
Date Sampled:	3/28/2017	3/28/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	17.0	17.9	5.16%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	17.3	18.5	6.70%	Pass

Location:	EV_GC2	EV_GC2
Sample ID:	EV_GC2_WS_2017-04-11_N	EV_ER6_WS_2017-04-11_N
Date Sampled:	4/11/2017	4/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	3.7	2.9	24.24%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	5.41	5.41	0.00%	Pass

Location:	EV_GC2	EV_GC2
Sample ID:	EV_GC2_WS_2017-06-06_N	EV_MC5_WS_2017-06-06_N
Date Sampled:	6/6/2017	6/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.3	1.2	8.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	231	226	2.19%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	231	226	2.19%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0046	0.0039	16.47%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.115	0.118	2.58%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00040	0.00037	7.79%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00043	0.00045	4.55%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00023	0.00024	4.26%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.111	0.0863	25.04%	Fail
BARIUM, T	0.00005	0.00005	mg/l	0.0991	0.104	4.83%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000486	4.62e-005	5.06%	Pass
CALCIUM, D	0.05	0.05	mg/l	128	127	0.78%	Pass
CALCIUM, T	0.05	0.05	mg/l	124	124	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.75	0.84	11.32%	Pass
CHLORIDE, D	0.5	0.5	mg/l	27.2	26.1	4.13%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00021	0.00024	13.33%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00013	0.00011	16.67%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00019	0.00021	10.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1040	1040	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00056	0.00059	5.22%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.19	0.19	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	623	588	5.78%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.155	0.16	3.17%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000145	0.000151	4.05%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0264	0.0289	9.04%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0259	0.0257	0.78%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	73.5	65.9	10.90%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	70.1	73.6	4.87%	Pass
MAJOR ANION SUM	0	0	meq/l	13.0	12.8	1.55%	Pass
MAJOR CATION SUM	0	0	meq/l	12.8	12.1	5.62%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00353	0.00285	21.32%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.00729	0.00773	5.86%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00149	0.00147	1.35%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00369	0.00369	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00336	0.00336	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00109	0.0009	19.10%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00158	0.0014	12.08%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	2.29	2.26	1.32%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0039	0.0032	19.72%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	286	300	4.78%	Pass
pH, LAB	0.1	0.1	ph units	8.24	8.25	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0186	0.0162	13.79%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.98	1.7	15.22%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.82	1.9	4.30%	Pass
SELENIUM, D	0.05	0.05	ug/l	119	104	13.45%	Pass
SELENIUM, T	0.05	0.05	ug/l	101	102	0.99%	Pass
SILICON, D	0.05	0.05	mg/l	2.63	2.55	3.09%	Pass

SILICON, T	0.1	0.1	mg/l	2.64	2.71	2.62%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.65	6.62	14.44%	Pass
SODIUM, T	0.05	0.05	mg/l	6.95	7.29	4.78%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.304	0.28	8.22%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.287	0.289	0.69%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	359	353	1.69%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000011	1e-005	9.52%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	818	821	0.37%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.155	0.147	5.30%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.05	3.41	11.15%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	23.3	20.4	13.27%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	8.77	8.51	3.01%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00450	0.00394	13.27%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00400	0.00396	1.01%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00070	0.00072	2.82%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0031	<0.003	3.28%	Pass

Location:	EV_GC2	EV_GC2
Sample ID:	EV_GC2_WS_2017-08-03_N	EV_MC5_WS_2017-08-03_N
Date Sampled:	8/3/2017	8/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	0.0039	0.0046	16.47%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0291	0.0424	37.20%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00046	0.00047	2.15%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00051	0.00062	19.47%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00037	0.00024	42.62%	Pass-1
BARIIUM, D	0.00005	0.00005	mg/l	0.0763	0.0745	2.39%	Pass
BARIIUM, T	0.00005	0.00005	mg/l	0.0780	0.0779	0.13%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.022	0.023	4.44%	Pass
BORON, T	0.01	0.01	mg/l	0.023	0.023	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000099	1.01e-005	2.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	111	111	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	116	116	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00011	0.00015	30.77%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	585	596	1.86%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.049	0.053	7.84%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000070	7.1e-005	1.42%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0327	0.0322	1.54%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0331	0.0329	0.61%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	74.8	77.4	3.42%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	74.7	80.7	7.72%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00159	0.00145	9.21%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00407	0.00413	1.46%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.005	0.005	ug/l	< 0.0000050	<5e-006	199.60%	Pass-1

MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00314	0.00312	0.64%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00321	0.00314	2.20%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00119	0.00114	4.29%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00139	0.00151	8.28%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.15	2.16	0.46%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.09	2.12	1.43%	Pass
SELENIUM, D	0.05	0.05	ug/l	80.7	82	1.60%	Pass
SELENIUM, T	0.05	0.05	ug/l	79.6	81.3	2.11%	Pass
SILICON, D	0.05	0.05	mg/l	2.78	2.77	0.36%	Pass
SILICON, T	0.1	0.1	mg/l	2.92	2.92	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.74	8.89	1.70%	Pass
SODIUM, T	0.05	0.05	mg/l	8.73	9.1	4.15%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.328	0.328	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.335	0.337	0.60%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	1.1e-005	9.52%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	1.3e-005	26.09%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00381	0.00379	0.53%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00397	0.0039	1.78%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_GC2	EV_GC2
Sample ID:	EV_GC2_WS_2017-08-03_N_CAL	EV_MC5_WS_2017-08-03_N_CAL
Date Sampled:	8/3/2017	8/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.4	5.7	81.48%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	210	214	1.89%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	210	214	1.89%	Pass
BROMIDE, D	0.1	0.05	mg/l	< 0.10	<0.05	66.67%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	111	112	0.90%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.56	1.63	4.39%	Pass
CHLORIDE, D	2.5	0.5	mg/l	28.1	29.3	4.18%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1010	999	1.10%	Pass
FLUORIDE, D	0.1	0.02	mg/l	0.10	0.132	27.59%	Pass-1
MAGNESIUM, D	0.005	0.005	mg/l	72.2	73.9	2.33%	Pass
MAJOR ANION SUM	0	0	meq/l	12.5	12.4	0.80%	Pass
MAJOR CATION SUM	0	0	meq/l	11.9	12.1	1.67%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00059	0.00053	10.71%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.005	mg/l	2.23	2.14	4.12%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.001	mg/l	0.0061	0.005	19.82%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0087	0.007	21.66%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	290	325	11.38%	Pass
pH, LAB	0.1	0.1	ph units	8.17	8.19	0.24%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0082	0.0088	7.06%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.04	2.08	1.94%	Pass
SODIUM, D	0.05	0.05	mg/l	8.40	8.55	1.77%	Pass
SULFATE (AS SO4), D	1.5	0.3	mg/l	352	342	2.88%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	781	755	3.39%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.122	0.133	8.63%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.72	1.69	1.76%	Pass
TOTAL SUSPENDED SOLIDS, LAB	2	2	mg/l	13.6	8	51.85%	Fail
TURBIDITY, LAB	0.1	0.1	ntu	7.83	5.22	40.00%	Pass-2

Location:	EV_GC2	EV_GC2
Sample ID:	EV_GC2_WS_2017-09-11_N	EV_ER5_WS_2017-09-11_N
Date Sampled:	9/11/2017	9/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.5	1.4	56.41%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	288	201	35.58%	Pass-2
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	288	201	35.58%	Pass-2
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0268	0.0286	6.50%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00051	0.00051	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00059	0.00056	5.22%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.00017	5.71%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00025	0.00026	3.92%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0777	0.0793	2.04%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0823	0.0806	2.09%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.024	0.024	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.027	0.025	7.69%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	106	106	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	111	111	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.02	1.02	0.00%	Pass
CHLORIDE, D	2.5	2.5	mg/l	28.1	28.6	1.76%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1230	1000	20.63%	Pass-2
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.11	<0.1	9.52%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	533	539	1.12%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.021	0.021	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000112	0.000113	0.89%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0286	0.0286	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0302	0.0295	2.35%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	65.0	66.3	1.98%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	66.6	67.7	1.64%	Pass
MAJOR ANION SUM	0	0	meq/l	13.8	12	13.95%	Pass
MAJOR CATION SUM	0	0	meq/l	11.1	11.2	0.90%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00051	0.00053	3.85%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00233	0.00236	1.28%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00054	<0.0005	7.69%	Pass
Methyl Mercury, T	0.00005	0.00005	ug/l	< 0.000050	<5e-005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00231	0.00229	0.87%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00238	0.00236	0.84%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00108	0.0011	1.83%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00121	0.00117	3.36%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	1.76	1.72	2.30%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0053	0.0055	3.70%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0136	92.47%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	292	346	16.93%	Pass
pH, LAB	0.1	0.1	ph units	8.23	8.2	0.37%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0051	0.0057	11.11%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.87	1.89	1.06%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.90	1.89	0.53%	Pass
SELENIUM, D	0.05	0.05	ug/l	74.5	73.3	1.62%	Pass
SELENIUM, T	0.05	0.05	ug/l	68.7	68.4	0.44%	Pass

SILICON, D	0.05	0.05	mg/l	2.84	2.95	3.80%	Pass
SILICON, T	0.1	0.1	mg/l	3.10	3.14	1.28%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	9.32	9.28	0.43%	Pass
SODIUM, T	0.05	0.05	mg/l	9.58	9.45	1.37%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.343	0.344	0.29%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.360	0.356	1.12%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	343	339	1.17%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	740	720	2.74%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.111	0.148	28.57%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.14	2.24	4.57%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	6.0	5.2	14.29%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	6.94	6.21	11.10%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00340	0.0034	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00348	0.00349	0.29%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00060	0.00055	8.70%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	0.0034	12.50%	Pass

Location:	EV_GC2	EV_GC2
Sample ID:	EV_GC2_WS_2017-10-13_N	EV_ER5_WS_2017-10-13_N
Date Sampled:	10/13/2017	10/13/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
48-h Daphnia magna 100% screening (single concentration) acute lethality	-	-	%	17	13	26.67%	Fail
48-h Daphnia magna 100% screening (single concentration) acute lethality	-	-	%	3	0	200.00%	Fail
96-h rainbow trout 100% screening (single concentration) acute lethality td	-	-	%	30	0	200.00%	Fail
96-h rainbow trout 100% screening (single concentration) acute lethality td	-	-	%	0	0	#NUM!	Fail
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.0	<1	66.67%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	229	208	9.61%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	229	208	9.61%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0446	0.0518	14.94%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00043	0.00046	6.74%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00057	0.00055	3.57%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00017	0.00018	5.71%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0815	0.083	1.82%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0841	0.0836	0.60%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.024	0.025	4.08%	Pass
BORON, T	0.01	0.01	mg/l	0.025	0.025	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000087	5.7e-006	41.67%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	110	116	5.31%	Pass
CALCIUM, T	0.05	0.05	mg/l	122	120	1.65%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.19	2.14	2.31%	Pass
CHLORIDE, D	0.5	0.5	mg/l	28.3	28.2	0.35%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00011	0.00013	16.67%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	974	967	0.72%	Pass

COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Extractable Petroleum Hydrocarbons C10-C19	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
Extractable Petroleum Hydrocarbons C19-C32	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.134	0.131	2.26%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	518	538	3.79%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.026	0.027	3.77%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000055	<5e-005	9.52%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0286	0.029	1.39%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0293	0.0293	0.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	59.0	60.1	1.85%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	66.0	67.2	1.80%	Pass
MAJOR ANION SUM	0	0	meq/l	11.7	11.2	4.37%	Pass
MAJOR CATION SUM	0	0	meq/l	10.8	11.2	3.64%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00264	0.00273	3.35%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00434	0.00407	6.42%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00064	0.00057	11.57%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00204	0.00212	2.90%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00212	0.00212	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00092	0.00091	1.09%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00103	0.00105	1.92%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.47	1.47	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0035	0.0035	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0068	30.51%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	332	326	1.82%	Pass
pH, LAB	0.1	0.1	ph units	8.14	8.16	0.25%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0034	0.0038	11.11%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.72	1.75	1.73%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.77	1.78	0.56%	Pass
SELENIUM, D	0.05	0.05	ug/l	63.1	64.5	2.19%	Pass
SELENIUM, T	0.05	0.05	ug/l	56.5	56.2	0.53%	Pass
SILICON, D	0.05	0.05	mg/l	2.94	2.97	1.02%	Pass
SILICON, T	0.1	0.1	mg/l	3.23	3.14	2.83%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	9.77	9.95	1.83%	Pass
SODIUM, T	0.05	0.05	mg/l	9.99	10.1	1.10%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.373	0.391	4.71%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.395	0.388	1.79%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	299	297	0.67%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000011	1.1e-005	0.00%	Pass
The sum of extractable petroleum hydrocarbons C10-C19 and C19-C32.	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	770	734	4.79%	Pass
TOTAL EXTRACTABLE HYDROCARBONS (TEH 10-30)	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.267	0.35	26.90%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.23	2.04	8.90%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	4.3	3.9	9.76%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	6.24	5.18	18.56%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00257	0.00281	8.92%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00290	0.00284	2.09%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	0.0005	0.00%	Pass
ZINC, D	0.0035	0.003	mg/l	< 0.0035	<0.003	15.38%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_GH1	EV_GH1
Sample ID:	EV_GH1_WS_2017-10-03_N	EV_MC9_WS_2017-10-03_N
Date Sampled:	10/3/2017	10/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.5	2.3	42.11%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	145	157	7.95%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	145	157	7.95%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.06	0.015	mg/l	207	161	25.00%	Fail
ANTIMONY, D	0.0001	0.0001	mg/l	0.0109	0.0109	0.00%	Pass
ANTIMONY, T	0.002	0.0005	mg/l	0.0274	0.0135	67.97%	Fail
ARSENIC, D	0.0001	0.0001	mg/l	0.00098	0.0011	11.54%	Pass
ARSENIC, T	0.002	0.0005	mg/l	0.111	0.123	10.26%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0870	0.0929	6.56%	Pass
BARIUM, T	0.001	0.00025	mg/l	53.2	60.3	12.51%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.0004	0.0001	mg/l	0.0325	0.0357	9.38%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.001	0.00025	mg/l	0.0103	0.0129	22.41%	Pass-2
BORON, D	0.01	0.01	mg/l	0.031	0.031	0.00%	Pass
BORON, T	0.2	0.05	mg/l	2.15	0.949	77.51%	Fail
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000282	0.000265	6.22%	Pass
CADMIUM, T	0.0001	0.000025	mg/l	0.0372	0.0478	24.94%	Pass-2
CALCIUM, D	0.05	0.05	mg/l	63.2	65	2.81%	Pass
CALCIUM, T	1	0.25	mg/l	1260	1300	3.13%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
Cation - Anion Balance	0	0	%	3.1	2.3	29.63%	Fail
CHLORIDE, D	0.5	0.5	mg/l	2.42	2.32	4.22%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.002	0.0005	mg/l	0.169	0.158	6.73%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00150	0.00155	3.28%	Pass
COBALT, T	0.002	0.0005	mg/l	0.128	0.145	12.45%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	500	517	3.34%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00106	0.00103	2.87%	Pass
COPPER, T	0.01	0.0025	mg/l	2.14	2.42	12.28%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.621	0.684	9.66%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	261	268	2.65%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.2	0.05	mg/l	360	450	22.22%	Fail
LEAD, D	0.00005	0.00005	mg/l	0.000159	0.00016	0.63%	Pass
LEAD, T	0.001	0.00025	mg/l	0.702	0.859	20.12%	Pass-2
LITHIUM, D	0.001	0.001	mg/l	0.0448	0.0451	0.67%	Pass
LITHIUM, T	0.02	0.005	mg/l	0.168	0.186	10.17%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	25.0	25.7	2.76%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	181	191	5.38%	Pass
MAJOR ANION SUM	0	0	meq/l	5.30	5.53	4.25%	Pass
MAJOR CATION SUM	0	0	meq/l	5.64	5.79	2.62%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0371	0.0362	2.46%	Pass
MANGANESE, T	0.002	0.0005	mg/l	3.38	4.29	23.73%	Fail
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	2.5	2.5	ug/l	< 2.5	<2.5	0.00%	Pass
Methyl Mercury, T	0.025	0.025	ug/l	< 0.025	<0.025	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.0422	0.0427	1.18%	Pass
MOLYBDENUM, T	0.001	0.00025	mg/l	0.128	0.129	0.78%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00461	0.00459	0.43%	Pass
NICKEL, T	0.01	0.0025	mg/l	0.408	0.458	11.55%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.959	0.988	2.98%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.165	0.17	2.99%	Pass
NITROGEN, AMMONIA (AS N)	0.025	0.025	mg/l	1.92	1.88	2.11%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	237	277	15.56%	Pass
pH, LAB	0.1	0.1	ph units	8.13	8.12	0.12%	Pass
PHOSPHORUS	2	2	mg/l	13.1	16	19.93%	Pass
POTASSIUM, D	0.05	0.05	mg/l	5.01	5.12	2.17%	Pass
POTASSIUM, T	1	0.25	mg/l	49.1	39.7	21.17%	Pass-2
SELENIUM, D	0.05	0.05	ug/l	19.9	20.6	3.46%	Pass
SELENIUM, T	1	0.25	ug/l	110	124	11.97%	Pass
SILICON, D	0.05	0.05	mg/l	2.10	2.14	1.89%	Pass
SILICON, T	2	0.5	mg/l	189	148	24.33%	Pass-2
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.0002	0.00005	mg/l	0.00794	0.00781	1.65%	Pass
SODIUM, D	0.05	0.05	mg/l	3.70	3.86	4.23%	Pass

SODIUM, T	1	0.25	mg/l	5.4	4.68	14.29%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.334	0.355	6.10%	Pass
STRONTIUM, T	0.004	0.001	mg/l	4.83	5.4	11.14%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	107	107	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000037	3.9e-005	5.26%	Pass
THALLIUM, T	0.0002	0.00005	mg/l	0.00716	0.00413	53.68%	Fail
TIN, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TIN, T	0.002	0.0005	mg/l	0.0029	0.00064	127.68%	Pass-1
TITANIUM, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	0.274	0.056	132.12%	Fail
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	289	225	24.90%	Pass-2
TOTAL KJELDAHL NITROGEN	50	10	mg/l	407	72	139.87%	Fail
TOTAL ORGANIC CARBON, T	500	5000	mg/l	1010	13300	171.77%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	30	60	mg/l	188000	456000	83.23%	Fail
URANIUM, D	0.00001	0.00001	mg/l	0.0107	0.0111	3.67%	Pass
URANIUM, T	0.0002	0.00005	mg/l	0.0669	0.0734	9.27%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00067	0.00067	0.00%	Pass
VANADIUM, T	0.01	0.0025	mg/l	0.774	0.763	1.43%	Pass
ZINC, D	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass
ZINC, T	0.06	0.015	mg/l	2.42	2.84	15.97%	Pass

Location:	EV_GT1	EV_GT1
Sample ID:	EV_GT1_WS_2017-01-10_N	EV_MC6_WS_2017-01-10_N
Date Sampled:	1/10/2017	1/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
2-Bromobenzotrifluoride	1	1	%	83.8	84.7	1.07%	Pass
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	236	236	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	236	236	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0101	<0.003	108.40%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0072	0.0071	1.40%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00330	0.00328	0.61%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00337	0.0034	0.89%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00017	0.00017	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00019	0.00022	14.63%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.181	0.179	1.11%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.169	0.172	1.76%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.042	0.042	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.045	0.047	4.35%	Pass
BROMIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000995	9.81e-005	1.42%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000124	0.000117	5.81%	Pass
CALCIUM, D	0.05	0.05	mg/l	224	222	0.90%	Pass
CALCIUM, T	0.05	0.05	mg/l	210	217	3.28%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	0.52	3.92%	Pass
CHLORIDE, D	1	1	mg/l	22.9	22.9	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00033	0.00031	6.25%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00036	0.00034	5.71%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1690	1690	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Extractable Petroleum Hydrocarbons C10-C19	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
Extractable Petroleum Hydrocarbons C19-C32	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
FLUORIDE, D	0.2	0.2	mg/l	0.41	0.39	5.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1090	1070	1.85%	Pass
ION BALANCE	0	0	%	0	-0.6	200.00%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.012	0.013	8.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

LEAD, T	0.0005	0.0005	mg/l	< 0.00050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.141	0.143	1.41%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.179	0.19	5.96%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	128	126	1.57%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	131	128	2.32%	Pass
MAJOR ANION SUM	0	0	meq/l	22.2	22.2	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	22.2	21.9	1.36%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00169	0.00163	3.61%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00209	0.00183	13.27%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.0173	0.0171	1.16%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.0169	0.0174	2.92%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0453	0.0446	1.56%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0453	0.0456	0.66%	Pass
NITRATE NITROGEN (NO3), AS N	0.05	0.05	mg/l	30.0	29.9	0.33%	Pass
NITRITE NITROGEN (NO2), AS N	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0363	0.0363	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0026	0.0024	8.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	384	416	8.00%	Pass
pH, LAB	0.1	0.1	ph units	8.17	8.27	1.22%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0020	0.0028	33.33%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	6.13	6	2.14%	Pass
POTASSIUM, T	0.05	0.05	mg/l	6.13	5.95	2.98%	Pass
SELENIUM, D	0.05	0.05	ug/l	99.4	100	0.60%	Pass
SELENIUM, T	0.05	0.05	ug/l	98.8	98.9	0.10%	Pass
SILICON, D	0.05	0.05	mg/l	2.58	2.59	0.39%	Pass
SILICON, T	0.05	0.05	mg/l	2.55	2.48	2.78%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.40	8.31	1.08%	Pass
SODIUM, T	0.05	0.05	mg/l	8.75	8.7	0.57%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.713	0.704	1.27%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.678	0.692	2.04%	Pass
SULFATE (AS SO4), D	3	3	mg/l	705	704	0.14%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000046	4.7e-005	2.15%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000051	5.1e-005	0.00%	Pass
The sum of extractable petroleum hydrocarbons C10-C19 and C19-C32.	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1390	1380	0.72%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.115	0.123	6.72%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.59	0.54	8.85%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.49	0.57	15.09%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0109	0.0109	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0106	0.0107	0.94%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0064	0.0067	4.58%	Pass
ZINC, T	0.003	0.003	mg/l	0.0095	0.0085	11.11%	Pass

Location:	EV_GT1	EV_GT1
Sample ID:	EV_GT1_WS_2017-02-07_N	EV_MC9_WS_2017-02-07_N
Date Sampled:	2/7/2017	2/7/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	240	242	0.83%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	240	242	0.83%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0055	0.0034	47.19%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00324	0.00323	0.31%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00341	0.00339	0.59%	Pass

ARSENIC, D	0.0001	0.0001	mg/l	0.00016	0.00017	6.06%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00019	0.00017	11.11%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.182	0.175	3.92%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.183	0.184	0.54%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.040	0.041	2.47%	Pass
BORON, T	0.01	0.01	mg/l	0.043	0.042	2.35%	Pass
BROMIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000117	9.74e-005	18.28%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000117	9.86e-005	17.07%	Pass
CALCIUM, D	0.05	0.05	mg/l	204	204	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	210	206	1.92%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.79	0.88	10.78%	Pass
CHLORIDE, D	1	1	mg/l	22.4	22.3	0.45%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00027	0.00027	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00029	0.0003	3.39%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1670	1670	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.2	0.2	mg/l	0.37	0.36	2.74%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1000	1010	1.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.145	0.147	1.37%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.154	0.156	1.29%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	120	123	2.47%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	126	125	0.80%	Pass
MAJOR ANION SUM	0	0	meq/l	21.5	21.5	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	20.6	20.8	0.97%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00178	0.00185	3.86%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00201	0.0019	5.63%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.000050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.0169	0.0171	1.18%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.0178	0.0177	0.56%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0420	0.0432	2.82%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0441	0.0437	0.91%	Pass
NITRATE NITROGEN (NO3), AS N	0.05	0.05	mg/l	28.9	28.9	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0417	0.046	9.81%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0019	0.002	5.13%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	398	415	4.18%	Pass
pH, LAB	0.1	0.1	ph units	8.26	8.25	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0038	0.0046	19.05%	Pass
POTASSIUM, D	0.05	0.05	mg/l	6.09	6.09	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	6.18	6.12	0.98%	Pass
SELENIUM, D	0.05	0.05	ug/l	92.4	94.8	2.56%	Pass
SELENIUM, T	0.05	0.05	ug/l	90.2	87.8	2.70%	Pass
SILICON, D	0.05	0.05	mg/l	2.36	2.37	0.42%	Pass
SILICON, T	0.05	0.05	mg/l	2.55	2.54	0.39%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.19	8.41	2.65%	Pass
SODIUM, T	0.05	0.05	mg/l	8.59	8.6	0.12%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.667	0.681	2.08%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.702	0.701	0.14%	Pass
SULFATE (AS SO4), D	3	3	mg/l	673	672	0.15%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000046	4.6e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000046	4.8e-005	4.26%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1400	1420	1.42%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	0.114	78.05%	Pass-1

TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.67	0.87	25.97%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.41	0.45	9.30%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0103	0.0104	0.97%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0110	0.0109	0.91%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0073	0.0074	1.36%	Pass
ZINC, T	0.003	0.003	mg/l	0.0083	0.0089	6.98%	Pass

Location:	EV_GT1	EV_GT1
Sample ID:	EV_GT1_WS_2017-03-07_N	EV_MC9_WS_2017-03-07_N
Date Sampled:	3/7/2017	3/7/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	227	228	0.44%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.8	6.6	12.90%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	233	234	0.43%	Pass
ALUMINIUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINIUM, T	0.003	0.003	mg/l	0.0043	0.0059	31.37%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00347	0.00345	0.58%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00340	0.00347	2.04%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00022	0.00021	4.65%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.175	0.179	2.26%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.184	0.188	2.15%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.042	0.043	2.35%	Pass
BORON, T	0.01	0.01	mg/l	0.044	0.046	4.44%	Pass
BROMIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000261	2.34e-005	10.91%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000108	0.000111	2.74%	Pass
CALCIUM, D	0.05	0.05	mg/l	198	209	5.41%	Pass
CALCIUM, T	0.05	0.05	mg/l	204	212	3.85%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.77	0.68	12.41%	Pass
CHLORIDE, D	1	1	mg/l	22.2	22	0.90%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00024	0.00023	4.26%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00026	0.00026	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1680	1670	0.60%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.2	0.2	mg/l	0.36	0.35	2.82%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	946	978	3.33%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.012	0.012	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.147	0.151	2.68%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.153	0.162	5.71%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	110	111	0.90%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	115	113	1.75%	Pass
MAJOR ANION SUM	0	0	meq/l	20.9	20.9	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	19.4	20	3.05%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00137	0.00142	3.58%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00210	0.00203	3.39%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.0166	0.0168	1.20%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.0169	0.0172	1.76%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0369	0.037	0.27%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0394	0.039	1.02%	Pass

NITRATE NITROGEN (NO3), AS N	0.05	0.05	mg/l	28.0	27.8	0.72%	Pass
NITRITE NITROGEN (NO2), AS N	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0379	0.0414	8.83%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0013	0.0013	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	373	376	0.80%	Pass
pH, LAB	0.1	0.1	ph units	8.34	8.3	0.48%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0021	0.0022	4.65%	Pass
POTASSIUM, D	0.05	0.05	mg/l	5.91	6.12	3.49%	Pass
POTASSIUM, T	0.05	0.05	mg/l	5.98	5.81	2.88%	Pass
SELENIUM, D	0.05	0.05	ug/l	97.1	94.9	2.29%	Pass
SELENIUM, T	0.05	0.05	ug/l	91.1	91.1	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	2.26	2.26	0.00%	Pass
SILICON, T	0.05	0.05	mg/l	2.43	2.46	1.23%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.07	7.99	1.00%	Pass
SODIUM, T	0.05	0.05	mg/l	8.42	8.4	0.24%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.694	0.712	2.56%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.703	0.71	0.99%	Pass
SULFATE (AS SO4), D	3	3	mg/l	655	652	0.46%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000043	4.5e-005	4.55%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000043	4.5e-005	4.55%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1360	1320	2.99%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.121	<0.05	83.04%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.70	<0.5	33.33%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.35	0.34	2.90%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0100	0.0101	1.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00979	0.0107	8.88%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0073	0.0074	1.36%	Pass

Location:	EV_GT1	EV_GT1
Sample ID:	EV_GT1_WS_2017-04-05_N	EV_MC9_WS_2017-04-05_N
Date Sampled:	4/5/2017	4/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
2-Bromobenzotrifluoride	1	1	%	95.4	93.7	1.80%	Pass
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	213	216	1.40%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	10.2	7.8	26.67%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	223	224	0.45%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0328	0.0456	32.65%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00061	0.00061	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00061	0.00061	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00037	0.0004	7.79%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00041	0.00045	9.30%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0508	0.0538	5.74%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0487	0.053	8.46%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.013	0.014	7.41%	Pass
BORON, T	0.01	0.01	mg/l	0.014	0.014	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000205	0.00022	7.06%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000205	0.000232	12.36%	Pass
CALCIUM, D	0.05	0.05	mg/l	226	233	3.05%	Pass
CALCIUM, T	0.05	0.05	mg/l	227	223	1.78%	Pass

CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.35	2.44	3.76%	Pass
CHLORIDE, D	0.5	0.5	mg/l	3.23	3.25	0.62%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00016	13.33%	Pass
COBALT, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1720	1720	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00058	0.00061	5.04%	Pass
Extractable Petroleum Hydrocarbons C10-C19	0.25	0.25	mg/l	<0.25	<0.25	0.00%	Pass
Extractable Petroleum Hydrocarbons C19-C32	0.25	0.25	mg/l	<0.25	<0.25	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.29	0.28	3.51%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1110	1190	6.96%	Pass
IRON, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.047	0.058	20.95%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000063	6.3e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0634	0.0726	13.53%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0660	0.0626	5.29%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	133	147	10.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	132	146	10.07%	Pass
MAJOR ANION SUM	0	0	meq/l	23.2	23.6	1.71%	Pass
MAJOR CATION SUM	0	0	meq/l	22.4	23.9	6.48%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00149	0.00162	8.36%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00247	0.00273	10.00%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	0.00066	6.8E-07	199.59%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00131	0.00133	1.52%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00731	0.00751	2.70%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00764	0.0073	4.55%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00817	0.00902	9.89%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00847	0.00901	6.18%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	15.5	15.7	1.28%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0109	0.012	9.61%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	<0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0143	0.0128	11.07%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	299	348	15.15%	Pass
pH, LAB	0.1	0.1	ph units	8.36	8.34	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0227	0.0199	13.15%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.45	3.73	7.80%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.30	3.57	7.86%	Pass
SELENIUM, D	0.05	0.05	ug/l	232	235	1.28%	Pass
SELENIUM, T	0.05	0.05	ug/l	229	228	0.44%	Pass
SILICON, D	0.05	0.05	mg/l	2.90	3.09	6.34%	Pass
SILICON, T	0.05	0.05	mg/l	3.08	3.37	8.99%	Pass
SILVER, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.60	2.94	12.27%	Pass
SODIUM, T	0.05	0.05	mg/l	2.69	2.86	6.13%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.303	0.314	3.57%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.309	0.292	5.66%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	844	857	1.53%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000041	4.3e-005	4.76%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000043	4.2e-005	2.35%	Pass
The sum of extractable petroleum hydrocarbons C10-C19 and C19-C32.	0.5	0.5	mg/l	<0.50	<0.5	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1540	1500	2.63%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.293	0.29	1.03%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.20	3.46	7.81%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	3.2	3.2	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	6.10	4.42	31.94%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00607	0.00623	2.60%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00604	0.006	0.66%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	<0.00050	0.00054	7.69%	Pass
ZINC, D	0.003	0.003	mg/l	0.0078	0.0084	7.41%	Pass
ZINC, T	0.003	0.003	mg/l	0.0098	0.01	2.02%	Pass

Location:	EV_GT1	EV_GT1
Sample ID:	EV_GT1_WS_2017-04-12_N	EV_MC6_WS_2017-04-12_N
Date Sampled:	4/12/2017	4/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.3	1.9	19.05%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.28	2.5	9.21%	Pass

Location:	EV_GT1	EV_GT1
Sample ID:	EV_GT1_WS_2017-04-20_N	EV_MC6_WS_2017-04-20_N
Date Sampled:	4/20/2017	4/20/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.8	1.6	11.76%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.33	2.35	0.85%	Pass

Location:	EV_GT1	EV_GT1
Sample ID:	EV_GT1_WS_2017-05-02_N	EV_ER9_WS_2017-05-02_N
Date Sampled:	5/2/2017	5/2/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	227	236	3.89%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	13.0	15.6	18.18%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	240	251	4.48%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0564	0.0642	12.94%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00051	0.00054	5.71%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00054	0.00055	1.83%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00028	0.00029	3.51%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00038	0.00038	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0436	0.0466	6.65%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0469	0.047	0.21%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.019	0.018	5.41%	Pass
BORON, T	0.01	0.01	mg/l	0.018	0.017	5.71%	Pass
BROMIDE, D	0.25	0.5	mg/l	< 0.25	<0.5	66.67%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	0.0000890	0.000108	19.29%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000122	0.000114	6.78%	Pass
CALCIUM, D	0.05	0.05	mg/l	203	216	6.21%	Pass
CALCIUM, T	0.05	0.05	mg/l	206	210	1.92%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.50	2.13	15.98%	Pass
CHLORIDE, D	0.5	1	mg/l	3.26	3.3	1.22%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00017	0.00018	5.71%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1740	1660	4.71%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00059	0.00059	0.00%	Pass
FLUORIDE, D	0.1	0.2	mg/l	0.24	0.24	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1060	1110	4.61%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.046	0.051	10.31%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000061	5.6e-005	8.55%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0589	0.0595	1.01%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0587	0.0564	4.00%	Pass

MAGNESIUM, D	0.1	0.1	mg/l	135	139	2.92%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	145	125	14.81%	Pass
MAJOR ANION SUM	0	0			22	0.46%	Pass
MAJOR CATION SUM	0	0	meq/l	21.4	22.4	4.57%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00075	0.00104	32.40%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.00211	0.00217	2.80%	Pass
MERCURY, D	0.000005	0.000005	mg/l	<0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00102	0.00101	0.99%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00604	0.00612	1.32%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00616	0.00622	0.97%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00652	0.00685	4.94%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00725	0.00723	0.28%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.05	mg/l	13.4	13.2	1.50%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.01	mg/l	0.0114	0.011	3.57%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	<0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0030	0.0026	14.29%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	308	406	27.45%	Pass-1
pH, LAB	0.1	0.1	ph units	8.37	8.41	0.48%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0083	0.0079	4.94%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.18	3.26	2.48%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.19	3.29	3.09%	Pass
SELENIUM, D	0.05	0.05	ug/l	203	189	7.14%	Pass
SELENIUM, T	0.05	0.05	ug/l	186	188	1.07%	Pass
SILICON, D	0.05	0.05	mg/l	2.30	2.32	0.87%	Pass
SILICON, T	0.1	0.1	mg/l	2.60	2.56	1.55%	Pass
SILVER, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.30	2.37	3.00%	Pass
SODIUM, T	0.05	0.05	mg/l	2.53	2.36	6.95%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.276	0.288	4.26%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.284	0.274	3.58%	Pass
SULFATE (AS SO4), D	1.5	3	mg/l	770	764	0.78%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000036	3.9e-005	8.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000040	3.8e-005	5.13%	Pass
TIN, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1440	1370	4.98%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.253	0.242	4.44%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.90	2.74	5.67%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.4	2.6	8.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.53	3.16	22.14%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00528	0.00543	2.80%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00557	0.00566	1.60%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00071	0.00066	7.30%	Pass
ZINC, D	0.003	0.003	mg/l	<0.0030	0.0039	26.09%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.0056	0.0055	1.80%	Pass

Location:	EV_GT1	EV_GT1
Sample ID:	EV_GT1_WS_2017-06-06_N	EV_MC9_WS_2017-06-06_N
Date Sampled:	6/6/2017	6/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	<1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	243	253	4.03%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	<1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	<1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	243	253	4.03%	Pass
ALUMINUM, D	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0156	0.0122	24.46%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00281	0.00287	2.11%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00291	0.00289	0.69%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00024	0.0002	18.18%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00021	0.00023	9.09%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0240	0.0216	10.53%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0230	0.0215	6.74%	Pass

BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.035	0.038	8.22%	Pass
BORON, T	0.01	0.01	mg/l	0.038	0.04	5.13%	Pass
BROMIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000344	1.51e-005	183.18%	Fail
CADMIUM, T	0.000005	0.000005	mg/l	0.000358	0.000343	4.28%	Pass
CALCIUM, D	0.05	0.05	mg/l	216	226	4.52%	Pass
CALCIUM, T	0.05	0.05	mg/l	203	228	11.60%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.55	0.86	43.97%	Pass-1
CHLORIDE, D	1	1	mg/l	19.9	19.7	1.01%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00031	0.00028	10.17%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00032	0.00032	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1720	1730	0.58%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.2	0.2	mg/l	0.41	0.4	2.47%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1070	1130	5.45%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.012	0.018	40.00%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.139	0.156	11.53%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.150	0.158	5.19%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	130	138	5.97%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	136	129	5.28%	Pass
MAJOR ANION SUM	0	0	meq/l	23.2	23.2	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	21.9	23.1	5.33%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00112	0.00051	74.85%	Fail
MANGANESE, T	0.0001	0.0001	mg/l	0.00143	0.00136	5.02%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.000050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
Methyl Mercury, T	0.00005	0.00005	ug/l	0.000102	<5e-005	68.42%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.0158	0.0165	4.33%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.0159	0.0165	3.70%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0400	0.037	7.79%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0385	0.0369	4.24%	Pass
NITRATE NITROGEN (NO3), AS N	0.05	0.05	mg/l	25.7	25.5	0.78%	Pass
NITRITE NITROGEN (NO2), AS N	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0026	0.0024	8.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	387	313	21.14%	Pass-1
pH, LAB	0.1	0.1	ph units	8.36	8.35	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0049	0.0055	11.54%	Pass
POTASSIUM, D	0.05	0.05	mg/l	6.20	6.46	4.11%	Pass
POTASSIUM, T	0.05	0.05	mg/l	6.22	5.84	6.30%	Pass
SELENIUM, D	0.05	0.05	ug/l	152	129	16.37%	Pass
SELENIUM, T	0.05	0.05	ug/l	137	128	6.79%	Pass
SILICON, D	0.05	0.05	mg/l	2.40	2.29	4.69%	Pass
SILICON, T	0.1	0.1	mg/l	2.53	2.42	4.44%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.67	7.56	1.44%	Pass
SODIUM, T	0.05	0.05	mg/l	7.94	7.25	9.08%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.605	0.64	5.62%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.576	0.631	9.11%	Pass
SULFATE (AS SO4), D	3	3	mg/l	763	755	1.05%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000065	6.9e-005	5.97%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000066	6.4e-005	3.08%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1270	1490	15.94%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.105	0.09	15.38%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.95	1.03	8.08%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.0	1.3	42.42%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.93	0.81	13.79%	Pass

URANIUM, D	0.0001	0.0001	mg/l	0.0103	0.0109	5.66%	Pass
URANIUM, T	0.0001	0.0001	mg/l	0.0112	0.0109	2.71%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0202	<0.003	148.28%	Fail
ZINC, T	0.003	0.003	mg/l	0.0202	0.0194	4.04%	Pass

Location:	EV_GT1	EV_GT1
Sample ID:	EV_GT1_WS_2017-07-12_N	EV_MC9_WS_2017-07-12_N
Date Sampled:	7/12/2017	7/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.1	2.8	28.57%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	255	290	12.84%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	10.8	9	18.18%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	266	299	11.68%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0020	0.0017	16.22%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0113	0.0089	23.76%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00311	0.00311	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00298	0.00315	5.55%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00022	0.00021	4.65%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00025	0.00025	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0222	0.0224	0.90%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0240	0.0235	2.11%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.039	0.04	2.53%	Pass
BORON, T	0.01	0.01	mg/l	0.041	0.041	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000349	0.000372	6.38%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000372	0.000373	0.27%	Pass
CALCIUM, D	0.05	0.05	mg/l	206	207	0.48%	Pass
CALCIUM, T	0.05	0.05	mg/l	207	206	0.48%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.76	1.04	51.43%	Pass-1
CHLORIDE, D	2.5	2.5	mg/l	22.0	22.2	0.90%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00029	0.0003	3.39%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00031	0.00031	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1760	1770	0.57%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Extractable Petroleum Hydrocarbons C10-C19	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
Extractable Petroleum Hydrocarbons C19-C32	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.27	0.26	3.77%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1040	1040	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.021	0.017	21.05%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.160	0.162	1.24%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.155	0.156	0.64%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	128	127	0.78%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	130	132	1.53%	Pass
MAJOR ANION SUM	0	0	meq/l	22.8	23.5	3.02%	Pass
MAJOR CATION SUM	0	0	meq/l	21.3	21.3	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00111	0.00108	2.74%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00388	0.00295	27.23%	Pass-2
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.000050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00080	0.001	22.22%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.0174	0.0174	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.0177	0.0173	2.29%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0414	0.042	1.44%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0408	0.0409	0.24%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	25.8	25.9	0.39%	Pass

NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0050	0.0056	11.32%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0083	0.0084	1.20%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0030	0.003	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	253	233	8.23%	Pass
pH, LAB	0.1	0.1	ph units	8.32	8.29	0.36%	Pass
PHOSPHORUS	0.004	0.002	mg/l	0.0062	0.0043	36.19%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	6.37	6.51	2.17%	Pass
POTASSIUM, T	0.05	0.05	mg/l	6.12	6.13	0.16%	Pass
SELENIUM, D	0.05	0.05	ug/l	112	110	1.80%	Pass
SELENIUM, T	0.05	0.05	ug/l	107	105	1.89%	Pass
SILICON, D	0.05	0.05	mg/l	2.36	2.37	0.42%	Pass
SILICON, T	0.1	0.1	mg/l	2.37	2.39	0.84%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.23	8.29	0.73%	Pass
SODIUM, T	0.05	0.05	mg/l	8.08	8.17	1.11%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.646	0.651	0.77%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.662	0.652	1.52%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	721	721	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000075	7.9e-005	5.19%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000077	7.7e-005	0.00%	Pass
The sum of extractable petroleum hydrocarbons C10-C19 and C19-C32.	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1200	1440	18.18%	Pass
TOTAL EXTRACTABLE HYDROCARBONS (TEH 10-30)	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.70	1.14	39.44%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	3	3	mg/l	< 3.0	<3	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.35	1.31	3.01%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0104	0.0102	1.94%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0106	0.0105	0.95%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0205	0.0207	0.97%	Pass
ZINC, T	0.003	0.003	mg/l	0.0232	0.021	9.95%	Pass

Location:	EV_GT1	EV_GT1
Sample ID:	EV_GT1_WS_2017-08-03_N	EV_MC9_WS_2017-08-03_N
Date Sampled:	8/3/2017	8/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0172	0.021	19.90%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00315	0.00313	0.64%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00339	0.00316	7.02%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00024	0.00021	13.33%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00031	0.00026	17.54%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0311	0.0309	0.65%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0350	0.0319	9.27%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.036	0.039	8.00%	Pass
BORON, T	0.01	0.01	mg/l	0.039	0.04	2.53%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000081	8.9e-006	9.41%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000291	0.000257	12.41%	Pass
CALCIUM, D	0.05	0.05	mg/l	212	221	4.16%	Pass
CALCIUM, T	0.05	0.05	mg/l	223	222	0.45%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00024	0.00024	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00033	0.00029	12.90%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1160	1150	0.87%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.016	0.016	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.155	0.152	1.95%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.155	0.159	2.55%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	152	145	4.71%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	158	146	7.89%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00046	0.00061	28.04%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00155	0.00163	5.03%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.005	0.005	ug/l	< 0.0000050	<5e-006	199.60%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.0152	0.0153	0.66%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.0161	0.0155	3.80%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0361	0.0356	1.39%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0403	0.0367	9.35%	Pass
POTASSIUM, D	0.05	0.05	mg/l	6.99	7.21	3.10%	Pass
POTASSIUM, T	0.05	0.05	mg/l	6.89	6.7	2.80%	Pass
SELENIUM, D	0.05	0.05	ug/l	126	129	2.35%	Pass
SELENIUM, T	0.05	0.05	ug/l	140	129	8.18%	Pass
SILICON, D	0.05	0.05	mg/l	2.38	2.32	2.55%	Pass
SILICON, T	0.1	0.1	mg/l	2.59	2.44	5.96%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.91	7.75	2.04%	Pass
SODIUM, T	0.05	0.05	mg/l	8.14	7.67	5.95%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.614	0.61	0.65%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.628	0.605	3.73%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000080	7.8e-005	2.53%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000077	7.6e-005	1.31%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0108	0.011	1.83%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0115	0.0113	1.75%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0185	0.0166	10.83%	Pass

Location:	EV_GT1	EV_GT1
Sample ID:	EV_GT1_WS_2017-08-03_N_CAL	EV_MC9_WS_2017-08-03_N_CAL
Date Sampled:	8/3/2017	8/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	3.8	4.4	14.63%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	224	240	6.90%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	8.8	4.2	70.77%	Fail
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	233	244	4.61%	Pass
BROMIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	214	212	0.94%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.01	1.43	34.43%	Pass-1
CHLORIDE, D	2.5	2.5	mg/l	18.5	18.5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1700	1710	0.59%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.25	0.27	7.69%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	134	144	7.19%	Pass
MAJOR ANION SUM	0	0	meq/l	23.4	23.7	1.27%	Pass
MAJOR CATION SUM	0	0	meq/l	22.2	22.9	3.10%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00058	<0.0005	14.81%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	28.2	28.2	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0090	0.0097	7.49%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0105	70.97%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0020	0.0018	10.53%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	284	309	8.43%	Pass

pH, LAB	0.1	0.1	ph units	8.33	8.29	0.48%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0154	0.0069	76.23%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	6.16	6.53	5.83%	Pass
SODIUM, D	0.05	0.05	mg/l	7.11	7.53	5.74%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	780	784	0.51%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1550	1480	4.62%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.466	0.551	16.72%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.11	1.39	22.40%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	3	3	mg/l	< 3.0	<3	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.35	2.31	1.72%	Pass

Location:	EV_GT1	EV_GT1
Sample ID:	EV_GT1_WS_2017-09-12_N	EV_MC9_WS_2017-09-12_N
Date Sampled:	9/12/2017	9/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	243	213	13.16%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	243	213	13.16%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0111	0.0097	13.46%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00289	0.00292	1.03%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00319	0.00339	6.08%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00024	0.00026	8.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0770	0.0764	0.78%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0840	0.0843	0.36%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.034	0.037	8.45%	Pass
BORON, T	0.01	0.01	mg/l	0.040	0.043	7.23%	Pass
BROMIDE, D	0.25	0.25	mg/l	0.37	<0.25	38.71%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	0.000305	0.000316	3.54%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000338	0.000328	3.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	218	222	1.82%	Pass
CALCIUM, T	0.05	0.05	mg/l	239	255	6.48%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.86	0.7	20.51%	Pass-1
CHLORIDE, D	2.5	2.5	mg/l	18.9	19	0.53%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0004	0.0003	mg/l	< 0.00040	<0.0003	28.57%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00025	0.00025	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1340	1770	27.65%	Pass-2
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.25	0.24	4.08%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1140	1140	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.015	0.014	6.90%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.141	0.155	9.46%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.169	0.182	7.41%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	144	141	2.11%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	157	161	2.52%	Pass
MAJOR ANION SUM	0	0	meq/l	24.0	23.5	2.11%	Pass
MAJOR CATION SUM	0	0	meq/l	23.2	23.1	0.43%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00177	0.00173	2.29%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00225	0.00238	5.62%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.0144	0.0145	0.69%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.0147	0.0156	5.94%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0324	0.0324	0.00%	Pass

NICKEL, T	0.0005	0.0005	mg/l	0.0361	0.0364	0.83%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	28.5	28.6	0.35%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0088	0.008	9.52%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0136	0.0138	1.46%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0028	0.0024	15.38%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	324	288	11.76%	Pass
pH, LAB	0.1	0.1	ph units	8.25	8.15	1.22%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0044	0.0043	2.30%	Pass
POTASSIUM, D	0.05	0.05	mg/l	6.23	6	3.76%	Pass
POTASSIUM, T	0.05	0.05	mg/l	6.84	7.05	3.02%	Pass
SELENIUM, D	0.05	0.05	ug/l	127	123	3.20%	Pass
SELENIUM, T	0.05	0.05	ug/l	116	116	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	2.39	2.36	1.26%	Pass
SILICON, T	0.1	0.1	mg/l	2.43	2.46	1.23%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.28	7.08	2.79%	Pass
SODIUM, T	0.05	0.05	mg/l	8.05	8.24	2.33%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.612	0.61	0.33%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.636	0.665	4.46%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	798	799	0.13%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000077	7.6e-005	1.31%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000074	7.8e-005	5.26%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1520	1530	0.66%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.91	0.95	4.30%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	<1	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.33	1.14	15.38%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0115	0.0115	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0106	0.0111	4.61%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0193	0.0185	4.23%	Pass
ZINC, T	0.003	0.003	mg/l	0.0226	0.0226	0.00%	Pass

Location:	EV_GT1	EV_GT1
Sample ID:	EV_GT1_WS_2017-10-02_N	EV_ER5_WS_2017-10-02_N
Date Sampled:	10/2/2017	10/2/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.3	5	15.05%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	159	167	4.91%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	159	167	4.91%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0227	0.0215	5.43%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00303	0.00285	6.12%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00313	0.00302	3.58%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00025	0.00025	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00027	0.0003	10.53%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0736	0.0755	2.55%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.157	0.151	3.90%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.044	0.043	2.30%	Pass
BORON, T	0.01	0.01	mg/l	0.043	0.041	4.76%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000112	0.000116	3.51%	Pass
CALCIUM, D	0.05	0.05	mg/l	246	236	4.15%	Pass
CALCIUM, T	0.05	0.05	mg/l	251	249	0.80%	Pass

CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.46	1.5	2.70%	Pass
Cation - Anion Balance	0	0	%	2.6	2.4	8.00%	Pass
CHLORIDE, D	2.5	2.5	mg/l	17.6	18.6	5.52%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00033	0.00034	2.99%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1750	1730	1.15%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00055	0.00064	15.13%	Pass
Extractable Petroleum Hydrocarbons C10-C19	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
Extractable Petroleum Hydrocarbons C19-C32	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.26	0.27	3.77%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1250	1270	1.59%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.040	0.04	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000070	6.9e-005	1.44%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.152	0.155	1.95%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.163	0.158	3.12%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	154	165	6.90%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	157	160	1.89%	Pass
MAJOR ANION SUM	0	0	meq/l	24.1	24.7	2.46%	Pass
MAJOR CATION SUM	0	0	meq/l	25.4	25.9	1.95%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00766	0.00811	5.71%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00085	0.0009	5.71%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.0161	0.0153	5.10%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.0152	0.0147	3.34%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0290	0.0298	2.72%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0332	0.0334	0.60%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	32.8	32.9	0.30%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0689	0.0712	3.28%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0999	0.0969	3.05%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	281	290	3.15%	Pass
pH, LAB	0.1	0.1	ph units	8.11	8.09	0.25%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0058	0.0057	1.74%	Pass
POTASSIUM, D	0.05	0.05	mg/l	6.39	6.47	1.24%	Pass
POTASSIUM, T	0.05	0.05	mg/l	6.40	6.41	0.16%	Pass
SELENIUM, D	0.05	0.05	ug/l	183	183	0.00%	Pass
SELENIUM, T	0.05	0.05	ug/l	170	167	1.78%	Pass
SILICON, D	0.05	0.05	mg/l	2.69	2.67	0.75%	Pass
SILICON, T	0.1	0.1	mg/l	2.93	2.9	1.03%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.43	7.61	2.39%	Pass
SODIUM, T	0.05	0.05	mg/l	7.23	7.35	1.65%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.774	0.723	6.81%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.766	0.744	2.91%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	869	885	1.82%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000065	6.5e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000073	7e-005	4.20%	Pass
The sum of extractable petroleum hydrocarbons C10-C19 and C19-C32.	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1630	1730	5.95%	Pass
TOTAL EXTRACTABLE HYDROCARBONS (TEH 10-30)	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.2	0.2	mg/l	0.29	0.88	100.85%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.25	1.29	3.15%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.8	2.2	20.00%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	5.05	4.82	4.66%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0102	0.01	1.98%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0113	0.011	2.69%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0084	0.0077	8.70%	Pass

Location:	EV_GT1	EV_GT1
Sample ID:	EV_GT1_WS_2017-11-15_N	EV_MC9_WS_2017-11-15_N
Date Sampled:	11/15/2017	11/15/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	233	223	4.39%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	233	223	4.39%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0969	0.0996	2.75%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00312	0.00329	5.30%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00310	0.00331	6.55%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00026	0.00028	7.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00036	0.00036	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.205	0.208	1.45%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.196	0.194	1.03%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.037	0.039	5.26%	Pass
BORON, T	0.01	0.01	mg/l	0.040	0.044	9.52%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000174	0.000174	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000209	0.000215	2.83%	Pass
CALCIUM, D	0.05	0.05	mg/l	220	226	2.69%	Pass
CALCIUM, T	0.05	0.05	mg/l	231	244	5.47%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.16	1.15	0.87%	Pass
CHLORIDE, D	2.5	2.5	mg/l	18.6	19.1	2.65%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00017	0.00018	5.71%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00023	0.00023	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00042	0.00041	2.41%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1830	1850	1.09%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00062	0.00058	6.67%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.30	0.31	3.28%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1060	1090	2.79%	Pass
ION BALANCE	100	100	%	86.9	87.7	0.92%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.085	0.085	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000112	0.000113	0.89%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.146	0.148	1.36%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.154	0.162	5.06%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	125	128	2.37%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	135	139	2.92%	Pass
MAJOR ANION SUM	0	0	meq/l	25.0	25.4	1.59%	Pass
MAJOR CATION SUM	0	0	meq/l	21.7	22.3	2.73%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00400	0.00374	6.72%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00660	0.00647	1.99%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00140	0.00156	10.81%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.0183	0.0189	3.23%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.0183	0.0194	5.84%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0266	0.0268	0.75%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0284	0.0282	0.71%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	32.5	34	4.51%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0149	0.0174	15.48%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0736	0.0932	23.50%	Pass-2
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0039	0.003	26.09%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	279	293	4.90%	Pass
pH, LAB	0.1	0.1	ph units	8.19	8.19	0.00%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0122	0.0119	2.49%	Pass
POTASSIUM, D	0.05	0.05	mg/l	6.25	6.5	3.92%	Pass
POTASSIUM, T	0.05	0.05	mg/l	6.34	6.48	2.18%	Pass

SELENIUM, D	0.05	0.05	ug/l	168	162	3.64%	Pass
SELENIUM, T	0.05	0.05	ug/l	152	151	0.66%	Pass
SILICON, D	0.05	0.05	mg/l	2.69	2.66	1.12%	Pass
SILICON, T	0.1	0.1	mg/l	3.08	3.03	1.64%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.37	7.25	1.64%	Pass
SODIUM, T	0.05	0.05	mg/l	7.55	7.44	1.47%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.710	0.762	7.07%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.702	0.78	10.53%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	840	864	2.82%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000058	6.2e-005	6.67%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000063	6.5e-005	3.12%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1580	1630	3.12%	Pass
TOTAL KJELDAHL NITROGEN	0.2	0.2	mg/l	< 0.20	<0.2	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.01	2.36	16.02%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	2	mg/l	3.6	4.7	26.51%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	8.93	8.72	2.38%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0116	0.0116	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0119	0.0121	1.67%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00070	0.00069	1.44%	Pass
ZINC, D	0.003	0.003	mg/l	0.0099	0.0101	2.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0127	0.013	2.33%	Pass

Location:	EV_GT1	EV_GT1
Sample ID:	EV_GT1_WS_2017-12-06_N	EV_MC9_WS_2017-12-06_N
Date Sampled:	12/6/2017	12/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	242	247	2.04%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	7.2	8.6	17.72%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	250	256	2.37%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0128	0.0142	10.37%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00348	0.00338	2.92%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00338	0.00326	3.61%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00021	0.0002	4.88%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00026	0.00026	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0673	0.0656	2.56%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0689	0.0647	6.29%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.039	0.038	2.60%	Pass
BORON, T	0.01	0.01	mg/l	0.042	0.042	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000226	0.000226	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000231	0.000234	1.29%	Pass
CALCIUM, D	0.05	0.05	mg/l	213	202	5.30%	Pass
CALCIUM, T	0.05	0.05	mg/l	207	210	1.44%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHLORIDE, D	2.5	2.5	mg/l	20.2	25.8	24.35%	Pass-2
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00024	0.00024	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00028	0.00027	3.64%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1780	1770	0.56%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.33	0.24	31.58%	Pass-1

Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1040	1010	2.93%	Pass
ION BALANCE	100	100	%	92.8	105	12.34%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.016	0.016	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.185	0.196	5.77%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.168	0.173	2.93%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	122	123	0.82%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	118	125	5.76%	Pass
MAJOR ANION SUM	0	0	meq/l	22.9	19.7	15.02%	Pass
MAJOR CATION SUM	0	0	meq/l	21.2	20.7	2.39%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00165	0.00157	4.97%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00201	0.00209	3.90%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.0203	0.0198	2.49%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.0200	0.0196	2.02%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0399	0.0393	1.52%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0407	0.0399	1.99%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	30.5	24.3	22.63%	Fail
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0102	0.0061	50.31%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0371	0.0374	0.81%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0025	0.0029	14.81%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	282	325	14.17%	Pass
pH, LAB	0.1	0.1	ph units	8.31	8.33	0.24%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0039	0.0037	5.26%	Pass
POTASSIUM, D	0.05	0.05	mg/l	6.50	6.63	1.98%	Pass
POTASSIUM, T	0.05	0.05	mg/l	6.73	6.61	1.80%	Pass
SELENIUM, D	0.05	0.05	ug/l	89.4	85.7	4.23%	Pass
SELENIUM, T	0.05	0.05	ug/l	79.9	78.6	1.64%	Pass
SILICON, D	0.05	0.05	mg/l	2.51	2.45	2.42%	Pass
SILICON, T	0.1	0.1	mg/l	2.54	2.53	0.39%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.68	7.55	1.71%	Pass
SODIUM, T	0.05	0.05	mg/l	7.75	7.73	0.26%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.731	0.733	0.27%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.709	0.685	3.44%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	726	580	22.36%	Pass-2
THALLIUM, D	0.00001	0.00001	mg/l	0.000064	6.5e-005	1.55%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000064	6.7e-005	4.58%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1400	1400	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.25	0.05	mg/l	< 0.25	<0.05	133.33%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.0	1.6	46.15%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.62	1.55	4.42%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0101	0.0103	1.96%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0103	0.0104	0.97%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0124	0.0129	3.95%	Pass
ZINC, T	0.003	0.003	mg/l	0.0152	0.0146	4.03%	Pass

Location:	EV_HC1	EV_HC1
Sample ID:	EV_HC1_WS_2017-03-15_N	EV_ER5_WS_2017-03-15_N
Date Sampled:	3/15/2017	3/15/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	188	185	1.61%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	6.2	6.4	3.17%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	194	192	1.04%	Pass

ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0258	0.0211	20.04%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00013	0.00012	8.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00016	0.00015	6.45%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0668	0.0652	2.42%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0637	0.0615	3.51%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000183	1.93e-005	5.32%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000227	2.25e-005	0.88%	Pass
CALCIUM, D	0.05	0.05	mg/l	87.8	84.7	3.59%	Pass
CALCIUM, T	0.05	0.05	mg/l	81.7	78.6	3.87%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.34	1.2	11.02%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.45	1.41	2.80%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	728	728	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.20	0.19	5.13%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	426	412	3.34%	Pass
ION BALANCE	0	0	%	0.5	-0.5	200.00%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.033	0.028	16.39%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0070	0.0065	7.41%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0069	0.0065	5.97%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	50.3	48.7	3.23%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	46.6	46	1.30%	Pass
MAJOR ANION SUM	0	0	meq/l	8.55	8.41	1.65%	Pass
MAJOR CATION SUM	0	0	meq/l	8.63	8.33	3.54%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00160	0.00143	11.22%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00287	0.00297	3.42%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00064	0.00061	4.80%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000903	0.000894	1.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000940	0.000886	5.91%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00071	0.00068	4.32%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00075	0.00072	4.08%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	1.25	1.23	1.61%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0114	0.0091	22.44%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0074	0.0073	1.36%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	340	296	13.84%	Pass
pH, LAB	0.1	0.1	ph units	8.36	8.36	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0095	0.0075	23.53%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.04	0.992	4.72%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.950	0.932	1.91%	Pass
SELENIUM, D	0.05	0.05	ug/l	34.3	35.4	3.16%	Pass
SELENIUM, T	0.05	0.05	ug/l	35.5	34.9	1.70%	Pass
SILICON, D	0.05	0.05	mg/l	1.94	1.97	1.53%	Pass
SILICON, T	0.05	0.05	mg/l	2.00	1.96	2.02%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.97	1.86	5.74%	Pass
SODIUM, T	0.05	0.05	mg/l	1.88	1.85	1.61%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.137	0.13	5.24%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.129	0.122	5.58%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	217	213	1.86%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	501	474	5.54%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.103	0.103	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.25	1.22	2.43%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.5	1.1	30.77%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.82	0.69	17.22%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00295	0.00297	0.68%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00286	0.00272	5.02%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_HC1	EV_HC1
Sample ID:	EV_HC1_WS_2017-03-21_N	EV_MC5_WS_2017-03-21_N
Date Sampled:	3/21/2017	3/21/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	193	193	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.8	6	3.39%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	199	199	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0062	0.006	3.28%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.128	0.118	8.13%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00017	0.00011	42.86%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00022	0.00021	4.65%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0612	0.0601	1.81%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0626	0.0613	2.10%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000175	1.75e-005	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000283	3.26e-005	14.12%	Pass
CALCIUM, D	0.05	0.05	mg/l	88.4	88.3	0.11%	Pass
CALCIUM, T	0.05	0.05	mg/l	89.5	94.2	5.12%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.00	2.03	1.49%	Pass
CHLORIDE, D	0.1	0.1	mg/l	1.19	1.19	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00015	<0.0001	40.00%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00032	0.00028	13.33%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	720	723	0.42%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.202	0.203	0.49%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	415	411	0.97%	Pass
ION BALANCE	0	0	%	1.8	1.4	25.00%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.091	0.087	4.49%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000112	5.2e-005	73.17%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0069	0.0072	4.26%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0069	0.0078	12.24%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	47.1	46.3	1.71%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	47.5	48.5	2.08%	Pass
MAJOR ANION SUM	0	0	meq/l	8.09	8.09	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	8.40	8.32	0.96%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00162	0.00174	7.14%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00332	0.0033	0.60%	Pass

MERCURY, D	0.0000005	0.0000005	mg/l	0.00066	6.5E-07	199.61%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00134	0.00135	0.74%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000905	0.000936	3.37%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000984	0.001	1.61%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00084	0.00085	1.18%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00113	0.00115	1.75%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.13	1.13	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0073	0.0056	26.36%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0078	0.0072	8.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	302	316	4.53%	Pass
pH, LAB	0.1	0.1	ph units	8.34	8.34	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0128	0.0137	6.79%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.00	0.994	0.60%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.06	1.09	2.79%	Pass
SELENIUM, D	0.05	0.05	ug/l	35.1	33.6	4.37%	Pass
SELENIUM, T	0.05	0.05	ug/l	33.8	34.8	2.92%	Pass
SILICON, D	0.05	0.05	mg/l	2.21	2.13	3.69%	Pass
SILICON, T	0.05	0.05	mg/l	2.47	2.45	0.81%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.87	1.88	0.53%	Pass
SODIUM, T	0.05	0.05	mg/l	1.93	2.03	5.05%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.131	0.133	1.52%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.136	0.141	3.61%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	192	192	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000019	1.1e-005	53.33%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	455	474	4.09%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.112	0.138	20.80%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.54	2.52	0.79%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.9	1.8	5.41%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.52	2.61	3.51%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00256	0.0026	1.55%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00266	0.0027	1.49%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00055	<0.0005	9.52%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_HC1	EV_HC1
Sample ID:	EV_HC1_WS_2017-03-28_N	EV_ER5_WS_2017-03-28_N
Date Sampled:	3/28/2017	3/28/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	188	183	2.70%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	11.0	12.8	15.13%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	199	196	1.52%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0052	0.0052	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0518	0.0419	21.13%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00014	<0.0001	33.33%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	0.00013	0.00015	14.29%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00017	0.00017	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0602	0.0615	2.14%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0619	0.0606	2.12%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000165	1.67e-005	1.20%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000214	1.95e-005	9.29%	Pass
CALCIUM, D	0.05	0.05	mg/l	83.0	83	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	84.2	84.4	0.24%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.31	1.34	2.26%	Pass
CHLORIDE, D	0.1	0.1	mg/l	1.10	1.1	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00012	18.18%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00018	0.0002	10.53%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	702	707	0.71%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.212	0.211	0.47%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	367	370	0.81%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.040	0.029	31.88%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000053	<5e-005	5.83%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0070	0.007	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0071	0.0069	2.86%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	38.7	39.6	2.30%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	41.6	41.7	0.24%	Pass
MAJOR ANION SUM	0	0	meq/l	7.84	7.76	1.03%	Pass
MAJOR CATION SUM	0	0	meq/l	7.42	7.49	0.94%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00155	0.00153	1.30%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00235	0.00197	17.59%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00069	0.00077	10.96%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000914	0.000923	0.98%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000961	0.00096	0.10%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00070	0.00074	5.56%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00089	0.00085	4.60%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.03	1.03	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0055	<0.005	9.52%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0055	0.0054	1.83%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	318	315	0.95%	Pass
pH, LAB	0.1	0.1	ph units	8.36	8.34	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0068	0.0083	19.87%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.885	0.896	1.24%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.910	0.911	0.11%	Pass
SELENIUM, D	0.05	0.05	ug/l	32.7	32.3	1.23%	Pass
SELENIUM, T	0.05	0.05	ug/l	30.9	31.5	1.92%	Pass
SILICON, D	0.05	0.05	mg/l	2.08	2.03	2.43%	Pass
SILICON, T	0.05	0.05	mg/l	2.22	2.21	0.45%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.66	1.69	1.79%	Pass
SODIUM, T	0.05	0.05	mg/l	1.71	1.73	1.16%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.129	0.129	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.133	0.135	1.49%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	180	179	0.56%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	458	474	3.43%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.118	0.082	36.00%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.52	1.8	16.87%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.03	0.88	15.71%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00236	0.00239	1.26%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00242	0.00247	2.04%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_HC1	EV_HC1
Sample ID:	EV_HC1_WS_2017-04-11_N	EV_ER5_WS_2017-04-11_N
Date Sampled:	4/11/2017	4/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	202	201	0.50%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	6.6	4.2	44.44%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	208	205	1.45%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0062	0.005	21.43%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0606	0.0571	5.95%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00011	<0.0001	9.52%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00015	0.00014	6.90%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00018	0.00017	5.71%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0575	0.0573	0.35%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0553	0.0551	0.36%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.05	mg/l	< 0.25	<0.05	133.33%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	0.0000127	1.69e-005	28.38%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000250	2.05e-005	19.78%	Pass
CALCIUM, D	0.05	0.05	mg/l	86.9	88.3	1.60%	Pass
CALCIUM, T	0.05	0.05	mg/l	86.3	85.3	1.17%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.99	1.96	1.52%	Pass
CHLORIDE, D	0.5	0.1	mg/l	1.14	1.05	8.22%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	635	655	3.10%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.02	mg/l	0.17	0.194	13.19%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	395	393	0.51%	Pass
ION BALANCE	0	0	%	1.2	1.6	28.57%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.044	0.042	4.65%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0076	0.0082	7.59%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0082	0.0083	1.21%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	43.3	42	3.05%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	43.0	42.5	1.17%	Pass
MAJOR ANION SUM	0	0	meq/l	7.81	7.71	1.29%	Pass
MAJOR CATION SUM	0	0	meq/l	8.00	7.97	0.38%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00139	0.00127	9.02%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00254	0.00252	0.79%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	0.00055	5.6E-07	199.59%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00105	0.0009	15.38%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000915	0.000951	3.86%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000968	0.00096	0.83%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00088	0.00089	1.13%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00098	0.00091	7.41%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.005	mg/l	0.978	0.981	0.31%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.001	mg/l	< 0.0050	<0.001	133.33%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0050	0.0054	7.69%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	334	330	1.20%	Pass
pH, LAB	0.1	0.1	ph units	8.34	8.32	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0067	0.0064	4.58%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.04	1.04	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.01	1.01	0.00%	Pass

SELENIUM, D	0.05	0.05	ug/l	30.8	30.6	0.65%	Pass
SELENIUM, T	0.05	0.05	ug/l	30.6	30.6	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	2.15	2.1	2.35%	Pass
SILICON, T	0.1	0.1	mg/l	2.34	2.34	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.87	1.89	1.06%	Pass
SODIUM, T	0.05	0.05	mg/l	1.86	1.88	1.07%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.133	0.138	3.69%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.132	0.132	0.00%	Pass
SULFATE (AS SO4), D	1.5	0.3	mg/l	170	168	1.18%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	462	465	0.65%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.166	0.107	43.22%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.36	2.55	7.74%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.24	1.13	9.28%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00265	0.00262	1.14%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00268	0.00268	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_HC1	EV_HC1
Sample ID:	EV_HC1_WS_2017-04-19_N	EV_ER5_WS_2017-04-19_N
Date Sampled:	4/19/2017	4/19/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	200	198	1.01%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	3.6	10.6	98.59%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	204	208	1.94%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0074	0.0062	17.65%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0868	0.091	4.72%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00010	0.00012	18.18%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00019	0.00021	10.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0557	0.058	4.05%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0547	0.0551	0.73%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000264	2.33e-005	12.47%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000326	3.03e-005	7.31%	Pass
CALCIUM, D	0.05	0.05	mg/l	77.9	81.4	4.39%	Pass
CALCIUM, T	0.05	0.05	mg/l	76.3	75.6	0.92%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.17	2.23	2.73%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.29	1.32	2.30%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00013	0.00012	8.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00024	0.00024	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	677	693	2.34%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	0.00053	5.83%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.18	0.18	0.00%	Pass

Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	375	388	3.41%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.070	0.085	19.35%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000056	5.7e-005	1.77%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0068	0.0067	1.48%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0066	0.0063	4.65%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	43.7	44.9	2.71%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	42.7	43	0.70%	Pass
MAJOR ANION SUM	0	0	meq/l	8.02	8.17	1.85%	Pass
MAJOR CATION SUM	0	0	meq/l	7.59	7.86	3.50%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00185	0.00195	5.26%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00425	0.00431	1.40%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	0.00065	6.4E-07	199.61%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00133	0.0013	2.28%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000981	0.000863	12.80%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000987	0.000854	14.45%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00091	0.00094	3.24%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00103	0.00111	7.48%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	1.02	1.04	1.94%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0057	0.0051	11.11%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0046	0.0046	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	304	296	2.67%	Pass
pH, LAB	0.1	0.1	ph units	8.31	8.42	1.32%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0076	0.0082	7.59%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.06	1.1	3.70%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.01	1.03	1.96%	Pass
SELENIUM, D	0.05	0.05	ug/l	35.8	36	0.56%	Pass
SELENIUM, T	0.05	0.05	ug/l	34.6	34.1	1.46%	Pass
SILICON, D	0.05	0.05	mg/l	2.04	2.07	1.46%	Pass
SILICON, T	0.1	0.1	mg/l	2.22	2.17	2.28%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.76	1.8	2.25%	Pass
SODIUM, T	0.05	0.05	mg/l	1.70	1.7	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.122	0.123	0.82%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.122	0.119	2.49%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	184	187	1.62%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000010	1.2e-005	18.18%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	460	448	2.64%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.179	0.183	2.21%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.61	2.88	9.84%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	8.1	4.1	65.57%	Fail
TURBIDITY, LAB	0.1	0.1	ntu	2.27	2.57	12.40%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00255	0.00261	2.33%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00261	0.0026	0.38%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_HC1	EV_HC1
Sample ID:	EV_HC1_WS_2017-04-24_N	EV_ER5_WS_2017-04-24_N
Date Sampled:	4/24/2017	4/24/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.4	1.2	66.67%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	201	207	2.94%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	201	207	2.94%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0078	0.0177	77.65%	Fail

ALUMINUM, T	0.003	0.003	mg/l	0.0721	0.0644	11.28%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00028	0.00024	15.38%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0500	0.05	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0505	0.0479	5.28%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000252	2.71e-005	7.27%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000427	3.83e-005	10.86%	Pass
CALCIUM, D	0.05	0.05	mg/l	72.8	71.3	2.08%	Pass
CALCIUM, T	0.05	0.05	mg/l	70.5	68.2	3.32%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.57	2.51	2.36%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.79	0.87	9.64%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00025	0.00022	12.77%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	630	625	0.80%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00020	0.00029	36.73%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	0.00055	0.00054	1.83%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.144	0.155	7.36%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	335	331	1.20%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	0.012	18.18%	Pass
IRON, T	0.01	0.01	mg/l	0.104	0.094	10.10%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000076	7.1e-005	6.80%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0068	0.0067	1.48%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0068	0.0067	1.48%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	37.2	37.1	0.27%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	38.1	36.3	4.84%	Pass
MAJOR ANION SUM	0	0	meq/l	7.18	7.53	4.76%	Pass
MAJOR CATION SUM	0	0	meq/l	6.79	6.71	1.19%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00140	0.00142	1.42%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00341	0.00306	10.82%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	0.00061	6.9E-07	199.55%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00131	0.00169	25.33%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000820	0.000815	0.61%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000863	0.000841	2.58%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00102	0.001	1.98%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00129	0.00126	2.35%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.851	0.891	4.59%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0044	0.0047	6.59%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	470	469	0.21%	Pass
pH, LAB	0.1	0.1	ph units	8.27	8.26	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0159	0.0142	11.30%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.974	0.969	0.51%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.999	0.929	7.26%	Pass
SELENIUM, D	0.05	0.05	ug/l	34.7	35.6	2.56%	Pass
SELENIUM, T	0.05	0.05	ug/l	29.9	29.3	2.03%	Pass
SILICON, D	0.05	0.05	mg/l	2.16	2.21	2.29%	Pass
SILICON, T	0.05	0.05	mg/l	2.25	2.15	4.55%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.50	1.5	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	1.47	1.41	4.17%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.113	0.11	2.69%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.111	0.109	1.82%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	147	158	7.21%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000017	<1e-005	51.85%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	398	384	3.58%	Pass
TOTAL KJELDAHL NITROGEN	0.2	0.2	mg/l	0.22	0.26	16.67%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.07	3.13	1.94%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	4.2	5.6	28.57%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	3.36	3.26	3.02%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00223	0.00217	2.73%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00225	0.0022	2.25%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00079	0.00075	5.19%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	0.006	142.86%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.0044	<0.003	37.84%	Pass-1

Location:	EV_MC2	EV_MC2
Sample ID:	EV_MC2_WS_2017-05-09_N	EV_ER5_WS_2017-05-09_N
Date Sampled:	5/9/2017	5/9/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.2	1.1	8.70%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	121	122	0.82%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	121	122	0.82%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0219	0.0203	7.58%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.913	0.778	15.97%	Pass
ANTIMONY, D	0.0001	< 0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00020	0.00021	4.88%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00048	0.00047	2.11%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0682	0.0675	1.03%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0784	0.0786	0.25%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000042	4e-005	4.88%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	< 0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000274	2.76e-005	0.73%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000997	9.25e-005	7.49%	Pass
CALCIUM, D	0.05	0.05	mg/l	42.7	43	0.70%	Pass
CALCIUM, T	0.05	0.05	mg/l	44.6	44.7	0.22%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.48	3.74	7.20%	Pass
CHLORIDE, D	0.1	0.1	mg/l	2.86	2.86	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00143	0.00138	3.56%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00046	0.00044	4.44%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	309	316	2.24%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00136	0.00129	5.28%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.110	0.111	0.90%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	170	169	0.59%	Pass
ION BALANCE	0	0	%	0.4	0.2	66.67%	Fail
IRON, D	0.01	0.01	mg/l	0.020	0.02	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.728	0.691	5.21%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000460	0.000426	7.67%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0058	0.006	3.39%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0058	0.0057	1.74%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	15.3	15.1	1.32%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	14.3	14.4	0.70%	Pass
MAJOR ANION SUM	0	0	meq/l	3.50	3.51	0.29%	Pass
MAJOR CATION SUM	0	0	meq/l	3.53	3.52	0.28%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00083	0.00084	1.20%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0186	0.0172	7.82%	Pass
MERCURY, D	0.0005	0.0005	ug/l	0.00179	0.00189	5.43%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00515	0.00469	9.35%	Pass

MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000542	0.000584	7.46%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000617	0.000619	0.32%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00105	0.00107	1.89%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00246	0.00238	3.31%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.742	0.742	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0015	<0.001	40.00%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0082	0.006	30.99%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0134	0.0122	9.38%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	301	288	4.41%	Pass
pH, LAB	0.1	0.1	ph units	8.27	8.27	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0506	0.053	4.63%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.635	0.627	1.27%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.936	0.9	3.92%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.35	4.34	0.23%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.62	4.5	2.63%	Pass
SILICON, D	0.05	0.05	mg/l	2.41	2.35	2.52%	Pass
SILICON, T	0.1	0.1	mg/l	4.34	4.16	4.24%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000020	2e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.79	2.75	1.44%	Pass
SODIUM, T	0.05	0.05	mg/l	2.65	2.67	0.75%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.102	0.102	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.108	0.11	1.83%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	45.4	45.3	0.22%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000032	3.1e-005	3.17%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	0.021	0.017	21.05%	Pass-1
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	198	199	0.50%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.265	0.292	9.69%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	5.36	4.56	16.13%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	36.0	31.5	13.33%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	21.6	20.1	7.19%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000496	0.000491	1.01%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000569	0.000569	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00373	0.00317	16.23%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0063	0.0059	6.56%	Pass

Location:	EV_HC1	EV_HC1
Sample ID:	EV_HC1_WS_2017-05-16_N	EV_ER5_WS_2017-05-16_N
Date Sampled:	5/16/2017	5/16/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	172	165	4.15%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.4	8	38.81%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	178	173	2.85%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0062	0.005	21.43%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.370	0.31	17.65%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00013	<0.0001	26.09%	Pass-1
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00033	0.0003	9.52%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0428	0.0408	4.78%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0446	0.0453	1.56%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000024	2.2e-005	8.70%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000302	2.75e-005	9.36%	Pass

CADMIUM, T	0.000005	0.000005	mg/l	0.0000621	5.99e-005	3.61%	Pass
CALCIUM, D	0.05	0.05	mg/l	65.8	68.2	3.58%	Pass
CALCIUM, T	0.05	0.05	mg/l	63.4	64.4	1.56%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.59	2.85	9.56%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.62	0.62	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00059	0.00052	12.61%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	529	530	0.19%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00074	0.00069	6.99%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.169	0.169	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	288	291	1.04%	Pass
ION BALANCE	0	0	%	0.2	1.4	150.00%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.308	0.284	8.11%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000166	0.000156	6.21%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0051	0.0053	3.85%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0056	0.0058	3.51%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	30.1	29.3	2.69%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	30.5	29.6	3.00%	Pass
MAJOR ANION SUM	0	0	meq/l	5.82	5.72	1.73%	Pass
MAJOR CATION SUM	0	0	meq/l	5.84	5.89	0.85%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00119	0.00126	5.71%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00700	0.00692	1.15%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	0.00078	7.9E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00217	0.00228	4.94%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000679	0.000682	0.44%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000740	0.000729	1.50%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00085	0.00082	3.59%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00132	0.00131	0.76%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.729	0.729	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0151	100.50%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0075	0.0076	1.32%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	287	284	1.05%	Pass
pH, LAB	0.1	0.1	ph units	8.32	8.34	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0159	0.0214	29.49%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	0.857	0.821	4.29%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.952	0.926	2.77%	Pass
SELENIUM, D	0.05	0.05	ug/l	27.5	27.9	1.44%	Pass
SELENIUM, T	0.05	0.05	ug/l	27.7	27.6	0.36%	Pass
SILICON, D	0.05	0.05	mg/l	2.07	2	3.44%	Pass
SILICON, T	0.1	0.1	mg/l	2.71	2.74	1.10%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.31	1.25	4.69%	Pass
SODIUM, T	0.05	0.05	mg/l	1.26	1.25	0.80%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0945	0.0946	0.11%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0951	0.0957	0.63%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	105	105	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000017	1.4e-005	19.35%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	333	330	0.90%	Pass
TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.195	0.172	12.53%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.24	3.76	14.86%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	11.3	9.9	13.21%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	7.29	5.7	24.48%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00170	0.00165	2.99%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00171	0.00169	1.18%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00151	0.00132	13.43%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0036	0.0033	8.70%	Pass

Location:	EV_HC1	EV_HC1
Sample ID:	EV_HC1_WS_2017-05-30_N	EV_MC5_WS_2017-05-30_N
Date Sampled:	5/30/2017	5/30/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	154	157	1.93%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	2.6	2.2	16.67%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	157	159	1.27%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0050	0.0045	10.53%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.421	0.527	22.36%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00016	0.00015	6.45%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00029	0.00036	21.54%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0360	0.0338	6.30%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0382	0.0387	1.30%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000023	3.3e-005	35.71%	Pass-1
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000224	1.87e-005	18.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000545	5.3e-005	2.79%	Pass
CALCIUM, D	0.05	0.05	mg/l	56.0	52.9	5.69%	Pass
CALCIUM, T	0.05	0.05	mg/l	51.8	60.1	14.83%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.09	1.86	11.65%	Pass
Cation - Anion Balance	0	0	%	0.7	-3.6	200.00%	Fail
CHLORIDE, D	0.1	0.1	mg/l	0.39	0.4	2.53%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00062	0.00068	9.23%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00018	0.0002	10.53%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	412	427	3.58%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00074	0.00077	3.97%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.157	0.159	1.27%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	233	215	8.04%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.432	0.444	2.74%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000261	0.000291	10.87%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0044	0.0034	25.64%	Pass-1
LITHIUM, T	0.001	0.001	mg/l	0.0038	0.0045	16.87%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	22.7	20.2	11.66%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	22.1	23.5	6.14%	Pass
MAJOR ANION SUM	0	0	meq/l	4.66	4.69	0.64%	Pass
MAJOR CATION SUM	0	0	meq/l	4.72	4.36	7.93%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00161	0.0017	5.44%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00967	0.00969	0.21%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	0.00081	6.6E-07	199.67%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00255	0.00266	4.22%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000561	0.000519	7.78%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000548	0.000602	9.39%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00068	0.00067	1.48%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00132	0.00135	2.25%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.455	0.457	0.44%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0056	0.0054	3.64%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	259	261	0.77%	Pass
pH, LAB	0.1	0.1	ph units	8.30	8.3	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0257	0.0256	0.39%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.636	0.599	5.99%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.758	0.808	6.39%	Pass
SELENIUM, D	0.05	0.05	ug/l	17.3	18	3.97%	Pass

SELENIUM, T	0.05	0.05	ug/l	17.4	17.9	2.83%	Pass
SILICON, D	0.05	0.05	mg/l	1.77	1.77	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	2.39	2.57	7.26%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.954	0.903	5.49%	Pass
SODIUM, T	0.05	0.05	mg/l	0.899	0.885	1.57%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0833	0.0743	11.42%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0758	0.0825	8.46%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	70.8	70	1.14%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000020	2.1e-005	4.88%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	252	266	5.41%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.181	0.149	19.39%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.01	3.38	11.58%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	12.8	17.3	29.90%	Pass-2
TURBIDITY, LAB	0.1	0.1	ntu	13.5	13.8	2.20%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00124	0.00118	4.96%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00115	0.00128	10.70%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00134	0.00177	27.65%	Pass-1
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0041	0.0038	7.59%	Pass

Location:	EV_HC1	EV_HC1
Sample ID:	EV_HC1_WS_2017-06-13_N	EV_ER5_WS_2017-06-13_N
Date Sampled:	6/13/2017	6/13/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	159	159	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.2	6.4	20.69%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	165	165	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0370	0.048	25.88%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00017	19.35%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00017	0.0002	16.22%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0438	0.0474	7.89%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0425	0.0434	2.10%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000152	2.15e-005	34.33%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000219	2.19e-005	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	61.5	62	0.81%	Pass
CALCIUM, T	0.05	0.05	mg/l	61.1	61.6	0.81%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.24	1.43	14.23%	Pass
Cation - Anion Balance	0	0	%	1.3	0.8	47.62%	Fail
CHLORIDE, D	0.1	0.1	mg/l	0.54	0.54	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00025	0.00024	4.08%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	471	476	1.06%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.187	0.187	0.00%	Pass

Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	275	272	1.10%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.032	0.043	29.33%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0050	0.0051	1.98%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0052	0.0051	1.94%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	29.4	28.5	3.11%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	27.6	27.9	1.08%	Pass
MAJOR ANION SUM	0	0	meq/l	5.40	5.42	0.37%	Pass
MAJOR CATION SUM	0	0	meq/l	5.55	5.51	0.72%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00164	0.00183	10.95%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00286	0.00285	0.35%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.0005000000	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.0006000000	0.0008	28.57%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000688	0.000725	5.24%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000688	0.000716	3.99%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00062	0.00069	10.69%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00077	0.00078	1.29%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.594	0.593	0.17%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0061	0.0062	1.63%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	299	325	8.33%	Pass
pH, LAB	0.1	0.1	ph units	8.41	8.4	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0072	0.0092	24.39%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	0.650	0.768	16.64%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.640	0.654	2.16%	Pass
SELENIUM, D	0.05	0.05	ug/l	23.9	22.7	5.15%	Pass
SELENIUM, T	0.05	0.05	ug/l	23.2	24.1	3.81%	Pass
SILICON, D	0.05	0.05	mg/l	1.83	1.76	3.90%	Pass
SILICON, T	0.1	0.1	mg/l	1.95	1.99	2.03%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.01	1.14	12.09%	Pass
SODIUM, T	0.05	0.05	mg/l	0.981	0.998	1.72%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0861	0.0888	3.09%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0868	0.0878	1.15%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	98.4	98.5	0.10%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	326	333	2.12%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.092	0.097	5.29%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.43	1.48	3.44%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.1	1.4	40.00%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.35	1.06	24.07%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00150	0.0016	6.45%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00145	0.00147	1.37%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_HC1	EV_HC1
Sample ID:	EV_HC1_WS_2017-06-20_N	EV_ER5_WS_2017-06-20_N
Date Sampled:	6/20/2017	6/20/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	160	160	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	4.0	5	22.22%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	164	165	0.61%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

ALUMINUM, T	0.003	0.003	mg/l	0.0316	0.0238	28.16%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00019	0.00018	5.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00019	0.00019	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0539	0.049	9.52%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0466	0.0451	3.27%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000180	1.64e-005	9.30%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000243	2.16e-005	11.76%	Pass
CALCIUM, D	0.05	0.05	mg/l	66.7	62.3	6.82%	Pass
CALCIUM, T	0.05	0.05	mg/l	65.2	63.3	2.96%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.10	1.08	1.83%	Pass
Cation - Anion Balance	0	0	%	4.3	0.1	190.91%	Fail
CHLORIDE, D	0.1	0.1	mg/l	0.58	0.57	1.74%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00029	0.00038	26.87%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00022	0.00019	14.63%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	506	502	0.79%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.183	0.184	0.54%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	302	280	7.56%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.028	0.025	11.32%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0056	0.0053	5.50%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0054	0.0052	3.77%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	33.0	30.2	8.86%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	30.9	30.2	2.29%	Pass
MAJOR ANION SUM	0	0	meq/l	5.62	5.65	0.53%	Pass
MAJOR CATION SUM	0	0	meq/l	6.12	5.67	7.63%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00199	0.00187	6.22%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00327	0.00318	2.79%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.000050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00061	0.00072	16.54%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000784	0.000746	4.97%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000803	0.000747	7.23%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00086	0.00082	4.76%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00079	0.00078	1.27%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.611	0.612	0.16%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0046	0.0044	4.44%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	423	441	4.17%	Pass
pH, LAB	0.1	0.1	ph units	8.31	8.32	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0071	0.0072	1.40%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.884	0.789	11.36%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.728	0.705	3.21%	Pass
SELENIUM, D	0.05	0.05	ug/l	27.1	27.6	1.83%	Pass
SELENIUM, T	0.05	0.05	ug/l	27.9	27	3.28%	Pass
SILICON, D	0.05	0.05	mg/l	1.96	1.92	2.06%	Pass
SILICON, T	0.1	0.1	mg/l	1.97	1.86	5.74%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.33	1.21	9.45%	Pass
SODIUM, T	0.05	0.05	mg/l	1.13	1.09	3.60%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0995	0.0937	6.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0941	0.0909	3.46%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	110	110	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	369	369	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.135	0.09	40.00%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.47	1.49	1.35%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.5	1.5	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.73	0.81	10.39%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00185	0.00177	4.42%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00173	0.00168	2.93%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_HC1	EV_HC1
Sample ID:	EV_HC1_WS_2017-07-04_N	EV_ER9_WS_2017-07-04_N
Date Sampled:	7/4/2017	7/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	166	169	1.79%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.2	3.2	47.62%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	171	172	0.58%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0069	0.0107	43.18%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00018	0.00016	11.76%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0492	0.0494	0.41%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0509	0.0498	2.18%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000180	1.86e-005	3.28%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000222	2.1e-005	5.56%	Pass
CALCIUM, D	0.05	0.05	mg/l	67.4	66.2	1.80%	Pass
CALCIUM, T	0.05	0.05	mg/l	71.0	71	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.04	1.02	1.94%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.69	0.7	1.44%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00023	0.00035	41.38%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	583	560	4.02%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.199	0.201	1.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	306	304	0.66%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	0.014	33.33%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0056	0.0058	3.51%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0055	0.0056	1.80%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	33.3	33.6	0.90%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	39.0	37.5	3.92%	Pass
MAJOR ANION SUM	0	0	meq/l	6.23	6.25	0.32%	Pass
MAJOR CATION SUM	0	0	meq/l	6.18	6.14	0.65%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00296	0.00268	9.93%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00379	0.00373	1.60%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.000050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	0.00069	31.93%	Pass-1

MOLYBDENUM, D	0.0005	0.0005	mg/l	0.000808	0.000805	0.37%	Pass
MOLYBDENUM, T	0.0005	0.0005	mg/l	0.000830	0.00082	1.21%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00070	0.00068	2.90%	Pass
NICKEL, T	0.001	0.0005	mg/l	< 0.0010	0.00082	19.78%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.692	0.71	2.57%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0057	<0.001	140.30%	Fail
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	359	364	1.38%	Pass
pH, LAB	0.1	0.1	ph units	8.33	8.42	1.07%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0075	0.0067	11.27%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.786	0.788	0.25%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.795	0.768	3.45%	Pass
SELENIUM, D	0.05	0.05	ug/l	30.4	30.9	1.63%	Pass
SELENIUM, T	0.05	0.05	ug/l	31.5	30.2	4.21%	Pass
SILICON, D	0.05	0.05	mg/l	1.99	2.04	2.48%	Pass
SILICON, T	0.1	0.1	mg/l	2.06	2.03	1.47%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.24	1.27	2.39%	Pass
SODIUM, T	0.05	0.05	mg/l	1.25	1.2	4.08%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0966	0.0984	1.85%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.106	0.105	0.95%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	131	131	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	408	378	7.63%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.064	0.069	7.52%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.90	0.95	5.41%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.7	1.2	76.92%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.40	0.46	13.95%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00206	0.00207	0.48%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00194	0.00187	3.67%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_HC1	EV_HC1
Sample ID:	EV_HC1_WS_2017-07-10_N	EV_ER5_WS_2017-07-10_N
Date Sampled:	7/10/2017	7/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	166	181	8.65%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	7.0	8	13.33%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	173	189	8.84%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0023	0.0023	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0072	0.007	2.82%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00010	0.00012	18.18%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00016	0.00015	6.45%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00019	0.00021	10.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0509	0.0509	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0479	0.0478	0.21%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000155	2.02e-005	26.33%	Pass-1

CADMIUM, T	0.000005	0.000005	mg/l	0.0000204	2.07e-005	1.46%	Pass
CALCIUM, D	0.05	0.05	mg/l	67.6	67.6	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	67.4	66.9	0.74%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.27	1.69	28.38%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	0.65	0.66	1.53%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00013	0.00015	14.29%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	593	594	0.17%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.144	0.15	4.08%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	316	317	0.32%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0061	0.006	1.65%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0059	0.0058	1.71%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	35.8	36	0.56%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	34.9	34.8	0.29%	Pass
MAJOR ANION SUM	0	0	meq/l	6.57	6.89	4.75%	Pass
MAJOR CATION SUM	0	0	meq/l	6.40	6.42	0.31%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00394	0.00385	2.31%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00406	0.00413	1.71%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.000050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000850	0.000857	0.82%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000834	0.000832	0.24%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00075	0.00076	1.32%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00079	0.0008	1.26%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.734	0.735	0.14%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0075	0.0062	18.98%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0054	0.0063	15.38%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	304	320	5.13%	Pass
pH, LAB	0.1	0.1	ph units	8.32	8.32	0.00%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0117	0.0103	12.73%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.850	0.85	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.796	0.797	0.13%	Pass
SELENIUM, D	0.05	0.05	ug/l	34.8	33.7	3.21%	Pass
SELENIUM, T	0.05	0.05	ug/l	30.2	29.8	1.33%	Pass
SILICON, D	0.05	0.05	mg/l	2.01	2.01	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	2.05	1.99	2.97%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.28	1.29	0.78%	Pass
SODIUM, T	0.05	0.05	mg/l	1.24	1.24	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.103	0.102	0.98%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.102	0.101	0.99%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	146	146	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	406	402	0.99%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.103	0.116	11.87%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.21	1.34	10.20%	Pass
TOTAL SUSPENDED SOLIDS, LAB	2	2	mg/l	2.0	<2	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.20	0.61	65.19%	Fail
URANIUM, D	0.00001	0.00001	mg/l	0.00175	0.00172	1.73%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00174	0.00173	0.58%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_HC1	EV_HC1
Sample ID:	EV_HC1_WS_2017-07-25_N	EV_ER5_WS_2017-07-25_N
Date Sampled:	7/25/2017	7/25/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	173	171	1.16%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	9.4	10.4	10.10%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	182	181	0.55%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0097	0.008	19.21%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00020	0.00017	16.22%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0608	0.0611	0.49%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0569	0.0559	1.77%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000190	1.83e-005	3.75%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000220	1.97e-005	11.03%	Pass
CALCIUM, D	0.05	0.05	mg/l	88.3	89.5	1.35%	Pass
CALCIUM, T	0.05	0.05	mg/l	82.9	81.6	1.58%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.97	1.05	7.92%	Pass
Cation - Anion Balance	0	0	%	8.6	9.3	7.82%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.81	0.81	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	<0.0001	9.52%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00022	0.00015	37.84%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	610	609	0.16%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.210	0.207	1.44%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	416	421	1.19%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.011	0.01	9.52%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0071	0.0071	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0066	0.0065	1.53%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	47.4	47.9	1.05%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	45.9	43.2	6.06%	Pass
MAJOR ANION SUM	0	0	meq/l	7.07	7.05	0.28%	Pass
MAJOR CATION SUM	0	0	meq/l	8.39	8.49	1.18%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00541	0.00528	2.43%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00567	0.00572	0.88%	Pass
MERCURY, D	0.000005	0.000005	mg/l	0.00060	1.1E-06	199.27%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00120	0.0043	112.73%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000847	0.000851	0.47%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000850	0.000864	1.63%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00078	0.00096	20.69%	Pass-1
NICKEL, T	0.0005	0.0005	mg/l	0.00093	0.00084	10.17%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.791	0.793	0.25%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0054	0.0055	1.83%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	322	340	5.44%	Pass
pH, LAB	0.1	0.1	ph units	8.43	8.42	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0072	0.0068	5.71%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.963	0.977	1.44%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.873	0.838	4.09%	Pass
SELENIUM, D	0.05	0.05	ug/l	32.8	33	0.61%	Pass
SELENIUM, T	0.05	0.05	ug/l	35.4	34.6	2.29%	Pass

SILICON, D	0.05	0.05	mg/l	2.03	2.02	0.49%	Pass
SILICON, T	0.1	0.1	mg/l	2.20	2.15	2.30%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.49	1.48	0.67%	Pass
SODIUM, T	0.05	0.05	mg/l	1.43	1.36	5.02%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.119	0.124	4.12%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.117	0.116	0.86%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	161	160	0.62%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	436	439	0.69%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.069	0.065	5.97%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.04	0.94	10.10%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.31	0.36	14.93%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00211	0.00224	5.98%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00214	0.00214	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_HC1	EV_HC1
Sample ID:	EV_HC1_WS_2017-08-01_N	EV_ER5_WS_2017-08-01_N
Date Sampled:	8/1/2017	8/1/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	171	181	5.68%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	4.0	5.2	26.09%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	175	186	6.09%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0100	0.0095	5.13%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00010	0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.00015	18.18%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00021	0.00018	15.38%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0610	0.0607	0.49%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0552	0.0562	1.80%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000175	1.94e-005	10.30%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000260	2.16e-005	18.49%	Pass
CALCIUM, D	0.05	0.05	mg/l	76.0	78.9	3.74%	Pass
CALCIUM, T	0.05	0.05	mg/l	76.4	75.1	1.72%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.09	1.05	3.74%	Pass
Cation - Anion Balance	0	0	%	0.4	-0.6	200.00%	Fail
CHLORIDE, D	0.5	0.5	mg/l	1.14	1.14	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00018	0.0002	10.53%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	634	632	0.32%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.20	0.2	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	364	370	1.63%	Pass

IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0066	0.0069	4.44%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0062	0.0059	4.96%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	42.4	41.9	1.19%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	41.7	41	1.69%	Pass
MAJOR ANION SUM	0	0	meq/l	7.31	7.57	3.49%	Pass
MAJOR CATION SUM	0	0	meq/l	7.37	7.48	1.48%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00044	0.00061	32.38%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00565	0.00565	0.00%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000862	0.000866	0.46%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000886	0.000881	0.57%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00061	0.00064	4.80%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00086	0.00089	3.43%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.833	0.838	0.60%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0028	0.0028	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	396	425	7.06%	Pass
pH, LAB	0.1	0.1	ph units	8.37	8.36	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0056	0.0085	41.13%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	0.934	0.941	0.75%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.881	0.874	0.80%	Pass
SELENIUM, D	0.05	0.05	ug/l	35.3	35	0.85%	Pass
SELENIUM, T	0.05	0.05	ug/l	36.4	35.6	2.22%	Pass
SILICON, D	0.05	0.05	mg/l	2.04	2.07	1.46%	Pass
SILICON, T	0.1	0.1	mg/l	2.16	2.14	0.93%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.52	1.49	1.99%	Pass
SODIUM, T	0.05	0.05	mg/l	1.52	1.5	1.32%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.112	0.114	1.77%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.116	0.114	1.74%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	178	180	1.12%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	500	492	1.61%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.068	0.082	18.67%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.04	1.06	1.90%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.4	1.2	15.38%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.34	0.4	16.22%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00225	0.00223	0.89%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00221	0.00216	2.29%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_HC1	EV_HC1
Sample ID:	EV_HC1_WS_2017-11-14_N	EV_ER5_WS_2017-11-14_N
Date Sampled:	11/14/2017	11/14/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	199	188	5.68%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	199	188	5.68%	Pass
ALUMINUM, D	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ALUMINUM, T	0.015	0.015	mg/l	< 0.015	<0.015	0.00%	Pass

ANTIMONY, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ANTIMONY, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ARSENIC, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ARSENIC, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
BARIUM, D	0.00025	0.00025	mg/l	0.0624	0.0647	3.62%	Pass
BARIUM, T	0.00025	0.00025	mg/l	0.0630	0.0681	7.78%	Pass
BERYLLIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BERYLLIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BISMUTH, D	0.00025	0.00025	mg/l	< 0.00025	<0.00025	0.00%	Pass
BISMUTH, T	0.00025	0.00025	mg/l	< 0.00025	<0.00025	0.00%	Pass
BORON, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
BORON, T	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000025	0.000025	mg/l	< 0.000025	<2.5e-005	0.00%	Pass
CADMIUM, T	0.000025	0.000025	mg/l	< 0.000025	<2.5e-005	0.00%	Pass
CALCIUM, D	0.25	0.25	mg/l	85.6	84.7	1.06%	Pass
CALCIUM, T	0.25	0.25	mg/l	82.1	86.1	4.76%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.79	0.86	70.19%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	0.97	0.91	6.38%	Pass
CHROMIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
CHROMIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COBALT, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COBALT, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	715	726	1.53%	Pass
COPPER, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
COPPER, T	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.154	0.171	10.46%	Pass
Hardness, Total or Dissolved CaCO3	0.75	0.75	mg/l	394	392	0.51%	Pass
ION BALANCE	100	100	%	92.3	93.9	1.72%	Pass
IRON, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
IRON, T	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
LEAD, D	0.00025	0.00025	mg/l	< 0.00025	<0.00025	0.00%	Pass
LEAD, T	0.00025	0.00025	mg/l	< 0.00025	<0.00025	0.00%	Pass
LITHIUM, D	0.005	0.005	mg/l	0.0065	0.0064	1.55%	Pass
LITHIUM, T	0.005	0.005	mg/l	0.0058	0.0057	1.74%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	43.7	43.8	0.23%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	45.8	44.9	1.98%	Pass
MAJOR ANION SUM	0	0	meq/l	8.62	8.43	2.23%	Pass
MAJOR CATION SUM	0	0	meq/l	7.96	7.92	0.50%	Pass
MANGANESE, D	0.0005	0.0005	mg/l	0.00297	0.00331	10.83%	Pass
MANGANESE, T	0.0005	0.0005	mg/l	0.00392	0.00395	0.76%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00153	0.0005	101.48%	Pass-1
Methyl Mercury, T	0.00005	0.00005	ug/l	< 0.000050	<5e-005	0.00%	Pass
MOLYBDENUM, D	0.00025	0.00025	mg/l	0.00082	0.00091	10.40%	Pass
MOLYBDENUM, T	0.00025	0.00025	mg/l	0.00092	0.00084	9.09%	Pass
NICKEL, D	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
NICKEL, T	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.10	1.08	1.83%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0013	0.001	26.09%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0160	0.0255	45.78%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0056	0.0065	14.88%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	273	320	15.85%	Pass
pH, LAB	0.1	0.1	ph units	8.27	8.28	0.12%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0070	0.0069	1.44%	Pass
POTASSIUM, D	0.25	0.25	mg/l	0.84	0.84	0.00%	Pass
POTASSIUM, T	0.25	0.25	mg/l	0.88	0.88	0.00%	Pass
SELENIUM, D	0.25	0.25	ug/l	39.1	38.8	0.77%	Pass
SELENIUM, T	0.25	0.25	ug/l	38.8	39.3	1.28%	Pass
SILICON, D	0.25	0.25	mg/l	2.01	2.08	3.42%	Pass
SILICON, T	0.5	0.5	mg/l	2.13	2.01	5.80%	Pass
SILVER, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
SILVER, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
SODIUM, D	0.25	0.25	mg/l	1.52	1.47	3.34%	Pass
SODIUM, T	0.25	0.25	mg/l	1.57	1.57	0.00%	Pass
STRONTIUM, D	0.001	0.001	mg/l	0.128	0.123	3.98%	Pass
STRONTIUM, T	0.001	0.001	mg/l	0.133	0.133	0.00%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	218	219	0.46%	Pass
THALLIUM, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
THALLIUM, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
TIN, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
TIN, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	520	493	5.33%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.201	<0.05	120.32%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.61	1.09	82.16%	Fail
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.53	0.46	14.14%	Pass
URANIUM, D	0.00005	0.00005	mg/l	0.00270	0.00267	1.12%	Pass
URANIUM, T	0.00005	0.00005	mg/l	0.00281	0.00295	4.86%	Pass
VANADIUM, D	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
VANADIUM, T	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
ZINC, D	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ZINC, T	0.015	0.015	mg/l	< 0.015	<0.015	0.00%	Pass

Location:	EV_HC1	EV_HC1
Sample ID:	EV_HC1_WS_2017-12-01_N	EV_ER5_WS_2017-12-01_N
Date Sampled:	12/1/2017	12/1/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	196	201	2.52%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	196	201	2.52%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0060	0.0046	26.42%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00017	0.00014	19.35%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0577	0.0579	0.35%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0586	0.0648	10.05%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000185	1.65e-005	11.43%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000208	1.95e-005	6.45%	Pass
CALCIUM, D	0.05	0.05	mg/l	88.1	86.7	1.60%	Pass
CALCIUM, T	0.05	0.05	mg/l	88.3	86.4	2.18%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.86	0.96	10.99%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.97	0.95	2.08%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00016	13.33%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	712	719	0.98%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.178	0.172	3.43%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	420	413	1.68%	Pass
ION BALANCE	100	100	%	98.3	96.1	2.26%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0070	0.0071	1.42%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0073	0.007	4.20%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	48.6	47.7	1.87%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	50.5	49.5	2.00%	Pass
MAJOR ANION SUM	0	0	meq/l	8.64	8.69	0.58%	Pass
MAJOR CATION SUM	0	0	meq/l	8.49	8.35	1.66%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00527	0.00523	0.76%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00616	0.00635	3.04%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass

MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000953	0.00102	6.79%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000925	0.000954	3.09%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00062	0.00063	1.60%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00076	0.00079	3.87%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.10	1.1	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0060	0.0077	24.82%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0069	0.0069	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	253	324	24.61%	Pass-1
pH, LAB	0.1	0.1	ph units	8.29	8.25	0.48%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0071	0.0076	6.80%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.863	0.872	1.04%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.882	0.877	0.57%	Pass
SELENIUM, D	0.05	0.05	ug/l	45.4	45.9	1.10%	Pass
SELENIUM, T	0.05	0.05	ug/l	41	41	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	2.11	2.04	3.37%	Pass
SILICON, T	0.1	0.1	mg/l	2.17	2.12	2.33%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.80	1.72	4.55%	Pass
SODIUM, T	0.05	0.05	mg/l	1.82	1.76	3.35%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.131	0.129	1.54%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.131	0.127	3.10%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	221	219	0.91%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	0.00025	85.71%	Pass-1
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	495	509	2.79%	Pass
TOTAL KJELDAHL NITROGEN	0.2	0.2	mg/l	< 0.20	<0.2	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.94	0.91	3.24%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.59	0.43	31.37%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00278	0.00272	2.18%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00294	0.00295	0.34%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_MC2	EV_MC2
Sample ID:	EV_MC2_WS_2017-02-21_N	EV_ER5_WS_2017-02-21_N
Date Sampled:	2/21/2017	2/21/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.7	3.4	66.67%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	176	175	0.57%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	176	175	0.57%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0222	0.0269	19.14%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00023	0.00021	9.09%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00022	0.00023	4.44%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00012	0.00014	15.38%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00017	0.00018	5.71%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.117	0.116	0.86%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.119	0.12	0.84%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.012	0.011	8.70%	Pass
BORON, T	0.01	0.01	mg/l	0.012	0.014	15.38%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass

CADMIUM, D	0.000005	0.000005	mg/l	0.0000288	2.8e-005	2.82%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000353	3.58e-005	1.41%	Pass
CALCIUM, D	0.05	0.05	mg/l	81.1	80.4	0.87%	Pass
CALCIUM, T	0.05	0.05	mg/l	83.7	82.6	1.32%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.80	0.74	7.79%	Pass
CHLORIDE, D	0.1	0.1	mg/l	7.07	7.69	8.40%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00013	0.00014	7.41%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00023	0.00018	24.39%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	615	618	0.49%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.151	0.152	0.66%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	334	328	1.81%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.029	0.031	6.67%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0182	0.0158	14.12%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0167	0.0163	2.42%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	31.9	30.8	3.51%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	32.3	31.8	1.56%	Pass
MAJOR ANION SUM	0	0	meq/l	7.06	7.02	0.57%	Pass
MAJOR CATION SUM	0	0	meq/l	6.95	6.83	1.74%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00068	0.00115	51.37%	Fail
MANGANESE, T	0.0001	0.0001	mg/l	0.00199	0.00209	4.90%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.000050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00145	0.00143	1.39%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00147	0.0015	2.02%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00214	0.00233	8.50%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00251	0.00257	2.36%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	3.50	3.47	0.86%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0075	0.0085	12.50%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0044	0.0047	6.59%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	323	248	26.27%	Pass-1
pH, LAB	0.1	0.1	ph units	8.21	8.22	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0056	0.006	6.90%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.17	1.15	1.72%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.19	1.21	1.67%	Pass
SELENIUM, D	0.05	0.05	ug/l	16.1	15.6	3.15%	Pass
SELENIUM, T	0.05	0.05	ug/l	16	15.5	3.17%	Pass
SILICON, D	0.05	0.05	mg/l	2.28	2.26	0.88%	Pass
SILICON, T	0.05	0.05	mg/l	2.47	2.48	0.40%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	5.72	5.82	1.73%	Pass
SODIUM, T	0.05	0.05	mg/l	5.89	5.95	1.01%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.196	0.194	1.03%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.197	0.197	0.00%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	148	147	0.68%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	429	431	0.47%	Pass
TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.106	0.114	7.27%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.73	0.93	24.10%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.4	33.33%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.70	0.7	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00163	0.00157	3.75%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00160	0.00161	0.62%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_MC2	EV_MC2
Sample ID:	EV_MC2_WS_2017-03-16_N	EV_MC5_WS_2017-03-16_N
Date Sampled:	3/16/2017	3/16/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	2.8	94.74%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	156	156	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	156	156	0.00%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0045	0.0065	36.36%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.140	0.156	10.81%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.0002	10.53%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00021	0.00023	9.09%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00025	0.00027	7.69%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.105	0.106	0.95%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.107	0.108	0.93%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.012	0.013	8.00%	Pass
BORON, T	0.01	0.01	mg/l	0.012	0.012	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000439	3.79e-005	14.67%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000712	7.7e-005	7.83%	Pass
CALCIUM, D	0.05	0.05	mg/l	70.3	71.3	1.41%	Pass
CALCIUM, T	0.05	0.05	mg/l	71.3	70.2	1.55%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.39	1.57	12.16%	Pass
CHLORIDE, D	0.5	0.5	mg/l	7.89	7.81	1.02%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00051	<0.0001	134.43%	Fail
CHROMIUM, T	0.0001	0.0001	mg/l	0.00034	0.00079	79.65%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00019	0.00018	5.41%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	558	549	1.63%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00025	<0.0002	22.22%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	0.00089	0.00071	22.50%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.101	0.121	18.02%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	290	292	0.69%	Pass
IRON, D	0.01	0.01	mg/l	0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.248	0.258	3.95%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000204	0.000207	1.46%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0152	0.0149	1.99%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0152	0.0152	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	27.1	27.5	1.47%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	27.2	27	0.74%	Pass
MAJOR ANION SUM	0	0	meq/l	6.40	6.39	0.16%	Pass
MAJOR CATION SUM	0	0	meq/l	6.27	6.08	3.08%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00085	0.00042	67.72%	Fail
MANGANESE, T	0.0001	0.0001	mg/l	0.00826	0.00782	5.47%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00167	0.00167	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00122	0.00125	2.43%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00132	0.00131	0.76%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00175	0.00172	1.73%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00251	0.00251	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	3.06	3.06	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0016	0.0016	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0105	0.0108	2.82%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0193	0.0184	4.77%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	366	387	5.58%	Pass
pH, LAB	0.1	0.1	ph units	7.94	7.97	0.38%	Pass
PHOSPHORUS	0.002	0.005	mg/l	0.0213	0.0296	32.61%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	1.10	1.11	0.90%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.14	1.15	0.87%	Pass
SELENIUM, D	0.05	0.05	ug/l	14.8	14.6	1.36%	Pass
SELENIUM, T	0.05	0.05	ug/l	14.4	14.1	2.11%	Pass

SILICON, D	0.05	0.05	mg/l	2.31	2.31	0.00%	Pass
SILICON, T	0.05	0.05	mg/l	2.48	2.47	0.40%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	5.05	5.12	1.38%	Pass
SODIUM, T	0.05	0.05	mg/l	5.07	5	1.39%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.182	0.185	1.63%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.184	0.183	0.54%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	136	136	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000015	2e-005	28.57%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	373	368	1.35%	Pass
TOTAL KJELDAHL NITROGEN	0.2	0.2	mg/l	0.51	0.47	8.16%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.29	2.22	3.10%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	11.0	11.6	5.31%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	15.5	12.4	22.22%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00126	0.00125	0.80%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00133	0.00134	0.75%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00083	0.00083	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0014	0.0012	15.38%	Pass
ZINC, T	0.003	0.003	mg/l	0.0038	0.0039	2.60%	Pass

Location:	EV_MC2	EV_MC2
Sample ID:	EV_MC2_WS_2017-03-29_N	EV_MC5_WS_2017-03-29_N
Date Sampled:	3/29/2017	3/29/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.6	2.5	43.90%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	155	159	2.55%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	< 1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	< 1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	155	159	2.55%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0049	0.0042	15.38%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0898	0.0874	2.71%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00014	0.00012	15.38%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00019	0.0002	5.13%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.108	0.108	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.114	0.107	6.33%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.010	0.011	9.52%	Pass
BORON, T	0.01	0.01	mg/l	0.011	0.012	8.70%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	< 0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000331	3.1e-005	6.55%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000434	3.9e-005	10.68%	Pass
CALCIUM, D	0.05	0.05	mg/l	62.6	65.8	4.98%	Pass
CALCIUM, T	0.05	0.05	mg/l	68.7	72.6	5.52%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.99	2.08	4.42%	Pass
CHLORIDE, D	0.5	0.5	mg/l	7.24	7.64	5.38%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	< 0.0001	9.52%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00028	0.00023	19.61%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00011	< 0.0001	9.52%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	516	524	1.54%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	< 0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.134	0.119	11.86%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	254	263	3.48%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass

IRON, T	0.01	0.01	mg/l	0.099	0.093	6.25%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000093	7.9e-005	16.28%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0110	0.0119	7.86%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0119	0.0127	6.50%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	23.8	23.8	0.00%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	25.3	23.5	7.38%	Pass
MAJOR ANION SUM	0	0	meq/l	5.74	5.71	0.52%	Pass
MAJOR CATION SUM	0	0	meq/l	5.32	5.48	2.96%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00112	0.00113	0.89%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00277	0.0026	6.33%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00103	0.00099	3.96%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000774	0.000827	6.62%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000909	0.000956	5.04%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00086	0.00084	2.35%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00113	0.00109	3.60%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.81	1.79	1.11%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0053	<0.005	5.83%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0045	0.0038	16.87%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	496	487	1.83%	Pass
pH, LAB	0.1	0.1	ph units	8.04	7.97	0.87%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0079	0.0064	20.98%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	0.948	0.95	0.21%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.02	0.964	5.65%	Pass
SELENIUM, D	0.05	0.05	ug/l	11.7	11.8	0.85%	Pass
SELENIUM, T	0.05	0.05	ug/l	12.4	11.7	5.81%	Pass
SILICON, D	0.05	0.05	mg/l	2.52	2.52	0.00%	Pass
SILICON, T	0.05	0.05	mg/l	2.79	2.74	1.81%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	4.88	4.92	0.82%	Pass
SODIUM, T	0.05	0.05	mg/l	5.17	4.83	6.80%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.157	0.168	6.77%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.176	0.187	6.06%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	111	105	5.56%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000011	1.1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	327	335	2.42%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.099	0.135	30.77%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.32	2.05	12.36%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	4.4	3.6	20.00%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	4.02	3.71	8.02%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000782	0.000853	8.69%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000901	0.00093	3.17%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00061	0.0006	1.65%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_MC2	EV_MC2
Sample ID:	EV_MC2_WS_2017-04-12_N	EV_MC5_WS_2017-04-12_N
Date Sampled:	4/12/2017	4/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	3.0	3.1	3.28%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	161	158	1.88%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	161	158	1.88%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0043	0.0045	4.55%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0319	0.0283	11.96%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00010	0.00014	33.33%	Pass-1

ANTIMONY, T	0.0001	0.0001	mg/l	0.00012	0.0001	18.18%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00017	0.00017	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.113	0.113	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.107	0.107	0.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.010	0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000293	2.76e-005	5.98%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000352	3.74e-005	6.06%	Pass
CALCIUM, D	0.05	0.05	mg/l	62.3	62.1	0.32%	Pass
CALCIUM, T	0.05	0.05	mg/l	58.9	57.3	2.75%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.51	3.4	30.12%	Pass-2
CHLORIDE, D	0.5	0.5	mg/l	5.78	5.74	0.69%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00013	14.29%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	475	475	0.00%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00023	0.00037	46.67%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.116	0.116	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	248	245	1.22%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.043	0.045	4.55%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0102	0.0101	0.99%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0094	0.0091	3.24%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	22.3	21.8	2.27%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	20.9	20.7	0.96%	Pass
MAJOR ANION SUM	0	0	meq/l	5.45	5.38	1.29%	Pass
MAJOR CATION SUM	0	0	meq/l	5.18	5.12	1.17%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00123	0.00123	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00253	0.00252	0.40%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	0.00057	5.7E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00115	0.00114	0.87%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000748	0.000758	1.33%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000739	0.000747	1.08%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00101	0.00098	3.02%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00110	0.00109	0.91%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.45	1.44	0.69%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0015	0.0014	6.90%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0065	0.0083	24.32%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0026	0.0028	7.41%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	485	477	1.66%	Pass
pH, LAB	0.1	0.1	ph units	8.08	8.11	0.37%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0139	0.0162	15.28%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.925	0.908	1.85%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.887	0.885	0.23%	Pass
SELENIUM, D	0.05	0.05	ug/l	9.85	10	1.51%	Pass
SELENIUM, T	0.05	0.05	ug/l	9.13	8.83	3.34%	Pass
SILICON, D	0.05	0.05	mg/l	2.44	2.4	1.65%	Pass
SILICON, T	0.05	0.05	mg/l	2.44	2.4	1.65%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	4.73	4.68	1.06%	Pass
SODIUM, T	0.05	0.05	mg/l	4.55	4.31	5.42%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.157	0.158	0.63%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.151	0.148	2.01%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	94.1	94.1	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	1.1e-005	9.52%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	322	332	3.06%	Pass

TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.229	0.214	6.77%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.78	3.59	25.43%	Pass-2
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	3.5	3.3	5.88%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.49	2.57	3.16%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000820	0.000818	0.24%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000811	0.000804	0.87%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	< 0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0076	< 0.003	86.79%	Pass-1

Location:	EV_MC2	EV_MC2
Sample ID:	EV_MC2_WS_2017-04-20_N	EV_MC5_WS_2017-04-20_N
Date Sampled:	4/20/2017	4/20/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.0	3.7	7.79%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	155	161	3.80%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	< 1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	< 1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	155	161	3.80%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0125	0.0107	15.52%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0836	0.0834	0.24%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	0.00013	26.09%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00026	0.00026	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.105	0.105	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0960	0.0904	6.01%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.010	< 0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.010	< 0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	< 0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000318	2.73e-005	15.23%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000565	5.33e-005	5.83%	Pass
CALCIUM, D	0.05	0.05	mg/l	55.4	55.3	0.18%	Pass
CALCIUM, T	0.05	0.05	mg/l	54.4	51.6	5.28%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.12	3.15	0.96%	Pass
CHLORIDE, D	0.5	0.5	mg/l	5.39	5.42	0.56%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00023	0.00026	12.24%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00019	0.00018	5.41%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	457	460	0.65%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00027	0.00028	3.64%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00051	0.00061	17.86%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.107	0.109	1.85%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	217	218	0.46%	Pass
IRON, D	0.01	0.01	mg/l	0.015	0.014	6.90%	Pass
IRON, T	0.01	0.01	mg/l	0.125	0.137	9.16%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000125	0.000121	3.25%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0086	0.0083	3.55%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0085	0.0083	2.38%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	19.1	19.5	2.07%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	19.3	18.3	5.32%	Pass
MAJOR ANION SUM	0	0	meq/l	5.16	5.27	2.11%	Pass
MAJOR CATION SUM	0	0	meq/l	4.54	4.56	0.44%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00126	0.00134	6.15%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00654	0.00613	6.47%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	0.00090	9.1E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00239	0.00233	2.54%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000746	0.00077	3.17%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000691	0.000668	3.38%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00140	0.00155	10.17%	Pass

NICKEL, T	0.0005	0.0005	mg/l	0.00195	0.00201	3.03%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.33	1.32	0.75%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0011	0.001	9.52%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0211	0.009	80.40%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0028	0.0028	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	397	413	3.95%	Pass
pH, LAB	0.1	0.1	ph units	8.18	8.08	1.23%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0141	0.0135	4.35%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.838	0.846	0.95%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.843	0.81	3.99%	Pass
SELENIUM, D	0.05	0.05	ug/l	8.88	9.08	2.23%	Pass
SELENIUM, T	0.05	0.05	ug/l	7.82	8.05	2.90%	Pass
SILICON, D	0.05	0.05	mg/l	2.65	2.62	1.14%	Pass
SILICON, T	0.05	0.05	mg/l	2.60	2.57	1.16%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	4.03	4.09	1.48%	Pass
SODIUM, T	0.05	0.05	mg/l	4.02	3.88	3.54%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.155	0.154	0.65%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.151	0.145	4.05%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	86.5	86.2	0.35%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	252	228	10.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.219	0.198	10.07%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.68	3.19	14.26%	Pass
TOTAL SUSPENDED SOLIDS, LAB	2	1	mg/l	14.7	15.6	5.94%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	8.87	8.53	3.91%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000853	0.000831	2.61%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000851	0.000802	5.93%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00059	0.00083	33.80%	Pass-1
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0044	0.0063	35.51%	Pass-1

Location:	EV_MC2	EV_MC2
Sample ID:	EV_MC2_WS_2017-05-02_N	EV_MC5_WS_2017-05-02_N
Date Sampled:	5/2/2017	5/2/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	149	150	0.67%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	4	120.00%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	149	154	3.30%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0093	0.0088	5.52%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.172	0.169	1.76%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00013	0.00012	8.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00015	0.00018	18.18%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00025	0.00024	4.08%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0917	0.0931	1.52%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0956	0.0906	5.37%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000250	2.49e-005	0.40%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000435	3.86e-005	11.94%	Pass
CALCIUM, D	0.05	0.05	mg/l	56.9	57.1	0.35%	Pass
CALCIUM, T	0.05	0.05	mg/l	56.9	58.1	2.09%	Pass

CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.58	2.49	3.55%	Pass
CHLORIDE, D	0.1	0.1	mg/l	5.06	5.12	1.18%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00035	0.00035	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00017	0.00017	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	452	445	1.56%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00056	0.00057	1.77%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.121	0.122	0.82%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	227	228	0.44%	Pass
ION BALANCE	0	0	%	0.6	-0.2	200.00%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.147	0.148	0.68%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000092	9.5e-005	3.21%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0086	0.0085	1.17%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0087	0.0089	2.27%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	20.6	20.8	0.97%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	21.1	18.8	11.53%	Pass
MAJOR ANION SUM	0	0	meq/l	4.69	4.79	2.11%	Pass
MAJOR CATION SUM	0	0	meq/l	4.75	4.77	0.42%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00042	0.00049	15.38%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00443	0.00463	4.42%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	0.00094	9.1E-07	199.61%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00186	0.00191	2.65%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000767	0.00076	0.92%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000751	0.00079	5.06%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00093	0.00095	2.13%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00130	0.00164	23.13%	Pass-1
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.07	1.08	0.93%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0011	< 0.001	9.52%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	< 0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0032	0.0028	13.33%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	292	318	8.52%	Pass
pH, LAB	0.1	0.1	ph units	8.22	8.37	1.81%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0127	0.0089	35.19%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	0.833	0.824	1.09%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.885	0.88	0.57%	Pass
SELENIUM, D	0.05	0.05	ug/l	7.9	7.78	1.53%	Pass
SELENIUM, T	0.05	0.05	ug/l	7.47	7.38	1.21%	Pass
SILICON, D	0.05	0.05	mg/l	2.44	2.44	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	2.81	2.71	3.62%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	4.35	4.29	1.39%	Pass
SODIUM, T	0.05	0.05	mg/l	4.59	4.26	7.46%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.149	0.15	0.67%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.150	0.146	2.70%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	71.0	71.5	0.70%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000011	< 1e-005	9.52%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	288	272	5.71%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.168	0.189	11.76%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.26	2.83	14.12%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	7.4	6.6	11.43%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	3.61	4.46	21.07%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.000778	0.000757	2.74%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000803	0.000783	2.52%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00098	0.00092	6.32%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	< 0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0034	< 0.003	12.50%	Pass

Location: EV_MC2 EV_MC2

Sample ID:	EV_MC2_WS_2017-06-21_N	EV_MC5_WS_2017-06-21_N
Date Sampled:	6/21/2017	6/21/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	111	112	0.90%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	111	112	0.90%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0075	0.0069	8.33%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.161	0.149	7.74%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00028	0.00025	11.32%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0536	0.0533	0.56%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0566	0.0559	1.24%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000298	2.63e-005	12.48%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000489	4.1e-005	17.58%	Pass
CALCIUM, D	0.05	0.05	mg/l	43.8	44.4	1.36%	Pass
CALCIUM, T	0.05	0.05	mg/l	42.8	44.3	3.44%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.48	1.64	10.26%	Pass
Cation - Anion Balance	0	0	%	0.1	-0.4	200.00%	Fail
CHLORIDE, D	0.1	0.1	mg/l	3.12	3.73	17.81%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00013	26.09%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00038	0.00036	5.41%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00010	0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00024	0.00022	8.70%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	319	334	4.59%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.121	0.122	0.82%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	171	174	1.74%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.129	0.129	8.89%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000097	9.1e-005	6.38%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0082	0.0085	3.59%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0081	0.0087	7.14%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	15.0	15.3	1.98%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	15.2	15.2	0.00%	Pass
MAJOR ANION SUM	0	0	meq/l	3.53	3.63	2.79%	Pass
MAJOR CATION SUM	0	0	meq/l	3.54	3.6	1.68%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00087	0.00103	16.84%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00566	0.00524	7.71%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	0.00075	9.1E-07	199.52%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00182	0.00193	5.87%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000772	0.000747	3.29%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000775	0.000745	3.95%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00207	0.002	3.44%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00245	0.00246	0.41%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.10	1.19	7.86%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	<0.0014	<0.001	33.33%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0063	0.006	4.88%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	317	299	5.84%	Pass
pH, LAB	0.1	0.1	ph units	8.26	8.26	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0169	0.0387	78.42%	Fail
POTASSIUM, D	0.05	0.05	mg/l	0.661	0.659	0.30%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.667	0.675	1.19%	Pass
SELENIUM, D	0.05	0.05	ug/l	5.64	6.14	8.49%	Pass
SELENIUM, T	0.05	0.05	ug/l	5.99	6.27	4.57%	Pass
SILICON, D	0.05	0.05	mg/l	1.67	1.72	2.95%	Pass
SILICON, T	0.1	0.1	mg/l	2.27	2.26	0.44%	Pass

SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.37	2.49	4.94%	Pass
SODIUM, T	0.05	0.05	mg/l	2.34	2.46	5.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.105	0.106	0.95%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.102	0.106	3.85%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	54.8	57.9	5.50%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000015	1.4e-005	6.90%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	205	226	9.74%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.121	0.148	20.07%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.94	2.55	27.17%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	7.5	6.4	15.83%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.85	2.47	14.29%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000654	0.000632	3.42%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000663	0.000676	1.94%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00077	0.00079	2.56%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	0.0034	12.50%	Pass

Location:	EV_MC2	EV_MC2
Sample ID:	EV_MC2_WS_2017-06-28_N	EV_MC5_WS_2017-06-28_N
Date Sampled:	6/28/2017	6/28/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.0	1.5	40.00%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	132	131	0.76%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	132	131	0.76%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	0.0039	26.09%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0378	0.0398	5.15%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00015	0.00013	14.29%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00022	0.00018	20.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00024	0.00023	4.26%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0614	0.0652	6.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0686	0.0671	2.21%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000250	2.76e-005	9.89%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000311	3.64e-005	15.70%	Pass
CALCIUM, D	0.05	0.05	mg/l	54.3	52.4	3.56%	Pass
CALCIUM, T	0.05	0.05	mg/l	50.9	50.6	0.59%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.41	1.29	8.89%	Pass
Cation - Anion Balance	0	0	%	1.5	-1.4	200.00%	Fail
CHLORIDE, D	0.1	0.1	mg/l	4.22	4.54	7.31%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00021	0.00019	10.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	399	400	0.25%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.141	0.142	0.71%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	217	206	5.20%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.037	0.035	5.56%	Pass

LEAD, D	0.0005	0.0005	mg/l	< 0.00050	<5e-005	0.00%	Pass
LEAD, T	0.0005	0.0005	mg/l	< 0.00050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0093	0.011	16.75%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0112	0.0113	0.89%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	19.9	18.3	8.38%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	18.7	18.9	1.06%	Pass
MAJOR ANION SUM	0	0	meq/l	4.35	4.39	0.92%	Pass
MAJOR CATION SUM	0	0	meq/l	4.49	4.26	5.26%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00039	0.00105	91.67%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00240	0.00244	1.65%	Pass
MERCURY, D	0.000005	0.000005	mg/l	0.00053	5.7E-07	199.57%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00084	0.0009	6.90%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000983	0.000947	3.73%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000923	0.000933	1.08%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00190	0.00199	4.63%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00217	0.00217	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.42	1.46	2.78%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0011	0.001	9.52%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0022	0.0021	4.65%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	380	398	4.63%	Pass
pH, LAB	0.1	0.1	ph units	8.21	8.15	0.73%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0065	0.0056	14.88%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.709	0.821	14.64%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.812	0.826	1.71%	Pass
SELENIUM, D	0.05	0.05	ug/l	7.68	7.58	1.31%	Pass
SELENIUM, T	0.05	0.05	ug/l	7.82	8.08	3.27%	Pass
SILICON, D	0.05	0.05	mg/l	1.89	1.87	1.06%	Pass
SILICON, T	0.1	0.1	mg/l	2.05	2.08	1.45%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.84	2.93	3.12%	Pass
SODIUM, T	0.05	0.05	mg/l	2.93	3.06	4.34%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.126	0.125	0.80%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.121	0.123	1.64%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	71.8	73.4	2.20%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000010	1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	290	291	0.34%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.139	0.151	8.28%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.53	1.43	6.76%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.8	<1	94.74%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.02	1.07	4.78%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000758	0.000884	15.35%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000933	0.000891	4.61%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_MC2	EV_MC2
Sample ID:	EV_MC2_WS_2017-07-05_N	EV_MC5_WS_2017-07-05_N
Date Sampled:	7/5/2017	7/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	142	146	2.78%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	3.6	<1	113.04%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	145	146	0.69%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0215	0.0202	6.24%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00017	5.71%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00017	0.00018	5.71%	Pass

ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00019	0.00018	5.41%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0796	0.0788	1.01%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0738	0.0734	0.54%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.010	0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.011	0.011	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000272	2.92e-005	7.09%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000341	3.42e-005	0.29%	Pass
CALCIUM, D	0.05	0.05	mg/l	61.9	63.7	2.87%	Pass
CALCIUM, T	0.05	0.05	mg/l	59.2	58.8	0.68%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.13	1.28	12.45%	Pass
Cation - Anion Balance	0	0	%	2.2	2.4	8.70%	Pass
CHLORIDE, D	0.1	0.1	mg/l	4.75	5.56	15.71%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	0.00016	20.69%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	444	460	3.54%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.150	0.151	0.66%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	255	262	2.71%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.020	0.023	13.95%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0119	0.0121	1.67%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0129	0.0131	1.54%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	24.3	25.1	3.24%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	22.1	22.6	2.24%	Pass
MAJOR ANION SUM	0	0	meq/l	5.04	5.17	2.55%	Pass
MAJOR CATION SUM	0	0	meq/l	5.26	5.43	3.18%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00033	0.00017	64.00%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00213	0.00216	1.40%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00062	0.0006	3.28%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00115	0.00111	3.54%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00121	0.00118	2.51%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00224	0.00231	3.08%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00231	0.00231	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.78	1.9	6.52%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0016	0.0016	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0053	0.0063	17.24%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	308	326	5.68%	Pass
pH, LAB	0.1	0.1	ph units	8.35	8.29	0.72%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0021	<0.002	4.88%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.00	1.01	1.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.838	0.827	1.32%	Pass
SELENIUM, D	0.05	0.05	ug/l	9.6	10.2	6.06%	Pass
SELENIUM, T	0.05	0.05	ug/l	10.1	10.2	0.99%	Pass
SILICON, D	0.05	0.05	mg/l	1.81	1.9	4.85%	Pass
SILICON, T	0.1	0.1	mg/l	1.99	1.98	0.50%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	3.45	3.59	3.98%	Pass
SODIUM, T	0.05	0.05	mg/l	3.27	3.37	3.01%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.148	0.147	0.68%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.147	0.147	0.00%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	89.8	94.1	4.68%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	1.1e-005	9.52%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	308	318	3.19%	Pass

TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.255	0.193	27.68%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.46	1.47	0.68%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.6	1.4	13.33%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.47	0.51	8.16%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00103	0.00107	3.81%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00103	0.00106	2.87%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	< 0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	< 0.003	0.00%	Pass

Location:	EV_MC2	EV_MC2
Sample ID:	EV_MC2_WS_2017-11-15_N	EV_MC5_WS_2017-11-15_N
Date Sampled:	11/15/2017	11/15/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	3.1	102.44%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	183	188	2.70%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	7.8	7.6	2.60%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	< 1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	191	195	2.07%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	< 0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0041	0.0052	23.66%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00019	0.00019	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00015	6.90%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00016	0.00017	6.06%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.109	0.111	1.82%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.107	0.108	0.93%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.014	0.013	7.41%	Pass
BORON, T	0.01	0.01	mg/l	0.014	0.014	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	< 0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000325	3.2e-005	1.55%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000359	3.53e-005	1.69%	Pass
CALCIUM, D	0.05	0.05	mg/l	90.6	87.1	3.94%	Pass
CALCIUM, T	0.05	0.05	mg/l	89.7	87.1	2.94%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.68	0.89	26.75%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	8.49	8.42	0.83%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00010	0.00011	9.52%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	0.00015	14.29%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	691	687	0.58%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.125	0.128	2.37%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	362	356	1.67%	Pass
ION BALANCE	100	100	%	94.4	92.5	2.03%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0203	0.0177	13.68%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0200	0.0191	4.60%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	33.0	33.5	1.50%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	33.6	33.6	0.00%	Pass
MAJOR ANION SUM	0	0	meq/l	7.95	7.96	0.13%	Pass
MAJOR CATION SUM	0	0	meq/l	7.51	7.36	2.02%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00107	0.0011	2.76%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00126	0.00126	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	< 5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	< 0.0005	0.00%	Pass
Methyl Mercury, T	0.00005	0.00005	ug/l	< 0.000050	< 5e-005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00121	0.00126	4.05%	Pass

MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00126	0.00127	0.79%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00102	0.00106	3.85%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00108	0.00105	2.82%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	4.04	3.97	1.75%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0026	0.002	26.09%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0177	0.013	30.62%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0013	0.0014	7.41%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	281	313	10.77%	Pass
pH, LAB	0.1	0.1	ph units	8.41	8.44	0.36%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0025	0.0035	33.33%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.22	1.19	2.49%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.21	1.14	5.96%	Pass
SELENIUM, D	0.05	0.05	ug/l	25.7	24.2	6.01%	Pass
SELENIUM, T	0.05	0.05	ug/l	24	22	8.70%	Pass
SILICON, D	0.05	0.05	mg/l	2.47	2.42	2.04%	Pass
SILICON, T	0.1	0.1	mg/l	2.67	2.57	3.82%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	5.61	5.21	7.39%	Pass
SODIUM, T	0.05	0.05	mg/l	5.75	5.05	12.96%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.208	0.219	5.15%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.213	0.219	2.78%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	173	170	1.75%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	477	476	0.21%	Pass
TOTAL KJELDAHL NITROGEN	0.2	0.2	mg/l	0.51	0.29	55.00%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.77	0.81	5.06%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.64	0.7	8.96%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00155	0.00142	8.75%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00150	0.00145	3.39%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_MC3	EV_MC3
Sample ID:	EV_MC3_WS_2017-04-26_N	EV_MC5_WS_2017-04-26_N
Date Sampled:	4/26/2017	4/26/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	125	122	2.43%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	125	122	2.43%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0125	0.0122	2.43%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.294	0.293	0.34%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00031	0.00033	6.25%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0880	0.0867	1.49%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0960	0.0971	1.14%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000222	1.91e-005	15.01%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000627	6.16e-005	1.77%	Pass

CALCIUM, D	0.05	0.05	mg/l	41.0	41.2	0.49%	Pass
CALCIUM, T	0.05	0.05	mg/l	44.7	44	1.58%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.98	3.04	1.99%	Pass
CHLORIDE, D	0.1	0.1	mg/l	1.25	1.25	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00052	0.00053	1.90%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00034	0.00033	2.99%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	295	295	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00086	0.00086	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.116	0.116	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	153	154	0.65%	Pass
IRON, D	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.312	0.282	10.10%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000232	0.000211	9.48%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0039	0.004	2.53%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0044	0.0043	2.30%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	12.4	12.4	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	13.1	13	0.77%	Pass
MAJOR ANION SUM	0	0	meq/l	3.33	3.27	1.82%	Pass
MAJOR CATION SUM	0	0	meq/l	3.21	3.23	0.62%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00110	0.00111	0.90%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00880	0.00837	5.01%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	0.00143	1.45E-06	199.59%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00323	0.00329	1.84%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000681	0.000688	1.02%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000654	0.000648	0.92%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00147	0.00147	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00243	0.00237	2.50%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.285	0.282	1.06%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0060	0.0067	11.02%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	281	292	3.84%	Pass
pH, LAB	0.1	0.1	ph units	8.28	8.29	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0228	0.0208	9.17%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.620	0.614	0.97%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.765	0.757	1.05%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.21	1.31	7.94%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.35	1.34	0.74%	Pass
SILICON, D	0.05	0.05	mg/l	2.41	2.4	0.42%	Pass
SILICON, T	0.1	0.1	mg/l	2.81	2.8	0.36%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000013	<1e-005	26.09%	Pass-1
SODIUM, D	0.05	0.05	mg/l	3.09	3.06	0.98%	Pass
SODIUM, T	0.05	0.05	mg/l	3.28	3.27	0.31%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.124	0.125	0.80%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.125	0.123	1.61%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	37.3	37.3	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000016	1.7e-005	6.06%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	192	194	1.04%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.172	0.149	14.33%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	4.11	3.93	4.48%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	17.9	18	0.56%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	10.4	9.27	11.49%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000545	0.000549	0.73%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000572	0.000555	3.02%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00155	0.00164	5.64%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0036	0.0032	11.76%	Pass

Location:	EV_MC3	EV_MC3
Sample ID:	EV_MC3_WS_2017-05-10_N	EV_MC5_WS_2017-05-10_N
Date Sampled:	5/10/2017	5/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.4	<1	33.33%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	96.3	98.1	1.85%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	96.3	98.1	1.85%	Pass
ALUMINIUM, D	0.003	0.003	mg/l	0.0293	0.0292	0.34%	Pass
ALUMINIUM, T	0.003	0.003	mg/l	0.796	0.724	9.47%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00022	0.00021	4.65%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00043	0.00044	2.30%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0647	0.0635	1.87%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0756	0.0737	2.55%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000035	3.7e-005	5.56%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000272	2.74e-005	0.73%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000874	8.25e-005	5.77%	Pass
CALCIUM, D	0.05	0.05	mg/l	32.7	33	0.91%	Pass
CALCIUM, T	0.05	0.05	mg/l	32.5	34	4.51%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.66	3.77	2.96%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.52	0.52	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00130	0.00119	8.84%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00045	0.00044	2.25%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	234	232	0.86%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00120	0.00118	1.68%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.097	0.091	6.38%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	124	124	0.00%	Pass
ION BALANCE	0	0	%	0.8	0.2	120.00%	Fail
IRON, D	0.01	0.01	mg/l	0.026	0.026	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.602	0.591	1.84%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000345	0.000344	0.29%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0031	0.0032	3.17%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0034	0.0032	6.06%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	10.2	10.1	0.99%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	10.2	10.2	0.00%	Pass
MAJOR ANION SUM	0	0	meq/l	2.54	2.58	1.56%	Pass
MAJOR CATION SUM	0	0	meq/l	2.58	2.59	0.39%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00132	0.0012	9.52%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0144	0.0149	3.41%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	0.00239	2.43E-06	199.59%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00483	0.00475	1.67%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000513	0.000535	4.20%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000570	0.000571	0.18%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00144	0.0015	4.08%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00274	0.00278	1.45%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.315	0.319	1.26%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0150	0.0144	4.08%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	300	292	2.70%	Pass
pH, LAB	0.1	0.1	ph units	8.22	8.21	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0427	0.0464	8.31%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.578	0.569	1.57%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.804	0.783	2.65%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.3	1.33	2.28%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.44	1.39	3.53%	Pass
SILICON, D	0.05	0.05	mg/l	2.27	2.33	2.61%	Pass

SILICON, T	0.1	0.1	mg/l	3.73	3.89	4.20%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000017	1.6e-005	6.06%	Pass
SODIUM, D	0.05	0.05	mg/l	2.19	2.12	3.25%	Pass
SODIUM, T	0.05	0.05	mg/l	2.03	2.07	1.95%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0899	0.0896	0.33%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0956	0.0948	0.84%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	27.8	27.7	0.36%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000028	2.9e-005	3.51%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	0.028	0.019	38.30%	Pass-1
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	147	151	2.68%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.212	0.176	18.56%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	4.50	4.76	5.62%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	23.6	22.5	4.77%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	14.3	15	4.78%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000398	0.000394	1.01%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000428	0.000426	0.47%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00316	0.00304	3.87%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0060	0.005	18.18%	Pass

Location:	EV_MC3	EV_MC3
Sample ID:	EV_MC3_WS_2017-05-24_N	EV_MC5_WS_2017-05-24_N
Date Sampled:	5/24/2017	5/24/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.3	<1	26.09%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	73.3	84	13.60%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	73.3	84	13.60%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0362	0.0407	11.70%	Pass
ALUMINUM, T	0.003	0.003	mg/l	4.98	4.56	8.81%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00040	0.00044	9.52%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00031	0.00032	3.17%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00335	0.00341	1.78%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0550	0.0555	0.90%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.184	0.19	3.21%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000400	0.000449	11.54%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	0.000074	7.5e-005	1.34%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.010	0.011	9.52%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000303	2.5e-005	19.17%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.00102	0.00108	5.71%	Pass
CALCIUM, D	0.05	0.05	mg/l	25.0	23.6	5.76%	Pass
CALCIUM, T	0.05	0.05	mg/l	39.3	41.3	4.96%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.58	3.57	0.28%	Pass
Cation - Anion Balance	0	0	%	1.2	-6.9	200.00%	Fail
CHLORIDE, D	0.1	0.1	mg/l	0.20	0.2	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00015	0.00018	18.18%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00839	0.0077	8.58%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00445	0.00465	4.40%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	165	168	1.80%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00061	0.00065	6.35%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.0100	0.0102	1.98%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.082	0.09	9.30%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	88.7	84	5.44%	Pass
IRON, D	0.01	0.01	mg/l	0.043	0.055	24.49%	Pass-1

IRON, T	0.01	0.01	mg/l	7.65	7.55	1.32%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.00580	0.00605	4.22%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0025	0.0016	43.90%	Pass-1
LITHIUM, T	0.001	0.001	mg/l	0.0071	0.0074	4.14%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	6.41	6.07	5.45%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	9.81	9.63	1.85%	Pass
MAJOR ANION SUM	0	0	meq/l	1.80	2.01	11.02%	Pass
MAJOR CATION SUM	0	0	meq/l	1.84	1.75	5.01%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00170	0.00114	39.44%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.232	0.235	1.28%	Pass
MERCURY, D	0.000005	0.000005	mg/l	0.00208	2.29E-06	199.56%	Fail
MERCURY, T	0.0025	0.0005	ug/l	0.0336	0.0293	13.67%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000477	0.000454	4.94%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000910	0.00107	16.16%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00113	0.00111	1.79%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0171	0.0179	4.57%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.213	0.212	0.47%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0065	0.0085	26.67%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0213	0.0224	5.03%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	310	254	19.86%	Pass
pH, LAB	0.1	0.1	ph units	8.02	8.04	0.25%	Pass
PHOSPHORUS	0.02	0.02	mg/l	0.726	0.698	3.93%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.511	0.529	3.46%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.90	1.89	0.53%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.9	0.846	6.19%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.28	1.33	3.83%	Pass
SILICON, D	0.05	0.05	mg/l	1.96	1.91	2.58%	Pass
SILICON, T	0.1	0.1	mg/l	8.18	8.4	2.65%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000199	0.000175	12.83%	Pass
SODIUM, D	0.05	0.05	mg/l	1.09	1.15	5.36%	Pass
SODIUM, T	0.05	0.05	mg/l	1.20	1.15	4.26%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0615	0.0603	1.97%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0939	0.0906	3.58%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	14.7	14.7	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000245	0.000268	8.97%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	0.027	0.026	3.77%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	10	10	mg/l	142	142	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.802	0.875	8.71%	Pass
TOTAL ORGANIC CARBON, T	1	0.5	mg/l	15.7	16.5	4.97%	Pass
TOTAL SUSPENDED SOLIDS, LAB	2	1	mg/l	505	469	7.39%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	253	231	9.09%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000255	0.000257	0.78%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000869	0.000859	1.16%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00058	0.00061	5.04%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.0214	0.022	2.76%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0615	0.0653	5.99%	Pass

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-02-23_N	EV_MC5_WS_2017-02-23_N
Date Sampled:	2/23/2017	2/23/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.7	5.8	109.33%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	276	275	0.36%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	276	275	0.36%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00038	0.00038	0.00%	Pass

ANTIMONY, T	0.0001	0.0001	mg/l	0.00047	0.00045	4.35%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00050	0.00051	1.98%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00052	0.00052	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0866	0.0866	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0852	0.0835	2.02%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000417	3.81e-005	9.02%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000669	4.73e-005	34.33%	Pass-2
CALCIUM, D	0.05	0.05	mg/l	173	171	1.16%	Pass
CALCIUM, T	0.05	0.05	mg/l	180	172	4.55%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.21	2.75	15.44%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1300	1290	0.77%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00030	0.00032	6.45%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.13	0.13	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	806	802	0.50%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0050	0.005	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0052	0.005	3.92%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	91.0	91.2	0.22%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	95.3	91.9	3.63%	Pass
MAJOR ANION SUM	0	0	meq/l	16.6	16.6	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	16.2	16.1	0.62%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00126	0.00129	2.35%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00155	0.00155	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00287	0.00282	1.76%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00315	0.00299	5.21%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00268	0.0027	0.74%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00283	0.00274	3.23%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.329	0.342	3.87%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0096	0.0134	33.04%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0226	0.0223	1.34%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	344	339	1.46%	Pass
pH, LAB	0.1	0.1	ph units	8.12	8.14	0.25%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0310	0.0307	0.97%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.13	2.12	0.47%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.21	2.19	0.91%	Pass
SELENIUM, D	0.05	0.05	ug/l	76.7	76.8	0.13%	Pass
SELENIUM, T	0.05	0.05	ug/l	70.4	69.5	1.29%	Pass
SILICON, D	0.05	0.05	mg/l	4.15	4.15	0.00%	Pass
SILICON, T	0.05	0.05	mg/l	4.34	4.47	2.95%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.71	1.73	1.16%	Pass
SODIUM, T	0.05	0.05	mg/l	1.78	1.77	0.56%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.161	0.161	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.169	0.161	4.85%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	533	530	0.56%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000011	1e-005	9.52%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1010	1030	1.96%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	0.119	81.66%	Pass-1

TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.38	2.85	17.01%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.42	0.4	4.88%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00279	0.00274	1.81%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00307	0.00291	5.35%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00058	0.00059	1.71%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00084	0.00082	2.41%	Pass
ZINC, D	0.001	0.001	mg/l	0.0103	0.0103	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0098	0.0093	5.24%	Pass

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-03-16_N	EV_MC6_WS_2017-03-16_N
Date Sampled:	3/16/2017	3/16/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	1	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.62	0.51	19.47%	Pass

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-03-29_N	EV_MC6_WS_2017-03-29_N
Date Sampled:	3/29/2017	3/29/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	4.4	5.4	20.41%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	10.7	10.7	0.00%	Pass

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-04-04_N	EV_MC5_WS_2017-04-04_N
Date Sampled:	4/4/2017	4/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
2-Bromobenzotrifluoride	1	1	%	90.1	89.8	0.33%	Pass
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	218	219	0.46%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	16.0	16.2	1.24%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	234	235	0.43%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0668	0.0565	16.71%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00030	0.0003	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00033	0.00038	14.08%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00039	0.00044	12.05%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00045	0.00043	4.55%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0893	0.0922	3.20%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0950	0.0901	5.29%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000541	4.64e-005	15.32%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000112	0.000101	10.33%	Pass
CALCIUM, D	0.05	0.05	mg/l	112	111	0.90%	Pass
CALCIUM, T	0.05	0.05	mg/l	111	119	6.96%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	4.52	4.52	0.00%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.73	1.54	11.62%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00022	0.00017	25.64%	Pass-1

COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	853	841	1.42%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00051	0.00053	3.85%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00072	0.00069	4.26%	Pass
Extractable Petroleum Hydrocarbons C10-C19	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
Extractable Petroleum Hydrocarbons C19-C32	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.18	0.16	11.76%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	496	492	0.81%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.046	0.046	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0033	0.0037	11.43%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0037	0.0042	12.66%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	52.4	52.1	0.57%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	57.3	56.3	1.76%	Pass
MAJOR ANION SUM	0	0	meq/l	10.1	9.81	2.91%	Pass
MAJOR CATION SUM	0	0	meq/l	10.0	9.94	0.60%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00078	0.00074	5.26%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00170	0.00171	0.59%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	0.00064	6.4E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00161	0.00163	1.23%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00237	0.00236	0.42%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00243	0.00245	0.82%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00190	0.0019	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00224	0.00249	10.57%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.437	0.409	6.62%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	< 0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0419	0.0417	0.48%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	285	301	5.46%	Pass
pH, LAB	0.1	0.1	ph units	8.46	8.46	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0385	0.0391	1.55%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.64	1.7	3.59%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.78	1.67	6.38%	Pass
SELENIUM, D	0.05	0.05	ug/l	62.6	59.9	4.41%	Pass
SELENIUM, T	0.05	0.05	ug/l	63.2	61.5	2.73%	Pass
SILICON, D	0.05	0.05	mg/l	3.86	3.76	2.62%	Pass
SILICON, T	0.05	0.05	mg/l	4.33	4.44	2.51%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.49	1.5	0.67%	Pass
SODIUM, T	0.05	0.05	mg/l	1.61	1.55	3.80%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.105	0.106	0.95%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.103	0.103	0.00%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	254	242	4.84%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	1.1e-005	9.52%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000014	1.2e-005	15.38%	Pass
The sum of extractable petroleum hydrocarbons C10-C19 and C19-C32.	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	582	589	1.20%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.242	0.177	31.03%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	4.69	4.95	5.39%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.4	3.4	34.48%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	2.75	2.64	4.08%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00187	0.00188	0.53%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00196	0.00186	5.24%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00089	0.00085	4.60%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0035	0.0035	0.00%	Pass

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-04-19_N	EV_ER6_WS_2017-04-19_N
Date Sampled:	4/19/2017	4/19/2017

				Sample Type:	Primary	Secondary		
Analyte	Detection Limit Pri.	Detection Limit Dup.	Units				Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l		2.2	2	9.52%	Pass
TURBIDITY, LAB	0.1	0.1	ntu		1.42	1.43	0.70%	Pass

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-05-03_N	EV_MC5_WS_2017-05-03_N
Date Sampled:	5/3/2017	5/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	220	223	1.35%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	16.2	14.4	11.76%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	236	237	0.42%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0414	0.0528	24.20%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00043	0.00043	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00040	0.00039	2.53%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00041	0.0004	2.47%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00043	0.00042	2.35%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0696	0.0699	0.43%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0711	0.0704	0.99%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000130	0.000128	1.55%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000189	0.000181	4.32%	Pass
CALCIUM, D	0.05	0.05	mg/l	124	124	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	112	111	0.90%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.74	3.99	6.47%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.16	1.19	2.55%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	0.00033	106.98%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	953	949	0.42%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00058	0.00057	1.74%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00072	0.00071	1.40%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.18	0.18	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	544	542	0.37%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.040	0.055	31.58%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	6.1e-005	19.82%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0044	0.0045	2.25%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0037	0.004	7.79%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	56.8	56.4	0.71%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	63.4	61.2	3.53%	Pass
MAJOR ANION SUM	0	0	meq/l	11.4	11.5	0.87%	Pass
MAJOR CATION SUM	0	0	meq/l	11.0	10.9	0.91%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00081	0.00089	9.41%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00194	0.00257	27.94%	Pass-2
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00168	0.00161	4.26%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00297	0.00293	1.36%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00293	0.00284	3.12%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00287	0.00291	1.38%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00325	0.00336	3.33%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.718	0.721	0.42%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0286	0.0288	0.70%	Pass

OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	368	307	18.07%	Pass
pH, LAB	0.1	0.1	ph units	8.46	8.45	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0310	0.0259	17.93%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.76	1.75	0.57%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.70	1.7	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	94	92.8	1.28%	Pass
SELENIUM, T	0.05	0.05	ug/l	91.6	87.1	5.04%	Pass
SILICON, D	0.05	0.05	mg/l	3.34	3.34	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	3.56	3.48	2.27%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.36	1.35	0.74%	Pass
SODIUM, T	0.05	0.05	mg/l	1.44	1.42	1.40%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.109	0.108	0.92%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.103	0.102	0.98%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	317	320	0.94%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000017	1.7e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000020	2.2e-005	9.52%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	686	658	4.17%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.149	0.147	1.35%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	5.01	4.67	7.02%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	4.3	2.2	64.62%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.50	1.51	0.66%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00261	0.00261	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00273	0.00269	1.48%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00052	0.00051	1.94%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00062	0.0007	12.12%	Pass
ZINC, D	0.003	0.003	mg/l	0.0040	0.0039	2.53%	Pass
ZINC, T	0.003	0.003	mg/l	0.0057	0.0059	3.45%	Pass

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-05-17_N	EV_MC5_WS_2017-05-17_N
Date Sampled:	5/17/2017	5/17/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.3	42.9	179.65%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.72	30.9	178.91%	Fail

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-05-31_N	EV_MC6_WS_2017-05-31_N
Date Sampled:	5/31/2017	5/31/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.4	<1	33.33%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.09	1.12	2.71%	Pass

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-06-07_N	EV_MC5_WS_2017-06-07_N
Date Sampled:	6/7/2017	6/7/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.3	1.5	14.29%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.59	0.53	10.71%	Pass

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-06-14_N	EV_MC5_WS_2017-06-14_N
Date Sampled:	6/14/2017	6/14/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	209	206	1.45%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	13.8	15.6	12.24%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	222	222	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0164	0.0143	13.68%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00050	0.0005	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00051	0.00055	7.55%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00045	0.00045	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00047	0.00048	2.11%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0682	0.0678	0.59%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0661	0.0653	1.22%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000364	3.66e-005	0.55%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000166	0.000162	2.44%	Pass
CALCIUM, D	0.05	0.05	mg/l	125	124	0.80%	Pass
CALCIUM, T	0.05	0.05	mg/l	121	113	6.84%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	4.17	3.86	7.72%	Pass
Cation - Anion Balance	0	0	%	2.0	0.9	75.86%	Fail
CHLORIDE, D	0.5	0.5	mg/l	0.84	0.85	1.18%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00010	0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	869	887	2.05%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00061	0.00059	3.33%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00072	0.00073	1.38%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.21	0.21	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	593	588	0.85%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.014	0.015	6.90%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0061	0.004	41.58%	Pass-2
LITHIUM, T	0.001	0.001	mg/l	0.0056	0.0036	43.48%	Pass-2
MAGNESIUM, D	0.1	0.1	mg/l	68.1	67.4	1.03%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	67.6	58.7	14.09%	Pass
MAJOR ANION SUM	0	0	meq/l	11.5	11.6	0.87%	Pass
MAJOR CATION SUM	0	0	meq/l	12.0	11.9	0.84%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00093	0.00089	4.40%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00696	0.00695	0.14%	Pass
MERCURY, D	0.000005	0.000005	mg/l	0.00094	<5E-07	199.79%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00143	0.00148	3.44%	Pass
Methyl Mercury, T	0.00005	0.00005	ug/l	< 0.000050	<5e-005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00323	0.00322	0.31%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00314	0.00319	1.58%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00332	0.00333	0.30%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00346	0.00336	2.93%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.330	0.334	1.20%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0129	0.0134	3.80%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	275	348	23.43%	Pass-1
pH, LAB	0.1	0.1	ph units	8.44	8.45	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0220	0.0241	9.11%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.94	1.92	1.04%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.85	1.77	4.42%	Pass
SELENIUM, D	0.05	0.05	ug/l	69.9	70.6	1.00%	Pass

SELENIUM, T	0.05	0.05	ug/l	72.1	72.4	0.42%	Pass
SILICON, D	0.05	0.05	mg/l	2.54	2.52	0.79%	Pass
SILICON, T	0.1	0.1	mg/l	2.94	2.72	7.77%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.28	1.27	0.78%	Pass
SODIUM, T	0.05	0.05	mg/l	1.25	1.22	2.43%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.102	0.103	0.98%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.101	0.0973	3.73%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	336	343	2.06%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000020	2e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000020	2.1e-005	4.88%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	676	662	2.09%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.248	0.187	28.05%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.96	4.03	1.75%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.7	1.3	26.67%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.88	0.98	10.75%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00236	0.00236	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00220	0.00249	12.37%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00059	0.00058	1.71%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00066	0.00072	8.70%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0061	0.0044	32.38%	Pass-1

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-06-21_N	EV_MC6_WS_2017-06-21_N
Date Sampled:	6/21/2017	6/21/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.6	1.4	60.00%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.47	1.44	2.06%	Pass

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-06-28_N	EV_MC6_WS_2017-06-28_N
Date Sampled:	6/28/2017	6/28/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	3.5	4	13.33%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.11	2.05	2.88%	Pass

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-07-05_N	EV_MC6_WS_2017-07-05_N
Date Sampled:	7/5/2017	7/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	6.0	6	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	3.57	3.04	16.04%	Pass

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-07-11_N	EV_MC5_WS_2017-07-11_N
Date Sampled:	7/11/2017	7/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	253	240	5.27%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	22.6	21.2	6.39%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	275	261	5.22%	Pass
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0082	0.0096	15.73%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00042	0.00045	6.90%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00044	0.00044	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00072	0.00073	1.38%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00083	0.00084	1.20%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0873	0.0875	0.23%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0845	0.0882	4.28%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.012	0.012	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass
BROMIDE, D	0.25	0.05	mg/l	< 0.25	<0.05	133.33%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	0.0000185	2.03e-005	9.28%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000368	3.9e-005	5.80%	Pass
CALCIUM, D	0.05	0.05	mg/l	130	130	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	131	131	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	5.10	5.16	1.17%	Pass
CHLORIDE, D	2.5	0.5	mg/l	< 2.5	0.68	114.47%	Pass-1
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00017	0.00017	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00026	0.00026	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1110	1100	0.90%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Extractable Petroleum Hydrocarbons C10-C19	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
Extractable Petroleum Hydrocarbons C19-C32	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
FLUORIDE, D	0.1	0.02	mg/l	0.12	0.113	6.01%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	646	643	0.47%	Pass
IRON, D	0.01	0.01	mg/l	0.039	0.04	2.53%	Pass
IRON, T	0.01	0.01	mg/l	0.096	0.094	2.11%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0059	0.0061	3.33%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0060	0.006	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	78.1	77.4	0.90%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	77.2	77.7	0.65%	Pass
MAJOR ANION SUM	0	0	meq/l	14.6	13.9	4.91%	Pass
MAJOR CATION SUM	0	0	meq/l	13.0	13	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00510	0.00541	5.90%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0311	0.0319	2.54%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.000050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00128	0.00117	8.98%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00345	0.00345	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00351	0.00358	1.97%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00357	0.0034	4.88%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00380	0.00385	1.31%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.005	mg/l	0.026	<0.005	135.48%	Pass-1
NITRITE NITROGEN (NO2), AS N	0.005	0.001	mg/l	< 0.0050	<0.001	133.33%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0087	0.0088	1.14%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0012	<0.001	18.18%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	512	509	0.59%	Pass
pH, LAB	0.1	0.1	ph units	8.47	8.45	0.24%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0563	0.109	63.76%	Fail
POTASSIUM, D	0.05	0.05	mg/l	2.35	2.32	1.28%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.38	2.4	0.84%	Pass
SELENIUM, D	0.05	0.05	ug/l	54.8	54.6	0.37%	Pass
SELENIUM, T	0.05	0.05	ug/l	53.9	52.4	2.82%	Pass
SILICON, D	0.05	0.05	mg/l	2.85	2.97	4.12%	Pass
SILICON, T	0.1	0.1	mg/l	3.05	3.08	0.98%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.39	1.37	1.45%	Pass

SODIUM, T	0.05	0.05	mg/l	1.39	1.4	0.72%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.123	0.123	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.131	0.129	1.54%	Pass
SULFATE (AS SO4), D	1.5	0.3	mg/l	437	417	4.68%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000012	1.4e-005	15.38%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000012	1.3e-005	8.00%	Pass
The sum of extractable petroleum hydrocarbons C10-C19 and C19-C32.	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	813	771	5.30%	Pass
TOTAL EXTRACTABLE HYDROCARBONS (TEH 10-30)	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.2	0.2	mg/l	0.68	0.73	7.09%	Pass
TOTAL ORGANIC CARBON, T	0.5	2.5	mg/l	6.13	5.2	16.42%	Pass
TOTAL SUSPENDED SOLIDS, LAB	2	2	mg/l	7.4	7.5	1.34%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	4.16	4.38	5.15%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00214	0.00214	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00232	0.00231	0.43%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00054	0.00052	3.77%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00084	0.00082	2.41%	Pass
ZINC, D	0.001	0.001	mg/l	0.0031	0.0034	9.23%	Pass
ZINC, T	0.003	0.003	mg/l	0.0063	0.0068	7.63%	Pass

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-08-02_N	EV_MC5_WS_2017-08-02_N
Date Sampled:	8/2/2017	8/2/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0079	0.0098	21.47%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00048	0.00047	2.11%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00049	0.00052	5.94%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00072	0.00075	4.08%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00066	0.00067	1.50%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0880	0.083	5.85%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0864	0.084	2.82%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.011	0.011	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.011	0.012	8.70%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000094	8.1e-006	14.86%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000178	1.58e-005	11.90%	Pass
CALCIUM, D	0.05	0.05	mg/l	152	146	4.03%	Pass
CALCIUM, T	0.05	0.05	mg/l	151	150	0.66%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00027	0.00026	3.77%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	758	727	4.18%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.070	0.072	2.82%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0067	0.0066	1.50%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0067	0.007	4.38%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	92.0	87.9	4.56%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	90.7	89.3	1.56%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00042	0.00045	6.90%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00976	0.00972	0.41%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.005	0.005	ug/l	< 0.0000050	<5e-006	199.60%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00405	0.00397	2.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00413	0.00409	0.97%	Pass

NICKEL, D	0.0005	0.0005	mg/l	0.00398	0.00396	0.50%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00429	0.00415	3.32%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.85	1.76	4.99%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.84	1.81	1.64%	Pass
SELENIUM, D	0.05	0.05	ug/l	53.7	52.7	1.88%	Pass
SELENIUM, T	0.05	0.05	ug/l	49.9	48.9	2.02%	Pass
SILICON, D	0.05	0.05	mg/l	5.67	5.7	0.53%	Pass
SILICON, T	0.1	0.1	mg/l	5.87	5.97	1.69%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.58	1.53	3.22%	Pass
SODIUM, T	0.05	0.05	mg/l	1.57	1.54	1.93%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.146	0.141	3.48%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.145	0.142	2.09%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000010	1.1e-005	9.52%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00292	0.00288	1.38%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00296	0.00291	1.70%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00069	0.00068	1.46%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00081	0.00084	3.64%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	0.0059	65.17%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.0046	0.004	13.95%	Pass

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-08-02_N_CAL	EV_MC5_WS_2017-08-02_N_CAL
Date Sampled:	8/2/2017	8/2/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	223	227	1.78%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	223	227	1.78%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	135	135	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.98	3.93	1.26%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1150	1140	0.87%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.13	0.14	7.41%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	72.1	89.9	21.98%	Fail
MAJOR ANION SUM	0	0	meq/l	15.6	15.6	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	12.7	14.2	11.15%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00055	<0.0005	9.52%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.090	0.077	15.57%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0066	0.0062	6.25%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.109	0.109	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	344	334	2.95%	Pass
pH, LAB	0.1	0.1	ph units	8.28	8.28	0.00%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0239	0.0212	11.97%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.39	1.78	24.61%	Pass-2
SODIUM, D	0.05	0.05	mg/l	1.20	1.46	19.55%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	533	532	0.19%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	925	970	4.75%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.394	0.397	0.76%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.92	4.01	2.27%	Pass
TOTAL SUSPENDED SOLIDS, LAB	3	2	mg/l	< 3.0	<2	40.00%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.74	1.41	20.95%	Pass-2

Location:	EV_MG1	EV_MG1
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Sample ID:	EV_MG1_WS_2017-09-12_N	EV_MC5_WS_2017-09-12_N
Date Sampled:	9/12/2017	9/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	159	148	7.17%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	13.0	17.8	31.17%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	172	166	3.55%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0049	0.0061	21.82%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00044	0.00043	2.30%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00047	0.0005	6.19%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00042	0.00043	2.35%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00047	0.0005	6.19%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0707	0.0698	1.28%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0750	0.0766	2.11%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000123	1.05e-005	15.79%	Pass
CALCIUM, D	0.05	0.05	mg/l	145	142	2.09%	Pass
CALCIUM, T	0.05	0.05	mg/l	155	158	1.92%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.57	3.39	5.17%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1250	1250	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	784	781	0.38%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.022	0.021	4.65%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0078	0.0083	6.21%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0072	0.0073	1.38%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	103	103	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	112	115	2.64%	Pass
MAJOR ANION SUM	0	0	meq/l	16.4	16.2	1.23%	Pass
MAJOR CATION SUM	0	0	meq/l	15.8	15.7	0.63%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00075	0.00098	26.59%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.00312	0.00255	20.11%	Pass-2
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
Methyl Mercury, T	0.00005	0.00005	ug/l	< 0.000050	<5e-005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00323	0.00321	0.62%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00322	0.00335	3.96%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00294	0.00283	3.81%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00330	0.0033	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.099	0.043	78.87%	Pass-1
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0109	0.0068	46.33%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0239	0.0224	6.48%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0035	0.0032	8.96%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	282	277	1.79%	Pass
pH, LAB	0.1	0.1	ph units	8.44	8.45	0.12%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0116	0.0089	26.34%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	1.17	1.17	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.28	1.29	0.78%	Pass
SELENIUM, D	0.05	0.05	ug/l	61.4	55.9	9.38%	Pass
SELENIUM, T	0.05	0.05	ug/l	52.7	51.5	2.30%	Pass
SILICON, D	0.05	0.05	mg/l	5.55	5.56	0.18%	Pass
SILICON, T	0.1	0.1	mg/l	5.51	5.56	0.90%	Pass

SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.72	1.71	0.58%	Pass
SODIUM, T	0.05	0.05	mg/l	1.82	1.84	1.09%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.153	0.147	4.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.152	0.157	3.24%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	621	620	0.16%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000011	1.1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000011	1.1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1000	1040	3.92%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.270	0.193	33.26%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.47	3.49	0.57%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.3	26.09%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.89	0.87	2.27%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00304	0.00304	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00278	0.00285	2.49%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00058	0.00057	1.74%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00068	0.00075	9.79%	Pass
ZINC, D	0.003	0.003	mg/l	0.0085	0.008	6.06%	Pass
ZINC, T	0.003	0.003	mg/l	0.0110	0.011	0.00%	Pass

Location:	EV_MG1	EV_MG1
Sample ID:	EV_MG1_WS_2017-12-06_N	EV_MC5_WS_2017-12-06_N
Date Sampled:	12/6/2017	12/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	253	260	2.73%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	15.0	18.8	22.49%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	268	278	3.66%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0037	0.0041	10.26%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00038	0.00038	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00039	0.00042	7.41%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00039	0.0004	2.53%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00044	0.00042	4.65%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.107	0.106	0.94%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.112	0.11	1.80%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000494	4.98e-005	0.81%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000622	6.73e-005	7.88%	Pass
CALCIUM, D	0.05	0.05	mg/l	176	176	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	178	175	1.70%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.02	3.25	7.34%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1370	1350	1.47%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	0.00057	13.08%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.14	0.12	15.38%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	802	821	2.34%	Pass
ION BALANCE	100	100	%	92.2	93.7	1.61%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0063	0.0063	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0061	0.0062	1.63%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	88.2	92.9	5.19%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	88.2	87.8	0.45%	Pass
MAJOR ANION SUM	0	0	meq/l	17.5	17.6	0.57%	Pass
MAJOR CATION SUM	0	0	meq/l	16.1	16.5	2.45%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00022	0.00021	4.65%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00034	0.00038	11.11%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00288	0.00284	1.40%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00288	0.0028	2.82%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00219	0.00227	3.59%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00241	0.00234	2.95%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.799	0.825	3.20%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0050	0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0086	0.008	7.23%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0192	0.0183	4.80%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	282	315	11.06%	Pass
pH, LAB	0.1	0.1	ph units	8.41	8.42	0.12%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0182	0.0176	3.35%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.11	2.09	0.95%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.00	1.98	1.01%	Pass
SELENIUM, D	0.05	0.05	ug/l	110	116	5.31%	Pass
SELENIUM, T	0.05	0.05	ug/l	101	102	0.99%	Pass
SILICON, D	0.05	0.05	mg/l	3.94	4.22	6.86%	Pass
SILICON, T	0.1	0.1	mg/l	4.08	4.14	1.46%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.49	1.57	5.23%	Pass
SODIUM, T	0.05	0.05	mg/l	1.59	1.59	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.162	0.157	3.13%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.164	0.159	3.10%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	581	577	0.69%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000015	1.5e-005	0.00%	Pass
THALLIUM, T	0.00003	0.00001	mg/l	< 0.000030	1.5e-005	66.67%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1060	1030	2.87%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.209	0.176	17.14%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.13	2.97	5.25%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.48	1.08	76.92%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.00277	0.00281	1.43%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00282	0.00284	0.71%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00060	0.00057	5.13%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_OC1	EV_OC1
Sample ID:	EV_OC1_WS_2017-02-20_N	EV_ER5_WS_2017-02-20_N
Date Sampled:	2/20/2017	2/20/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.1	4.5	9.30%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	215	213	0.93%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	215	213	0.93%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0010	0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.411	0.395	3.97%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00030	0.00031	3.28%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00040	0.0004	0.00%	Pass

ARSENIC, D	0.0001	0.0001	mg/l	0.00058	0.00057	1.74%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00128	0.00122	4.80%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.324	0.314	3.13%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.368	0.368	0.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000041	3.3e-005	21.62%	Pass-1
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.042	0.043	2.35%	Pass
BORON, T	0.01	0.01	mg/l	0.048	0.047	2.11%	Pass
BROMIDE, D	0.05	0.05	mg/l	0.103	0.101	1.96%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000142	1.47e-005	3.46%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000646	6.22e-005	3.79%	Pass
CALCIUM, D	0.05	0.05	mg/l	66.2	66	0.30%	Pass
CALCIUM, T	0.05	0.05	mg/l	73.5	70.4	4.31%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	22.2	23	3.54%	Pass
CHLORIDE, D	0.5	0.5	mg/l	21.1	21	0.48%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00050	0.00051	1.98%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00049	0.00047	4.17%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00089	0.00088	1.13%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	546	548	0.37%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00022	0.00024	8.70%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00176	0.00173	1.72%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.278	0.332	17.70%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	277	272	1.82%	Pass
ION BALANCE	0	0	%	1.3	0.9	36.36%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	1.27	1.23	3.20%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000625	0.00061	2.43%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0343	0.0342	0.29%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0359	0.0356	0.84%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	27.0	26.1	3.39%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	29.5	28.2	4.51%	Pass
MAJOR ANION SUM	0	0	meq/l	6.21	6.16	0.81%	Pass
MAJOR CATION SUM	0	0	meq/l	6.37	6.27	1.58%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.222	0.21	5.56%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.271	0.266	1.86%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.000050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00347	0.0127	114.16%	Fail
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00423	0.00424	0.24%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00474	0.00469	1.06%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00180	0.00172	4.55%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00341	0.00334	2.07%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.143	0.141	1.41%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0097	0.01	3.05%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.106	0.111	4.61%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0025	0.0018	32.56%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	222	223	0.45%	Pass
pH, LAB	0.1	0.1	ph units	8.14	8.03	1.36%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0465	0.0427	8.52%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.87	2.8	2.47%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.26	3.18	2.48%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.75	1.75	0.00%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.81	1.75	3.37%	Pass
SILICON, D	0.05	0.05	mg/l	3.20	3.21	0.31%	Pass
SILICON, T	0.05	0.05	mg/l	4.05	3.94	2.75%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000016	1.6e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	17.4	17.1	1.74%	Pass
SODIUM, T	0.05	0.05	mg/l	18.9	18.6	1.60%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.512	0.508	0.78%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.564	0.552	2.15%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	62.3	62.2	0.16%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000023	2.6e-005	12.24%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	330	322	2.45%	Pass

TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.299	0.265	12.06%	Pass
TOTAL ORGANIC CARBON, T	2.5	2.5	mg/l	29.4	30.3	3.02%	Pass
TOTAL SUSPENDED SOLIDS, LAB	2.5	2.5	mg/l	35.5	35	1.42%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	85.2	83.2	2.38%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000440	0.000445	1.13%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000522	0.000496	5.11%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00152	0.0015	1.32%	Pass
ZINC, D	0.001	0.001	mg/l	0.0029	0.0027	7.14%	Pass
ZINC, T	0.003	0.003	mg/l	0.0144	0.0155	7.36%	Pass

Location:	EV_OC1	EV_OC1
Sample ID:	EV_OC1_WS_2017-04-03_N	EV_ER5_WS_2017-04-03_N
Date Sampled:	4/3/2017	4/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.5	4.3	4.55%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	260	259	0.39%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	6.6	3.6	58.82%	Fail
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	266	263	1.13%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.253	0.203	21.93%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00024	0.00025	4.08%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00054	0.00056	3.64%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00090	0.00074	19.51%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.226	0.218	3.60%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.236	0.224	5.22%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.052	0.054	3.77%	Pass
BORON, T	0.01	0.01	mg/l	0.055	0.06	8.70%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000072	8.8e-006	20.00%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000345	2.4e-005	35.90%	Pass-2
CALCIUM, D	0.05	0.05	mg/l	82.4	81.6	0.98%	Pass
CALCIUM, T	0.05	0.05	mg/l	83.4	85.6	2.60%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.87	3.75	3.15%	Pass
CHLORIDE, D	0.5	0.5	mg/l	27.5	27.2	1.10%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00035	0.00027	25.81%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00031	0.00033	6.25%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00050	0.00044	12.77%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	648	662	2.14%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00091	0.00079	14.12%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.23	0.23	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	333	330	0.90%	Pass
IRON, D	0.01	0.01	mg/l	0.010	0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.718	0.568	23.33%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000246	0.000167	38.26%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0342	0.0326	4.79%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0343	0.0347	1.16%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	31.0	30.6	1.30%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	31.5	32	1.57%	Pass
MAJOR ANION SUM	0	0	meq/l	7.92	7.81	1.40%	Pass
MAJOR CATION SUM	0	0	meq/l	7.44	7.37	0.95%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.110	0.114	3.57%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.152	0.131	14.84%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00120	0.00121	0.83%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00297	0.00287	3.42%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00305	0.00299	1.99%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00182	0.00183	0.55%	Pass

NICKEL, T	0.0005	0.0005	mg/l	0.00235	0.00223	5.24%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.072	0.066	8.70%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0302	0.0312	3.26%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	287	299	4.10%	Pass
pH, LAB	0.1	0.1	ph units	8.34	8.3	0.48%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0150	0.0163	8.31%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.36	2.34	0.85%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.38	2.44	2.49%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.48	2.55	2.78%	Pass
SELENIUM, T	0.05	0.05	ug/l	2.28	2.36	3.45%	Pass
SILICON, D	0.05	0.05	mg/l	4.12	4.1	0.49%	Pass
SILICON, T	0.05	0.05	mg/l	4.72	4.63	1.93%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	16.3	16.4	0.61%	Pass
SODIUM, T	0.05	0.05	mg/l	16.2	17.1	5.41%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.623	0.588	5.78%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.625	0.609	2.59%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	86.6	85.3	1.51%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000019	1.5e-005	23.53%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	431	402	6.96%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.292	0.28	4.20%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	4.47	5.18	14.72%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	9.3	9.4	1.07%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	12.7	13	2.33%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000878	0.000844	3.95%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000897	0.000881	1.80%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00089	0.00072	21.12%	Pass-1
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0042	0.0033	24.00%	Pass-1

Location:	EV_OC1	EV_OC1
Sample ID:	EV_OC1_WS_2017-04-25_N	EV_ER6_WS_2017-04-25_N
Date Sampled:	4/25/2017	4/25/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	7.5	4.3	54.24%	Fail
TURBIDITY, LAB	0.1	0.1	ntu	5.61	4.29	26.67%	Pass-2

Location:	EV_OC1	EV_OC1
Sample ID:	EV_OC1_WS_2017-05-04_N	EV_ER5_WS_2017-05-04_N
Date Sampled:	5/4/2017	5/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	264	270	2.25%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	11.2	12.2	8.55%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	275	282	2.51%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0017	0.0018	5.71%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0353	0.0245	36.12%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00022	20.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00053	0.00057	7.27%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00070	0.00067	4.38%	Pass
BARIIUM, D	0.00005	0.00005	mg/l	0.241	0.252	4.46%	Pass

BARIUM, T	0.00005	0.00005	mg/l	0.262	0.24	8.76%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.054	0.056	3.64%	Pass
BORON, T	0.01	0.01	mg/l	0.056	0.055	1.80%	Pass
BROMIDE, D	0.05	0.05	mg/l	0.147	0.149	1.35%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000057	7.9e-006	32.35%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000157	1.35e-005	15.07%	Pass
CALCIUM, D	0.05	0.05	mg/l	83.7	85.7	2.36%	Pass
CALCIUM, T	0.05	0.05	mg/l	88.9	79.9	10.66%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.63	4.35	18.05%	Pass
CHLORIDE, D	0.5	0.5	mg/l	27.2	27.3	0.37%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	<0.0001	26.09%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00013	0.00014	7.41%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00019	0.00016	17.14%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	712	713	0.14%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00044	0.00047	6.59%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00066	0.00057	14.63%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.288	0.295	2.40%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	336	348	3.51%	Pass
IRON, D	0.01	0.01	mg/l	0.023	0.025	8.33%	Pass
IRON, T	0.01	0.01	mg/l	0.334	0.302	10.06%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0316	0.0345	8.77%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0353	0.0316	11.06%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	30.8	32.5	5.37%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	31.8	30.1	5.49%	Pass
MAJOR ANION SUM	0	0	meq/l	8.11	8.26	1.83%	Pass
MAJOR CATION SUM	0	0	meq/l	7.52	7.79	3.53%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0622	0.0647	3.94%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0837	0.08	4.52%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.000050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00060	0.00084	33.33%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00300	0.00291	3.05%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00304	0.00284	6.80%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00157	0.00168	6.77%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00182	0.00165	9.80%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0743	0.0616	18.69%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0027	0.0026	3.77%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0276	0.032	14.77%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	0.0013	26.09%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	511	438	15.38%	Pass
pH, LAB	0.1	0.1	ph units	8.35	8.36	0.12%	Pass
PHOSPHORUS	0.01	0.004	mg/l	0.019	0.0128	38.99%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.43	2.46	1.23%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.43	2.43	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	3.02	2.92	3.37%	Pass
SELENIUM, T	0.05	0.05	ug/l	2.84	2.7	5.05%	Pass
SILICON, D	0.05	0.05	mg/l	3.74	3.95	5.46%	Pass
SILICON, T	0.05	0.05	mg/l	4.17	3.96	5.17%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	17.1	17.9	4.57%	Pass
SODIUM, T	0.05	0.05	mg/l	16.9	17	0.59%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.625	0.619	0.96%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.642	0.59	8.44%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	87.8	87.7	0.11%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	1.2e-005	18.18%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000013	1.2e-005	8.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	440	431	2.07%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.274	0.203	29.77%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	4.56	4.98	8.81%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	4.0	4	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	5.58	5.3	5.15%	Pass

URANIUM, D	0.0001	0.0001	mg/l	0.000699	0.00069	1.30%	Pass
URANIUM, T	0.0001	0.0001	mg/l	0.000718	0.000678	5.73%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	0.0011	9.52%	Pass
ZINC, T	0.003	0.003	mg/l	0.0052	< 0.003	53.66%	Pass-1

Location:	EV_OC1	EV_OC1
Sample ID:	EV_OC1_WS_2017-06-13_N	EV_ER9_WS_2017-06-13_N
Date Sampled:	6/13/2017	6/13/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	5.7	5.6	1.77%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.98	2.61	13.24%	Pass

Location:	EV_SM1	EV_SM1
Sample ID:	EV_SM1_WS_2017-01-09_N	EV_ER6_WS_2017-01-09_N
Date Sampled:	1/9/2017	1/9/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	< 1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	242	241	0.41%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	10.2	10.2	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	< 1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	252	251	0.40%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	< 0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.159	0.205	25.27%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
ARSENIC, T	0.0003	0.0001	mg/l	< 0.00030	0.00024	22.22%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0994	0.1	0.60%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.103	0.103	0.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	2.3e-005	13.95%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.054	0.054	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.057	0.056	1.77%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	< 0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	< 5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000098	8.9e-006	9.63%	Pass
CALCIUM, D	0.05	0.05	mg/l	71.0	71.8	1.12%	Pass
CALCIUM, T	0.05	0.05	mg/l	71.1	73	2.64%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.59	1.67	4.91%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.63	0.63	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00029	0.00031	6.67%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	544	538	1.11%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.160	0.161	0.62%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	281	283	0.71%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.107	0.152	34.75%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000088	0.000111	23.12%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0341	0.0338	0.88%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0369	0.0348	5.86%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	25.2	25.2	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	26.2	25.3	3.50%	Pass
MAJOR ANION SUM	0	0	meq/l	6.45	6.42	0.47%	Pass

MAJOR CATION SUM	0	0	meq/l	6.16	6.2	0.65%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00015	0.00017	12.50%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00281	0.00345	20.45%	Pass-2
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00133	0.00113	16.26%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00104	0.00105	0.96%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00105	0.0011	4.65%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.174	0.175	0.57%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0064	0.0069	7.52%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0090	0.0093	3.28%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	343	372	8.11%	Pass
pH, LAB	0.1	0.1	ph units	8.39	8.38	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0147	0.0162	9.71%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.47	1.47	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.54	1.55	0.65%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.94	2.85	3.11%	Pass
SELENIUM, T	0.05	0.05	ug/l	2.85	2.72	4.67%	Pass
SILICON, D	0.05	0.05	mg/l	3.46	3.48	0.58%	Pass
SILICON, T	0.05	0.05	mg/l	3.92	3.98	1.52%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	11.6	11.6	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	12.0	11.5	4.26%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.686	0.698	1.73%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.718	0.726	1.11%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	66.0	65.8	0.30%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	1.6e-005	46.15%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	349	348	0.29%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.086	0.095	9.94%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.01	2.29	13.02%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.3	3	26.42%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	7.63	7.94	3.98%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000666	0.00066	0.90%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000682	0.00069	1.17%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00057	0.00068	17.60%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_SM1	EV_SM1
Sample ID:	EV_SM1_WS_2017-03-06_N	EV_ER5_WS_2017-03-06_N
Date Sampled:	3/6/2017	3/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	236	240	1.68%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	10.4	10.4	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	247	250	1.21%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.101	0.0886	13.08%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00016	0.00015	6.45%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00020	0.0002	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0885	0.0886	0.11%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0859	0.0891	3.66%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.065	0.066	1.53%	Pass
BORON, T	0.01	0.01	mg/l	0.070	0.073	4.20%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000075	6.1e-006	20.59%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	68.6	68.8	0.29%	Pass
CALCIUM, T	0.05	0.05	mg/l	72.0	71.1	1.26%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.55	1.48	4.62%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.89	0.89	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00017	0.00014	19.35%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	523	529	1.14%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.168	0.168	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	290	288	0.69%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.063	0.054	15.38%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	5.5e-005	9.52%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0464	0.0488	5.04%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0494	0.0503	1.81%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	28.8	28.1	2.46%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	27.6	28.8	4.26%	Pass
MAJOR ANION SUM	0	0	meq/l	6.56	6.62	0.91%	Pass
MAJOR CATION SUM	0	0	meq/l	6.45	6.39	0.93%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00051	0.00046	10.31%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00141	0.00124	12.83%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.000050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00070	0.0007	0.00%	Pass
Methyl Mercury, T	0.00005	0.00005	ug/l	< 0.000050	<5e-005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00133	0.00135	1.49%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00125	0.00127	1.59%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.155	0.153	1.30%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0081	0.0081	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	389	368	5.55%	Pass
pH, LAB	0.1	0.1	ph units	8.33	8.35	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0091	0.0095	4.30%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.57	1.58	0.63%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.55	1.62	4.42%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.26	2.21	2.24%	Pass
SELENIUM, T	0.05	0.05	ug/l	2.21	2.21	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	3.68	3.76	2.15%	Pass
SILICON, T	0.05	0.05	mg/l	3.66	3.62	1.10%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	14.3	13.9	2.84%	Pass
SODIUM, T	0.05	0.05	mg/l	13.6	14.3	5.02%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.908	0.921	1.42%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.887	0.907	2.23%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	76.2	75.7	0.66%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	359	357	0.56%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.077	0.093	18.82%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.75	1.83	4.47%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	3.62	3.5	3.37%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000676	0.000667	1.34%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000659	0.000671	1.80%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_SM1	EV_SM1
Sample ID:	EV_SM1_WS_2017-05-02_N_14:15	EV_ER9_WS_2017-05-02_N_14:20
Date Sampled:	5/2/2017	5/2/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	13.4	10.7	22.41%	Pass-2
TURBIDITY, LAB	0.1	0.1	ntu	24.9	29.9	18.25%	Pass

Location:	EV_SM1	EV_SM1
Sample ID:	EV_SM1_WS_2017-06-05_N	EV_ER5_WS_2017-06-05_N
Date Sampled:	6/5/2017	6/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	195	197	1.02%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	10.8	10.4	3.77%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	206	207	0.48%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0089	0.0089	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.569	0.691	19.37%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00017	0.00017	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00016	13.33%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00044	0.00043	2.30%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0913	0.0924	1.20%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.105	0.105	0.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000046	5.3e-005	14.14%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.036	0.036	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.041	0.042	2.41%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000098	1.19e-005	19.35%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000474	5.24e-005	10.02%	Pass
CALCIUM, D	0.05	0.05	mg/l	59.8	59.5	0.50%	Pass
CALCIUM, T	0.05	0.05	mg/l	58.9	59.4	0.85%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.96	1.93	1.54%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.34	0.33	2.99%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00075	0.00092	20.36%	Pass-2
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00038	0.0004	5.13%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	434	438	0.92%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00137	0.00143	4.29%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.150	0.149	0.67%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	233	232	0.43%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.730	0.731	0.14%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000537	0.000559	4.01%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0225	0.0225	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0219	0.0226	3.15%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	20.3	20.4	0.49%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	21.2	21.4	0.94%	Pass
MAJOR ANION SUM	0	0	meq/l	5.05	5.07	0.40%	Pass
MAJOR CATION SUM	0	0	meq/l	4.97	4.96	0.20%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00403	0.00397	1.50%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0172	0.018	4.55%	Pass

MERCURY, D	0.000005	0.000005	mg/l	0.00053	6.8E-07	199.49%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00534	0.00507	5.19%	Pass
Methyl Mercury, T	0.00005	0.00005	ug/l	< 0.000050	<5e-005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000713	0.00074	3.72%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000775	0.000824	6.13%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00147	0.00148	0.68%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.157	0.156	0.64%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0129	0.012	7.23%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	296	316	6.54%	Pass
pH, LAB	0.1	0.1	ph units	8.48	8.47	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0442	0.0403	9.23%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.28	1.27	0.78%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.53	1.58	3.22%	Pass
SELENIUM, D	0.05	0.05	ug/l	3.33	3.43	2.96%	Pass
SELENIUM, T	0.05	0.05	ug/l	3.56	3.39	4.89%	Pass
SILICON, D	0.05	0.05	mg/l	3.00	3.01	0.33%	Pass
SILICON, T	0.1	0.1	mg/l	4.21	4.33	2.81%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000020	2.1e-005	4.88%	Pass
SODIUM, D	0.05	0.05	mg/l	6.53	6.5	0.46%	Pass
SODIUM, T	0.05	0.05	mg/l	6.81	6.86	0.73%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.502	0.502	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.490	0.494	0.81%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	43.5	43.4	0.23%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000026	2.7e-005	3.77%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	277	271	2.19%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.146	0.163	11.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.83	3.75	2.11%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	17.5	15.3	13.41%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	40.4	41.9	3.65%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000438	0.000442	0.91%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000479	0.000487	1.66%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00190	0.00223	15.98%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0061	0.0055	10.34%	Pass

Location:	EV_SM1	EV_SM1
Sample ID:	EV_SM1_WS_2017-09-11_N	EV_ER9_WS_2017-09-11_N
Date Sampled:	9/11/2017	9/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	188	189	0.53%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	14.2	14.6	2.78%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	202	204	0.99%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0912	0.0846	7.51%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00014	0.00012	15.38%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00025	0.00024	4.08%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00029	0.0003	3.39%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0870	0.0868	0.23%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0881	0.0877	0.46%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.099	0.078	23.73%	Pass-2

BORON, T	0.01	0.01	mg/l	0.082	0.085	3.59%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	55.2	53	4.07%	Pass
CALCIUM, T	0.05	0.05	mg/l	52.8	55.6	5.17%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.97	1.99	1.01%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00013	26.09%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	498	498	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.127	0.129	1.56%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	239	236	1.26%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.051	0.044	14.74%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0539	0.0436	21.13%	Pass-2
LITHIUM, T	0.001	0.001	mg/l	0.0442	0.0457	3.34%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	24.7	25.3	2.40%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	24.6	26.9	8.93%	Pass
MAJOR ANION SUM	0	0	meq/l	5.75	5.79	0.69%	Pass
MAJOR CATION SUM	0	0	meq/l	5.41	5.35	1.12%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00535	0.00519	3.04%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.000050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	0.00070	0.00082	15.79%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00129	0.00131	1.54%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00131	0.00143	8.76%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0126	0.0233	59.61%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	234	315	29.51%	Pass-1
pH, LAB	0.1	0.1	ph units	8.45	8.43	0.24%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0083	0.0068	19.87%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.73	1.69	2.34%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.75	1.76	0.57%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.22	2.19	1.36%	Pass
SELENIUM, T	0.05	0.05	ug/l	2.06	2.04	0.98%	Pass
SILICON, D	0.05	0.05	mg/l	3.42	3.35	2.07%	Pass
SILICON, T	0.1	0.1	mg/l	3.76	3.66	2.70%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	13.4	13.4	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	13.4	13.9	3.66%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.823	0.803	2.46%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.807	0.843	4.36%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	81.8	82.1	0.37%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000012	<1e-005	18.18%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	299	295	1.35%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	0.078	43.75%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.13	2.67	22.50%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.2	2	9.52%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	4.81	4.58	4.90%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000562	0.000571	1.59%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000587	0.000606	3.19%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00064	0.00057	11.57%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_SM1	EV_SM1
Sample ID:	EV_SM1_WS_2017-10-02_N	EV_ER9_WS_2017-10-02_N
Date Sampled:	10/2/2017	10/2/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	185	160	14.49%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	11.0	12.2	10.34%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	196	172	13.04%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0364	0.0331	9.50%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00024	0.00023	4.26%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00025	0.00026	3.92%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0857	0.0882	2.88%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0871	0.0886	1.71%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.085	0.084	1.18%	Pass
BORON, T	0.01	0.01	mg/l	0.083	0.082	1.21%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000060	9.6e-006	46.15%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	56.9	55.4	2.67%	Pass
CALCIUM, T	0.05	0.05	mg/l	56.2	57.2	1.76%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.12	2.18	2.79%	Pass
Cation - Anion Balance	0	0	%	1.9	6.9	113.64%	Fail
CHLORIDE, D	0.5	0.5	mg/l	0.57	0.62	8.40%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	494	490	0.81%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.125	0.129	3.15%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	261	263	0.76%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.039	0.03	26.09%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000053	<5e-005	5.83%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0462	0.0442	4.42%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0484	0.0483	0.21%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	28.8	30.2	4.75%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	27.6	28.3	2.50%	Pass
MAJOR ANION SUM	0	0	meq/l	5.66	5.16	9.24%	Pass
MAJOR CATION SUM	0	0	meq/l	5.88	5.93	0.85%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00205	0.002	2.47%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00070	0.00067	4.38%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00134	0.00134	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00133	0.00134	0.75%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00057	0.00064	11.57%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0077	0.0084	8.70%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0209	0.0294	33.80%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	265	289	8.66%	Pass
pH, LAB	0.1	0.1	ph units	8.48	8.5	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0053	0.0048	9.90%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.67	1.66	0.60%	Pass

POTASSIUM, T	0.05	0.05	mg/l	1.67	1.7	1.78%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.15	2.16	0.46%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.76	1.85	4.99%	Pass
SILICON, D	0.05	0.05	mg/l	3.41	3.45	1.17%	Pass
SILICON, T	0.1	0.1	mg/l	3.44	3.49	1.44%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	14.4	14.7	2.06%	Pass
SODIUM, T	0.05	0.05	mg/l	13.7	14	2.17%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.868	0.864	0.46%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.876	0.863	1.50%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	82.6	81.5	1.34%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	323	308	4.75%	Pass
TOTAL KJELDAHL NITROGEN	0.2	0.2	mg/l	< 0.20	<0.2	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.15	1.92	11.30%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	3.0	2.6	14.29%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	3.46	3.49	0.86%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000554	0.000548	1.09%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000556	0.000578	3.88%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_SM1	EV_SM1
Sample ID:	EV_SM1_WS_2017-11-14_N	EV_ER9_WS_2017-11-14_N
Date Sampled:	11/14/2017	11/14/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	214	217	1.39%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	6.2	9.4	41.03%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	220	227	3.13%	Pass
ALUMINUM, D	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ALUMINUM, T	0.015	0.015	mg/l	0.071	0.072	1.40%	Pass
ANTIMONY, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ANTIMONY, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ARSENIC, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ARSENIC, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
BARIUM, D	0.00025	0.00025	mg/l	0.0901	0.0905	0.44%	Pass
BARIUM, T	0.00025	0.00025	mg/l	0.0864	0.0869	0.58%	Pass
BERYLLIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BERYLLIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BISMUTH, D	0.00025	0.00025	mg/l	< 0.00025	<0.00025	0.00%	Pass
BISMUTH, T	0.00025	0.00025	mg/l	< 0.00025	<0.00025	0.00%	Pass
BORON, D	0.05	0.05	mg/l	0.077	0.074	3.97%	Pass
BORON, T	0.05	0.05	mg/l	0.070	0.075	6.90%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000025	0.000025	mg/l	< 0.000025	<2.5e-005	0.00%	Pass
CADMIUM, T	0.000025	0.000025	mg/l	< 0.000025	<2.5e-005	0.00%	Pass
CALCIUM, D	0.25	0.25	mg/l	64.2	67	4.27%	Pass
CALCIUM, T	0.25	0.25	mg/l	61.7	65.9	6.58%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.74	2.22	51.01%	Fail
CHLORIDE, D	0.5	0.5	mg/l	1.07	0.74	36.46%	Pass-1
CHROMIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
CHROMIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COBALT, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COBALT, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	548	544	0.73%	Pass
COPPER, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
COPPER, T	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass

FLUORIDE, D	0.02	0.02	mg/l	0.118	0.129	8.91%	Pass
Hardness, Total or Dissolved CaCO3	0.75	0.75	mg/l	272	281	3.25%	Pass
ION BALANCE	100	100	%	96.3	97.3	1.03%	Pass
IRON, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
IRON, T	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
LEAD, D	0.00025	0.00025	mg/l	< 0.00025	<0.00025	0.00%	Pass
LEAD, T	0.00025	0.00025	mg/l	< 0.00025	<0.00025	0.00%	Pass
LITHIUM, D	0.005	0.005	mg/l	0.0492	0.0487	1.02%	Pass
LITHIUM, T	0.005	0.005	mg/l	0.0441	0.0479	8.26%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	27.1	27.5	1.47%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	28.0	27.6	1.44%	Pass
MAJOR ANION SUM	0	0	meq/l	6.32	6.43	1.73%	Pass
MAJOR CATION SUM	0	0	meq/l	6.08	6.25	2.76%	Pass
MANGANESE, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
MANGANESE, T	0.0005	0.0005	mg/l	0.00140	0.00121	14.56%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00091	0.00088	3.35%	Pass
MOLYBDENUM, D	0.00025	0.00025	mg/l	0.00125	0.00134	6.95%	Pass
MOLYBDENUM, T	0.00025	0.00025	mg/l	0.00126	0.00127	0.79%	Pass
NICKEL, D	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
NICKEL, T	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0418	0.0122	109.63%	Fail
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0075	0.0296	119.14%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0016	0.0013	20.69%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	266	298	11.35%	Pass
pH, LAB	0.1	0.1	ph units	8.37	8.37	0.00%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0068	0.0055	21.14%	Pass-2
POTASSIUM, D	0.25	0.25	mg/l	1.69	1.74	2.92%	Pass
POTASSIUM, T	0.25	0.25	mg/l	1.81	1.74	3.94%	Pass
SELENIUM, D	0.25	0.25	ug/l	1.81	1.87	3.26%	Pass
SELENIUM, T	0.25	0.25	ug/l	1.85	1.79	3.30%	Pass
SILICON, D	0.25	0.25	mg/l	3.23	3.23	0.00%	Pass
SILICON, T	0.5	0.5	mg/l	3.42	3.33	2.67%	Pass
SILVER, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
SILVER, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
SODIUM, D	0.25	0.25	mg/l	13.9	13.8	0.72%	Pass
SODIUM, T	0.25	0.25	mg/l	14.7	14	4.88%	Pass
STRONTIUM, D	0.001	0.001	mg/l	0.864	0.932	7.57%	Pass
STRONTIUM, T	0.001	0.001	mg/l	0.916	0.887	3.22%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	90.3	89.7	0.67%	Pass
THALLIUM, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
THALLIUM, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
TIN, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
TIN, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	333	334	0.30%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.104	0.103	0.97%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.50	2.36	38.91%	Pass-2
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	3.63	3.55	2.23%	Pass
URANIUM, D	0.00005	0.00005	mg/l	0.000644	0.000625	2.99%	Pass
URANIUM, T	0.00005	0.00005	mg/l	0.000622	0.000648	4.09%	Pass
VANADIUM, D	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
VANADIUM, T	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
ZINC, D	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ZINC, T	0.015	0.015	mg/l	< 0.015	<0.015	0.00%	Pass

Location:	EV_SM1	EV_SM1
Sample ID:	EV_SM1_WS_2017-12-01_N	EV_ER9_WS_2017-12-01_N
Date Sampled:	12/1/2017	12/1/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	220	219	0.46%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	7.0	7	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass

ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	227	226	0.44%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.208	0.177	16.10%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00010	0.00011	9.52%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.00016	11.76%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0839	0.0827	1.44%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0818	0.0839	2.53%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.065	0.064	1.55%	Pass
BORON, T	0.01	0.01	mg/l	0.069	0.069	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000109	8.4e-006	25.91%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	64.7	63.3	2.19%	Pass
CALCIUM, T	0.05	0.05	mg/l	63.6	65.2	2.48%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.06	2.14	3.81%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.74	0.77	3.97%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00034	0.00024	34.48%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	527	525	0.38%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.129	0.131	1.54%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	271	266	1.86%	Pass
ION BALANCE	100	100	%	96.2	94.8	1.47%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.123	0.107	13.91%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000100	9.6e-005	4.08%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0439	0.041	6.83%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0438	0.0442	0.91%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	26.6	26.1	1.90%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	26.7	27.2	1.86%	Pass
MAJOR ANION SUM	0	0	meq/l	6.30	6.27	0.48%	Pass
MAJOR CATION SUM	0	0	meq/l	6.06	5.95	1.83%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00038	0.00044	14.63%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00280	0.00256	8.96%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00169	0.0014	18.77%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00135	0.00134	0.74%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00132	0.00127	3.86%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00056	0.00051	9.35%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0275	0.0283	2.87%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0022	0.0022	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	259	308	17.28%	Pass
pH, LAB	0.1	0.1	ph units	8.34	8.35	0.12%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0117	0.0125	6.61%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.61	1.57	2.52%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.59	1.59	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.21	2.33	5.29%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.95	2.11	7.88%	Pass
SILICON, D	0.05	0.05	mg/l	3.22	3.18	1.25%	Pass
SILICON, T	0.1	0.1	mg/l	3.58	3.51	1.97%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	13.9	13.8	0.72%	Pass
SODIUM, T	0.05	0.05	mg/l	13.6	13.8	1.46%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.852	0.859	0.82%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.833	0.824	1.09%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	83.6	83.4	0.24%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000010	<1e-005	0.00%	Pass

TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	317	306	3.53%	Pass
TOTAL KJELDAHL NITROGEN	0.2	0.2	mg/l	< 0.20	<0.2	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.86	1.98	6.25%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.9	3.9	68.97%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	9.05	9.46	4.43%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000605	0.000597	1.33%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000643	0.000641	0.31%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00069	0.0006	13.95%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	EV_SPR2	EV_SPR2
Sample ID:	EV_SPR2_WS_2017-01-10_N	EV_ER5_WS_2017-01-10_N
Date Sampled:	1/10/2017	1/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.8	2.9	3.51%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	260	263	1.15%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	4.8	<1	131.03%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	265	263	0.76%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0181	0.0151	18.07%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00010	0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00013	0.00012	8.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.195	0.196	0.51%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.182	0.183	0.55%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.020	0.021	4.88%	Pass
BORON, T	0.01	0.01	mg/l	0.021	0.02	4.88%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000653	7.05e-005	7.66%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000756	7.47e-005	1.20%	Pass
CALCIUM, D	0.05	0.05	mg/l	111	111	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	106	107	0.94%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.82	0.75	8.92%	Pass
CHLORIDE, D	0.5	0.5	mg/l	32.5	31.1	4.40%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00027	0.00017	45.45%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	766	765	0.13%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.16	0.16	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	415	419	0.96%	Pass
ION BALANCE	0	0	%	0.7	2.2	103.45%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.028	0.027	3.64%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	9.8e-005	64.86%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0209	0.0217	3.76%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0257	0.0256	0.39%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	33.6	34.3	2.06%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	35.7	34	4.88%	Pass
MAJOR ANION SUM	0	0	meq/l	8.65	8.47	2.10%	Pass
MAJOR CATION SUM	0	0	meq/l	8.77	8.86	1.02%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00180	0.00192	6.45%	Pass

MANGANESE, T	0.0001	0.0001	mg/l	0.00233	0.00237	1.70%	Pass
MERCURY, D	0.0000005	0.0000005	mg/l	< 0.00050	<5E-07	199.60%	Fail
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000789	0.000806	2.13%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000796	0.00081	1.74%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	1.84	1.76	4.44%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0055	0.0055	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0099	0.0108	8.70%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	366	397	8.13%	Pass
pH, LAB	0.1	0.1	ph units	8.32	8.28	0.48%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0116	0.0146	22.90%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	1.74	1.75	0.57%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.85	1.79	3.30%	Pass
SELENIUM, D	0.05	0.05	ug/l	9.75	10.1	3.53%	Pass
SELENIUM, T	0.05	0.05	ug/l	9.71	9.91	2.04%	Pass
SILICON, D	0.05	0.05	mg/l	3.39	3.44	1.46%	Pass
SILICON, T	0.05	0.05	mg/l	3.41	3.31	2.98%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	9.84	10	1.61%	Pass
SODIUM, T	0.05	0.05	mg/l	10.5	9.97	5.18%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.252	0.255	1.18%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.246	0.248	0.81%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	110	106	3.70%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	477	479	0.42%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.099	0.096	3.08%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.12	0.87	25.13%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.7	1.5	12.50%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.20	0.33	49.06%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.000968	0.000973	0.52%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000977	0.000986	0.92%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	CM_14PIT-PIPE	CM_14PIT-PIPE
Sample ID:	CM_14PIT-PIPE_WKLY_WS_20171017_N	CM_NNP_WKLY_WS_20171017_FD
Date Sampled:	10/17/2017	10/17/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	26.8	14.9	57.07%	Fail
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	394	387	1.79%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	394	387	1.79%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.006	mg/l	< 0.0030	<0.006	66.67%	Pass-1
ANTIMONY, D	0.0001	0.0002	mg/l	0.00175	0.0018	2.82%	Pass
ANTIMONY, T	0.0001	0.0002	mg/l	0.00184	0.00179	2.75%	Pass
ARSENIC, D	0.0001	0.0002	mg/l	< 0.00010	<0.0002	66.67%	Pass-1
ARSENIC, T	0.0001	0.0002	mg/l	0.00013	<0.0002	42.42%	Pass-1
BARIUM, D	0.00005	0.0001	mg/l	0.00931	0.0106	12.96%	Pass
BARIUM, T	0.00005	0.0001	mg/l	0.00888	0.00951	6.85%	Pass
BERYLLIUM, D	0.00002	0.00004	mg/l	< 0.000020	<4e-005	66.67%	Pass-1
BERYLLIUM, T	0.00002	0.00004	mg/l	< 0.000020	<4e-005	66.67%	Pass-1
BISMUTH, D	0.00005	0.0001	mg/l	< 0.000050	<0.0001	66.67%	Pass-1
BISMUTH, T	0.00005	0.0001	mg/l	< 0.000050	<0.0001	66.67%	Pass-1
BORON, D	0.01	0.02	mg/l	0.124	0.131	5.49%	Pass
BORON, T	0.01	0.02	mg/l	0.120	0.129	7.23%	Pass
BROMIDE, D	0.25	0.25	mg/l	0.29	<0.25	14.81%	Pass

CADMIUM, D	0.000005	0.00001	mg/l	0.000691	0.000596	14.76%	Pass
CADMIUM, T	0.000005	0.00001	mg/l	0.000665	0.000628	5.72%	Pass
CALCIUM, D	0.05	0.1	mg/l	408	377	7.90%	Pass
CALCIUM, T	0.05	0.1	mg/l	386	380	1.57%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.83	<0.5	49.62%	Pass-1
CHLORIDE, D	2.5	2.5	mg/l	7.9	8.1	2.50%	Pass
CHROMIUM, D	0.0001	0.0002	mg/l	<0.00010	<0.0002	66.67%	Pass-1
CHROMIUM, T	0.0001	0.0002	mg/l	<0.00010	<0.0002	66.67%	Pass-1
COBALT, D	0.0001	0.0002	mg/l	0.0955	0.0858	10.70%	Pass
COBALT, T	0.0001	0.0002	mg/l	0.0939	0.0909	3.25%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	2520	2510	0.40%	Pass
COPPER, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.001	mg/l	<0.00050	<0.001	66.67%	Pass-1
FLUORIDE, D	0.1	0.1	mg/l	0.18	0.18	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1770	1590	10.71%	Pass
IRON, D	0.01	0.02	mg/l	<0.010	<0.02	66.67%	Pass-1
IRON, T	0.01	0.02	mg/l	0.046	0.033	32.91%	Pass-1
LEAD, D	0.00005	0.0001	mg/l	<0.000050	<0.0001	66.67%	Pass-1
LEAD, T	0.00005	0.0001	mg/l	<0.000050	<0.0001	66.67%	Pass-1
LITHIUM, D	0.001	0.002	mg/l	0.115	0.106	8.14%	Pass
LITHIUM, T	0.001	0.002	mg/l	0.108	0.117	8.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	182	158	14.12%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	176	163	7.67%	Pass
MAJOR ANION SUM	0	0	meq/l	41.1	40.5	1.47%	Pass
MAJOR CATION SUM	0	0	meq/l	39.4	35.3	10.98%	Pass
MANGANESE, D	0.0001	0.0002	mg/l	0.514	0.445	14.39%	Pass
MANGANESE, T	0.0001	0.0002	mg/l	0.507	0.475	6.52%	Pass
MERCURY, D	0.000005	0.000005	mg/l	<0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	<0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.0001	mg/l	0.00595	0.00547	8.41%	Pass
MOLYBDENUM, T	0.00005	0.0001	mg/l	0.00613	0.00555	9.93%	Pass
NICKEL, D	0.0005	0.001	mg/l	0.403	0.366	9.62%	Pass
NICKEL, T	0.0005	0.001	mg/l	0.396	0.39	1.53%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	51.4	51	0.78%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	<0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.01	0.01	mg/l	0.739	0.664	10.69%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0014	0.0015	6.90%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	319	329	3.09%	Pass
pH, LAB	0.1	0.1	ph units	7.64	7.76	1.56%	Pass
PHOSPHORUS	0.002	0.002	mg/l	<0.0020	<0.002	0.00%	Pass
POTASSIUM, D	0.05	0.1	mg/l	8.40	8.16	2.90%	Pass
POTASSIUM, T	0.05	0.1	mg/l	7.73	7.96	2.93%	Pass
SELENIUM, D	0.05	0.1	ug/l	2.34	1.74	29.41%	Pass-2
SELENIUM, T	0.05	0.1	ug/l	1.88	1.71	9.47%	Pass
SILICON, D	0.05	0.1	mg/l	2.91	2.79	4.21%	Pass
SILICON, T	0.1	0.2	mg/l	3.00	2.84	5.48%	Pass
SILVER, D	0.00001	0.00002	mg/l	<0.000010	<2e-005	66.67%	Pass-1
SILVER, T	0.00001	0.00002	mg/l	<0.000010	<2e-005	66.67%	Pass-1
SODIUM, D	0.05	0.1	mg/l	87.1	74	16.26%	Pass
SODIUM, T	0.05	0.1	mg/l	85.8	74.6	13.97%	Pass
STRONTIUM, D	0.0002	0.0004	mg/l	1.79	1.73	3.41%	Pass
STRONTIUM, T	0.0002	0.0004	mg/l	1.82	1.71	6.23%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	1410	1390	1.43%	Pass
THALLIUM, D	0.00001	0.00002	mg/l	0.000140	0.000134	4.38%	Pass
THALLIUM, T	0.00001	0.00002	mg/l	0.000140	0.000127	9.74%	Pass
TIN, D	0.0001	0.0002	mg/l	<0.00010	<0.0002	66.67%	Pass-1
TIN, T	0.0001	0.0002	mg/l	<0.00010	<0.0002	66.67%	Pass-1
TITANIUM, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	40	mg/l	2600	2770	6.33%	Pass
TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.058	1.25	182.26%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.72	<0.5	36.07%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	<1	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.46	0.54	16.00%	Pass
URANIUM, D	0.00001	0.00002	mg/l	0.0174	0.0149	15.48%	Pass
URANIUM, T	0.00001	0.00002	mg/l	0.0166	0.0155	6.85%	Pass
VANADIUM, D	0.0005	0.001	mg/l	<0.00050	<0.001	66.67%	Pass-1
VANADIUM, T	0.0005	0.001	mg/l	<0.00050	<0.001	66.67%	Pass-1
ZINC, D	0.003	0.003	mg/l	0.0858	0.0827	3.68%	Pass
ZINC, T	0.003	0.006	mg/l	0.0830	0.0856	3.08%	Pass

Location:	CM_14PIT-PIPE	CM_14PIT-PIPE
Sample ID:	CM_14PIT-PIPE_WKLY_WS_20171031_N	CM_NNP_WKLY_WS_20171031_FD
Date Sampled:	10/31/2017	10/31/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	50.2	32.5	42.81%	Pass-2
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	402	402	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.006	0.006	mg/l	< 0.0060	<0.006	0.00%	Pass
ANTIMONY, D	0.0001	0.0002	mg/l	0.00171	0.00177	3.45%	Pass
ANTIMONY, T	0.0002	0.0002	mg/l	0.00177	0.00183	3.33%	Pass
ARSENIC, D	0.0001	0.0002	mg/l	< 0.00010	<0.0002	66.67%	Pass-1
ARSENIC, T	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
BARIUM, D	0.00005	0.0001	mg/l	0.00993	0.00915	8.18%	Pass
BARIUM, T	0.0001	0.0001	mg/l	0.00961	0.0105	8.85%	Pass
BERYLLIUM, D	0.00002	0.00004	mg/l	< 0.000020	<4e-005	66.67%	Pass-1
BERYLLIUM, T	0.00004	0.00004	mg/l	< 0.000040	<4e-005	0.00%	Pass
BISMUTH, D	0.00005	0.0001	mg/l	< 0.000050	<0.0001	66.67%	Pass-1
BISMUTH, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BORON, D	0.01	0.02	mg/l	0.135	0.131	3.01%	Pass
BORON, T	0.02	0.02	mg/l	0.132	0.137	3.72%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.00001	mg/l	0.000672	0.00063	6.45%	Pass
CADMIUM, T	0.00001	0.00001	mg/l	0.000608	0.000691	12.78%	Pass
CALCIUM, D	0.05	0.1	mg/l	396	372	6.25%	Pass
CALCIUM, T	0.1	0.1	mg/l	393	390	0.77%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	0.73	37.40%	Pass-1
CHLORIDE, D	2.5	2.5	mg/l	7.8	7.8	0.00%	Pass
CHROMIUM, D	0.0001	0.0002	mg/l	< 0.00010	<0.0002	66.67%	Pass-1
CHROMIUM, T	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COBALT, D	0.0001	0.0002	mg/l	0.0921	0.0915	0.65%	Pass
COBALT, T	0.0002	0.0002	mg/l	0.0870	0.0959	9.73%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	2730	2780	1.81%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.22	0.21	4.65%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1710	1650	3.57%	Pass
IRON, D	0.01	0.02	mg/l	0.013	<0.02	42.42%	Pass-1
IRON, T	0.02	0.02	mg/l	0.037	0.057	42.55%	Pass-1
LEAD, D	0.00005	0.0001	mg/l	< 0.000050	<0.0001	66.67%	Pass-1
LEAD, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
LITHIUM, D	0.001	0.002	mg/l	0.111	0.108	2.74%	Pass
LITHIUM, T	0.002	0.002	mg/l	0.115	0.119	3.42%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	174	174	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	166	181	8.65%	Pass
MAJOR ANION SUM	0	0	meq/l	39.7	39.8	0.25%	Pass
MAJOR CATION SUM	0	0	meq/l	37.8	36.6	3.23%	Pass
MANGANESE, D	0.0001	0.0002	mg/l	0.468	0.469	0.21%	Pass
MANGANESE, T	0.0002	0.0002	mg/l	0.468	0.489	4.39%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.0001	mg/l	0.00528	0.00551	4.26%	Pass
MOLYBDENUM, T	0.0001	0.0001	mg/l	0.00573	0.00562	1.94%	Pass
NICKEL, D	0.0005	0.001	mg/l	0.414	0.399	3.69%	Pass
NICKEL, T	0.001	0.001	mg/l	0.378	0.418	10.05%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	47.5	47.7	0.42%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	0.0073	37.40%	Pass-1
NITROGEN, AMMONIA (AS N)	0.05	0.05	mg/l	0.693	0.708	2.14%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0013	0.0019	37.50%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	359	395	9.55%	Pass
pH, LAB	0.1	0.1	ph units	7.24	7.6	4.85%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0037	0.0038	2.67%	Pass
POTASSIUM, D	0.05	0.1	mg/l	8.19	7.96	2.85%	Pass
POTASSIUM, T	0.1	0.1	mg/l	7.69	8.15	5.81%	Pass
SELENIUM, D	0.05	0.1	ug/l	2.15	2.02	6.24%	Pass
SELENIUM, T	0.1	0.1	ug/l	1.84	2.06	11.28%	Pass
SILICON, D	0.05	0.1	mg/l	2.78	2.9	4.23%	Pass
SILICON, T	0.2	0.2	mg/l	2.72	3.03	10.78%	Pass
SILVER, D	0.00001	0.00002	mg/l	< 0.000010	<2e-005	66.67%	Pass-1

SILVER, T	0.0002	0.0002	mg/l	0.00032	<2e-005	46.15%	Pass-1
SODIUM, D	0.05	0.1	mg/l	79.0	78.6	0.51%	Pass
SODIUM, T	0.1	0.1	mg/l	69.2	82.4	17.41%	Pass
STRONTIUM, D	0.0002	0.0004	mg/l	1.58	1.69	6.73%	Pass
STRONTIUM, T	0.0004	0.0004	mg/l	1.76	1.73	1.72%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	1350	1350	0.00%	Pass
THALLIUM, D	0.0001	0.0002	mg/l	0.000128	0.000132	3.08%	Pass
THALLIUM, T	0.0002	0.0002	mg/l	0.000145	0.000133	8.63%	Pass
TIN, D	0.0001	0.0002	mg/l	< 0.00010	<0.0002	66.67%	Pass-1
TIN, T	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	40	40	mg/l	2440	2710	10.49%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.967	0.823	16.09%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.59	0.68	14.17%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.30	0.28	6.90%	Pass
URANIUM, D	0.0001	0.0002	mg/l	0.0176	0.0166	5.85%	Pass
URANIUM, T	0.0002	0.0002	mg/l	0.0165	0.0168	1.80%	Pass
VANADIUM, D	0.0005	0.001	mg/l	< 0.00050	<0.001	66.67%	Pass-1
VANADIUM, T	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0823	0.0786	4.60%	Pass
ZINC, T	0.006	0.006	mg/l	0.0788	0.0817	3.61%	Pass

Location:	CM_14PIT-PIPE	CM_14PIT-PIPE
Sample ID:	CM_14PIT-PIPE_WS_2017-11-01_N	WS_2017-11-01_022
Date Sampled:	11/7/2017	11/7/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	19.8	19.6	1.02%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	417	420	0.72%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.006	0.006	mg/l	< 0.0060	<0.006	0.00%	Pass
ANTIMONY, D	0.0002	0.0002	mg/l	0.00179	0.00172	3.99%	Pass
ANTIMONY, T	0.0002	0.0002	mg/l	0.00174	0.00193	10.35%	Pass
ARSENIC, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
ARSENIC, T	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
BARIUM, D	0.0001	0.0001	mg/l	0.00942	0.00926	1.71%	Pass
BARIUM, T	0.0001	0.0001	mg/l	0.00945	0.0111	16.06%	Pass
BERYLLIUM, D	0.00004	0.00004	mg/l	< 0.000040	<4e-005	0.00%	Pass
BERYLLIUM, T	0.00004	0.00004	mg/l	< 0.000040	<4e-005	0.00%	Pass
BISMUTH, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BISMUTH, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BORON, D	0.02	0.02	mg/l	0.125	0.119	4.92%	Pass
BORON, T	0.02	0.02	mg/l	0.141	0.138	2.15%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.00001	0.00001	mg/l	0.000648	0.000639	1.40%	Pass
CADMIUM, T	0.00001	0.00001	mg/l	0.000641	0.000687	6.93%	Pass
CALCIUM, D	0.1	0.1	mg/l	372	361	3.00%	Pass
CALCIUM, T	0.1	0.1	mg/l	418	400	4.40%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	1.02	68.42%	Pass-1
CHLORIDE, D	2.5	2.5	mg/l	7.5	7.5	0.00%	Pass
CHROMIUM, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
CHROMIUM, T	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COBALT, D	0.0002	0.0002	mg/l	0.0957	0.094	1.79%	Pass
COBALT, T	0.0002	0.0002	mg/l	0.0975	0.0984	0.92%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	2850	2920	2.43%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.001	0.001	mg/l	0.0021	<0.001	70.97%	Pass-1
FLUORIDE, D	0.1	0.1	mg/l	0.23	0.19	19.05%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1650	1590	3.70%	Pass
ION BALANCE	100	100	%	92.3	87.9	4.88%	Pass
IRON, D	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
IRON, T	0.02	0.02	mg/l	0.032	0.056	54.55%	Pass-1
LEAD, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
LEAD, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
LITHIUM, D	0.002	0.002	mg/l	0.126	0.12	4.88%	Pass
LITHIUM, T	0.002	0.002	mg/l	0.123	0.11	11.16%	Pass

MAGNESIUM, D	0.1	0.1	mg/l	174	166	4.71%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	176	167	5.25%	Pass
MAJOR ANION SUM	0	0	meq/l	39.6	40.1	1.25%	Pass
MAJOR CATION SUM	0	0	meq/l	36.6	35.2	3.90%	Pass
MANGANESE, D	0.0002	0.0002	mg/l	0.513	0.502	2.17%	Pass
MANGANESE, T	0.0002	0.0002	mg/l	0.525	0.499	5.08%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.0001	0.0001	mg/l	0.00604	0.00599	0.83%	Pass
MOLYBDENUM, T	0.0001	0.0001	mg/l	0.00606	0.00621	2.44%	Pass
NICKEL, D	0.001	0.001	mg/l	0.391	0.386	1.29%	Pass
NICKEL, T	0.001	0.001	mg/l	0.412	0.419	1.68%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	47.0	47.4	0.85%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0084	0.0073	14.01%	Pass
NITROGEN, AMMONIA (AS N)	0.01	0.01	mg/l	0.748	0.742	0.81%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0017	0.0014	19.35%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	302	309	2.29%	Pass
pH, LAB	0.1	0.1	ph units	7.97	8	0.38%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0029	0.0028	3.51%	Pass
POTASSIUM, D	0.1	0.1	mg/l	8.59	8.36	2.71%	Pass
POTASSIUM, T	0.1	0.1	mg/l	8.73	8.21	6.14%	Pass
SELENIUM, D	0.1	0.1	ug/l	1.99	1.88	5.68%	Pass
SELENIUM, T	0.1	0.1	ug/l	1.81	2.1	14.83%	Pass
SILICON, D	0.1	0.1	mg/l	3.10	2.88	7.36%	Pass
SILICON, T	0.2	0.2	mg/l	3.01	3.07	1.97%	Pass
SILVER, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
SILVER, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
SODIUM, D	0.1	0.1	mg/l	77.3	74.8	3.29%	Pass
SODIUM, T	0.1	0.1	mg/l	84.9	83.3	1.90%	Pass
STRONTIUM, D	0.0004	0.0004	mg/l	1.68	1.7	1.18%	Pass
STRONTIUM, T	0.0004	0.0004	mg/l	1.79	1.84	2.75%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	1330	1350	1.49%	Pass
THALLIUM, D	0.00002	0.00002	mg/l	0.000125	0.000128	2.37%	Pass
THALLIUM, T	0.00002	0.00002	mg/l	0.000123	0.000139	12.21%	Pass
TIN, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
TIN, T	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	40	40	mg/l	2660	2680	0.75%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.939	1.11	16.69%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.59	0.89	40.54%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.52	0.44	16.67%	Pass
URANIUM, D	0.00002	0.00002	mg/l	0.0164	0.0164	0.00%	Pass
URANIUM, T	0.00002	0.00002	mg/l	0.0152	0.0167	9.40%	Pass
VANADIUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
VANADIUM, T	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0808	0.0786	2.76%	Pass
ZINC, T	0.006	0.006	mg/l	0.0820	0.091	10.40%	Pass

Location:	CM_34PIPEDIS	CM_34PIPEDIS
Sample ID:	CM_34PIPEDIS_WS_20170927_N	CM_NNP_WKLY_WS_20170927_FD
Date Sampled:	9/27/2017	9/27/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	5.0	4.5	10.53%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	174	183	5.04%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	174	183	5.04%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	0.008	90.91%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0037	0.0077	70.18%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00349	0.00349	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00342	0.00343	0.29%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00032	0.00036	11.76%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00041	0.00038	7.59%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0184	0.0235	24.34%	Pass-2
BARIUM, T	0.00005	0.00005	mg/l	0.0242	0.0246	1.64%	Pass

BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.179	0.172	3.99%	Pass
BORON, T	0.01	0.01	mg/l	0.192	0.183	4.80%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	0.00072	197.24%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.000730	0.000752	2.97%	Pass
CALCIUM, D	0.05	0.05	mg/l	275	274	0.36%	Pass
CALCIUM, T	0.05	0.05	mg/l	299	293	2.03%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.05	0.88	17.62%	Pass
Cation - Anion Balance	0	0	%	1.4	3.1	75.56%	Fail
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.0723	0.118	48.03%	Pass-2
COBALT, T	0.0001	0.0001	mg/l	0.116	0.117	0.86%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1810	1810	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.32	0.32	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1060	1100	3.70%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.021	0.019	10.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.112	0.111	0.90%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.114	0.119	4.29%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	91.1	101	10.31%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	96.3	94.7	1.68%	Pass
MAJOR ANION SUM	0	0	meq/l	23.4	23.7	1.27%	Pass
MAJOR CATION SUM	0	0	meq/l	24.1	25.2	4.46%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.128	0.464	113.51%	Fail
MANGANESE, T	0.0001	0.0001	mg/l	0.463	0.481	3.81%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.0123	0.0129	4.76%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.0135	0.0131	3.01%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.335	0.396	16.69%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.385	0.39	1.29%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	13.2	13.2	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.144	0.144	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.025	0.025	mg/l	1.62	1.59	1.87%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	328	349	6.20%	Pass
pH, LAB	0.1	0.1	ph units	8.01	7.99	0.25%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	<0.002	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	6.89	7.58	9.54%	Pass
POTASSIUM, T	0.05	0.05	mg/l	7.06	7.14	1.13%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.47	5.47	20.12%	Pass-2
SELENIUM, T	0.05	0.05	ug/l	4.51	4.38	2.92%	Pass
SILICON, D	0.05	0.05	mg/l	2.87	2.95	2.75%	Pass
SILICON, T	0.1	0.1	mg/l	3.02	2.86	5.44%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	59.9	66.2	9.99%	Pass
SODIUM, T	0.05	0.05	mg/l	62.9	62.5	0.64%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	2.01	1.92	4.58%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	2.08	2.06	0.97%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	911	916	0.55%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000133	0.00013	2.28%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000131	0.000134	2.26%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1630	1620	0.62%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	1.97	1.91	3.09%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.02	0.96	6.06%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.8	1.6	11.76%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.93	1.8	6.97%	Pass

URANIUM, D	0.0001	0.0001	mg/l	0.00659	0.0109	49.29%	Pass-2
URANIUM, T	0.0001	0.0001	mg/l	0.0115	0.0119	3.42%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	0.0984	188.17%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.100	0.101	1.00%	Pass

Location:	CM_CC1	CM_CC1
Sample ID:	CM_CC1_M_WS_20170117_N	CM_NNP_WQ_20170117_217
Date Sampled:	1/17/2017	1/17/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.6	1.9	31.11%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	277	273	1.45%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	277	273	1.45%	Pass
ALUMINIUM, T	0.003	0.003	mg/l	0.0106	0.0121	13.22%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00074	0.00074	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00028	0.00029	3.51%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0455	0.0451	0.88%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.068	0.068	0.00%	Pass
BROMIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000159	0.000157	1.27%	Pass
CALCIUM, T	0.05	0.05	mg/l	237	242	2.09%	Pass
CHLORIDE, D	1	1	mg/l	4.2	4.2	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.0112	0.0112	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1740	1740	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.2	0.2	mg/l	0.22	<0.2	9.52%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1040	1060	1.90%	Pass
ION BALANCE	0	0	%	0.5	3	142.86%	Fail
IRON, T	0.01	0.01	mg/l	0.014	0.016	13.33%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0484	0.0491	1.44%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	112	111	0.90%	Pass
MAJOR ANION SUM	0	0	meq/l	22.3	21.5	3.65%	Pass
MAJOR CATION SUM	0	0	meq/l	22.5	22.9	1.76%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0540	0.0543	0.55%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	163.64%	Pass-1
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00282	0.00291	3.14%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0931	0.0937	0.64%	Pass
NITRATE NITROGEN (NO3), AS N	0.05	0.05	mg/l	12.0	11.5	4.26%	Pass
NITRITE NITROGEN (NO2), AS N	0.01	0.01	mg/l	0.070	0.065	7.41%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0807	0.0796	1.37%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	337	326	3.32%	Pass
pH, LAB	0.1	0.1	ph units	8.21	8.23	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0032	0.0032	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	4.20	4.23	0.71%	Pass
SELENIUM, T	0.05	0.05	ug/l	17.5	17.5	0.00%	Pass
SILICON, T	0.05	0.05	mg/l	2.73	2.75	0.73%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	36.3	36.4	0.28%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.807	0.816	1.11%	Pass
SULFATE (AS SO4), D	3	3	mg/l	755	726	3.92%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000056	5.7e-005	1.77%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	1330	1370	2.96%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	<1	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.03	0.95	8.08%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00798	0.00811	1.62%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0171	0.0173	1.16%	Pass

Location:	CM_CC1	CM_CC1
Sample ID:	CM_CC1_M_WS_20170201_N	CM_NNP_WQ_20170201_225
Date Sampled:	2/1/2017	2/1/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	7.5	7.3	2.70%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	272	276	1.46%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	272	276	1.46%	Pass
ALUMINUM, T	0.015	0.015	mg/l	< 0.015	<0.015	0.00%	Pass
ANTIMONY, T	0.0005	0.0005	mg/l	0.00067	0.00067	0.00%	Pass
ARSENIC, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
BARIUM, T	0.00025	0.00025	mg/l	0.0496	0.0495	0.20%	Pass
BERYLLIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BISMUTH, T	0.00025	0.00025	mg/l	< 0.00025	<0.00025	0.00%	Pass
BORON, T	0.05	0.05	mg/l	0.067	0.066	1.50%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, T	0.000025	0.000025	mg/l	0.000147	0.000152	3.34%	Pass
CALCIUM, D	0.25	0.25	mg/l	230	227	1.31%	Pass
CALCIUM, T	0.25	0.25	mg/l	252	247	2.00%	Pass
CHLORIDE, D	2.5	2.5	mg/l	3.9	3.9	0.00%	Pass
CHROMIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COBALT, T	0.0005	0.0005	mg/l	0.0126	0.0123	2.41%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1710	1720	0.58%	Pass
COPPER, T	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.18	0.18	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.63	0.63	mg/l	1030	1020	0.98%	Pass
IRON, T	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
LEAD, T	0.00025	0.00025	mg/l	< 0.00025	<0.00025	0.00%	Pass
LITHIUM, T	0.005	0.005	mg/l	0.0420	0.0416	0.96%	Pass
MAGNESIUM, D	0.025	0.025	mg/l	110	111	0.90%	Pass
MAGNESIUM, T	0.025	0.025	mg/l	116	115	0.87%	Pass
MAJOR ANION SUM	0	0	meq/l	22.5	22.6	0.44%	Pass
MAJOR CATION SUM	0	0	meq/l	21.9	21.8	0.46%	Pass
MANGANESE, T	0.0005	0.0005	mg/l	0.0564	0.0547	3.06%	Pass
MERCURY, T	0.0005	0.005	ug/l	< 0.00050	<0.005	163.64%	Pass-1
MOLYBDENUM, T	0.00025	0.00025	mg/l	0.00261	0.00258	1.16%	Pass
NICKEL, T	0.0025	0.0025	mg/l	0.100	0.0986	1.41%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	12.3	12.3	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0371	0.0349	6.11%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0343	0.041	17.80%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	0.0013	26.09%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	348	327	6.22%	Pass
pH, LAB	0.1	0.1	ph units	8.03	8.07	0.50%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0074	0.0254	109.76%	Pass-1
POTASSIUM, D	0.25	0.25	mg/l	3.86	3.83	0.78%	Pass
POTASSIUM, T	0.25	0.25	mg/l	4.15	4.01	3.43%	Pass
SELENIUM, T	0.25	0.25	ug/l	15.6	15.7	0.64%	Pass
SILICON, T	0.25	0.25	mg/l	2.61	2.54	2.72%	Pass
SILVER, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
SODIUM, D	0.25	0.25	mg/l	29.5	29.6	0.34%	Pass
SODIUM, T	0.25	0.25	mg/l	31.8	31.3	1.58%	Pass
STRONTIUM, T	0.001	0.001	mg/l	0.854	0.857	0.35%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	771	773	0.26%	Pass
THALLIUM, T	0.00005	0.00005	mg/l	0.000050	<5e-005	0.00%	Pass
TIN, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1490	1500	0.67%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.7	51.85%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.01	1.13	11.21%	Pass
URANIUM, T	0.00005	0.00005	mg/l	0.00787	0.00788	0.13%	Pass
VANADIUM, T	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
ZINC, T	0.015	0.015	mg/l	0.018	0.018	0.00%	Pass

Location:	CM_CC1	CM_CC1
Sample ID:	CM_CC1_M_WS_20170301_N	CM_NNP_WQ_20170301_233
Date Sampled:	3/1/2017	3/1/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	3.7	6.9	60.38%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	266	265	0.38%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	266	265	0.38%	Pass
ALUMINIUM, T	0.003	0.003	mg/l	0.0060	0.0064	6.45%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00070	0.00065	7.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00025	0.00026	3.92%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0540	0.0533	1.30%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.059	0.058	1.71%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000125	0.00012	4.08%	Pass
CALCIUM, D	0.05	0.05	mg/l	203	217	6.67%	Pass
CALCIUM, T	0.05	0.05	mg/l	199	193	3.06%	Pass
CHLORIDE, D	2.5	2.5	mg/l	5.3	5.2	1.90%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.0105	0.0102	2.90%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1610	1650	2.45%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.15	0.17	12.50%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	904	964	6.42%	Pass
IRON, T	0.01	0.01	mg/l	0.012	0.013	8.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0429	0.0428	0.23%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	96.4	103	6.62%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	94.5	91.3	3.44%	Pass
MAJOR ANION SUM	0	0	meq/l	21.5	21.4	0.47%	Pass
MAJOR CATION SUM	0	0	meq/l	19.3	20.7	7.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0530	0.051	3.85%	Pass
MERCURY, T	0.0005	0.005	ug/l	< 0.00050	<0.005	163.64%	Pass-1
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00267	0.00264	1.13%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0757	0.0745	1.60%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	11.0	10.9	0.91%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0685	0.066	3.72%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	330	324	1.83%	Pass
pH, LAB	0.1	0.1	ph units	8.06	8.08	0.25%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.57	3.72	4.12%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.45	3.41	1.17%	Pass
SELENIUM, T	0.05	0.05	ug/l	13.9	14	0.72%	Pass
SILICON, T	0.05	0.05	mg/l	2.20	2.18	0.91%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	26.6	30.9	14.96%	Pass
SODIUM, T	0.05	0.05	mg/l	27.4	27	1.47%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.765	0.762	0.39%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	734	730	0.55%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000045	4.5e-005	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1370	1330	2.96%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.0	1.4	33.33%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.05	0.9	15.38%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00857	0.00883	2.99%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0138	0.0132	4.44%	Pass

Location:	CM_CC1	CM_CC1
Sample ID:	CM_CC1_M_WS_20170405_N	CM_NNP_WQ_20170405_249
Date Sampled:	4/5/2017	4/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.9	4.1	17.78%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	234	239	2.11%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	234	239	2.11%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0082	0.0032	87.72%	Fail
ALUMINUM, T	0.003	0.003	mg/l	0.0093	0.0116	22.01%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00099	0.00087	12.90%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00087	0.00086	1.16%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00026	0.00026	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00026	0.0003	14.29%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0690	0.07	1.44%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0607	0.0678	11.05%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.070	0.06	15.38%	Pass
BORON, T	0.01	0.01	mg/l	0.063	0.063	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000674	7.21e-005	6.74%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000621	7.18e-005	14.49%	Pass
CALCIUM, D	0.05	0.05	mg/l	208	187	10.63%	Pass
CALCIUM, T	0.05	0.05	mg/l	185	185	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHLORIDE, D	2.5	2.5	mg/l	5.6	5.6	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00020	0.00015	28.57%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.0124	0.0129	3.95%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.0118	0.0127	7.35%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1390	1400	0.72%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00029	0.00025	14.81%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00073	0.00116	45.50%	Pass-1
FLUORIDE, D	0.1	0.1	mg/l	0.17	0.15	12.50%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	868	818	5.93%	Pass
ION BALANCE	0	0	%	1.4	-0.7	200.00%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.016	0.016	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0461	0.0418	9.78%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0429	0.0431	0.47%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	84.8	85.4	0.71%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	77.6	85.9	10.15%	Pass
MAJOR ANION SUM	0	0	meq/l	18.3	18.1	1.10%	Pass
MAJOR CATION SUM	0	0	meq/l	18.8	17.8	5.46%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0902	0.0922	2.19%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0857	0.0929	8.06%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00446	0.00404	9.88%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00421	0.00413	1.92%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0569	0.059	3.62%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0532	0.0592	10.68%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	7.05	6.97	1.14%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0627	0.0603	3.90%	Pass
NITROGEN, AMMONIA (AS N)	0.025	0.025	mg/l	0.366	0.386	5.32%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	312	308	1.29%	Pass
pH, LAB	0.1	0.1	ph units	8.10	8.07	0.37%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0025	0.0024	4.08%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.95	4.03	2.01%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.88	4.23	8.63%	Pass
SELENIUM, D	0.05	0.05	ug/l	11.4	11.7	2.60%	Pass
SELENIUM, T	0.05	0.05	ug/l	10.7	10.3	3.81%	Pass
SILICON, D	0.05	0.05	mg/l	2.72	2.64	2.99%	Pass
SILICON, T	0.05	0.05	mg/l	2.52	2.5	0.80%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	30.6	30.6	0.00%	Pass

SODIUM, T	0.05	0.05	mg/l	26.4	28.7	8.35%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.864	0.788	9.20%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.788	0.783	0.64%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	620	607	2.12%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000034	2.9e-005	15.87%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000032	3.3e-005	3.08%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1150	1160	0.87%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.764	0.9	16.35%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.82	0.63	26.21%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.6	1.6	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.70	2.63	2.63%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00613	0.00547	11.38%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00555	0.00554	0.18%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0063	0.0055	13.56%	Pass
ZINC, T	0.003	0.003	mg/l	0.0072	0.0131	58.13%	Pass-1

Location:	CM_CC1	CM_CC1
Sample ID:	CM_CC1_M_WS_20170705_N	CM_NNP_M_WQ_20170705_FD
Date Sampled:	7/5/2017	7/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	7.3	5.6	26.36%	Pass-2
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	257	249	3.16%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	< 1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	< 1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	257	249	3.16%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0017	0.0022	25.64%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0098	0.0122	21.82%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00081	0.00077	5.06%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00074	0.00076	2.67%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00024	0.00023	4.26%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00032	0.00033	3.08%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0377	0.0377	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0378	0.0375	0.80%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.063	0.058	8.26%	Pass
BORON, T	0.01	0.01	mg/l	0.063	0.062	1.60%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	< 0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	< 5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000116	0.00012	3.39%	Pass
CALCIUM, D	0.05	0.05	mg/l	188	184	2.15%	Pass
CALCIUM, T	0.05	0.05	mg/l	192	194	1.04%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.83	1.69	7.95%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	< 2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00014	6.90%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.0166	0.0163	1.82%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.0192	0.0192	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1570	1570	0.00%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	0.00023	13.95%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.14	0.13	7.41%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	881	844	4.29%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.018	0.022	20.00%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0396	0.0399	0.75%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0374	0.0381	1.85%	Pass

MAGNESIUM, D	0.005	0.005	mg/l	100	93.2	7.04%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	93.8	93.1	0.75%	Pass
MAJOR ANION SUM	0	0		19.8	19.3	2.56%	Pass
MAJOR CATION SUM	0	0	meq/l	18.8	18	4.35%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0426	0.0414	2.86%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0699	0.0698	0.14%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00052	<0.0005	3.92%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00307	0.00305	0.65%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00304	0.00313	2.92%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.102	0.102	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.101	0.0993	1.70%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	7.66	7.49	2.24%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0530	0.0609	13.87%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.245	0.243	0.82%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	328	479	37.42%	Pass-1
pH, LAB	0.1	0.1	ph units	8.02	8.08	0.75%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0053	0.005	5.83%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.74	3.63	2.99%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.50	3.41	2.60%	Pass
SELENIUM, D	0.05	0.05	ug/l	22.1	22.5	1.79%	Pass
SELENIUM, T	0.05	0.05	ug/l	20.9	21.1	0.95%	Pass
SILICON, D	0.05	0.05	mg/l	2.38	2.35	1.27%	Pass
SILICON, T	0.1	0.1	mg/l	2.28	2.28	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	24.8	23.4	5.81%	Pass
SODIUM, T	0.05	0.05	mg/l	21.9	21.1	3.72%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.737	0.748	1.48%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.729	0.748	2.57%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	676	664	1.79%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000051	4.5e-005	12.50%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000048	4.6e-005	4.26%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1210	1200	0.83%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.683	0.247	93.76%	Fail
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.67	1.55	7.45%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.0	2.4	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.46	1.49	2.03%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00638	0.0064	0.31%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00631	0.00627	0.64%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	0.00051	1.98%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0143	0.0153	6.76%	Pass

Location:	CM_CC1	CM_CC1
Sample ID:	CM_CC1_WKLY_WS_20170523_N	CM_NNP_WKLY_WQ_20170523_FD
Date Sampled:	5/23/2017	5/23/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	209	213	1.90%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	13.4	13	3.03%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	222	226	1.79%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0041	0.0038	7.59%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0285	0.0382	29.09%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00054	0.00055	1.83%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00057	0.00055	3.57%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00024	0.00024	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00030	0.00032	6.45%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0340	0.0337	0.89%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0359	0.0363	1.11%	Pass

BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.038	0.037	2.67%	Pass
BORON, T	0.01	0.01	mg/l	0.036	0.037	2.74%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000435	0.00043	1.16%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000472	0.000491	3.95%	Pass
CALCIUM, D	0.05	0.05	mg/l	135	135	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	133	133	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.49	1.28	15.16%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00088	0.00021	122.94%	Fail
COBALT, D	0.0001	0.0001	mg/l	0.00983	0.0098	0.31%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.0102	0.0102	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1040	1030	0.97%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00025	0.00025	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.11	0.12	8.70%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	575	577	0.35%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.071	0.093	26.83%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000081	0.000108	28.57%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0262	0.0261	0.38%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0252	0.0249	1.20%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	57.6	58	0.69%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	58.0	58.6	1.03%	Pass
MAJOR ANION SUM	0	0	meq/l	13.2	13.6	2.99%	Pass
MAJOR CATION SUM	0	0	meq/l	12.3	12.3	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0457	0.0452	1.10%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0505	0.0517	2.35%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00126	0.0012	4.88%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00215	0.00212	1.41%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00242	0.00222	8.62%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0549	0.055	0.18%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0545	0.0547	0.37%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	6.51	6.82	4.65%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0269	0.0261	3.02%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.156	0.157	0.64%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0017	0.0018	5.71%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	344	328	4.76%	Pass
pH, LAB	0.1	0.1	ph units	8.37	8.42	0.60%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0145	0.0094	42.68%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	2.69	2.69	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.65	2.66	0.38%	Pass
SELENIUM, D	0.05	0.05	ug/l	19.5	19.7	1.02%	Pass
SELENIUM, T	0.05	0.05	ug/l	17.9	17.8	0.56%	Pass
SILICON, D	0.05	0.05	mg/l	1.98	1.94	2.04%	Pass
SILICON, T	0.05	0.05	mg/l	2.02	1.99	1.50%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	16.7	16.8	0.60%	Pass
SODIUM, T	0.05	0.05	mg/l	17.1	17	0.59%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.473	0.473	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.479	0.486	1.45%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	397	411	3.47%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000033	3.1e-005	6.25%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000035	3.5e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	777	803	3.29%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.624	0.905	36.76%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.12	1.44	38.20%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	7.8	8.6	9.76%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	4.97	5.2	4.52%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00366	0.0036	1.65%	Pass

URANIUM, T	0.0001	0.0001	mg/l	0.00370	0.0037	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0398	0.0399	0.25%	Pass
ZINC, T	0.003	0.003	mg/l	0.0411	0.0416	1.21%	Pass

Location:	CM_CC1	CM_CC1
Sample ID:	CM_CC1_WKLY_WS_20170621_N	CM_NNP_WKLY_WQ_20170621_FD
Date Sampled:	6/21/2017	6/21/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	5.6	5.9	5.22%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	167	171	2.37%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	167	171	2.37%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0023	0.0025	8.33%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0163	0.017	4.20%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00091	0.00092	1.09%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00090	0.00091	1.10%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00030	0.00027	10.53%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00037	0.00036	2.74%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0366	0.0367	0.27%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0359	0.0371	3.29%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.060	0.061	1.65%	Pass
BORON, T	0.01	0.01	mg/l	0.062	0.063	1.60%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000241	0.000198	19.59%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000524	0.000517	1.34%	Pass
CALCIUM, D	0.05	0.05	mg/l	178	176	1.13%	Pass
CALCIUM, T	0.05	0.05	mg/l	175	176	0.57%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.13	1.01	11.21%	Pass
Cation - Anion Balance	0	0	%	3.1	3.5	12.12%	Pass
CHLORIDE, D	2.5	2.5	mg/l	3.0	<2.5	18.18%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00030	0.00023	26.42%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.0223	0.0224	0.45%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.0224	0.0229	2.21%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1330	1340	0.75%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.21	0.12	54.55%	Pass-1
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	818	818	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.039	0.038	2.60%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0356	0.0349	1.99%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0344	0.035	1.73%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	91.0	91.8	0.88%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	86.3	89.9	4.09%	Pass
MAJOR ANION SUM	0	0	meq/l	16.5	16.4	0.61%	Pass
MAJOR CATION SUM	0	0	meq/l	17.5	17.5	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0916	0.0916	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0971	0.101	3.94%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.0008000000	0.0006	28.57%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00304	0.00305	0.33%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00304	0.00298	1.99%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.106	0.106	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.103	0.106	2.87%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	6.87	6.96	1.30%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0441	0.0893	67.77%	Fail
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.422	0.429	1.65%	Pass

ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	451	355	23.82%	Pass-1
pH, LAB	0.1	0.1	ph units	8.01	8.01	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	<0.002	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.61	3.61	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.38	3.56	5.19%	Pass
SELENIUM, D	0.05	0.05	ug/l	20.8	20.5	1.45%	Pass
SELENIUM, T	0.05	0.05	ug/l	19.7	19.6	0.51%	Pass
SILICON, D	0.05	0.05	mg/l	2.22	2.21	0.45%	Pass
SILICON, T	0.1	0.1	mg/l	2.22	2.2	0.90%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	23.9	24	0.42%	Pass
SODIUM, T	0.05	0.05	mg/l	22.6	23.6	4.33%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.706	0.696	1.43%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.694	0.695	0.14%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	602	597	0.83%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000048	4.4e-005	8.70%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000050	4.8e-005	4.08%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1090	1150	5.36%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.920	0.97	5.29%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.58	1.46	7.89%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	4.5	4.9	8.51%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	3.75	3.82	1.85%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00566	0.00563	0.53%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00568	0.00564	0.71%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0295	0.0268	9.59%	Pass
ZINC, T	0.003	0.003	mg/l	0.0506	0.0518	2.34%	Pass

Location:	CM_CC1	CM_CC1
Sample ID:	CM_CC1_WKLY_WS_20170905_N	CM_NNP_WKLY_WQ_20170905_FD
Date Sampled:	9/5/2017	9/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	3.8	4.2	10.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	277	301	8.30%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	277	301	8.30%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0046	0.0044	4.44%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00055	0.00057	3.57%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00056	0.00057	1.77%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00024	0.00022	8.70%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00029	0.00029	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0550	0.0547	0.55%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0593	0.0607	2.33%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.052	0.053	1.90%	Pass
BORON, T	0.01	0.01	mg/l	0.056	0.056	0.00%	Pass
BROMIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000272	2.95e-005	8.11%	Pass
CALCIUM, D	0.05	0.05	mg/l	199	201	1.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	220	221	0.45%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.33	1.28	3.83%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	4.9	64.86%	Pass-1
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass

COBALT, D	0.0001	0.0001	mg/l	0.00302	0.003	0.66%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00489	0.00492	0.61%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1690	1700	0.59%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.14	0.15	6.90%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	989	1000	1.11%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000295	<5e-005	142.03%	Fail
LITHIUM, D	0.001	0.001	mg/l	0.0350	0.0365	4.20%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0371	0.0375	1.07%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	120	122	1.65%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	122	125	2.43%	Pass
MAJOR ANION SUM	0	0	meq/l	21.9	22.7	3.59%	Pass
MAJOR CATION SUM	0	0	meq/l	20.8	21.1	1.43%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00338	0.00389	14.03%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0129	0.0126	2.35%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00196	0.00201	2.52%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00211	0.00209	0.95%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0528	0.0532	0.75%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0595	0.0602	1.17%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	8.69	8.78	1.03%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0338	0.0353	4.34%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0620	0.0579	6.84%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	270	253	6.50%	Pass
pH, LAB	0.1	0.1	ph units	8.12	8.09	0.37%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0051	0.0083	47.76%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	3.63	3.59	1.11%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.68	3.73	1.35%	Pass
SELENIUM, D	0.05	0.05	ug/l	25.2	25.5	1.18%	Pass
SELENIUM, T	0.05	0.05	ug/l	22.4	22.3	0.45%	Pass
SILICON, D	0.05	0.05	mg/l	2.16	2.21	2.29%	Pass
SILICON, T	0.1	0.1	mg/l	2.17	2.2	1.37%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	21.9	22.3	1.81%	Pass
SODIUM, T	0.05	0.05	mg/l	22.5	22.8	1.32%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.623	0.639	2.54%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.683	0.683	0.00%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	757	766	1.18%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000046	4.8e-005	4.26%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000049	5.1e-005	4.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1380	1360	1.46%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.270	0.342	23.53%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.96	1	4.08%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.8	3.8	30.30%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.68	0.75	9.79%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00750	0.00736	1.88%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00797	0.00804	0.87%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	CM_CC1	CM_CC1
Sample ID:	CM_CC1_WS_2017-09-12_N	WS_2017-09-12_007
Date Sampled:	9/12/2017	9/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units	Primary vs. Duplicate	Category1
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ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.7	4.8	2.11%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	229	217	5.38%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	229	217	5.38%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0035	0.0053	40.91%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00057	0.00057	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00060	0.00057	5.13%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00025	0.00024	4.08%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00030	0.00026	14.29%	Pass
BARIIUM, D	0.00005	0.00005	mg/l	0.0593	0.0629	5.89%	Pass
BARIIUM, T	0.00005	0.00005	mg/l	0.0641	0.0628	2.05%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.057	0.056	1.77%	Pass
BORON, T	0.01	0.01	mg/l	0.056	0.057	1.77%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000057	5.8e-006	1.74%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000235	3.27e-005	32.74%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	219	221	0.91%	Pass
CALCIUM, T	0.05	0.05	mg/l	217	217	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.18	0.98	18.52%	Pass
CHLORIDE, D	2.5	2.5	mg/l	8.9	3.1	96.67%	Pass-1
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00375	0.00364	2.98%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00442	0.00506	13.50%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1590	1560	1.90%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.15	0.1	40.00%	Pass-1
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	988	1000	1.21%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0367	0.0369	0.54%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0344	0.0347	0.87%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	107	110	2.76%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	108	105	2.82%	Pass
MAJOR ANION SUM	0	0	meq/l	21.2	20.7	2.39%	Pass
MAJOR CATION SUM	0	0	meq/l	20.9	21.2	1.43%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00665	0.00611	8.46%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0113	0.0158	33.21%	Pass-2
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MERCURY, T	0.0005	0.005	ug/l	< 0.00050	<0.005	163.64%	Pass-1
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00203	0.00196	3.51%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00207	0.0021	1.44%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0531	0.054	1.68%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0572	0.0573	0.17%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	9.25	9.06	2.08%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0856	0.0476	57.06%	Fail
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0508	0.0519	2.14%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	388	304	24.28%	Pass-1
pH, LAB	0.1	0.1	ph units	8.06	8.1	0.50%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0013	0.0026	66.67%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	3.65	3.79	3.76%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.83	3.75	2.11%	Pass
SELENIUM, D	0.05	0.05	ug/l	21.5	22.4	4.10%	Pass
SELENIUM, T	0.05	0.05	ug/l	22	22	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	2.08	2.08	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	2.20	2.16	1.83%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	23.3	24.1	3.38%	Pass
SODIUM, T	0.05	0.05	mg/l	24.9	24.3	2.44%	Pass

STRONTIUM, D	0.0002	0.0002	mg/l	0.698	0.691	1.01%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.690	0.7	1.44%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	754	751	0.40%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000047	4.6e-005	2.15%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000052	4.7e-005	10.10%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1330	1390	4.41%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.382	0.405	5.84%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.02	1.08	5.71%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	4.6	128.57%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.57	0.88	42.76%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00700	0.00691	1.29%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00678	0.00689	1.61%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0062	0.0038	48.00%	Pass-1

Location:	CM_CC1	CM_CC1
Sample ID:	CM_CC1_WS_2017-09-19_N	WS_2017-09-19_004
Date Sampled:	9/19/2017	9/19/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.0	3.4	16.22%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	218	224	2.71%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	218	224	2.71%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0031	0.0034	9.23%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00040	0.00037	7.79%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00041	0.0004	2.47%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00026	0.00024	8.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00028	0.00029	3.51%	Pass
BARIIUM, D	0.00005	0.00005	mg/l	0.0690	0.0695	0.72%	Pass
BARIIUM, T	0.00005	0.00005	mg/l	0.0709	0.0707	0.28%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.045	0.045	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.046	0.047	2.15%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000333	3.82e-005	13.71%	Pass
CALCIUM, D	0.05	0.05	mg/l	195	197	1.02%	Pass
CALCIUM, T	0.05	0.05	mg/l	207	217	4.72%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.29	1.13	13.22%	Pass
CHLORIDE, D	2.5	2.5	mg/l	2.6	2.9	10.91%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00018	0.00014	25.00%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00016	0.00021	27.03%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00031	0.00029	6.67%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1500	1520	1.32%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.13	0.12	8.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	944	927	1.82%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0237	0.0232	2.13%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0234	0.0238	1.69%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	111	106	4.61%	Pass

MAGNESIUM, T	0.1	0.1	mg/l	109	108	0.92%	Pass
MAJOR ANION SUM	0	0	meq/l	20.3	19.6	3.51%	Pass
MAJOR CATION SUM	0	0	meq/l	19.7	19.4	1.53%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00103	0.001	2.96%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00401	0.0041	2.22%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00111	0.00101	9.43%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00108	0.00107	0.93%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0238	0.0241	1.25%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0262	0.0269	2.64%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	7.20	7.12	1.12%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0093	0.0122	26.98%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	394	349	12.11%	Pass
pH, LAB	0.1	0.1	ph units	8.03	8.07	0.50%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0064	0.0027	81.32%	Fail
POTASSIUM, D	0.05	0.05	mg/l	3.30	3.22	2.45%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.15	3.21	1.89%	Pass
SELENIUM, D	0.05	0.05	ug/l	27	26.3	2.63%	Pass
SELENIUM, T	0.05	0.05	ug/l	22.6	23.1	2.19%	Pass
SILICON, D	0.05	0.05	mg/l	2.22	2.19	1.36%	Pass
SILICON, T	0.1	0.1	mg/l	2.25	2.27	0.88%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	18.2	18.1	0.55%	Pass
SODIUM, T	0.05	0.05	mg/l	18.0	18.5	2.74%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.525	0.527	0.38%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.541	0.552	2.01%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	739	699	5.56%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000038	3.7e-005	2.67%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000045	4.3e-005	4.55%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1270	1290	1.56%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	0.072	36.07%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.12	0.98	13.33%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	1.6	28.57%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.43	0.55	24.49%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.00561	0.00573	2.12%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00611	0.00617	0.98%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0042	0.0037	12.66%	Pass

Location:	CM_CC1	CM_CC1
Sample ID:	CM_CC1_WS_20170207_N	CM_CC1_20170207_FD
Date Sampled:	2/7/2017	2/7/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, T	0.003	0.003	mg/l	0.0110	0.0072	41.76%	Pass-1
ANTIMONY, T	0.0001	0.0001	mg/l	0.00061	0.0006	1.65%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00039	0.00022	55.74%	Pass-1
BARIUM, T	0.00005	0.00005	mg/l	0.0490	0.0476	2.90%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.060	0.063	4.88%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000143	0.000131	8.76%	Pass
CALCIUM, T	0.05	0.05	mg/l	240	245	2.06%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00018	0.00014	25.00%	Pass-1
COBALT, T	0.0001	0.0001	mg/l	0.0119	0.0111	6.96%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1060	1100	3.70%	Pass
IRON, T	0.01	0.01	mg/l	0.018	<0.01	57.14%	Pass-1

LEAD, T	0.0005	0.0005	mg/l	< 0.00050	<5e-005	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0419	0.0416	0.72%	Pass
MAGNESIUM, T	0.005	0.1	mg/l	123	118	4.15%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0570	0.0564	1.06%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00249	0.00252	1.20%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0937	0.0888	5.37%	Pass
POTASSIUM, T	0.05	0.05	mg/l	4.27	4.02	6.03%	Pass
SELENIUM, T	0.05	0.05	ug/l	16.9	17.7	4.62%	Pass
SILICON, T	0.05	0.05	mg/l	2.70	2.62	3.01%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	31.4	29.7	5.56%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.814	0.802	1.49%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.00049	4.6e-005	6.32%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00748	0.00805	7.34%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00085	<0.0005	51.85%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.0142	0.015	5.48%	Pass

Location:	CM_CCPD	CM_CCPD
Sample ID:	CM_CCPD_M_WS_20170606_N	CM_NNP_M_WQ_20170606_FD
Date Sampled:	6/6/2017	6/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	19.4	9.7	66.67%	Fail
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	257	254	1.17%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	257	254	1.17%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0025	0.0028	11.32%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0195	0.0279	35.44%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00038	0.00039	2.60%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00039	0.00038	2.60%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00015	0.00013	14.29%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00018	0.00022	20.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0207	0.0211	1.91%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0213	0.0267	22.50%	Pass-2
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.020	0.02	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.020	0.021	4.88%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.00112	0.00116	3.51%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.00109	0.00139	24.19%	Pass-2
CALCIUM, D	0.05	0.05	mg/l	137	138	0.73%	Pass
CALCIUM, T	0.05	0.05	mg/l	141	139	1.43%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.22	1.19	2.49%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00011	0.00018	48.28%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00168	0.0017	1.18%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00163	0.00218	28.87%	Pass-2
CONDUCTIVITY, LAB	2	2	us/cm	1210	1190	1.67%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00088	0.00048	58.82%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	0.00087	0.00121	32.69%	Pass-1
FLUORIDE, D	0.1	0.1	mg/l	0.15	0.14	6.90%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	642	641	0.16%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.044	0.048	8.70%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000067	5.3e-005	23.33%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0146	0.0141	3.48%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0153	0.0146	4.68%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	72.8	72	1.10%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	72.4	94.6	26.59%	Fail
MAJOR ANION SUM	0	0	meq/l	15.0	15	0.00%	Pass

MAJOR CATION SUM	0	0	meq/l	13.3	13.3	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00687	0.00664	3.40%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00686	0.00867	23.31%	Pass-2
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00097	0.00093	4.21%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00101	0.001	1.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00106	0.00107	0.94%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0483	0.0502	3.86%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0467	0.0613	27.04%	Pass-2
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	7.77	6.99	10.57%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0096	<0.005	63.01%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0292	0.0389	28.49%	Pass-2
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0019	0.0014	30.30%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	439	315	32.89%	Pass-1
pH, LAB	0.1	0.1	ph units	7.71	7.8	1.16%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0033	0.0037	11.43%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.87	2.98	3.76%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.75	3.54	25.12%	Pass-2
SELENIUM, D	0.05	0.05	ug/l	31.9	33.8	5.78%	Pass
SELENIUM, T	0.05	0.05	ug/l	29.2	29.4	0.68%	Pass
SILICON, D	0.05	0.05	mg/l	1.67	1.74	4.11%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.11	8.36	3.04%	Pass
SODIUM, T	0.05	0.05	mg/l	7.89	10.4	27.45%	Pass-2
STRONTIUM, D	0.0002	0.0002	mg/l	0.292	0.293	0.34%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.302	0.307	1.64%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	448	455	1.55%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000039	3.8e-005	2.60%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000041	4.2e-005	2.41%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	961	930	3.28%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.576	0.431	28.80%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.21	1.25	3.25%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.8	3.4	19.35%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	4.25	4.72	10.48%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00413	0.00409	0.97%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00424	0.00418	1.43%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0867	0.0872	0.58%	Pass
ZINC, T	0.003	0.003	mg/l	0.0822	0.109	28.03%	Pass-2

Location:	CM_CCPD	CM_CCPD
Sample ID:	CM_CCPD_WKLY_WS_20170628_N	CM_NNP_WKLY_WQ_20170628_FD
Date Sampled:	6/28/2017	6/28/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	10.3	10.8	4.74%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	339	336	0.89%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	339	336	0.89%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0027	0.0029	7.14%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0181	0.0171	5.68%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00039	0.0004	2.53%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00041	0.0004	2.47%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00019	0.00018	5.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00022	0.00021	4.65%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0278	0.0275	1.08%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0276	0.0264	4.44%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

BORON, D	0.01	0.01	mg/l	0.027	0.027	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.026	0.026	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	< 0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.00136	0.00136	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.00130	0.00127	2.33%	Pass
CALCIUM, D	0.05	0.05	mg/l	215	219	1.84%	Pass
CALCIUM, T	0.05	0.05	mg/l	216	215	0.46%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.75	1.59	9.58%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	< 2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00093	0.00091	2.17%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00092	0.00088	4.44%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1660	1670	0.60%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00035	0.00032	8.96%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00051	< 0.0005	1.98%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.14	0.15	6.90%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1020	1030	0.98%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.025	0.025	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0198	0.02	1.01%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0195	0.0195	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	118	117	0.85%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	112	110	1.80%	Pass
MAJOR ANION SUM	0	0	meq/l	22.5	22.4	0.45%	Pass
MAJOR CATION SUM	0	0	meq/l	20.9	21	0.48%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00713	0.00722	1.25%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00750	0.00729	2.84%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	< 5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00057	0.00058	1.74%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000961	0.000935	2.74%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000924	0.000941	1.82%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0607	0.0616	1.47%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0585	0.0569	2.77%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	7.84	7.79	0.64%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0114	0.0105	8.22%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0257	0.0252	1.96%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	< 0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	507	511	0.79%	Pass
pH, LAB	0.1	0.1	ph units	8.05	8.02	0.37%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	< 0.002	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.74	3.68	1.62%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.49	3.46	0.86%	Pass
SELENIUM, D	0.05	0.05	ug/l	39	39.7	1.78%	Pass
SELENIUM, T	0.05	0.05	ug/l	35.9	35.4	1.40%	Pass
SILICON, D	0.05	0.05	mg/l	1.99	1.97	1.01%	Pass
SILICON, T	0.1	0.1	mg/l	2.03	1.96	3.51%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.91	8.81	1.13%	Pass
SODIUM, T	0.05	0.05	mg/l	8.40	8.22	2.17%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.417	0.423	1.43%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.420	0.421	0.24%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	729	726	0.41%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000047	4.8e-005	2.11%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000048	4.8e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1450	1430	1.39%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.601	0.54	10.69%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.62	1.65	1.83%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.3	< 1	26.09%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.01	1.55	42.19%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00630	0.00633	0.48%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00670	0.00673	0.45%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0909	0.0909	0.00%	Pass

ZINC, T	0.003	0.003	mg/l	0.0846	0.0821	3.00%	Pass
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Location:	CM_CCPD	CM_CCPD
Sample ID:	CM_CCPD_WKLY_WS_20170712_N	CM_NNP_WKLY_WQ_20170712_FD
Date Sampled:	7/12/2017	7/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	351	360	2.53%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	351	360	2.53%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0025	0.0022	12.77%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0118	0.012	1.68%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00046	0.00046	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00044	0.00045	2.25%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00020	0.00018	10.53%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00027	0.00026	3.77%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0330	0.0333	0.90%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0351	0.0351	0.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.038	0.037	2.67%	Pass
BORON, T	0.01	0.01	mg/l	0.038	0.038	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.00120	0.00122	1.65%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.00117	0.00118	0.85%	Pass
CALCIUM, D	0.05	0.05	mg/l	240	240	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	229	232	1.30%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.23	1.29	4.76%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	0.00011	24.00%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00068	0.00069	1.46%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00071	0.00069	2.86%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1880	1890	0.53%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.14	0.14	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1160	1160	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.016	0.016	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0252	0.0251	0.40%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0237	0.0243	2.50%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	136	137	0.73%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	129	131	1.54%	Pass
MAJOR ANION SUM	0	0	meq/l	24.8	25.3	2.00%	Pass
MAJOR CATION SUM	0	0	meq/l	23.8	23.9	0.42%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0101	0.0102	0.99%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0105	0.0148	33.99%	Pass-2
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00054	0.00053	1.87%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00116	0.00117	0.86%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00116	0.00116	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0598	0.0616	2.97%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0585	0.0591	1.02%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	8.19	8.34	1.81%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0201	0.0199	1.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0289	0.0296	2.39%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0011	<0.001	9.52%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	322	325	0.93%	Pass
pH, LAB	0.1	0.1	ph units	7.86	7.89	0.38%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0036	0.0032	11.76%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.75	3.76	0.27%	Pass

POTASSIUM, T	0.05	0.05	mg/l	3.47	3.56	2.56%	Pass
SELENIUM, D	0.05	0.05	ug/l	39.1	38.9	0.51%	Pass
SELENIUM, T	0.05	0.05	ug/l	36.3	36.3	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	2.12	2.1	0.95%	Pass
SILICON, T	0.1	0.1	mg/l	2.09	2.11	0.95%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	13.3	13.4	0.75%	Pass
SODIUM, T	0.05	0.05	mg/l	12.7	12.9	1.56%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.507	0.506	0.20%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.489	0.496	1.42%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	824	840	1.92%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000055	5.4e-005	1.83%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000054	5.7e-005	5.41%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1600	1570	1.89%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	0.067	29.06%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.56	1.52	2.60%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.3	1.1	16.67%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.68	1.65	1.80%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00690	0.0069	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00713	0.00725	1.67%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0877	0.0882	0.57%	Pass
ZINC, T	0.003	0.003	mg/l	0.0821	0.0844	2.76%	Pass

Location:	CM_CCPD	CM_CCPD
Sample ID:	CM_CCPD_WKLY_WS_20171010_N	CM_NNP_WKLY_WS_20171010_FD
Date Sampled:	10/10/2017	10/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	8.7	9.4	7.73%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	221	202	8.98%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	221	202	8.98%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0238	0.0375	44.70%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00052	0.00056	7.41%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00055	0.00058	5.31%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00028	0.00031	10.17%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00034	0.0004	16.22%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0345	0.0343	0.58%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0383	0.0401	4.59%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.049	0.051	4.00%	Pass
BORON, T	0.01	0.01	mg/l	0.054	0.053	1.87%	Pass
BROMIDE, D	0.25	0.25	mg/l	0.45	0.27	50.00%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000467	0.0001	72.67%	Fail
CALCIUM, D	0.05	0.05	mg/l	261	271	3.76%	Pass
CALCIUM, T	0.05	0.05	mg/l	288	292	1.38%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.93	1.09	15.84%	Pass
Cation - Anion Balance	0	0	%	1.4	2.9	69.77%	Fail
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00013	0.00017	26.67%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00050	0.0005	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00063	0.00065	3.12%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1750	1740	0.57%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	0.12	18.18%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1300	1320	1.53%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.028	0.055	65.06%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	6.1e-005	19.82%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0288	0.0301	4.41%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0307	0.0306	0.33%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	157	156	0.64%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	166	163	1.82%	Pass
MAJOR ANION SUM	0	0	meq/l	26.0	25.6	1.55%	Pass
MAJOR CATION SUM	0	0	meq/l	26.8	27.2	1.48%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00193	0.00201	4.06%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00418	0.00509	19.63%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	0.00077	42.52%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00132	0.00135	2.25%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00135	0.00143	5.76%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0528	0.0528	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0571	0.0574	0.52%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	10.5	10.5	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0354	0.0378	6.56%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.115	0.111	3.54%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	375	389	3.66%	Pass
pH, LAB	0.1	0.1	ph units	7.98	7.98	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	0.0042	70.97%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	4.12	4.06	1.47%	Pass
POTASSIUM, T	0.05	0.05	mg/l	4.31	4.28	0.70%	Pass
SELENIUM, D	0.05	0.05	ug/l	42.3	40.6	4.10%	Pass
SELENIUM, T	0.05	0.05	ug/l	38.5	38	1.31%	Pass
SILICON, D	0.05	0.05	mg/l	2.07	2.04	1.46%	Pass
SILICON, T	0.1	0.1	mg/l	2.31	2.27	1.75%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	16.2	15.8	2.50%	Pass
SODIUM, T	0.05	0.05	mg/l	16.6	16.5	0.60%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.587	0.616	4.82%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.623	0.629	0.96%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	1000	1000	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000046	5e-005	8.33%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000051	5.5e-005	7.55%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	0.00014	<0.0001	33.33%	Pass-1
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1860	1810	2.72%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.624	0.681	8.74%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.22	1.76	36.24%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	14.5	7.5	63.64%	Fail
TURBIDITY, LAB	0.1	0.1	ntu	8.24	4.86	51.60%	Fail
URANIUM, D	0.00001	0.00001	mg/l	0.00896	0.00934	4.15%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00965	0.00959	0.62%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0077	0.0119	42.86%	Pass-1

Location:	CM_CCPD	CM_CCPD
Sample ID:	CM_CCPD_WKLY_WS_20171024_N	CM_NNP_WKLY_WS_20171024_FB
Date Sampled:	10/24/2017	10/24/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	7.6	9.2	19.05%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	249	230	7.93%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass

ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	249	230	7.93%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0323	0.0407	23.01%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00082	0.0008	2.47%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00083	0.00082	1.21%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00041	0.00042	2.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00040	0.00039	2.53%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0437	0.0451	3.15%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0492	0.048	2.47%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.073	0.074	1.36%	Pass
BORON, T	0.01	0.01	mg/l	0.082	0.08	2.47%	Pass
BROMIDE, D	0.25	0.25	mg/l	0.26	0.29	10.91%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	6.3e-006	23.01%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000988	9.42e-005	4.77%	Pass
CALCIUM, D	0.05	0.05	mg/l	250	252	0.80%	Pass
CALCIUM, T	0.05	0.05	mg/l	265	262	1.14%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.94	1.76	60.74%	Pass-1
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00014	6.90%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00613	0.00623	1.62%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00695	0.0066	5.17%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1860	1820	2.17%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.12	0.11	8.70%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1200	1220	1.65%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.024	0.025	4.08%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0343	0.0333	2.96%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0362	0.0354	2.23%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	140	143	2.12%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	148	141	4.84%	Pass
MAJOR ANION SUM	0	0	meq/l	25.8	25.4	1.56%	Pass
MAJOR CATION SUM	0	0	meq/l	25.1	25.4	1.19%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0206	0.0219	6.12%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0276	0.0268	2.94%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00282	0.0028	0.71%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00288	0.0028	2.82%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0612	0.0611	0.16%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0652	0.0621	4.87%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	11.0	11.1	0.90%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0467	0.0522	11.12%	Pass
NITROGEN, AMMONIA (AS N)	0.01	0.01	mg/l	0.621	0.617	0.65%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	382	222	52.98%	Pass-1
pH, LAB	0.1	0.1	ph units	7.89	7.91	0.25%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0022	<0.002	9.52%	Pass
POTASSIUM, D	0.05	0.05	mg/l	4.99	5.04	1.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	5.00	4.76	4.92%	Pass
SELENIUM, D	0.05	0.05	ug/l	40.8	42.7	4.55%	Pass
SELENIUM, T	0.05	0.05	ug/l	36.9	36.6	0.82%	Pass
SILICON, D	0.05	0.05	mg/l	2.24	2.31	3.08%	Pass
SILICON, T	0.1	0.1	mg/l	2.46	2.47	0.41%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	20.9	21.1	0.95%	Pass
SODIUM, T	0.05	0.05	mg/l	21.1	20.5	2.88%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.847	0.855	0.94%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.852	0.831	2.50%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	963	963	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000043	4.1e-005	4.76%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000043	4.4e-005	2.30%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1760	1700	3.47%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.870	0.79	9.64%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.46	1.56	6.62%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	8.7	8.9	2.27%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	6.42	5.79	10.32%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00918	0.00919	0.11%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00954	0.00909	4.83%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0117	0.0115	1.72%	Pass

Location:	CM_CCPD	CM_CCPD
Sample ID:	CM_CCPD_WKLY_WS_20171212_N	CM_NNP_WKLY_WS_20171212_FD
Date Sampled:	12/12/2017	12/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	8.5	7	19.35%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	329	326	0.92%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	329	326	0.92%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0114	0.0118	3.45%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0397	0.0404	1.75%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00086	0.00092	6.74%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00083	0.00084	1.20%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00044	0.00043	2.30%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00045	0.00045	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0291	0.0288	1.04%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0339	0.0344	1.46%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000022	<2e-005	9.52%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.079	0.085	7.32%	Pass
BORON, T	0.01	0.01	mg/l	0.077	0.078	1.29%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000536	0.000514	4.19%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000607	0.000605	0.33%	Pass
CALCIUM, D	0.05	0.05	mg/l	245	256	4.39%	Pass
CALCIUM, T	0.05	0.05	mg/l	230	231	0.43%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.95	0.97	2.08%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	<0.0001	40.00%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.0104	0.00998	4.12%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.0104	0.0105	0.96%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1970	1980	0.51%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.20	0.2	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1100	1120	1.80%	Pass
ION BALANCE	100	100	%	95.6	95.9	0.31%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.036	0.034	5.71%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000051	<5e-005	1.98%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0522	0.0516	1.16%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0548	0.0534	2.59%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	119	117	1.69%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	119	121	1.67%	Pass
MAJOR ANION SUM	0	0	meq/l	25.0	25.3	1.19%	Pass
MAJOR CATION SUM	0	0	meq/l	23.9	24.3	1.66%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0288	0.0274	4.98%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0294	0.0305	3.67%	Pass

MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	0.00051	1.98%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00273	0.00275	0.73%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00259	0.00264	1.91%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0660	0.0649	1.68%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0663	0.067	1.05%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	10.2	10.4	1.94%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0292	0.0281	3.84%	Pass
NITROGEN, AMMONIA (AS N)	0.1	0.1	mg/l	0.54	0.54	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	349	351	0.57%	Pass
pH, LAB	0.1	0.1	ph units	8.12	8.11	0.12%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0040	0.0039	2.53%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.77	3.77	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.57	3.69	3.31%	Pass
SELENIUM, D	0.05	0.05	ug/l	36	36.5	1.38%	Pass
SELENIUM, T	0.05	0.05	ug/l	33.9	33.6	0.89%	Pass
SILICON, D	0.05	0.05	mg/l	2.01	2.06	2.46%	Pass
SILICON, T	0.1	0.1	mg/l	2.29	2.31	0.87%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	40.9	39.5	3.48%	Pass
SODIUM, T	0.05	0.05	mg/l	37.9	38.3	1.05%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.862	0.88	2.07%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.768	0.774	0.78%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	850	867	1.98%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000064	6e-005	6.45%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000064	6.1e-005	4.80%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	< 0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1600	1580	1.26%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.905	0.691	26.82%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.91	0.94	3.24%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.1	1.9	10.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.68	2.89	7.54%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00901	0.00875	2.93%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00854	0.00856	0.23%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0529	0.0505	4.64%	Pass
ZINC, T	0.003	0.003	mg/l	0.0543	0.054	0.55%	Pass

Location:	CM_CCPD	CM_CCPD
Sample ID:	CM_CCPD_WKLY_WS_20171219_N	CM_NNP_WKLY_WS_20171219_FD
Date Sampled:	12/19/2017	12/19/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.7	4.9	4.17%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	312	323	3.46%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	312	323	3.46%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0119	0.011	7.86%	Pass
ALUMINUM, T	0.006	0.006	mg/l	0.0346	0.0319	8.12%	Pass
ANTIMONY, D	0.0002	0.0002	mg/l	0.00065	0.00067	3.03%	Pass
ANTIMONY, T	0.0002	0.0002	mg/l	0.00069	0.00072	4.26%	Pass
ARSENIC, D	0.0002	0.0002	mg/l	0.00037	0.00039	5.26%	Pass
ARSENIC, T	0.0002	0.0002	mg/l	0.00044	0.00043	2.30%	Pass
BARIUM, D	0.0001	0.0001	mg/l	0.0309	0.033	6.57%	Pass
BARIUM, T	0.0001	0.0001	mg/l	0.0352	0.0347	1.43%	Pass
BERYLLIUM, D	0.00004	0.00004	mg/l	< 0.000040	<4e-005	0.00%	Pass
BERYLLIUM, T	0.00004	0.00004	mg/l	< 0.000040	<4e-005	0.00%	Pass
BISMUTH, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BISMUTH, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BORON, D	0.02	0.02	mg/l	0.069	0.071	2.86%	Pass
BORON, T	0.02	0.02	mg/l	0.074	0.075	1.34%	Pass

BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.00001	0.00001	mg/l	0.000506	0.000544	7.24%	Pass
CADMIUM, T	0.00001	0.00001	mg/l	0.000525	0.000522	0.57%	Pass
CALCIUM, D	0.1	0.1	mg/l	239	238	0.42%	Pass
CALCIUM, T	0.1	0.1	mg/l	249	252	1.20%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.05	1.19	12.50%	Pass
Cation - Anion Balance	0	0	%	1.2	0.8	40.00%	Fail
CHLORIDE, D	0.5	0.5	mg/l	1.82	1.78	2.22%	Pass
CHROMIUM, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
CHROMIUM, T	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COBALT, D	0.0002	0.0002	mg/l	0.00691	0.007	1.29%	Pass
COBALT, T	0.0002	0.0002	mg/l	0.00736	0.00755	2.55%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1940	1910	1.56%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00056	<0.0005	11.32%	Pass
COPPER, T	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.173	0.179	3.41%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1120	1120	0.00%	Pass
ION BALANCE	100	100	%	102	102	0.00%	Pass
IRON, D	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
IRON, T	0.02	0.02	mg/l	0.037	0.035	5.56%	Pass
LEAD, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
LEAD, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
LITHIUM, D	0.002	0.002	mg/l	0.0451	0.0463	2.63%	Pass
LITHIUM, T	0.002	0.002	mg/l	0.0476	0.0511	7.09%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	128	128	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	133	135	1.49%	Pass
MAJOR ANION SUM	0	0	meq/l	23.6	23.8	0.84%	Pass
MAJOR CATION SUM	0	0	meq/l	24.2	24.2	0.00%	Pass
MANGANESE, D	0.0002	0.0002	mg/l	0.0226	0.0228	0.88%	Pass
MANGANESE, T	0.0002	0.0002	mg/l	0.0246	0.0247	0.41%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00054	0.00051	5.71%	Pass
MOLYBDENUM, D	0.0001	0.0001	mg/l	0.00219	0.0022	0.46%	Pass
MOLYBDENUM, T	0.0001	0.0001	mg/l	0.00231	0.00234	1.29%	Pass
NICKEL, D	0.001	0.001	mg/l	0.0588	0.0594	1.02%	Pass
NICKEL, T	0.001	0.001	mg/l	0.0619	0.063	1.76%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	9.96	9.93	0.30%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0217	0.022	1.37%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.424	0.443	4.38%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	312	339	8.29%	Pass
pH, LAB	0.1	0.1	ph units	8.02	7.98	0.50%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0026	0.0026	0.00%	Pass
POTASSIUM, D	0.1	0.1	mg/l	4.00	3.95	1.26%	Pass
POTASSIUM, T	0.1	0.1	mg/l	4.11	4.12	0.24%	Pass
SELENIUM, D	0.1	0.1	ug/l	32.9	32.9	0.00%	Pass
SELENIUM, T	0.1	0.1	ug/l	34.4	35	1.73%	Pass
SILICON, D	0.1	0.1	mg/l	2.08	2.11	1.43%	Pass
SILICON, T	0.2	0.2	mg/l	2.29	2.29	0.00%	Pass
SILVER, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
SILVER, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
SODIUM, D	0.1	0.1	mg/l	36.6	37	1.09%	Pass
SODIUM, T	0.1	0.1	mg/l	37.9	39.5	4.13%	Pass
STRONTIUM, D	0.0004	0.0004	mg/l	0.785	0.794	1.14%	Pass
STRONTIUM, T	0.0004	0.0004	mg/l	0.825	0.829	0.48%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	797	796	0.13%	Pass
THALLIUM, D	0.00002	0.00002	mg/l	0.000056	5.7e-005	1.77%	Pass
THALLIUM, T	0.00002	0.00002	mg/l	0.000058	6e-005	3.39%	Pass
TIN, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
TIN, T	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1510	1520	0.66%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.706	0.705	0.14%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.43	1.54	7.41%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.3	2.3	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	3.14	3.32	5.57%	Pass
URANIUM, D	0.00002	0.00002	mg/l	0.00770	0.00755	1.97%	Pass
URANIUM, T	0.00002	0.00002	mg/l	0.00783	0.00794	1.40%	Pass
VANADIUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
VANADIUM, T	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0441	0.0428	2.99%	Pass

ZINC, T	0.006	0.006	mg/l	0.0477	0.0469	1.69%	Pass
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Location:	CM_CCPD	CM_CCPD
Sample ID:	CM_CCPD_WS_2017-10-02_N	WS_2017-10-02_007
Date Sampled:	10/3/2017	10/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	12.6	11.5	9.13%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	209	194	7.44%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	209	194	7.44%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0031	0.0031	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0212	0.0167	23.75%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00052	0.00059	12.61%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00058	0.00056	3.51%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00030	0.00046	42.11%	Pass-1
ARSENIC, T	0.0001	0.0001	mg/l	0.00041	0.00041	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0379	0.0386	1.83%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0454	0.045	0.88%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.050	0.05	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.053	0.053	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000053	6.6e-006	21.85%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.000341	0.000322	5.73%	Pass
CALCIUM, D	0.05	0.05	mg/l	259	249	3.94%	Pass
CALCIUM, T	0.05	0.05	mg/l	298	296	0.67%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.05	1.04	0.96%	Pass
Cation - Anion Balance	0	0	%	1.5	1.2	22.22%	Fail
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00025	0.00024	4.08%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00065	0.00065	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00083	0.00082	1.21%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1680	1680	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1280	1250	2.37%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.039	0.029	29.41%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000057	<5e-005	13.08%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0276	0.0262	5.20%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0313	0.031	0.96%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	153	153	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	169	174	2.92%	Pass
MAJOR ANION SUM	0	0	meq/l	25.5	25.2	1.18%	Pass
MAJOR CATION SUM	0	0	meq/l	26.3	25.8	1.92%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00385	0.00365	5.33%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00673	0.0067	0.45%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00132	0.00133	0.75%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00143	0.00151	5.44%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0577	0.0571	1.05%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0607	0.0612	0.82%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	10.4	10.4	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0358	0.0354	1.12%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.118	0.128	8.13%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	321	364	12.55%	Pass
pH, LAB	0.1	0.1	ph units	8.04	8.04	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0034	<0.002	51.85%	Pass-1

POTASSIUM, D	0.05	0.05	mg/l	4.01	3.98	0.75%	Pass
POTASSIUM, T	0.05	0.05	mg/l	4.48	4.48	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	40.5	39	3.77%	Pass
SELENIUM, T	0.05	0.05	ug/l	38.8	40.2	3.54%	Pass
SILICON, D	0.05	0.05	mg/l	1.96	1.95	0.51%	Pass
SILICON, T	0.1	0.1	mg/l	2.16	2.23	3.19%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	15.8	15.8	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	16.5	16.6	0.60%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.601	0.591	1.68%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.663	0.653	1.52%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	989	987	0.20%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000053	5.5e-005	3.70%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000051	5.4e-005	5.71%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1700	1730	1.75%	Pass
TOTAL KjELDAHL NITROGEN	0.05	0.05	mg/l	0.430	0.554	25.20%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.96	0.87	9.84%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	4.7	3.2	37.97%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	4.23	3.56	17.20%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00981	0.00981	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0102	0.00997	2.28%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0308	0.0308	0.00%	Pass

Location:	CM_CCPD	CM_CCPD
Sample ID:	CM_CCPD_WS_2017-12-06_N	WS_2017-12-06_037
Date Sampled:	12/6/2017	12/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	3.8	4.4	14.63%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	342	334	2.37%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	342	334	2.37%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0124	0.0125	0.80%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0338	0.0446	27.55%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00113	0.00118	4.33%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00097	0.00118	19.53%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00047	0.00049	4.17%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00055	0.00055	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0378	0.0398	5.15%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0391	0.0399	2.03%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	0.000026	2e-005	26.09%	Pass-1
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	2.1e-005	4.88%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.085	0.085	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.086	0.085	1.17%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000558	0.000609	8.74%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000686	0.000608	12.06%	Pass
CALCIUM, D	0.05	0.05	mg/l	236	247	4.55%	Pass
CALCIUM, T	0.05	0.05	mg/l	247	234	5.41%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.12	1.21	7.73%	Pass
CHLORIDE, D	2.5	2.5	mg/l	< 2.5	<2.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	<0.0001	40.00%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.0152	0.0159	4.50%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.0168	0.0166	1.20%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1950	1940	0.51%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

COPPER, T	0.0005	0.0005	mg/l	0.00066	0.00062	6.25%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.19	0.2	5.13%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1070	1110	3.67%	Pass
ION BALANCE	100	100	%	90.0	93.7	4.03%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.048	0.047	2.11%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0575	0.0583	1.38%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0603	0.0556	8.11%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	117	120	2.53%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	121	130	7.17%	Pass
MAJOR ANION SUM	0	0	meq/l	26.1	25.9	0.77%	Pass
MAJOR CATION SUM	0	0	meq/l	23.5	24.2	2.94%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0413	0.0438	5.88%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0457	0.045	1.54%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00084	0.00066	24.00%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00307	0.00307	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00296	0.00316	6.54%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0773	0.0808	4.43%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0832	0.0841	1.08%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	10.6	10.6	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0459	0.0449	2.20%	Pass
NITROGEN, AMMONIA (AS N)	0.1	0.1	mg/l	0.66	0.65	1.53%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0022	<0.001	75.00%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	298	292	2.03%	Pass
pH, LAB	0.1	0.1	ph units	8.16	8.23	0.85%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0031	0.003	3.28%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.73	3.92	4.97%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.80	3.86	1.57%	Pass
SELENIUM, D	0.05	0.05	ug/l	35.3	34.4	2.58%	Pass
SELENIUM, T	0.05	0.05	ug/l	35	32.9	6.19%	Pass
SILICON, D	0.05	0.05	mg/l	2.16	2.13	1.40%	Pass
SILICON, T	0.1	0.1	mg/l	2.36	2.23	5.66%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	43.8	45.2	3.15%	Pass
SODIUM, T	0.05	0.05	mg/l	43.4	42	3.28%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.916	0.931	1.62%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.946	0.938	0.85%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	889	886	0.34%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000062	6.5e-005	4.72%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000062	6.1e-005	1.63%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1550	1520	1.95%	Pass
TOTAL KJELDAHL NITROGEN	0.2	0.2	mg/l	0.47	<0.2	80.60%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.41	1.2	16.09%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.5	2.7	7.69%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	3.42	4.08	17.60%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00781	0.00811	3.77%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00883	0.00819	7.52%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0678	0.0716	5.45%	Pass
ZINC, T	0.003	0.003	mg/l	0.0833	0.0728	13.45%	Pass

Location:	CM_MC1	CM_MC1
Sample ID:	CM_MC1_M_WS_20170801_N	CM_NNP_M_WQ_20170801_FD
Date Sampled:	8/1/2017	8/1/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	138	140	1.44%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass

ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	138	140	1.44%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0118	0.0109	7.93%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00021	0.0002	4.88%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00022	0.00024	8.70%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0530	0.0539	1.68%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0507	0.0516	1.76%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.013	0.013	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.013	0.014	7.41%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000110	1.07e-005	2.76%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000124	1.21e-005	2.45%	Pass
CALCIUM, D	0.05	0.05	mg/l	38.6	37.9	1.83%	Pass
CALCIUM, D	0.05	0.05	mg/l	38.6	40.4	4.56%	Pass
CALCIUM, D	0.05	0.05	mg/l	39.9	37.9	5.14%	Pass
CALCIUM, D	0.05	0.05	mg/l	39.9	40.4	1.25%	Pass
CALCIUM, T	0.05	0.05	mg/l	39.8	39.1	1.77%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.04	1.55	27.30%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00020	0.00018	10.53%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00025	0.00023	8.33%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	268	268	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.055	0.064	15.13%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	147	148	0.68%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.011	<0.01	9.52%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0050	0.0048	4.08%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0043	0.0043	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	11.3	11.3	0.00%	Pass
MAGNESIUM, D	0.005	0.1	mg/l	11.3	11.5	1.75%	Pass
MAGNESIUM, D	0.1	0.005	mg/l	11.5	11.3	1.75%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	11.5	11.5	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	11.3	11.2	0.89%	Pass
MAJOR ANION SUM	0	0	meq/l	3.01	3.06	1.65%	Pass
MAJOR CATION SUM	0	0	meq/l	2.97	2.94	1.02%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00054	0.00046	16.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00052	0.00051	1.94%	Pass
MERCURY, T	0.0005	0.005	ug/l	0.00052	<0.005	162.32%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000889	0.000899	1.12%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000904	0.000922	1.97%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0170	0.0164	3.59%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0069	0.0066	4.44%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0055	0.0057	3.57%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	326	294	10.32%	Pass
pH, LAB	0.1	0.1	ph units	8.21	8.24	0.36%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0083	0.0076	8.81%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.531	0.534	0.56%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.531	0.535	0.75%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.549	0.534	2.77%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.549	0.535	2.58%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.510	0.521	2.13%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.174	0.18	3.39%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.191	0.205	7.07%	Pass
SILICON, D	0.05	0.05	mg/l	2.37	2.31	2.56%	Pass

SILICON, T	0.1	0.1	mg/l	2.43	2.43	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.46	2.46	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.46	2.56	3.98%	Pass
SODIUM, D	0.05	0.05	mg/l	2.58	2.46	4.76%	Pass
SODIUM, D	0.05	0.05	mg/l	2.58	2.56	0.78%	Pass
SODIUM, T	0.05	0.05	mg/l	2.57	2.62	1.93%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.149	0.151	1.33%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.151	0.151	0.00%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	12.5	12.5	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	179	163	9.36%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.24	0.85	37.32%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.41	0.52	23.66%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.000222	0.000228	2.67%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000225	0.000226	0.44%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	CM_MC1	CM_MC1
Sample ID:	CM_MC1_WKLY_WQ_20170829_N	CM_NNP_WKLY_WQ_20170829_FD
Date Sampled:	8/29/2017	8/29/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	147	158	7.21%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.8	<1	141.18%	Fail
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	152	158	3.87%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0058	0.0491	157.74%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00016	0.00018	11.76%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00018	0.00019	5.41%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0583	0.0593	1.70%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0539	0.0534	0.93%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.015	0.016	6.45%	Pass
BORON, T	0.01	0.01	mg/l	0.015	0.015	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000078	1.01e-005	25.70%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000123	1.46e-005	17.10%	Pass
CALCIUM, D	0.05	0.05	mg/l	43.6	43.3	0.69%	Pass
CALCIUM, T	0.05	0.05	mg/l	41.4	41.9	1.20%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.70	0.81	14.57%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00018	0.00021	15.38%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00021	0.00025	17.39%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	283	286	1.05%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.054	0.055	1.83%	Pass

Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	155	154	0.65%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	0.058	141.18%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	7.2e-005	36.07%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0048	0.005	4.08%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0051	0.005	1.98%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	11.2	11.1	0.90%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	10.3	10	2.96%	Pass
MAJOR ANION SUM	0	0	meq/l	3.31	3.41	2.98%	Pass
MAJOR CATION SUM	0	0	meq/l	3.22	3.21	0.31%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00022	0.00031	33.96%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00039	0.00252	146.39%	Pass-1
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000851	0.00092	7.79%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000893	0.000894	0.11%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0221	0.0196	11.99%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0184	0.0104	55.56%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0033	0.0072	74.29%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	258	271	4.91%	Pass
pH, LAB	0.1	0.1	ph units	8.31	8.25	0.72%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0050	0.0072	36.07%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	0.531	0.522	1.71%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.490	0.492	0.41%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.181	0.182	0.55%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.202	0.206	1.96%	Pass
SILICON, D	0.05	0.05	mg/l	2.29	2.3	0.44%	Pass
SILICON, T	0.1	0.1	mg/l	2.25	2.32	3.06%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.67	2.74	2.59%	Pass
SODIUM, T	0.05	0.05	mg/l	2.52	2.4	4.88%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.163	0.163	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.159	0.16	0.63%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	12.3	12.2	0.82%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	0.00018	57.14%	Pass-1
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	160	168	4.88%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.80	0.83	3.68%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	4.1	121.57%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.58	0.52	10.91%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000233	0.000224	3.94%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000247	0.000246	0.41%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	CM_MC1	CM_MC1
Sample ID:	CM_MC1_WKLY_WS_20170509_N	CM_NNP_WKLY_WQ_20170509_FD
Date Sampled:	5/9/2017	5/9/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.0	1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	113	115	1.75%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	113	115	1.75%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0065	0.0086	27.81%	Pass-2

ALUMINUM, T	0.003	0.003	mg/l	0.136	0.119	13.33%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00042	<0.0001	123.08%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	0.00017	0.00019	11.11%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00028	0.00026	7.41%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0348	0.0391	11.64%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0357	0.0368	3.03%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.01	0.011	9.52%	Pass
BORON, T	0.01	0.01	mg/l	0.011	0.011	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000153	1.11e-005	31.82%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000278	2.22e-005	22.40%	Pass-2
CALCIUM, D	0.05	0.05	mg/l	31.4	31.5	0.32%	Pass
CALCIUM, T	0.05	0.05	mg/l	31.0	31	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.95	4.51	13.24%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00035	0.00057	47.83%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	217	219	0.92%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00035	0.00031	12.12%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00121	0.00075	46.94%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.044	0.043	2.30%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	112	113	0.89%	Pass
IRON, D	0.01	0.01	mg/l	0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.164	0.129	23.89%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000122	0.000104	15.93%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0035	0.0032	8.96%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0035	0.0031	12.12%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	8.11	8.41	3.63%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	7.77	8.11	4.28%	Pass
MAJOR ANION SUM	0	0	meq/l	2.40	2.44	1.65%	Pass
MAJOR CATION SUM	0	0	meq/l	2.32	2.35	1.28%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00032	0.00042	27.03%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00357	0.00354	0.84%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00203	0.00199	1.99%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000585	0.000561	4.19%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000625	0.000629	0.64%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00052	0.00079	41.22%	Pass-1
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0090	0.0091	1.10%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0093	0.0139	39.66%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0028	0.0029	3.51%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	489	481	1.65%	Pass
pH, LAB	0.1	0.1	ph units	8.17	8.15	0.25%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0164	0.0176	7.06%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.382	0.431	12.05%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.426	0.457	7.02%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.231	0.196	16.39%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.192	0.195	1.55%	Pass
SILICON, D	0.05	0.05	mg/l	2.14	2.35	9.35%	Pass
SILICON, T	0.05	0.05	mg/l	2.30	2.46	6.72%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.69	1.72	1.76%	Pass
SODIUM, T	0.05	0.05	mg/l	1.68	1.64	2.41%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.112	0.118	5.22%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.112	0.115	2.64%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	7.06	6.77	4.19%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000019	1.4e-005	30.30%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	13	20	mg/l	100	88	12.77%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.94	4.42	11.48%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	3.8	3.8	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.87	2.94	2.41%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000143	0.000139	2.84%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000157	0.000145	7.95%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00060	0.0005	18.18%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	0.0052	53.66%	Pass-1

Location:	CM_MC1	CM_MC1
Sample ID:	CM_MC1_WKLY_WS_20170516_N	CM_NNP_WKLY_WQ_20170516_FD
Date Sampled:	5/16/2017	5/16/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	120	110	8.70%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	6.8	6.8	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	126	117	7.41%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0068	0.0079	14.97%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0139	0.0155	10.88%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	0.00013	26.09%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	0.00017	0.00021	21.05%	Pass-1
ARSENIC, T	0.0001	0.0001	mg/l	0.00020	0.00022	9.52%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0377	0.0372	1.34%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0332	0.0341	2.67%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.011	0.011	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.012	0.011	8.70%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000109	1.2e-005	9.61%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000127	1.15e-005	9.92%	Pass
CALCIUM, D	0.05	0.05	mg/l	32.1	33.2	3.37%	Pass
CALCIUM, T	0.05	0.05	mg/l	32.1	31.9	0.63%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.85	2.89	1.39%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00071	0.00069	2.86%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	225	226	0.44%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00027	0.00027	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.043	0.042	2.35%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	114	117	2.60%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	0.012	18.18%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0031	0.0034	9.23%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0033	0.0033	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	8.11	8.39	3.39%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	8.74	8.64	1.15%	Pass
MAJOR ANION SUM	0	0	meq/l	2.68	2.5	6.95%	Pass
MAJOR CATION SUM	0	0	meq/l	2.36	2.44	3.33%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00049	0.00046	6.32%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00074	0.00042	55.17%	Fail
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00159	0.0016	0.63%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000440	0.000443	0.68%	Pass

MOLYBDENUM, T	0.0005	0.0005	mg/l	0.000622	0.000611	1.78%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0119	0.0119	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0047	0.0031	41.03%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	290	281	3.15%	Pass
pH, LAB	0.1	0.1	ph units	8.30	8.31	0.12%	Pass
PHOSPHORUS	0.004	0.01	mg/l	0.0175	0.021	18.18%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.430	0.425	1.17%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.382	0.377	1.32%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.212	0.186	13.07%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.194	0.203	4.53%	Pass
SILICON, D	0.05	0.05	mg/l	2.28	2.28	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	2.37	2.34	1.27%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.68	1.76	4.65%	Pass
SODIUM, T	0.05	0.05	mg/l	1.70	1.67	1.78%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.110	0.114	3.57%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.117	0.114	2.60%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	7.57	7.57	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	124	128	3.17%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.066	0.056	16.39%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.07	3.08	0.33%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.7	4.9	57.89%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	2.36	2.93	21.55%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.000136	0.000146	7.09%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000161	0.000153	5.10%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	CM_MC1	CM_MC1
Sample ID:	CM_MC1_WKLY_WS_20170530_N	CM_NNP_WKLY_WQ_20170530_FD
Date Sampled:	5/30/2017	5/30/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	88.6	88.1	0.57%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	88.6	88.1	0.57%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0759	0.0343	75.50%	Fail
ALUMINUM, T	0.003	0.003	mg/l	0.747	0.778	4.07%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00029	0.00024	18.87%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00060	0.00061	1.65%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0328	0.0272	18.67%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0351	0.0325	7.69%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000034	4.6e-005	30.00%	Pass-1
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000551	1.58e-005	110.86%	Fail
CADMIUM, T	0.000005	0.000005	mg/l	0.0000600	7.2e-005	18.18%	Pass

CALCIUM, D	0.05	0.05	mg/l	21.1	20.4	3.37%	Pass
CALCIUM, T	0.05	0.05	mg/l	20.9	20.4	2.42%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	3.63	3.36	7.73%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00025	0.00021	17.39%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00100	0.00106	5.83%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00020	<0.0001	66.67%	Pass-1
COBALT, T	0.0001	0.0001	mg/l	0.00029	0.00035	18.75%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	165	164	0.61%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00063	0.00027	80.00%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	0.00125	0.00137	9.16%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.040	0.032	22.22%	Pass-1
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	79.0	76.8	2.82%	Pass
IRON, D	0.01	0.01	mg/l	0.082	0.03	92.86%	Fail
IRON, T	0.01	0.01	mg/l	0.794	0.87	9.13%	Pass
LEAD, D	0.00005	0.00005	mg/l	0.000272	<5e-005	137.89%	Fail
LEAD, T	0.00005	0.00005	mg/l	0.000668	0.000561	17.41%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0018	0.0018	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0024	0.0023	4.26%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	6.37	6.28	1.42%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	6.61	6.27	5.28%	Pass
MAJOR ANION SUM	0	0	meq/l	1.87	1.85	1.08%	Pass
MAJOR CATION SUM	0	0	meq/l	1.64	1.59	3.10%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0201	0.00179	167.29%	Fail
MANGANESE, T	0.0001	0.0001	mg/l	0.0206	0.0247	18.10%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00407	0.00439	7.57%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000379	0.000421	10.50%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000574	0.000629	9.14%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00062	<0.0005	21.43%	Pass-1
NICKEL, T	0.0005	0.0005	mg/l	0.00137	0.00146	6.36%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0136	0.007	64.08%	Pass-1
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	0.0035	111.11%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.009	57.14%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0035	0.0031	12.12%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	247	248	0.40%	Pass
pH, LAB	0.1	0.1	ph units	8.19	8.21	0.24%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0569	0.0775	30.65%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	0.345	0.324	6.28%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.599	0.596	0.50%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.148	0.182	20.61%	Pass-1
SELENIUM, T	0.05	0.05	ug/l	0.198	0.176	11.76%	Pass
SILICON, D	0.05	0.05	mg/l	2.04	2.07	1.46%	Pass
SILICON, T	0.05	0.05	mg/l	3.09	3.09	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	0.933	0.944	1.17%	Pass
SODIUM, T	0.05	0.05	mg/l	0.963	0.924	4.13%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0692	0.0684	1.16%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0695	0.0685	1.45%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	4.63	4.37	5.78%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000014	<1e-005	33.33%	Pass-1
THALLIUM, T	0.00001	0.00001	mg/l	0.000040	4.8e-005	18.18%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	13	13	mg/l	101	106	4.83%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.186	0.145	24.77%	Pass-1
TOTAL ORGANIC CARBON, T	2.5	2.5	mg/l	3.4	3.6	5.71%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	27.2	30.2	10.45%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	20.5	20.2	1.47%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000113	9.9e-005	13.21%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000118	0.000125	5.76%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00182	0.00194	6.38%	Pass
ZINC, D	0.001	0.001	mg/l	0.0036	<0.001	113.04%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.0049	0.0058	16.82%	Pass

Location:	CM_MC1	CM_MC1
Sample ID:	CM_MC1_WKLY_WS_20170808_N	CM_NNP_WKLY_WQ_20170808_FD
Date Sampled:	8/8/2017	8/8/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.2	1.2	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	145	142	2.09%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	145	142	2.09%	Pass
ALUMINIUM, D	0.003	0.004	mg/l	< 0.0030	<0.004	28.57%	Pass-1
ALUMINIUM, T	0.003	0.003	mg/l	0.0092	0.0291	103.92%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00012	0.0001	18.18%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00021	0.00019	10.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00025	0.00026	3.92%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0531	0.0544	2.42%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0522	0.0529	1.33%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.015	0.017	12.50%	Pass
BORON, T	0.01	0.01	mg/l	0.016	0.019	17.14%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000092	6.2e-006	38.96%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000100	1.45e-005	36.73%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	39.2	40.9	4.24%	Pass
CALCIUM, D	0.05	0.05	mg/l	39.2	43.4	10.17%	Pass
CALCIUM, D	0.05	0.05	mg/l	42.6	40.9	4.07%	Pass
CALCIUM, D	0.05	0.05	mg/l	42.6	43.4	1.86%	Pass
CALCIUM, T	0.05	0.05	mg/l	39.1	40.7	4.01%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.98	1.11	12.44%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	0.00019	53.33%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00025	0.00027	7.69%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	266	270	1.49%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.058	0.057	1.74%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	150	154	2.63%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	0.031	102.44%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0052	0.0055	5.61%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0046	0.0048	4.26%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	10.4	10.5	0.96%	Pass
MAGNESIUM, D	0.005	0.1	mg/l	10.4	11	5.61%	Pass
MAGNESIUM, D	0.1	0.005	mg/l	10.7	10.5	1.89%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	10.7	11	2.76%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	11.2	11.2	0.00%	Pass
MAJOR ANION SUM	0	0	meq/l	3.17	3.11	1.91%	Pass
MAJOR CATION SUM	0	0	meq/l	2.94	3.03	3.02%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00012	0.00022	58.82%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00032	0.00127	119.50%	Pass-1
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	0.00052	3.92%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000912	0.000961	5.23%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000934	0.000926	0.86%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0162	0.0132	20.41%	Pass-1
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0067	0.0051	27.12%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0044	0.0042	4.65%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	273	257	6.04%	Pass
pH, LAB	0.1	0.1	ph units	8.25	8.22	0.36%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0075	0.0103	31.46%	Pass-1

POTASSIUM, D	0.05	0.05	mg/l	0.528	0.529	0.19%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.528	0.589	10.92%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.556	0.529	4.98%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.556	0.589	5.76%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.504	0.515	2.16%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.165	0.204	21.14%	Pass-1
SELENIUM, T	0.05	0.05	ug/l	0.232	0.197	16.32%	Pass
SILICON, D	0.05	0.05	mg/l	2.18	2.23	2.27%	Pass
SILICON, T	0.1	0.1	mg/l	2.44	2.47	1.22%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.55	2.62	2.71%	Pass
SODIUM, D	0.05	0.05	mg/l	2.55	2.69	5.34%	Pass
SODIUM, D	0.05	0.05	mg/l	2.72	2.62	3.75%	Pass
SODIUM, D	0.05	0.05	mg/l	2.72	2.69	1.11%	Pass
SODIUM, T	0.05	0.05	mg/l	2.49	2.54	1.99%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.157	0.163	3.75%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.156	0.155	0.64%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	13.1	13	0.77%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	144	151	4.75%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.95	1.08	12.81%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.35	0.34	2.90%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000239	0.000244	2.07%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000237	0.000238	0.42%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	CM_MC1	CM_MC1
Sample ID:	CM_MC1_WKLY_WS_20170815_N	CM_NNP_WKLY_WQ_20170815_FD
Date Sampled:	8/15/2017	8/15/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	135	131	3.01%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	8.4	8.2	2.41%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	143	139	2.84%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0092	0.0155	51.01%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00021	0.00018	15.38%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00020	0.00021	4.88%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0518	0.0536	3.42%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0527	0.0524	0.57%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.016	0.016	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.017	0.018	5.71%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000068	1.08e-005	45.45%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000111	1.49e-005	29.23%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	41.3	41.4	0.24%	Pass
CALCIUM, T	0.05	0.05	mg/l	41.9	42.3	0.95%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.88	1.08	20.41%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass

CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00016	46.15%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00023	0.00021	9.09%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	275	276	0.36%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.052	0.052	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	148	150	1.34%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	0.011	9.52%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0047	0.0047	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0047	0.0052	10.10%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	10.9	11.3	3.60%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	11.0	11	0.00%	Pass
MAJOR ANION SUM	0	0	meq/l	3.16	3.04	3.87%	Pass
MAJOR CATION SUM	0	0	meq/l	3.07	3.12	1.62%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	0.00012	18.18%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00027	0.00058	72.94%	Pass-1
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	< 5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	< 0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000879	0.000882	0.34%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000912	0.000938	2.81%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0136	0.0136	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	< 0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0265	136.51%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0048	0.0047	2.11%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	243	270	10.53%	Pass
pH, LAB	0.1	0.1	ph units	8.39	8.39	0.00%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0080	0.0099	21.23%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	0.499	0.522	4.51%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.500	0.503	0.60%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.184	0.209	12.72%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.235	0.19	21.18%	Pass-1
SILICON, D	0.05	0.05	mg/l	2.30	2.35	2.15%	Pass
SILICON, T	0.1	0.1	mg/l	2.44	2.4	1.65%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.44	2.57	5.19%	Pass
SODIUM, T	0.05	0.05	mg/l	2.48	2.53	2.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.153	0.155	1.30%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.156	0.158	1.27%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	14.4	12.9	10.99%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	161	150	7.07%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	0.393	154.85%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.95	1.07	11.88%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.2	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.35	0.36	2.82%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000220	0.000223	1.35%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000227	0.000227	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	< 0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	< 0.003	0.00%	Pass

Location: Sample ID: Date Sampled: Sample Type:	CM_MC1	CM_MC1
	CM_MC1_WKLY_WS_20170822_N	CM_NNP_WKLY_WQ_20170822_FD
	8/22/2017	8/22/2017
	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	136	136	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	6.6	4	49.06%	Pass-2
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	143	140	2.12%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0065	0.0068	4.51%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00021	0.0002	4.88%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0541	0.0547	1.10%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0562	0.0547	2.71%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.016	0.016	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.016	0.018	11.76%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000121	9.8e-006	21.00%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000132	1.08e-005	20.00%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	41.4	41.5	0.24%	Pass
CALCIUM, T	0.05	0.05	mg/l	41.4	42.5	2.62%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.10	2.53	18.57%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00011	0.00019	53.33%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00022	0.0002	9.52%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	275	287	4.27%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.047	0.05	6.19%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	148	149	0.67%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0053	0.0053	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0043	0.0047	8.89%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	10.9	10.9	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	11.2	11.2	0.00%	Pass
MAJOR ANION SUM	0	0	meq/l	3.15	3.09	1.92%	Pass
MAJOR CATION SUM	0	0	meq/l	3.09	3.09	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00016	<0.0001	46.15%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00041	0.00045	9.30%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00053	<0.0005	5.83%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000865	0.000906	4.63%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000906	0.000967	6.51%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.0306	0.0215	34.93%	Pass-2
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0061	0.0078	24.46%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0053	0.0053	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	256	248	3.17%	Pass
pH, LAB	0.1	0.1	ph units	8.34	8.33	0.12%	Pass
PHOSPHORUS	0.004	0.01	mg/l	0.0081	0.012	38.81%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	0.529	0.519	1.91%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.523	0.513	1.93%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.168	0.175	4.08%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.189	0.195	3.13%	Pass
SILICON, D	0.05	0.05	mg/l	2.29	2.3	0.44%	Pass
SILICON, T	0.1	0.1	mg/l	2.40	2.37	1.26%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.60	2.61	0.38%	Pass
SODIUM, T	0.05	0.05	mg/l	2.66	2.68	0.75%	Pass

STRONTIUM, D	0.0002	0.0002	mg/l	0.153	0.155	1.30%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.163	0.171	4.79%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	14.2	13.3	6.55%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	171	176	2.88%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.98	1	2.02%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.44	0.49	10.75%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000233	0.000247	5.83%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000224	0.000246	9.36%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	CM_MC2	CM_MC2
Sample ID:	CM_MC2_WKLY_WS_20170412_N	CM_NNP_WKLY_WQ_20170412_007
Date Sampled:	4/12/2017	4/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.1	1.7	21.05%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	195	192	1.55%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	195	192	1.55%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0027	0.0022	20.41%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0162	0.0114	34.78%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00031	0.00032	3.17%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00032	0.00032	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00017	0.00017	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00018	0.0002	10.53%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0776	0.0766	1.30%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0662	0.0654	1.22%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.032	0.031	3.17%	Pass
BORON, T	0.01	0.01	mg/l	0.031	0.031	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000368	3.52e-005	4.44%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000368	3.81e-005	3.47%	Pass
CALCIUM, D	0.05	0.05	mg/l	105	105	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	97.7	97.2	0.51%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.16	1.79	18.73%	Pass
CHLORIDE, D	0.5	0.5	mg/l	3.88	3.96	2.04%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00013	0.00011	16.67%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00017	0.00015	12.50%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00477	0.00476	0.21%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00459	0.00458	0.22%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	817	814	0.37%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.116	0.123	5.86%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	432	434	0.46%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.022	0.017	25.64%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0198	0.0198	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0184	0.0184	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	41.2	41.7	1.21%	Pass

MAGNESIUM, T	0.005	0.005	mg/l	38.6	38.8	0.52%	Pass
MAJOR ANION SUM	0	0	meq/l	9.69	9.66	0.31%	Pass
MAJOR CATION SUM	0	0	meq/l	9.33	9.38	0.53%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0296	0.0295	0.34%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0290	0.0288	0.69%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00161	0.00156	3.15%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00155	0.00161	3.80%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0246	0.0247	0.41%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0231	0.0231	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	2.70	2.7	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0189	0.02	5.66%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.137	0.111	20.97%	Pass-2
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	439	459	4.45%	Pass
pH, LAB	0.1	0.1	ph units	8.26	8.25	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0021	0.0026	21.28%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.77	1.79	1.12%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.76	1.7	3.47%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.6	4.59	0.22%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.32	4.61	6.49%	Pass
SILICON, D	0.05	0.05	mg/l	2.27	2.27	0.00%	Pass
SILICON, T	0.05	0.05	mg/l	2.20	2.3	4.44%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	14.9	15	0.67%	Pass
SODIUM, T	0.05	0.05	mg/l	14.5	14.3	1.39%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.390	0.39	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.379	0.368	2.95%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	264	264	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000016	1.5e-005	6.45%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000016	1.6e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	617	605	1.96%	Pass
TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.373	0.425	13.03%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.32	1.78	26.34%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.7	1.1	42.86%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.61	1.41	13.25%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00225	0.00223	0.89%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00218	0.00218	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0050	0.0033	40.96%	Pass-2
ZINC, T	0.003	0.003	mg/l	0.0081	0.0081	0.00%	Pass

Location:	CM_MC2	CM_MC2
Sample ID:	CM_MC2_WKLY_WS_20170424_N	CM_NNP_WKLY_WQ_20170424_019
Date Sampled:	4/24/2017	4/24/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	3.3	3.1	6.25%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	197	187	5.21%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	197	187	5.21%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0057	0.0045	23.53%	Pass-2
ALUMINUM, T	0.003	0.003	mg/l	0.114	0.0857	28.34%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00028	0.00027	3.64%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00025	0.00024	4.08%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00016	0.00018	11.76%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00027	0.00026	3.77%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0665	0.0643	3.36%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0628	0.0594	5.56%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass

BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	2.9e-005	36.73%	Pass-1
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.027	0.027	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.027	0.025	7.69%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000449	4.2e-005	6.67%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000724	8.02e-005	10.22%	Pass
CALCIUM, D	0.05	0.05	mg/l	91.5	91.1	0.44%	Pass
CALCIUM, T	0.05	0.05	mg/l	85.0	81.5	4.20%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.35	1.47	8.51%	Pass
CHLORIDE, D	0.5	0.5	mg/l	2.53	2.52	0.40%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00028	0.00023	19.61%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00499	0.0049	1.82%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00523	0.00511	2.32%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	756	759	0.40%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00068	0.0006	12.50%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.104	0.102	1.94%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	383	378	1.31%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.157	0.136	14.33%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000124	0.000117	5.81%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0154	0.0154	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0147	0.014	4.88%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	37.4	36.5	2.44%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	35.5	33.7	5.20%	Pass
MAJOR ANION SUM	0	0	meq/l	9.07	8.89	2.00%	Pass
MAJOR CATION SUM	0	0	meq/l	8.23	8.12	1.35%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0261	0.0256	1.93%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0307	0.0292	5.01%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00112	0.00101	10.33%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00132	0.00133	0.75%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00128	0.00124	3.17%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0242	0.0236	2.51%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0238	0.0223	6.51%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	2.19	2.2	0.46%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0127	0.0134	5.36%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0734	0.0607	18.94%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	473	459	3.00%	Pass
pH, LAB	0.1	0.1	ph units	8.22	8.23	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0180	0.0104	53.52%	Fail
POTASSIUM, D	0.05	0.05	mg/l	1.52	1.49	1.99%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.42	1.36	4.32%	Pass
SELENIUM, D	0.05	0.05	ug/l	5.6	5.77	2.99%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.76	5.03	5.52%	Pass
SILICON, D	0.05	0.05	mg/l	2.32	2.37	2.13%	Pass
SILICON, T	0.05	0.05	mg/l	2.31	2.23	3.52%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	12.3	12	2.47%	Pass
SODIUM, T	0.05	0.05	mg/l	11.3	10.8	4.52%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.352	0.352	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.334	0.32	4.28%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	236	236	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000014	1.4e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000022	3.1e-005	33.96%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	541	551	1.83%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.296	0.259	13.33%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.29	1.99	14.02%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	9.0	8.8	2.25%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	6.91	7.1	2.71%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00220	0.00218	0.91%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00207	0.00197	4.95%	Pass

VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00077	0.00064	18.44%	Pass
ZINC, D	0.001	0.001	mg/l	0.0050	0.0047	6.19%	Pass
ZINC, T	0.003	0.003	mg/l	0.0071	0.007	1.42%	Pass

Location:	CM_MC2	CM_MC2
Sample ID:	CM_MC2_WKLY_WS_20170614_N	CM_NNP_WKLY_WQ_20170614_FD
Date Sampled:	6/14/2017	6/14/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	114	113	0.88%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.6	6.2	10.17%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	120	119	0.84%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0043	0.0055	24.49%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.503	0.491	2.41%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00017	0.00016	6.06%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00021	0.00019	10.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.00016	11.76%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00048	0.00039	20.69%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0342	0.0341	0.29%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0392	0.0373	4.97%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000036	3e-005	18.18%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.012	0.012	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.015	0.014	6.90%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000873	9.31e-005	6.43%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000152	0.000153	0.66%	Pass
CALCIUM, D	0.05	0.05	mg/l	47.4	47.2	0.42%	Pass
CALCIUM, T	0.05	0.05	mg/l	49.6	49.2	0.81%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.71	1.59	7.27%	Pass
CHLORIDE, D	0.5	0.5	mg/l	0.53	0.6	12.39%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00079	0.00078	1.27%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00267	0.00267	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00342	0.00346	1.16%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	442	441	0.23%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00085	0.00077	9.88%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.064	0.068	6.06%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	206	203	1.47%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.780	0.658	16.97%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000428	0.000391	9.04%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0067	0.0062	7.75%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0081	0.0074	9.03%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	21.2	20.6	2.87%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	20.7	20.9	0.96%	Pass
MAJOR ANION SUM	0	0	meq/l	4.66	4.65	0.21%	Pass
MAJOR CATION SUM	0	0	meq/l	4.34	4.28	1.39%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0147	0.0142	3.46%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0384	0.0359	6.73%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00192	0.00195	1.55%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000931	0.000971	4.21%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00110	0.00105	4.65%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0158	0.0154	2.56%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0171	0.0175	2.31%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.18	1.19	0.84%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0075	0.0071	5.48%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0569	0.0558	1.95%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0021	0.001	70.97%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	488	469	3.97%	Pass

pH, LAB	0.1	0.1	ph units	8.31	8.32	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0391	0.0317	20.90%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	0.833	0.838	0.60%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.976	0.98	0.41%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.07	4.02	1.24%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.05	3.95	2.50%	Pass
SILICON, D	0.05	0.05	mg/l	1.77	1.73	2.29%	Pass
SILICON, T	0.1	0.1	mg/l	2.52	2.47	2.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	4.66	4.61	1.08%	Pass
SODIUM, T	0.05	0.05	mg/l	4.62	4.63	0.22%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.172	0.17	1.17%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.180	0.178	1.12%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	104	104	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000013	1.1e-005	16.67%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000029	2.8e-005	3.51%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	279	291	4.21%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.250	0.235	6.19%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.34	1.73	29.98%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	22.8	23.6	3.45%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	13.8	14.1	2.15%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00102	0.00103	0.98%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00115	0.00115	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00125	0.00125	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0070	0.0067	4.38%	Pass
ZINC, T	0.003	0.003	mg/l	0.0140	0.0139	0.72%	Pass

Location:	CM_MC2	CM_MC2
Sample ID:	CM_MC2_WKLY_WS_20170719_N	CM_NNP_WKLY_WQ_20170719_FD
Date Sampled:	7/19/2017	7/19/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	162	168	3.64%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	10.0	9.4	6.19%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	172	177	2.87%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0026	0.0027	3.77%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0287	0.0105	92.86%	Fail
ANTIMONY, D	0.0001	0.0001	mg/l	0.00034	0.00031	9.23%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00029	0.00028	3.51%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00022	0.00019	14.63%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00022	0.00019	14.63%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0553	0.0548	0.91%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0533	0.0457	15.35%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.029	0.03	3.39%	Pass
BORON, T	0.01	0.01	mg/l	0.029	0.029	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000106	1.08e-005	1.87%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000151	1.36e-005	10.45%	Pass
CALCIUM, D	0.05	0.05	mg/l	93.5	91.1	2.60%	Pass
CALCIUM, T	0.05	0.05	mg/l	92.8	93.2	0.43%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.85	1.57	16.37%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.02	1.05	2.90%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00020	0.00015	28.57%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00026	0.0002	26.09%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00312	0.00318	1.90%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00323	0.00278	14.98%	Pass

CONDUCTIVITY, LAB	2	2	us/cm	831	835	0.48%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.094	0.096	2.11%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	421	411	2.40%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.055	0.014	118.84%	Fail
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0181	0.0178	1.67%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0176	0.0178	1.13%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	45.5	44.6	2.00%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	41.8	37.6	10.58%	Pass
MAJOR ANION SUM	0	0	meq/l	9.43	9.57	1.47%	Pass
MAJOR CATION SUM	0	0	meq/l	8.91	8.73	2.04%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00728	0.00694	4.78%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0117	0.00718	47.88%	Pass-2
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00070	0.0005	33.33%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00152	0.00147	3.34%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00148	0.0015	1.34%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0282	0.029	2.80%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0268	0.0244	9.38%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	3.08	3.1	0.65%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0210	0.0221	5.10%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0134	0.0136	1.48%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	290	290	0.00%	Pass
pH, LAB	0.1	0.1	ph units	8.45	8.46	0.12%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0125	0.0092	30.41%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	1.76	1.68	4.65%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.64	1.49	9.58%	Pass
SELENIUM, D	0.05	0.05	ug/l	7.45	7.89	5.74%	Pass
SELENIUM, T	0.05	0.05	ug/l	6.89	6.83	0.87%	Pass
SILICON, D	0.05	0.05	mg/l	1.90	1.82	4.30%	Pass
SILICON, T	0.1	0.1	mg/l	2.00	1.92	4.08%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	10.5	10.7	1.89%	Pass
SODIUM, T	0.05	0.05	mg/l	10.0	9.25	7.79%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.343	0.339	1.17%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.340	0.343	0.88%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	276	277	0.36%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000034	2.1e-005	47.27%	Pass-1
THALLIUM, T	0.00001	0.00001	mg/l	0.000024	2e-005	18.18%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	587	584	0.51%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.520	0.355	37.71%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.76	1.65	6.45%	Pass
TOTAL SUSPENDED SOLIDS, LAB	2	1	mg/l	6.8	2.7	86.32%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.81	0.72	11.76%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00258	0.00256	0.78%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00259	0.00262	1.15%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	CM_MC2	CM_MC2
Sample ID:	CM_MC2_WKLY_WS_20170725_N	CM_NNP_WKLY_WQ_20170725_FD
Date Sampled:	7/25/2017	7/25/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	170	166	2.38%	Pass

ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	10.2	10.6	3.85%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	180	177	1.68%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0019	0.0025	27.27%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0184	0.0095	63.80%	Fail
ANTIMONY, D	0.0001	0.0001	mg/l	0.00031	0.00031	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00036	0.00035	2.82%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.0002	10.53%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00024	0.00023	4.26%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0577	0.0584	1.21%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0585	0.0592	1.19%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.031	0.03	3.28%	Pass
BORON, T	0.01	0.01	mg/l	0.031	0.031	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000068	8.4e-006	21.05%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000171	1.34e-005	24.26%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	95.6	96	0.42%	Pass
CALCIUM, T	0.05	0.05	mg/l	96.0	95.3	0.73%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.97	0.97	0.00%	Pass
CHLORIDE, D	0.5	0.5	mg/l	1.04	1.04	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00017	0.00016	6.06%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00026	0.00023	12.24%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00287	0.00288	0.35%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00348	0.00325	6.84%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	840	844	0.48%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.107	0.105	1.89%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	426	423	0.71%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.032	0.012	90.91%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0170	0.0159	6.69%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0159	0.015	5.83%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	45.4	44.5	2.00%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	47.1	47.1	0.00%	Pass
MAJOR ANION SUM	0	0	meq/l	9.67	9.62	0.52%	Pass
MAJOR CATION SUM	0	0	meq/l	9.02	8.96	0.67%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00577	0.0059	2.23%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0100	0.00778	24.97%	Pass-2
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00130	0.0005	88.89%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00150	0.00151	0.66%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00152	0.0015	1.32%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0281	0.028	0.36%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0292	0.0294	0.68%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	3.05	3.05	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0237	0.0234	1.27%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0201	0.0107	61.04%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	313	316	0.95%	Pass
pH, LAB	0.1	0.1	ph units	8.47	8.48	0.12%	Pass
PHOSPHORUS	0.004	0.004	mg/l	0.0090	0.0089	1.12%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.75	1.75	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.73	1.74	0.58%	Pass
SELENIUM, D	0.05	0.05	ug/l	7.81	8.06	3.15%	Pass
SELENIUM, T	0.05	0.05	ug/l	7.46	7.54	1.07%	Pass
SILICON, D	0.05	0.05	mg/l	1.99	1.96	1.52%	Pass
SILICON, T	0.1	0.1	mg/l	2.02	1.99	1.50%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	10.8	10.6	1.87%	Pass
SODIUM, T	0.05	0.05	mg/l	10.9	10.9	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.352	0.349	0.86%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.348	0.353	1.43%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	280	280	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000017	1.8e-005	5.71%	Pass

THALLIUM, T	0.0001	0.0001	mg/l	0.00019	1.9e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	558	596	6.59%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.266	0.267	0.38%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.99	0.89	10.64%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.4	1.6	40.00%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.03	0.46	76.51%	Fail
URANIUM, D	0.00001	0.00001	mg/l	0.00229	0.00226	1.32%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00236	0.00234	0.85%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	CM_MC2	CM_MC2
Sample ID:	CM_MC2_WKLY_WS_20171114_N	CM_NNP_WKLY_WS_20171114_N
Date Sampled:	11/14/2017	11/14/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	210	207	1.44%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	210	207	1.44%	Pass
ALUMINUM, D	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ALUMINUM, T	0.015	0.015	mg/l	< 0.015	<0.015	0.00%	Pass
ANTIMONY, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ANTIMONY, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ARSENIC, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ARSENIC, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
BARIUM, D	0.00025	0.00025	mg/l	0.0766	0.0745	2.78%	Pass
BARIUM, T	0.00025	0.00025	mg/l	0.0727	0.0775	6.39%	Pass
BERYLLIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BERYLLIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BISMUTH, D	0.00025	0.00025	mg/l	< 0.00025	<0.00025	0.00%	Pass
BISMUTH, T	0.00025	0.00025	mg/l	< 0.00025	<0.00025	0.00%	Pass
BORON, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
BORON, T	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000025	0.000025	mg/l	< 0.000025	<2.5e-005	0.00%	Pass
CADMIUM, T	0.000025	0.000025	mg/l	< 0.000025	<2.5e-005	0.00%	Pass
CALCIUM, D	0.25	0.25	mg/l	111	109	1.82%	Pass
CALCIUM, T	0.25	0.25	mg/l	121	123	1.64%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.93	1.02	9.23%	Pass
CHLORIDE, D	0.5	0.5	mg/l	3.22	26.4	156.52%	Fail
CHROMIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
CHROMIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COBALT, D	0.0005	0.0005	mg/l	0.00105	0.00104	0.96%	Pass
COBALT, T	0.0005	0.0005	mg/l	0.00109	0.00122	11.26%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	964	966	0.21%	Pass
COPPER, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
COPPER, T	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.089	0.092	3.31%	Pass
Hardness, Total or Dissolved CaCO3	0.75	0.75	mg/l	498	487	2.23%	Pass
ION BALANCE	100	100	%	91.3	84.9	7.26%	Pass
IRON, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
IRON, T	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
LEAD, D	0.00025	0.00025	mg/l	< 0.00025	<0.00025	0.00%	Pass
LEAD, T	0.00025	0.00025	mg/l	< 0.00025	<0.00025	0.00%	Pass
LITHIUM, D	0.005	0.005	mg/l	0.0201	0.0209	3.90%	Pass
LITHIUM, T	0.005	0.005	mg/l	0.0173	0.0176	1.72%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	53.7	52	3.22%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	56.5	59.9	5.84%	Pass
MAJOR ANION SUM	0	0	meq/l	11.6	12.2	5.04%	Pass
MAJOR CATION SUM	0	0	meq/l	10.6	10.3	2.87%	Pass

MANGANESE, D	0.0005	0.0005	mg/l	0.00374	0.00386	3.16%	Pass
MANGANESE, T	0.0005	0.0005	mg/l	0.00419	0.00438	4.43%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.005	0.005	ug/l	< 0.0000050	<5e-006	0.00%	Pass
MOLYBDENUM, D	0.00025	0.00025	mg/l	0.00125	0.0013	3.92%	Pass
MOLYBDENUM, T	0.00025	0.00025	mg/l	0.00131	0.00133	1.52%	Pass
NICKEL, D	0.0025	0.0025	mg/l	0.0153	0.0154	0.65%	Pass
NICKEL, T	0.0025	0.0025	mg/l	0.0155	0.0161	3.80%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	3.98	4	0.50%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0136	0.0135	0.74%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0067	0.0282	123.21%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0011	<0.001	9.52%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	323	315	2.51%	Pass
pH, LAB	0.1	0.1	ph units	8.24	8.25	0.12%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0015	0.0042	94.74%	Pass-1
POTASSIUM, D	0.25	0.25	mg/l	1.56	1.54	1.29%	Pass
POTASSIUM, T	0.25	0.25	mg/l	1.61	1.66	3.06%	Pass
SELENIUM, D	0.25	0.25	ug/l	6.95	7.11	2.28%	Pass
SELENIUM, T	0.25	0.25	ug/l	7.26	6.37	13.06%	Pass
SILICON, D	0.25	0.25	mg/l	2.09	2.17	3.76%	Pass
SILICON, T	0.5	0.5	mg/l	2.14	2.23	4.12%	Pass
SILVER, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
SILVER, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
SODIUM, D	0.25	0.25	mg/l	13.2	13.1	0.76%	Pass
SODIUM, T	0.25	0.25	mg/l	13.9	13.8	0.72%	Pass
STRONTIUM, D	0.001	0.001	mg/l	0.427	0.402	6.03%	Pass
STRONTIUM, T	0.001	0.001	mg/l	0.425	0.426	0.24%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	336	337	0.30%	Pass
THALLIUM, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
THALLIUM, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
TIN, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
TIN, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	791	777	1.79%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.288	0.25	14.13%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.02	0.94	8.16%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.47	0.47	0.00%	Pass
URANIUM, D	0.00005	0.00005	mg/l	0.00293	0.00296	1.02%	Pass
URANIUM, T	0.00005	0.00005	mg/l	0.00286	0.00283	1.05%	Pass
VANADIUM, D	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
VANADIUM, T	0.0025	0.0025	mg/l	< 0.0025	<0.0025	0.00%	Pass
ZINC, D	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ZINC, T	0.015	0.015	mg/l	< 0.015	<0.015	0.00%	Pass

Location:	CM_MC2	CM_MC2
Sample ID:	CM_MC2_WKLY_WS_20171121_N	CM_NNP_WKLY_WS_20171121_FD
Date Sampled:	11/21/2017	11/21/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	223	226	1.34%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	223	226	1.34%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0079	0.0073	7.89%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00024	0.00024	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00026	0.00026	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00017	0.00016	6.06%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0795	0.084	5.50%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0766	0.0792	3.34%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

BORON, D	0.01	0.01	mg/l	0.035	0.034	2.90%	Pass
BORON, T	0.01	0.01	mg/l	0.036	0.034	5.71%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	< 0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.000050	1.15e-005	78.79%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000181	1.11e-005	47.95%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	131	126	3.89%	Pass
CALCIUM, T	0.05	0.05	mg/l	124	124	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.84	0.83	1.20%	Pass
Cation - Anion Balance	0	0	%	0.3	-1.1	200.00%	Fail
CHLORIDE, D	0.5	0.5	mg/l	2.90	2.9	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00012	18.18%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00017	0.00019	11.11%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00083	0.00086	3.55%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00085	0.00094	10.06%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1010	1000	1.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.098	0.097	1.03%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	579	565	2.45%	Pass
ION BALANCE	100	100	%	101	97.8	3.22%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0198	0.0181	8.97%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0179	0.0168	6.34%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	61.3	60.8	0.82%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	62.1	64.3	3.48%	Pass
MAJOR ANION SUM	0	0	meq/l	12.1	12.2	0.82%	Pass
MAJOR CATION SUM	0	0	meq/l	12.2	11.9	2.49%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00352	0.00358	1.69%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00377	0.00415	9.60%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	< 5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	< 0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00131	0.00135	3.01%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00137	0.0014	2.17%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0142	0.0146	2.78%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0140	0.0147	4.88%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	3.95	3.96	0.25%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0204	0.0187	8.70%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0234	0.013	57.14%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	< 0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	298	288	3.41%	Pass
pH, LAB	0.1	0.1	ph units	8.25	8.26	0.12%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0017	0.0019	11.11%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.63	1.64	0.61%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.59	1.64	3.10%	Pass
SELENIUM, D	0.05	0.05	ug/l	8.56	8.65	1.05%	Pass
SELENIUM, T	0.05	0.05	ug/l	8.33	8.36	0.36%	Pass
SILICON, D	0.05	0.05	mg/l	2.17	2.21	1.83%	Pass
SILICON, T	0.1	0.1	mg/l	2.27	2.33	2.61%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	13.7	13.9	1.45%	Pass
SODIUM, T	0.05	0.05	mg/l	13.7	14.2	3.58%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.406	0.411	1.22%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.413	0.413	0.00%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	351	352	0.28%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000014	1.3e-005	7.41%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000012	1.3e-005	8.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	806	807	0.12%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.083	< 0.05	49.62%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.72	0.67	7.19%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	< 1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.42	0.38	10.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00320	0.00322	0.62%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00310	0.00319	2.86%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass

VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	CM_MC2	CM_MC2
Sample ID:	CM_MC2_WKLY_WS_20171128_N	CM_NNP_WKLY_WS_20171128_FD
Date Sampled:	11/28/2017	11/28/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.6	2	22.22%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	188	193	2.62%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	188	193	2.62%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0033	0.0034	2.99%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0603	0.068	12.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00028	0.00025	11.32%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00029	0.00029	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00021	0.00022	4.65%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00024	0.00026	8.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0634	0.0676	6.41%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0647	0.0662	2.29%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.039	0.035	10.81%	Pass
BORON, T	0.01	0.01	mg/l	0.039	0.036	8.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000504	6.59e-005	26.66%	Pass-2
CADMIUM, T	0.000005	0.000005	mg/l	0.0000634	6.72e-005	5.82%	Pass
CALCIUM, D	0.05	0.05	mg/l	110	106	3.70%	Pass
CALCIUM, T	0.05	0.05	mg/l	105	107	1.89%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.05	1.13	7.34%	Pass
Cation - Anion Balance	0	0	%	0.8	0.7	13.33%	Pass
CHLORIDE, D	0.5	0.5	mg/l	3.49	3.45	1.15%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00014	33.33%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00025	0.00028	11.32%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00386	0.00406	5.05%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00426	0.00429	0.70%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	815	808	0.86%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.108	0.107	0.93%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	460	463	0.65%	Pass
ION BALANCE	100	100	%	102	101	0.99%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.050	0.063	23.01%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000060	<5e-005	18.18%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0176	0.017	3.47%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0172	0.0166	3.55%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	45.0	48.2	6.87%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	47.6	47	1.27%	Pass
MAJOR ANION SUM	0	0	meq/l	9.66	9.76	1.03%	Pass
MAJOR CATION SUM	0	0	meq/l	9.82	9.89	0.71%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0134	0.0144	7.19%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0157	0.0167	6.17%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00064	0.0007	8.96%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00156	0.00144	8.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00156	0.00151	3.26%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0212	0.0225	5.95%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0237	0.0238	0.42%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	3.00	3	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0189	0.0191	1.05%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.107	0.106	0.94%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0023	0.0023	0.00%	Pass

OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	262	311	17.10%	Pass
pH, LAB	0.1	0.1	ph units	8.27	8.27	0.00%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0045	0.0048	6.45%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.44	1.53	6.06%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.54	1.53	0.65%	Pass
SELENIUM, D	0.05	0.05	ug/l	7.47	7.55	1.07%	Pass
SELENIUM, T	0.05	0.05	ug/l	7.79	8.05	3.28%	Pass
SILICON, D	0.05	0.05	mg/l	2.31	2.3	0.43%	Pass
SILICON, T	0.1	0.1	mg/l	2.44	2.42	0.82%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	13.4	13.8	2.94%	Pass
SODIUM, T	0.05	0.05	mg/l	13.0	13	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.401	0.371	7.77%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.407	0.39	4.27%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	268	268	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000015	1.6e-005	6.45%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000018	1.8e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	604	657	8.41%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.384	0.322	17.56%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.14	0.95	18.18%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	2.0	1.8	10.53%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.07	3.22	43.48%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00263	0.00251	4.67%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00249	0.00244	2.03%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0101	0.0107	5.77%	Pass
ZINC, T	0.012	0.003	mg/l	< 0.012	0.0117	2.53%	Pass

Location:	CM_MC2	CM_MC2
Sample ID:	CM_MC2_WKLY_WS_20171227_N	CM_NNP_WKLY_WS_20171227_FD
Date Sampled:	12/27/2017	12/27/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	4.0	2.5	46.15%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	220	205	7.06%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	220	205	7.06%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0136	0.0187	31.58%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00025	0.00025	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00034	0.00033	2.99%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00018	0.00017	5.71%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00024	0.00021	13.33%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0744	0.0736	1.08%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0763	0.0772	1.17%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.034	0.034	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.037	0.037	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000245	2.86e-005	15.44%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000345	3.26e-005	5.66%	Pass
CALCIUM, D	0.05	0.05	mg/l	139	138	0.72%	Pass
CALCIUM, T	0.05	0.05	mg/l	146	144	1.38%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.72	0.67	7.19%	Pass
Cation - Anion Balance	0	0	%	0.6	1.8	100.00%	Fail
CHLORIDE, D	0.5	0.5	mg/l	3.26	3.23	0.92%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00013	0.00015	14.29%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00028	0.00023	19.61%	Pass

COBALT, D	0.0001	0.0001	mg/l	0.00145	0.00149	2.72%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00158	0.00155	1.92%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1040	1040	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.096	0.095	1.05%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	588	587	0.17%	Pass
ION BALANCE	100	100	%	101	104	2.93%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.021	0.025	17.39%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0226	0.0221	2.24%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0222	0.0221	0.45%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	58.7	58.7	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	65.7	64	2.62%	Pass
MAJOR ANION SUM	0	0	meq/l	12.4	12.1	2.45%	Pass
MAJOR CATION SUM	0	0	meq/l	12.6	12.5	0.80%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00757	0.00746	1.46%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00880	0.00878	0.23%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00132	0.00136	2.99%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00149	0.00152	1.99%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.0174	0.0174	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0185	0.0183	1.09%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	4.38	4.37	0.23%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0313	0.0337	7.38%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0401	0.0355	12.17%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	401	350	13.58%	Pass
pH, LAB	0.1	0.1	ph units	8.15	8.19	0.49%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0024	0.0024	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.91	1.88	1.58%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.92	1.88	2.11%	Pass
SELENIUM, D	0.05	0.05	ug/l	11.8	11.9	0.84%	Pass
SELENIUM, T	0.05	0.05	ug/l	11.4	11.3	0.88%	Pass
SILICON, D	0.05	0.05	mg/l	2.32	2.32	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	2.56	2.58	0.78%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000011	1.2e-005	8.70%	Pass
SODIUM, D	0.05	0.05	mg/l	18.1	17.2	5.10%	Pass
SODIUM, T	0.05	0.05	mg/l	18.3	17.7	3.33%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.438	0.454	3.59%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.452	0.473	4.54%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	366	364	0.55%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000018	1.7e-005	5.71%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000027	2.1e-005	25.00%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	768	816	6.06%	Pass
TOTAL KJELDAHL NITROGEN	0.2	0.2	mg/l	< 0.20	<0.2	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.95	0.78	19.65%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.6	1	46.15%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.72	0.82	12.99%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00361	0.00353	2.24%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00400	0.00397	0.75%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	0.0031	3.28%	Pass
ZINC, T	0.003	0.003	mg/l	0.0030	<0.003	0.00%	Pass

Location:	CM_MC2	CM_MC2
Sample ID:	CM_MC2_WS_20170207_N	CM_MC2_20170207_FD
Date Sampled:	2/7/2017	2/7/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINIUM, T	0.003	0.003	mg/l	0.0184	0.0077	81.99%	Fail
ANTIMONY, T	0.0001	0.0001	mg/l	0.00031	0.00031	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00025	0.00017	38.10%	Pass-1
BARIUM, T	0.00005	0.00005	mg/l	0.0749	0.0715	4.64%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000030	<2e-005	40.00%	Pass-1
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.034	0.038	11.11%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000693	5.07e-005	31.00%	Pass-2
CALCIUM, T	0.05	0.05	mg/l	141	142	0.71%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00022	0.0002	9.52%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00332	0.00303	9.13%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	605	620	2.45%	Pass
IRON, T	0.01	0.01	mg/l	0.037	<0.01	114.89%	Pass-1
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0218	0.0215	1.39%	Pass
MAGNESIUM, T	0.005	0.1	mg/l	62.4	64.1	2.69%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0167	0.0145	14.10%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00146	0.00153	4.68%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.0349	0.0346	0.86%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.14	2.06	3.81%	Pass
SELENIUM, T	0.05	0.05	ug/l	8.11	7.9	2.62%	Pass
SILICON, T	0.05	0.05	mg/l	2.63	2.52	4.27%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	16.5	16.7	1.20%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.477	0.467	2.12%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000033	1.9e-005	53.85%	Pass-1
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00357	0.0038	6.24%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0056	0.0056	0.00%	Pass

Location:	CM_ND2	CM_ND2
Sample ID:	CM_ND2_WS_20170207_N	CM_ND2_20170207_FD
Date Sampled:	2/7/2017	2/7/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINIUM, T	0.003	0.003	mg/l	1.39	1.7	20.06%	Pass-2
ANTIMONY, T	0.0001	0.0001	mg/l	0.00141	0.00168	17.48%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00456	0.00553	19.23%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.266	0.322	19.05%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000323	0.000336	3.95%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	0.000073	8.4e-005	14.01%	Pass
BORON, T	0.01	0.01	mg/l	0.131	0.129	1.54%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.00114	0.00123	7.59%	Pass
CALCIUM, T	0.05	0.05	mg/l	328	345	5.05%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00355	0.00403	12.66%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.0520	0.0499	4.12%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.0126	0.0133	5.41%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1360	1360	0.00%	Pass
IRON, T	0.01	0.01	mg/l	8.39	8.67	3.28%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.00663	0.00682	2.83%	Pass
LITHIUM, T	0.001	0.002	mg/l	0.108	0.108	0.00%	Pass
MAGNESIUM, T	0.005	0.1	mg/l	132	120	9.52%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.326	0.345	5.66%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00692	0.00714	3.13%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.290	0.283	2.44%	Pass
POTASSIUM, T	0.05	0.05	mg/l	7.15	7.22	0.97%	Pass
SELENIUM, T	0.05	0.05	ug/l	5.72	5.59	2.30%	Pass
SILICON, T	0.05	0.05	mg/l	4.30	4.66	8.04%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000111	0.000115	3.54%	Pass
SODIUM, T	0.05	0.05	mg/l	65.0	57.3	12.59%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	1.66	1.66	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000152	0.000221	37.00%	Pass-2
TIN, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

URANIUM, T	0.00001	0.00001	mg/l	0.0153	0.0159	3.85%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.0108	0.0121	11.35%	Pass
ZINC, T	0.003	0.003	mg/l	0.122	0.128	4.80%	Pass

Location:	CM_PC2	CM_PC2
Sample ID:	CM_PC2_M_WKLY_WS_20170419_N	CM_NNP_WKLY_WQ_20170419_013
Date Sampled:	4/19/2017	4/19/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	158	157	0.63%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	158	157	0.63%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0073	0.0035	70.37%	Fail
ALUMINUM, T	0.003	0.003	mg/l	0.0309	0.0146	71.65%	Fail
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00012	0.00014	15.38%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00060	0.00059	1.68%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00062	0.0006	3.28%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0373	0.0371	0.54%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0388	0.0386	0.52%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000339	3.44e-005	1.46%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000395	3.7e-005	6.54%	Pass
CALCIUM, D	0.05	0.05	mg/l	52.0	52.1	0.19%	Pass
CALCIUM, T	0.05	0.05	mg/l	51.4	52.5	2.12%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.27	1.23	3.20%	Pass
CHLORIDE, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00034	0.00033	2.99%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00042	0.00039	7.41%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00014	<0.0001	33.33%	Pass-1
CONDUCTIVITY, LAB	2	2	us/cm	417	416	0.24%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.153	0.159	3.85%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	210	210	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.047	0.022	72.46%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0058	0.0059	1.71%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0060	0.006	0.00%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	19.3	19.4	0.52%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	18.9	19.2	1.57%	Pass
MAJOR ANION SUM	0	0	meq/l	4.71	4.7	0.21%	Pass
MAJOR CATION SUM	0	0	meq/l	4.49	4.5	0.22%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00052	0.00011	130.16%	Fail
MANGANESE, T	0.0001	0.0001	mg/l	0.00095	0.00052	58.50%	Fail
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00067	0.00254	116.51%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00141	0.00144	2.11%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00151	0.00154	1.97%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00143	0.00147	2.76%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00188	0.0018	4.35%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.654	0.66	0.91%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0194	0.0101	63.05%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0040	0.0041	2.47%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	392	396	1.02%	Pass
pH, LAB	0.1	0.1	ph units	8.23	8.22	0.12%	Pass

PHOSPHORUS	0.002	0.02	mg/l	0.0207	<0.02	3.44%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.539	0.536	0.56%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.560	0.576	2.82%	Pass
SELENIUM, D	0.05	0.05	ug/l	13.6	13.6	0.00%	Pass
SELENIUM, T	0.05	0.05	ug/l	13.3	13.4	0.75%	Pass
SILICON, D	0.05	0.05	mg/l	1.96	1.96	0.00%	Pass
SILICON, T	0.05	0.05	mg/l	2.03	2.03	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	6.53	6.6	1.07%	Pass
SODIUM, T	0.05	0.05	mg/l	6.10	6.34	3.86%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.107	0.106	0.94%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.110	0.112	1.80%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	72.2	72.3	0.14%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000018	1.7e-005	5.71%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000020	1.9e-005	5.13%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	254	254	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.249	0.101	84.57%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.15	1.94	10.27%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	9.7	4.5	73.24%	Fail
TURBIDITY, LAB	0.1	0.1	ntu	2.88	2.14	29.48%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.000895	0.000886	1.01%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00104	0.00104	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0030	0.005	50.00%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.0042	0.0073	53.91%	Pass-1

Location:	CM_SOW	CM_SOW
Sample ID:	CM_SOW_WS_2017-10-02_N	WS_2017-10-02_016
Date Sampled:	10/4/2017	10/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.8	1.8	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	221	224	1.35%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	5.2	<1	135.48%	Fail
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	227	224	1.33%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0452	0.0428	5.45%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00026	0.00026	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00029	0.00029	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00044	0.00042	4.65%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00049	0.00047	4.17%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0355	0.0338	4.91%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0396	0.0389	1.78%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.107	0.106	0.94%	Pass
BORON, T	0.01	0.01	mg/l	0.110	0.114	3.57%	Pass
BROMIDE, D	0.25	0.25	mg/l	0.33	0.35	5.88%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000057	<5e-006	13.08%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000371	2.87e-005	25.53%	Pass-2
CALCIUM, D	0.05	0.05	mg/l	129	128	0.78%	Pass
CALCIUM, T	0.05	0.05	mg/l	129	130	0.77%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.51	2.08	18.74%	Pass
CHLORIDE, D	2.5	2.5	mg/l	6.4	6.2	3.17%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00021	0.00017	21.05%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00020	0.00018	10.53%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00033	0.00033	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1180	1190	0.84%	Pass

COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00082	0.00079	3.73%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.12	0.12	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	682	698	2.32%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.089	0.075	17.07%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000166	0.000153	8.15%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0281	0.0274	2.52%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0269	0.0275	2.21%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	87.6	92	4.90%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	89.9	90.1	0.22%	Pass
MAJOR ANION SUM	0	0	meq/l	16.5	16.3	1.22%	Pass
MAJOR CATION SUM	0	0	meq/l	15.6	16	2.53%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00531	0.00411	25.48%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.0109	0.0109	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00134	0.00065	69.35%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00161	0.0015	7.07%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00152	0.00155	1.95%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00281	0.00279	0.71%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00318	0.00314	1.27%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.037	0.093	86.15%	Pass-1
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0093	60.14%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	445	391	12.92%	Pass
pH, LAB	0.1	0.1	ph units	8.31	8.29	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0055	0.0063	13.56%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.40	3.41	0.29%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.28	3.32	1.21%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.07	2	3.44%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.94	1.93	0.52%	Pass
SILICON, D	0.05	0.05	mg/l	3.72	3.84	3.17%	Pass
SILICON, T	0.1	0.1	mg/l	3.94	4.09	3.74%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	43.3	44.8	3.41%	Pass
SODIUM, T	0.05	0.05	mg/l	44.2	43.8	0.91%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.717	0.716	0.14%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.734	0.72	1.93%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	567	558	1.60%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000018	1.7e-005	5.71%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000020	2e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1000	990	1.01%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.120	0.095	23.26%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.13	2.55	20.42%	Pass-2
TOTAL SUSPENDED SOLIDS, LAB	2	2	mg/l	9.6	8	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	11.8	13.1	10.44%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00275	0.00272	1.10%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00271	0.00275	1.47%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0062	0.0032	63.83%	Pass-1

Location:	CM_SPD	CM_SPD
Sample ID:	CM_SPD_M_WS_20170405_N	CM_NNP_WQ_20170405_002
Date Sampled:	4/5/2017	4/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	7.8	6.9	12.24%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	205	210	2.41%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass

ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	205	210	2.41%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0022	0.0027	20.41%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0137	0.0461	108.36%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00150	0.0017	12.50%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00146	0.00183	22.49%	Pass-2
ARSENIC, D	0.0001	0.0001	mg/l	0.00028	0.00033	16.39%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00029	0.00049	51.28%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0600	0.0653	8.46%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0592	0.0742	22.49%	Fail
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.086	0.106	20.83%	Pass-2
BORON, T	0.01	0.01	mg/l	0.086	0.123	35.41%	Pass-2
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000606	7.31e-005	18.70%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000695	8.58e-005	20.99%	Pass-2
CALCIUM, D	0.05	0.05	mg/l	220	244	10.34%	Pass
CALCIUM, T	0.05	0.05	mg/l	216	269	21.86%	Fail
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	<0.5	0.00%	Pass
CHLORIDE, D	2.5	2.5	mg/l	4.7	4.7	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	0.00016	46.15%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.0268	0.0347	25.69%	Pass-2
COBALT, T	0.0001	0.0001	mg/l	0.0280	0.039	32.84%	Pass-2
CONDUCTIVITY, LAB	2	2	us/cm	1550	1550	0.00%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00024	0.00058	82.93%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	0.00108	0.0021	64.15%	Pass-1
FLUORIDE, D	0.1	0.1	mg/l	0.22	0.22	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	880	1010	13.76%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.028	0.039	32.84%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000071	6.8e-005	4.32%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0619	0.067	7.91%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0626	0.0748	17.76%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	80.4	98.2	19.93%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	83.3	110	27.63%	Fail
MAJOR ANION SUM	0	0	meq/l	20.2	20.4	0.99%	Pass
MAJOR CATION SUM	0	0	meq/l	19.2	22.2	14.49%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.186	0.229	20.72%	Fail
MANGANESE, T	0.0001	0.0001	mg/l	0.195	0.26	28.57%	Fail
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00052	<0.0005	3.92%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00052	<0.0005	3.92%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00638	0.00755	16.80%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00645	0.00863	28.91%	Pass-2
NICKEL, D	0.0005	0.0005	mg/l	0.106	0.13	20.34%	Pass-2
NICKEL, T	0.0005	0.0005	mg/l	0.110	0.146	28.13%	Pass-2
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	8.59	8.65	0.70%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0762	0.0793	3.99%	Pass
NITROGEN, AMMONIA (AS N)	0.1	0.1	mg/l	0.93	0.82	12.57%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	315	300	4.88%	Pass
pH, LAB	0.1	0.1	ph units	8.04	8.03	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0058	0.0043	29.70%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	5.01	5.68	12.54%	Pass
POTASSIUM, T	0.05	0.05	mg/l	5.06	6.12	18.96%	Pass
SELENIUM, D	0.05	0.05	ug/l	5.34	5.79	8.09%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.75	6.22	26.80%	Pass-2
SILICON, D	0.05	0.05	mg/l	2.77	2.77	0.00%	Pass
SILICON, T	0.05	0.05	mg/l	2.56	3.14	20.35%	Pass-2
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	33.5	39	15.17%	Pass
SODIUM, T	0.05	0.05	mg/l	32.9	43.6	27.97%	Pass-2
STRONTIUM, D	0.0002	0.0002	mg/l	1.22	1.46	17.91%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	1.22	1.63	28.77%	Fail
SULFATE (AS SO4), D	1.5	1.5	mg/l	738	743	0.68%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000033	3.8e-005	14.08%	Pass

THALLIUM, T	0.0001	0.0001	mg/l	0.00038	4.7e-005	21.18%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1370	1310	4.48%	Pass
TOTAL KJELDAHL NITROGEN	0.25	0.25	mg/l	1.20	1.22	1.65%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.84	1.36	47.27%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	16.2	16.3	0.62%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	8.11	7.62	6.23%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00881	0.00963	8.89%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00754	0.0109	36.44%	Pass-2
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	0.00085	51.85%	Pass-1
ZINC, D	0.001	0.001	mg/l	0.0033	0.0051	42.86%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.0116	0.0093	22.01%	Pass-1

Location:	CM_SPD	CM_SPD
Sample ID:	CM_SPD_M_WS_20170502_N	CM_NNP_M_WQ_20170502_FD
Date Sampled:	5/2/2017	5/2/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	3.5	2.8	22.22%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	228	231	1.31%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	228	231	1.31%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0033	0.0031	6.25%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0243	0.0176	31.98%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	0.00106	0.00107	0.94%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00104	0.00105	0.96%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00027	0.00022	20.41%	Pass-1
ARSENIC, T	0.0001	0.0001	mg/l	0.00030	0.00025	18.18%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0431	0.0441	2.29%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0437	0.0445	1.81%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.067	0.07	4.38%	Pass
BORON, T	0.01	0.01	mg/l	0.071	0.073	2.78%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.000139	0.000144	3.53%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000150	0.000154	2.63%	Pass
CALCIUM, D	0.05	0.05	mg/l	196	200	2.02%	Pass
CALCIUM, T	0.05	0.05	mg/l	197	199	1.01%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.40	1.36	2.90%	Pass
CHLORIDE, D	2.5	2.5	mg/l	3.8	3.9	2.60%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00011	<0.0001	9.52%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.0319	0.0317	0.63%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.0319	0.0319	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	1510	1520	0.66%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.17	0.17	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	843	838	0.59%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.038	0.04	5.13%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000054	6.7e-005	21.49%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0460	0.0465	1.08%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0455	0.046	1.09%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	85.8	82.4	4.04%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	86.4	83.6	3.29%	Pass
MAJOR ANION SUM	0	0	meq/l	18.9	19.6	3.64%	Pass
MAJOR CATION SUM	0	0	meq/l	18.3	18.1	1.10%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.166	0.165	0.60%	Pass

MANGANESE, T	0.0001	0.0001	mg/l	0.172	0.169	1.76%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00090	0.00086	4.55%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00398	0.00404	1.50%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00415	0.00405	2.44%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.121	0.12	0.83%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.123	0.121	1.64%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	7.13	7.42	3.99%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0416	0.0453	8.52%	Pass
NITROGEN, AMMONIA (AS N)	0.025	0.025	mg/l	0.506	0.517	2.15%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	347	364	4.78%	Pass
pH, LAB	0.1	0.1	ph units	8.17	8.18	0.12%	Pass
PHOSPHORUS	0.004	0.02	mg/l	0.0089	<0.02	76.82%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	4.10	4.02	1.97%	Pass
POTASSIUM, T	0.05	0.05	mg/l	4.08	4.03	1.23%	Pass
SELENIUM, D	0.05	0.05	ug/l	10.5	9.9	5.88%	Pass
SELENIUM, T	0.05	0.05	ug/l	8.96	8.97	0.11%	Pass
SILICON, D	0.05	0.05	mg/l	2.44	2.54	4.02%	Pass
SILICON, T	0.05	0.05	mg/l	2.47	2.56	3.58%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	29.2	28.7	1.73%	Pass
SODIUM, T	0.05	0.05	mg/l	29.2	29	0.69%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.935	0.948	1.38%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.961	0.95	1.15%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	660	686	3.86%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	0.000037	3.7e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000052	5.6e-005	7.41%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1190	1210	1.67%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.940	0.922	1.93%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.39	1.39	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	5.2	5.6	7.41%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	3.60	3.37	6.60%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00582	0.00656	11.95%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00601	0.0067	10.86%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0171	0.0178	4.01%	Pass
ZINC, T	0.003	0.003	mg/l	0.0177	0.0184	3.88%	Pass

Location:	RG_BORDER	RG_BORDER
Sample ID:	RG_BORDER_N_2017-12-05_U1	WS_U1_2017-12-05_037
Date Sampled:	12/5/2017	12/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.6	<1	46.15%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	114	114	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	114	114	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0034	0.0035	2.90%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0163	0.0148	9.65%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00039	0.00037	5.26%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00039	0.00042	7.41%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0515	0.0515	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0497	0.0506	1.79%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass

CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	33.6	38.3	13.07%	Pass
CALCIUM, T	0.05	0.05	mg/l	35.1	35.5	1.13%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.30	1.25	3.92%	Pass
CHLORIDE, D	0.1	0.1	mg/l	2.24	2.25	0.45%	Pass
Chlorophyll-a	0.01	0.01	ug/l	2.01	1.78	12.14%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.00028	80.00%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	256		0.78%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.087	0.088	1.14%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	127	140	9.74%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.018	0.016	11.76%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000069	<5e-005	31.93%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0019	0.0023	19.05%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0015	0.0013	14.29%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	10.4	10.9	4.69%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	11.0	10.8	1.83%	Pass
MAJOR ANION SUM	0	0	meq/l	2.89	2.89	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	2.68	2.97	10.27%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00014	0.00017	19.35%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00176	0.0017	3.47%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000639	0.000693	8.11%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000691	0.000694	0.43%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.207	0.207	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0014	0.0018	25.00%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	229	283	21.09%	Pass-1
pH, LAB	0.1	0.1	ph units	8.19	8.2	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0026	0.0024	8.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.598	0.58	3.06%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.527	0.533	1.13%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.13	1.14	0.88%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.11	1.2	7.79%	Pass
SILICON, D	0.05	0.05	mg/l	2.09	1.96	6.42%	Pass
SILICON, T	0.1	0.1	mg/l	2.19	2.14	2.31%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	3.00	3.43	13.37%	Pass
SODIUM, T	0.05	0.05	mg/l	3.28	3.29	0.30%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.124	0.135	8.49%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.134	0.13	3.03%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	25.2	25.2	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	149	158	5.86%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.082	<0.05	48.48%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.36	1.08	22.95%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	<1	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.69	0.63	9.09%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000771	0.00071	8.24%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000685	0.000713	4.01%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	RG_BORDER	RG_BORDER
Sample ID:	RG_BORDER_WS_2017-04-17_N-U1	RG_DUPLICATERES_WQ_2017-04-17_FD
Date Sampled:	4/17/2017	4/17/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.2	<1	18.18%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	142	141	0.71%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	142	141	0.71%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0103	0.0095	8.08%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.634	0.439	36.35%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00014	0.0001	33.33%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	0.00067	0.00082	20.13%	Pass-2
ARSENIC, T	0.0001	0.0001	mg/l	0.00129	0.00122	5.58%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0644	0.0632	1.88%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0749	0.0714	4.78%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000036	3.4e-005	5.71%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	5.3e-006	5.83%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000342	3.45e-005	0.87%	Pass
CALCIUM, D	0.05	0.05	mg/l	39.2	38.8	1.03%	Pass
CALCIUM, T	0.05	0.05	mg/l	48.6	47.7	1.87%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.75	1.86	6.09%	Pass
CHLORIDE, D	0.1	0.1	mg/l	3.33	3.32	0.30%	Pass
Chlorophyll-a	0.01	0.01	ug/l	0.338	0.309	8.96%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00088	0.00068	25.64%	Pass-2
COBALT, D	0.0001	0.0001	mg/l	0.00011	0.0001	9.52%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00050	0.00045	10.53%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	316	314	0.63%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00137	0.00101	30.25%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.098	0.091	7.41%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	150	149	0.67%	Pass
IRON, D	0.01	0.01	mg/l	0.025	0.024	4.08%	Pass
IRON, T	0.01	0.01	mg/l	1.06	0.875	19.12%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000979	0.000961	1.86%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0029	0.0031	6.67%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0043	0.0038	12.35%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	12.6	12.7	0.79%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	14.6	13.8	5.63%	Pass
MAJOR ANION SUM	0	0	meq/l	3.62	3.58	1.11%	Pass
MAJOR CATION SUM	0	0	meq/l	3.20	3.18	0.63%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0298	0.0294	1.35%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0672	0.0654	2.71%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00177	0.00176	0.57%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000723	0.000738	2.05%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000846	0.000738	13.64%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00129	0.00111	15.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.308	0.31	0.65%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	0.0011	9.52%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0817	0.0827	1.22%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0014	<0.001	33.33%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	332	342	2.97%	Pass
pH, LAB	0.1	0.1	ph units	8.25	8.22	0.36%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0353	0.0332	6.13%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.698	0.677	3.05%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.872	0.782	10.88%	Pass

SELENIUM, D	0.05	0.05	ug/l	1.48	1.44	2.74%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.46	1.41	3.48%	Pass
SILICON, D	0.05	0.05	mg/l	2.88	2.88	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	4.02	3.53	12.98%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	4.26	4.17	2.14%	Pass
SODIUM, T	0.05	0.05	mg/l	4.65	4.38	5.98%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.135	0.132	2.25%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.161	0.149	7.74%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	31.2	31.2	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000026	1.2e-005	73.68%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	198	241	19.59%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.203	0.225	10.28%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.38	2.27	4.73%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	39.1	39.9	2.03%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	37.6	45	17.92%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000866	0.000844	2.57%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000926	0.000938	1.29%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00181	0.00141	24.84%	Pass-1
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0049	0.0045	8.51%	Pass

Location:	RG_BORDER	RG_BORDER
Sample ID:	RG_BORDER_WS_2017-05-30_N-U1	RG_DUPLICATERES_WQ_2017-05-30_FD
Date Sampled:	5/30/2017	5/30/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	105	105	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	105	105	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0226	0.0193	15.75%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.506	0.674	28.47%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00036	0.00036	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00063	0.00061	3.23%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0340	0.0333	2.08%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0384	0.0394	2.57%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000029	3.3e-005	12.90%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000209	2.38e-005	12.98%	Pass
CALCIUM, D	0.05	0.05	mg/l	28.9	29.1	0.69%	Pass
CALCIUM, T	0.05	0.05	mg/l	31.4	31.2	0.64%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.03	1.86	8.74%	Pass
CHLORIDE, D	0.1	0.1	mg/l	1.09	1.09	0.00%	Pass
Chlorophyll-a	0.01	0.01	ug/l	0.400	0.319	22.53%	Pass-2
CHROMIUM, D	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00077	0.00097	22.99%	Pass-2
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00032	0.00034	6.06%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	205	206	0.49%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00101	0.00099	2.00%	Pass

FLUORIDE, D	0.02	0.02	mg/l	0.064	0.064	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	107	107	0.00%	Pass
IRON, D	0.01	0.01	mg/l	0.015	0.013	14.29%	Pass
IRON, T	0.01	0.01	mg/l	0.677	0.724	6.71%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000614	0.000618	0.65%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0014	0.0014	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0018	0.002	10.53%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	8.33	8.25	0.97%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	8.66	8.54	1.40%	Pass
MAJOR ANION SUM	0	0	meq/l	2.45	2.45	0.00%	Pass
MAJOR CATION SUM	0	0	meq/l	2.22	2.22	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00184	0.00172	6.74%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0214	0.0214	0.00%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00200	0.0017	16.22%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000519	0.000496	4.53%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000481	0.000489	1.65%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00112	<0.0005	76.54%	Pass-1
NICKEL, T	0.0005	0.0005	mg/l	0.00093	0.00098	5.24%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.250	0.255	1.98%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0010	0.0013	26.09%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	408	385	5.80%	Pass
pH, LAB	0.1	0.1	ph units	8.14	8.16	0.25%	Pass
PHOSPHORUS	0.01	0.002	mg/l	0.026	0.0244	6.35%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.482	0.449	7.09%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.576	0.655	12.84%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.738	0.727	1.50%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.706	0.736	4.16%	Pass
SILICON, D	0.05	0.05	mg/l	2.63	2.51	4.67%	Pass
SILICON, T	0.1	0.1	mg/l	3.08	3.94	24.50%	Pass-2
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.69	1.62	4.23%	Pass
SODIUM, T	0.05	0.05	mg/l	1.64	1.6	2.47%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0983	0.0975	0.82%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0993	0.0996	0.30%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	14.4	14.4	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000010	1.4e-005	33.33%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	0.012	18.18%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	128	129	0.78%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.125	0.105	17.39%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.70	2.41	11.35%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	27.4	28.1	2.52%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	33.9	35	3.19%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000581	0.000572	1.56%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000566	0.000593	4.66%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00092	0.00129	33.48%	Pass-1
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0054	0.0067	21.49%	Pass-1

Location:	RG_BORDER	RG_BORDER
Sample ID:	RG_BORDER_WS_2017-06-06_N-U1	RG_DUPLICATERES_WQ_2017-06-06_FD
Date Sampled:	6/6/2017	6/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	107	99	7.77%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	107	99	7.77%	Pass

ALUMINUM, D	0.003	0.003	mg/l	0.0123	0.0126	2.41%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0818	0.0825	0.85%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00042	0.00044	4.65%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00040	0.00045	11.76%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0400	0.0406	1.49%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0373	0.0378	1.33%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	<0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	<0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	<0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	<0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000056	<5e-006	11.32%	Pass
CALCIUM, D	0.05	0.05	mg/l	28.9	29.1	0.69%	Pass
CALCIUM, T	0.05	0.05	mg/l	29.6	29.9	1.01%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.52	1.54	1.31%	Pass
CHLORIDE, D	0.1	0.1	mg/l	1.14	1.15	0.87%	Pass
Chlorophyll-a	0.01	0.01	ug/l	4.35	8.17	61.02%	Fail
CHROMIUM, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00019	0.00016	17.14%	Pass
COBALT, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	221	208	6.06%	Pass
COPPER, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.072	0.071	1.40%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	105	105	0.00%	Pass
IRON, D	0.01	0.01	mg/l	<0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.081	0.079	2.50%	Pass
LEAD, D	0.00005	0.00005	mg/l	<0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000152	0.000171	11.76%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0012	0.0012	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0018	0.0018	0.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	7.91	7.95	0.50%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	7.94	8.04	1.25%	Pass
MAJOR ANION SUM	0	0	meq/l	2.50	2.34	6.61%	Pass
MAJOR CATION SUM	0	0	meq/l	2.17	2.19	0.92%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00393	0.00408	3.75%	Pass
MERCURY, D	0.000005	0.000005	mg/l	<0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.0009000000	0.0011	20.00%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000502	0.000506	0.79%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000483	0.000462	4.44%	Pass
NICKEL, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.199	0.178	11.14%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0013	0.0014	7.41%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	<0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	<0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	336	296	12.66%	Pass
pH, LAB	0.1	0.1	ph units	8.24	8.32	0.97%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0140	0.015	6.90%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.464	0.47	1.28%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.458	0.457	0.22%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.884	0.979	10.20%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.797	0.837	4.90%	Pass
SILICON, D	0.05	0.05	mg/l	2.49	2.48	0.40%	Pass
SILICON, T	0.1	0.1	mg/l	2.38	2.43	2.08%	Pass
SILVER, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.64	1.64	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	1.57	1.59	1.27%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0922	0.0935	1.40%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0955	0.0963	0.83%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	15.1	15.1	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	<0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	<0.00010	<0.0001	0.00%	Pass

TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	133	126	5.41%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.151	0.148	2.01%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.38	2.01	16.86%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	3.3	5.5	50.00%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	5.94	6.7	12.03%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000599	0.00059	1.51%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000570	0.000558	2.13%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	RG_BORDER	RG_BORDER
Sample ID:	RG_BORDER_WS_2017-06-27_N-U1	RG_DUPLICATERES_WQ_2017-06-27_FD
Date Sampled:	6/27/2017	6/27/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	95.9	95.4	0.52%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	95.9	95.4	0.52%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0122	0.0111	9.44%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0439	0.0419	4.66%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00012	<0.0001	18.18%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00034	0.00035	2.90%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00044	0.00047	6.59%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0404	0.0367	9.60%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0365	0.0411	11.86%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	31.8	29	9.21%	Pass
CALCIUM, T	0.05	0.05	mg/l	29.0	29.1	0.34%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.79	1.93	7.53%	Pass
Cation - Anion Balance	0	0	%	3.5	-0.7	200.00%	Fail
CHLORIDE, D	0.1	0.1	mg/l	1.02	1.03	0.98%	Pass
Chlorophyll-a	0.01	0.01	ug/l	1.35	1.61	17.57%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	208	205	1.45%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.067	0.068	1.48%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	117	107	8.93%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.032	0.028	13.33%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0020	0.002	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0018	0.0018	0.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	9.07	8.38	7.91%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	8.29	9.25	10.95%	Pass
MAJOR ANION SUM	0	0	meq/l	2.26	2.25	0.44%	Pass
MAJOR CATION SUM	0	0	meq/l	2.42	2.22	8.62%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00045	0.00036	22.22%	Pass-1

MANGANESE, T	0.0001	0.0001	mg/l	0.00160	0.00175	8.96%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00060	0.0006	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000456	0.000467	2.38%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000497	0.000469	5.80%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.185	0.184	0.54%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0015	0.0012	22.22%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0087	0.0053	48.57%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	283	277	2.14%	Pass
pH, LAB	0.1	0.1	ph units	8.36	8.36	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0040	0.0041	2.47%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.498	0.449	10.35%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.450	0.496	9.73%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.729	0.731	0.27%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.794	0.819	3.10%	Pass
SILICON, D	0.05	0.05	mg/l	2.36	2.35	0.42%	Pass
SILICON, T	0.1	0.1	mg/l	2.54	2.56	0.78%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.71	1.6	6.65%	Pass
SODIUM, T	0.05	0.05	mg/l	1.57	1.75	10.84%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.102	0.0929	9.34%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0950	0.0946	0.42%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	14.3	14.3	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	113	133	16.26%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.116	0.112	3.51%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.75	2.01	13.83%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.4	2.1	40.00%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.36	1.39	2.18%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000638	0.000606	5.14%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000636	0.00062	2.55%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	RG_BORDER	RG_BORDER
Sample ID:	RG_BORDER_WS_2017-07-04_N-U1	RG_DUPLICATERES_WQ_2017-07-04_FD
Date Sampled:	7/4/2017	7/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	90.3	93.5	3.48%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	90.3	93.5	3.48%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0095	0.0082	14.69%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0367	0.0342	7.05%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00035	0.00033	5.88%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00036	0.00036	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0389	0.0357	8.58%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0361	0.037	2.46%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	5.8e-006	14.81%	Pass
CALCIUM, D	0.05	0.05	mg/l	30.5	28.2	7.84%	Pass
CALCIUM, T	0.05	0.05	mg/l	30.2	30.2	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.63	1.71	4.79%	Pass
Cation - Anion Balance	0	0	%	3.9	4.6	16.47%	Pass
CHLORIDE, D	0.1	0.1	mg/l	1.07	1.07	0.00%	Pass
Chlorophyll-a	0.01	0.01	ug/l	1.74	1.45	18.18%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0004	0.0001	mg/l	< 0.00040	<0.0001	120.00%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	210	207	1.44%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.067	0.067	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	112	112	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.033	0.027	20.00%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0014	0.0013	7.41%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0011	0.0012	8.70%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	8.71	7.94	9.25%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	8.84	8.88	0.45%	Pass
MAJOR ANION SUM	0	0	meq/l	2.15	2.21	2.75%	Pass
MAJOR CATION SUM	0	0	meq/l	2.33	2.43	4.20%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00146	0.00134	8.57%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00061	0.00064	4.80%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000497	0.000477	4.11%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000530	0.000519	2.10%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.164	0.164	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0014	0.0016	13.33%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0071	0.0085	17.95%	Pass
NITROGEN, T	0.03	0.03	mg/l	0.502	0.297	51.31%	Fail
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	0.0016	46.15%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	366	363	0.82%	Pass
pH, LAB	0.1	0.1	ph units	8.34	8.27	0.84%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0292	0.0049	142.52%	Fail
POTASSIUM, D	0.05	0.05	mg/l	0.503	0.452	10.68%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.440	0.458	4.01%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.733	0.832	12.65%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.797	0.835	4.66%	Pass
SILICON, D	0.05	0.05	mg/l	2.15	2.18	1.39%	Pass
SILICON, T	0.1	0.1	mg/l	2.28	2.27	0.44%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.74	1.54	12.20%	Pass
SODIUM, T	0.05	0.05	mg/l	1.57	1.61	2.52%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.100	0.0949	5.23%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0990	0.0996	0.60%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	14.5	14.5	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	135	138	2.20%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.337	0.132	87.42%	Fail
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.35	1.79	27.05%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.6	1.5	6.45%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.39	1.26	9.81%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000619	0.00063	1.76%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000568	0.000571	0.53%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	RG_BORDER	RG_BORDER
Sample ID:	RG_BORDER_WS_2017-09-18_N-U1	RG_DUPLICATERES_WQ_2017-09-18_FD
Date Sampled:	9/18/2017	9/18/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	111	109	1.82%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	111	109	1.82%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0038	0.0032	17.14%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0128	0.0101	23.58%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00039	0.00038	2.60%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00039	0.00032	19.72%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0471	0.0473	0.42%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0445	0.0409	8.43%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	33.2	32.8	1.21%	Pass
CALCIUM, T	0.05	0.05	mg/l	33.5	32.5	3.03%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.12	1.16	3.51%	Pass
CHLORIDE, D	0.1	0.1	mg/l	2.07	2.07	0.00%	Pass
Chlorophyll-a	0.01	0.01	ug/l	1.26	1.52	18.71%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	250	246	1.61%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.088	0.086	2.30%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	126	124	1.60%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0017	0.0016	6.06%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0022	0.0021	4.65%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	10.5	10.1	3.88%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	9.72	9.04	7.25%	Pass
MAJOR ANION SUM	0	0	meq/l	2.77	2.74	1.09%	Pass
MAJOR CATION SUM	0	0	meq/l	2.66	2.61	1.90%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00114	0.00103	10.14%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000624	0.000641	2.69%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000636	0.000634	0.31%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.117	0.117	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0019	0.0021	10.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	301	278	7.94%	Pass
pH, LAB	0.1	0.1	ph units	8.25	8.26	0.12%	Pass

PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	<0.002	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.571	0.549	3.93%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.520	0.442	16.22%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.962	0.902	6.44%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.921	0.861	6.73%	Pass
SILICON, D	0.05	0.05	mg/l	1.60	1.63	1.86%	Pass
SILICON, T	0.1	0.1	mg/l	1.65	1.59	3.70%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.83	2.73	3.60%	Pass
SODIUM, T	0.05	0.05	mg/l	2.67	2.52	5.78%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.124	0.124	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.121	0.124	2.45%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	23.6	23.5	0.42%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	152	156	2.60%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.072	0.057	23.26%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.23	1.24	0.81%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.4	33.33%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.72	0.63	13.33%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000673	0.000653	3.02%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000666	0.000683	2.52%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	RG_DSELK	RG_DSELK
Sample ID:	RG_DSELK_WS_2017-04-04_N-U1	RG_DUPLICATERES_WQ_2017-04-04_FD
Date Sampled:	4/4/2017	4/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	145	144	0.69%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	145	144	0.69%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0099	0.0092	7.33%	Pass
ALUMINUM, T	0.003	0.003	mg/l	1.62	1.82	11.63%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00017	0.00016	6.06%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00063	0.00064	1.57%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00158	0.0017	7.32%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0853	0.083	2.73%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.106	0.118	10.71%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000104	9e-005	14.43%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.012	0.011	8.70%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000117	0.000128	8.98%	Pass
CALCIUM, D	0.05	0.05	mg/l	46.6	44.7	4.16%	Pass
CALCIUM, T	0.05	0.05	mg/l	63.1	59.4	6.04%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.84	1.75	5.01%	Pass
CHLORIDE, D	0.1	0.1	mg/l	4.08	4.05	0.74%	Pass
Chlorophyll-a	0.01	0.01	ug/l	1.55	1.6	3.17%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00244	0.00276	12.31%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00112	0.00124	10.17%	Pass

CONDUCTIVITY, LAB	2	2	us/cm	354	349	1.42%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00259	0.00288	10.60%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.110	0.103	6.57%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	178	171	4.01%	Pass
IRON, D	0.01	0.01	mg/l	0.042	0.038	10.00%	Pass
IRON, T	0.01	0.01	mg/l	2.68	2.79	4.02%	Pass
LEAD, D	0.00005	0.00005	mg/l	0.000069	5.6e-005	20.80%	Pass-1
LEAD, T	0.00005	0.00005	mg/l	0.00215	0.00203	5.74%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0032	0.0032	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0078	0.0066	16.67%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	14.9	14.4	3.41%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	17.7	19.3	8.65%	Pass
MAJOR ANION SUM	0	0	meq/l	3.80	3.76	1.06%	Pass
MAJOR CATION SUM	0	0	meq/l	3.79	3.65	3.76%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0498	0.0483	3.06%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.137	0.147	7.04%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00471	0.00426	10.03%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000836	0.000849	1.54%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00107	0.000986	8.17%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00326	0.00353	7.95%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.362	0.363	0.28%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0013	0.0018	32.26%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0471	0.0477	1.27%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0024	0.0025	4.08%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	287	307	6.73%	Pass
pH, LAB	0.1	0.1	ph units	8.23	8.29	0.73%	Pass
PHOSPHORUS	0.002	0.02	mg/l	0.0940	0.139	38.63%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	0.755	0.709	6.28%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.16	1.29	10.61%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.77	1.79	1.12%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.77	1.86	4.96%	Pass
SILICON, D	0.05	0.05	mg/l	2.65	2.52	5.03%	Pass
SILICON, T	0.05	0.05	mg/l	5.04	5.31	5.22%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000023	2.1e-005	9.09%	Pass
SODIUM, D	0.05	0.05	mg/l	4.86	4.82	0.83%	Pass
SODIUM, T	0.05	0.05	mg/l	4.99	5.65	12.41%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.160	0.153	4.47%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.198	0.186	6.25%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	36.6	35.9	1.93%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000043	4e-005	7.23%	Pass
TIN, D	0.0001	0.0001	mg/l	0.00020	<0.0001	66.67%	Pass-1
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	0.015	0.017	12.50%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	213	217	1.86%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.357	0.378	5.71%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	4.21	3.97	5.87%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	130	177	30.62%	Pass-2
TURBIDITY, LAB	0.1	0.1	ntu	78.8	91.7	15.13%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000964	0.000945	1.99%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00115	0.0011	4.44%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00378	0.00428	12.41%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0252	0.0157	46.45%	Pass-2

Location:	RG_DSELK	RG_DSELK
Sample ID:	RG_DSELK_WS_2017-05-02_N-U1	RG_DUPLICATERES_WQ_2017-05-02_FD
Date Sampled:	5/2/2017	5/2/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	138	136	1.46%	Pass

ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	3.0	3	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	141	139	1.43%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0127	0.0115	9.92%	Pass
ALUMINUM, T	0.003	0.003	mg/l	2.66	2.65	0.38%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00020	0.0002	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00060	0.00059	1.68%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00203	0.00196	3.51%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0569	0.0572	0.53%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0877	0.0884	0.80%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000136	0.000134	1.48%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	0.000059	5.8e-005	1.71%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000130	0.00012	8.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	41.5	41.8	0.72%	Pass
CALCIUM, T	0.05	0.05	mg/l	66.7	66.4	0.45%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.16	2.08	3.77%	Pass
CHLORIDE, D	0.1	0.1	mg/l	3.08	3.1	0.65%	Pass
Chlorophyll-a	0.01	0.01	ug/l	2.06	1.46	34.09%	Pass-2
CHROMIUM, D	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00400	0.00387	3.30%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00211	0.00203	3.86%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	311	312	0.32%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00481	0.0047	2.31%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.090	0.09	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	153	155	1.30%	Pass
IRON, D	0.01	0.01	mg/l	0.023	0.02	13.95%	Pass
IRON, T	0.01	0.01	mg/l	4.86	4.55	6.59%	Pass
LEAD, D	0.00005	0.00005	mg/l	0.000063	5.6e-005	11.76%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.00423	0.00422	0.24%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0026	0.0026	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0075	0.0071	5.48%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	12.0	12.2	1.65%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	17.6	17.3	1.72%	Pass
MAJOR ANION SUM	0	0	meq/l	3.56	3.52	1.13%	Pass
MAJOR CATION SUM	0	0	meq/l	3.23	3.27	1.23%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00591	0.00611	3.33%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.140	0.135	3.64%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00555	0.00459	18.93%	Pass
Methyl Mercury, T	0.00005	0.00005	ug/l	0.000097	8.5e-005	13.19%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000661	0.000668	1.05%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000831	0.000825	0.72%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00496	0.00478	3.70%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.328	0.325	0.92%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0013	0.0014	7.41%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0308	0.0315	2.25%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0023	0.0022	4.44%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	281	305	8.19%	Pass
pH, LAB	0.1	0.1	ph units	8.33	8.32	0.12%	Pass
PHOSPHORUS	0.02	0.02	mg/l	0.162	0.194	17.98%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.577	0.583	1.03%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.12	1.11	0.90%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.51	1.39	8.28%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.6	1.62	1.24%	Pass
SILICON, D	0.05	0.05	mg/l	2.60	2.57	1.16%	Pass
SILICON, T	0.1	0.1	mg/l	6.82	7.01	2.75%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000027	3e-005	10.53%	Pass
SODIUM, D	0.05	0.05	mg/l	3.56	3.59	0.84%	Pass
SODIUM, T	0.05	0.05	mg/l	3.87	3.83	1.04%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.144	0.142	1.40%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.200	0.2	0.00%	Pass

SULFATE (AS SO4), D	0.3	0.3	mg/l	29.8	29.8	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000052	5.1e-005	1.94%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	0.030	0.039	26.09%	Pass-1
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	205	212	3.36%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.403	0.368	9.08%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	5.59	5.86	4.72%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	229	284	21.44%	Pass-2
TURBIDITY, LAB	0.1	0.1	ntu	108	109	0.92%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000773	0.000765	1.04%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000950	0.000935	1.59%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00468	0.00462	1.29%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0214	0.0218	1.85%	Pass

Location:	RG_DSELK	RG_DSELK
Sample ID:	RG_DSELK_WS_2017-05-09_N-U1	RG_DUPLICATERES_WQ_2017-05-09_FD
Date Sampled:	5/9/2017	5/9/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	128	129	0.78%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	128	129	0.78%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0211	0.0223	5.53%	Pass
ALUMINUM, T	0.003	0.003	mg/l	4.91	4.91	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00020	0.0002	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00057	0.00056	1.77%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00325	0.00317	2.49%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0424	0.0432	1.87%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.101	0.0956	5.49%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000264	0.000241	9.11%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	0.000110	0.000104	5.61%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000221	0.000181	19.90%	Pass
CALCIUM, D	0.05	0.05	mg/l	33.9	34	0.29%	Pass
CALCIUM, T	0.05	0.05	mg/l	84.0	80.8	3.88%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.43	2.42	0.41%	Pass
CHLORIDE, D	0.1	0.1	mg/l	1.45	1.45	0.00%	Pass
Chlorophyll-a	0.01	0.01	ug/l	2.33	2.09	10.86%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00674	0.00656	2.71%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00403	0.00385	4.57%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	239	241	0.83%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00875	0.00826	5.76%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.070	0.071	1.42%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	125	125	0.00%	Pass
IRON, D	0.01	0.01	mg/l	0.026	0.027	3.77%	Pass
IRON, T	0.01	0.01	mg/l	8.54	8.31	2.73%	Pass
LEAD, D	0.00005	0.00005	mg/l	0.000056	6e-005	6.90%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.00834	0.00785	6.05%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0015	0.0015	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0108	0.0107	0.93%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	9.71	9.74	0.31%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	18.7	18.3	2.16%	Pass

MAJOR ANION SUM	0	0	meq/l	2.98	3	0.67%	Pass
MAJOR CATION SUM	0	0	meq/l	2.59	2.59	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00948	0.0111	15.74%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.250	0.235	6.19%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00947	0.009	5.09%	Pass
Methyl Mercury, T	0.00005	0.00005	ug/l	0.000127	<5e-005	87.01%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000559	0.000555	0.72%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000745	0.000794	6.37%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00911	0.00868	4.83%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.339	0.34	0.29%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0011	<0.001	9.52%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0380	0.0372	2.13%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0028	0.0027	3.64%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	326	311	4.71%	Pass
pH, LAB	0.1	0.1	ph units	8.19	8.17	0.24%	Pass
PHOSPHORUS	0.02	0.02	mg/l	0.311	0.24	25.77%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	0.530	0.522	1.52%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.26	1.32	4.65%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.909	0.957	5.14%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.936	0.99	5.61%	Pass
SILICON, D	0.05	0.05	mg/l	2.62	2.57	1.93%	Pass
SILICON, T	0.1	0.1	mg/l	8.96	9.15	2.10%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000043	4.2e-005	2.35%	Pass
SODIUM, D	0.05	0.05	mg/l	1.83	1.79	2.21%	Pass
SODIUM, T	0.05	0.05	mg/l	2.00	1.96	2.02%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.123	0.121	1.64%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.226	0.221	2.24%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	17.3	17.4	0.58%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000085	8.2e-005	3.59%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	0.047	0.051	8.16%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	154	152	1.31%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.540	0.563	4.17%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	7.60	7.24	4.85%	Pass
TOTAL SUSPENDED SOLIDS, LAB	2	1	mg/l	481	387	21.66%	Pass-2
TURBIDITY, LAB	0.1	0.1	ntu	232	210	9.95%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000726	0.000737	1.50%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00102	0.000989	3.09%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00735	0.00734	0.14%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0369	0.0347	6.15%	Pass

Location:	RG_DSELK	RG_DSELK
Sample ID:	RG_DSELK_WS_2017-05-16_N-U1	RG_DUPLICATERES_WQ_2017-05-16_FD
Date Sampled:	5/16/2017	5/16/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	111	109	1.82%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	111	109	1.82%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0155	0.015	3.28%	Pass
ALUMINUM, T	0.003	0.003	mg/l	1.19	1.41	16.92%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00041	0.00041	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00104	0.00111	6.51%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0357	0.0361	1.11%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0476	0.0542	12.97%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass

BERYLLIUM, T	0.0002	0.0002	mg/l	0.00064	6.8e-005	6.06%	Pass
BISMUTH, D	0.0005	0.0005	mg/l	< 0.00050	<5e-005	0.00%	Pass
BISMUTH, T	0.0005	0.0005	mg/l	< 0.00050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.00005	0.00005	mg/l	< 0.000050	<5e-006	0.00%	Pass
CADMIUM, T	0.00005	0.00005	mg/l	0.0000382	4.67e-005	20.02%	Pass-2
CALCIUM, D	0.05	0.05	mg/l	32.8	33.1	0.91%	Pass
CALCIUM, T	0.05	0.05	mg/l	46.0	48.5	5.29%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.04	1.96	4.00%	Pass
CHLORIDE, D	0.1	0.1	mg/l	1.50	1.5	0.00%	Pass
Chlorophyll-a	0.01	0.01	ug/l	0.485	<0.01	191.92%	Fail
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00172	0.002	15.05%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00093	0.00107	14.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	235	236	0.42%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00212	0.00237	11.14%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.066	0.066	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	119	121	1.67%	Pass
IRON, D	0.01	0.01	mg/l	0.012	0.012	0.00%	Pass
IRON, T	0.01	0.01	mg/l	1.95	2.39	20.28%	Pass-2
LEAD, D	0.0005	0.0005	mg/l	< 0.00050	<5e-005	0.00%	Pass
LEAD, T	0.0005	0.0005	mg/l	0.00186	0.00221	17.20%	Pass
LITHIUM, D	0.001	0.001	mg/l	< 0.0010	0.0011	9.52%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0033	0.0037	11.43%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	9.13	9.38	2.70%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	11.1	11.6	4.41%	Pass
MAJOR ANION SUM	0	0	meq/l	2.65	2.6	1.90%	Pass
MAJOR CATION SUM	0	0	meq/l	2.48	2.52	1.60%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00373	0.00448	18.27%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0581	0.0673	14.67%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00343	0.00407	17.07%	Pass
Methyl Mercury, T	0.0005	0.0005	ug/l	< 0.00050	<5e-005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000492	0.000484	1.64%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000551	0.000573	3.91%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00208	0.00247	17.14%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.272	0.271	0.37%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0120	0.012	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0023	0.0025	8.33%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	323	337	4.24%	Pass
pH, LAB	0.1	0.1	ph units	8.15	8.13	0.25%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0512	0.0652	24.05%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	0.458	0.471	2.80%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.686	0.746	8.38%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.613	0.588	4.16%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.509	0.532	4.42%	Pass
SILICON, D	0.05	0.05	mg/l	2.51	2.53	0.79%	Pass
SILICON, T	0.1	0.1	mg/l	4.04	4.43	9.21%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.89	1.92	1.57%	Pass
SODIUM, T	0.05	0.05	mg/l	1.91	1.9	0.52%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.115	0.116	0.87%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.143	0.149	4.11%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	17.2	17.2	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000017	2.2e-005	25.64%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	0.012	0.014	15.38%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	153	152	0.66%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.179	0.181	1.11%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.22	3.37	4.55%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	93.2	140	40.14%	Pass-2
TURBIDITY, LAB	0.1	0.1	ntu	66.6	90.5	30.43%	Pass-2

URANIUM, D	0.0001	0.0001	mg/l	0.000669	0.000662	1.05%	Pass
URANIUM, T	0.0001	0.0001	mg/l	0.000737	0.000753	2.15%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00175	0.00209	17.71%	Pass
ZINC, D	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0089	0.0105	16.49%	Pass

Location:	RG_DSELK	RG_DSELK
Sample ID:	RG_DSELK_WS_2017-05-23_N-U1	RG_DUPLICATERES_WQ_2017-05-23_FD
Date Sampled:	5/23/2017	5/23/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	111	110	0.90%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	111	110	0.90%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0161	0.0159	1.25%	Pass
ALUMINUM, T	0.003	0.003	mg/l	1.08	0.379	96.09%	Fail
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00045	0.00042	6.90%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00103	0.00073	34.09%	Pass-2
BARIUM, D	0.00005	0.00005	mg/l	0.0315	0.0312	0.96%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0444	0.0421	5.32%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000063	3e-005	70.97%	Pass-1
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000465	7.3e-005	44.35%	Pass-2
CALCIUM, D	0.05	0.05	mg/l	30.8	30.1	2.30%	Pass
CALCIUM, T	0.05	0.05	mg/l	45.2	41.9	7.58%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.01	1.89	6.15%	Pass
CHLORIDE, D	0.1	0.1	mg/l	1.37	1.37	0.00%	Pass
Chlorophyll-a	0.01	0.01	ug/l	0.254	0.47	59.67%	Fail
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00149	0.00056	90.73%	Fail
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00088	0.00049	56.93%	Fail
CONDUCTIVITY, LAB	2	2	us/cm	212	212	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00207	0.0013	45.70%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.056	0.056	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	111	110	0.90%	Pass
IRON, D	0.01	0.01	mg/l	0.014	0.015	6.90%	Pass
IRON, T	0.01	0.01	mg/l	1.84	0.704	89.31%	Fail
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.00197	0.00131	40.24%	Pass-2
LITHIUM, D	0.001	0.001	mg/l	< 0.0010	0.0011	9.52%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0037	0.0019	64.29%	Pass-1
MAGNESIUM, D	0.1	0.1	mg/l	8.37	8.35	0.24%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	10.4	9.8	5.94%	Pass
MAJOR ANION SUM	0	0	meq/l	2.58	2.56	0.78%	Pass
MAJOR CATION SUM	0	0	meq/l	2.32	2.29	1.30%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00440	0.00548	21.86%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.0646	0.0477	30.10%	Pass-2
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00410	0.00359	13.26%	Pass
Methyl Mercury, T	0.00005	0.00005	ug/l	< 0.000050	5.8e-005	14.81%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000503	0.000489	2.82%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000526	0.000439	18.03%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00195	0.00089	74.65%	Pass-1
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.211	0.208	1.43%	Pass

NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0076	0.0073	4.03%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0020	0.0021	4.88%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	319	316	0.94%	Pass
pH, LAB	0.1	0.1	ph units	8.22	8.23	0.12%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0706	0.0609	14.75%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.460	0.448	2.64%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.657	0.533	20.84%	Pass-2
SELENIUM, D	0.05	0.05	ug/l	0.395	0.401	1.51%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.382	0.334	13.41%	Pass
SILICON, D	0.05	0.05	mg/l	2.56	2.56	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	3.85	2.98	25.48%	Pass-2
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000011	<1e-005	9.52%	Pass
SODIUM, D	0.05	0.05	mg/l	1.87	1.88	0.53%	Pass
SODIUM, T	0.05	0.05	mg/l	1.83	1.86	1.63%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.105	0.103	1.92%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.134	0.128	4.58%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	14.9	14.9	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000022	<1e-005	75.00%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	0.012	<0.01	18.18%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	10	10	mg/l	131	129	1.54%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.241	0.199	19.09%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.49	3	15.10%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	137	118	14.90%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	85.7	78.7	8.52%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000635	0.000641	0.94%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000674	0.000645	4.40%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00177	0.00085	70.23%	Pass-1
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0092	0.0052	55.56%	Pass-1

Location:	RG_DSELK	RG_DSELK
Sample ID:	RG_DSELK_WS_2017-06-13_N-U1	RG_DUPLICATERES_WQ_2017-06-13_FD
Date Sampled:	6/13/2017	6/13/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	111	110	0.90%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	111	110	0.90%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0106	0.0107	0.94%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.745	0.832	11.03%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00023	0.00025	8.33%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00059	0.0006	1.68%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0460	0.0453	1.53%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0522	0.0529	1.33%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000047	4.6e-005	2.15%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000054	5.7e-006	5.41%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000363	3.52e-005	3.08%	Pass
CALCIUM, D	0.05	0.05	mg/l	33.1	32.3	2.45%	Pass
CALCIUM, T	0.05	0.05	mg/l	38.5	38.8	0.78%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.09	1.33	19.83%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.79	0.8	1.26%	Pass

Chlorophyll-a	0.01	0.01	ug/l	0.109	0.099	9.62%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00115	0.00119	3.42%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00049	0.00048	2.06%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	229	225	1.76%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00124	0.00116	6.67%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.096	0.095	1.05%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	121	119	1.67%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	1.07	0.972	9.60%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000910	0.000699	26.23%	Pass-2
LITHIUM, D	0.001	0.001	mg/l	0.0023	0.0024	4.26%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0042	0.0041	2.41%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	9.26	9.31	0.54%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	10.3	10.3	0.00%	Pass
MAJOR ANION SUM	0	0	meq/l	2.70	2.66	1.49%	Pass
MAJOR CATION SUM	0	0	meq/l	2.48	2.45	1.22%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00286	0.00279	2.48%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0296	0.0297	0.34%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.0021000000	0.0022	4.65%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000651	0.000628	3.60%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000721	0.000652	10.05%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00150	0.00139	7.61%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.531	0.52	2.09%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0029	0.0028	3.51%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	359	334	7.22%	Pass
pH, LAB	0.1	0.1	ph units	8.28	8.22	0.73%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0327	0.0305	6.96%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.457	0.464	1.52%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.603	0.664	9.63%	Pass
SELENIUM, D	0.05	0.05	ug/l	2.01	2.02	0.50%	Pass
SELENIUM, T	0.05	0.05	ug/l	2.01	2.09	3.90%	Pass
SILICON, D	0.05	0.05	mg/l	1.89	1.9	0.53%	Pass
SILICON, T	0.1	0.1	mg/l	3.06	3.35	9.05%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.25	1.31	4.69%	Pass
SODIUM, T	0.05	0.05	mg/l	1.19	1.25	4.92%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.106	0.104	1.90%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.113	0.113	0.00%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	19.7	19.6	0.51%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000018	1.6e-005	11.76%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	0.012	18.18%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	149	161	7.74%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.147	0.159	7.84%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.45	1.71	16.46%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	42.3	43.3	2.34%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	46.1	45.5	1.31%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000626	0.000617	1.45%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000586	0.000619	5.48%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00149	0.00152	1.99%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0056	0.0057	1.77%	Pass

Location:	RG_DSELK	RG_DSELK
Sample ID:	RG_DSELK_WS_2017-06-20_N-U1	RG_DUPLICATERES_WQ_2017-06-20_FD
Date Sampled:	6/20/2017	6/20/2017

Analyte	Sample Type:		Units	Primary	Secondary	Primary vs. Duplicate	Category1
	Detection Limit Pri.	Detection Limit Dup.					
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	93.5	93	0.54%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	93.5	93	0.54%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0136	0.0138	1.46%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.161	0.224	32.73%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00027	0.00029	7.14%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00036	0.0004	10.53%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0283	0.0285	0.70%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0281	0.0321	13.29%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000089	5.9e-006	40.54%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	27.7	28.3	2.14%	Pass
CALCIUM, T	0.05	0.05	mg/l	29.5	29.9	1.35%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.14	1.19	4.29%	Pass
CHLORIDE, D	0.1	0.1	mg/l	1.08	1.06	1.87%	Pass
Chlorophyll-a	0.01	0.01	ug/l	0.358	0.581	47.50%	Pass-2
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00028	0.00032	13.33%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00017	0.00018	5.71%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	194	192	1.04%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00119	0.00058	68.93%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.061	0.063	3.23%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	101	103	1.96%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.240	0.269	11.39%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000284	0.000277	2.50%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0014	0.0013	7.41%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0015	0.0012	22.22%	Pass-1
MAGNESIUM, D	0.1	0.1	mg/l	7.75	7.75	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	8.05	8.01	0.50%	Pass
MAJOR ANION SUM	0	0	meq/l	2.22	2.21	0.45%	Pass
MAJOR CATION SUM	0	0	meq/l	2.10	2.13	1.42%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00211	0.00207	1.91%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0101	0.00979	3.12%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00087	0.00083	4.71%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000514	0.000504	1.96%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000474	0.000494	4.13%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.162	0.168	3.64%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0012	0.0011	8.70%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	372	351	5.81%	Pass
pH, LAB	0.1	0.1	ph units	8.13	8.17	0.49%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0136	0.0175	25.08%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	0.395	0.413	4.46%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.419	0.473	12.11%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.464	0.498	7.07%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.522	0.523	0.19%	Pass
SILICON, D	0.05	0.05	mg/l	2.09	2.18	4.22%	Pass
SILICON, T	0.1	0.1	mg/l	2.25	2.55	12.50%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000012	<1e-005	18.18%	Pass

SODIUM, D	0.05	0.05	mg/l	1.49	1.54	3.30%	Pass
SODIUM, T	0.05	0.05	mg/l	1.61	1.45	10.46%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0962	0.0967	0.52%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.104	0.107	2.84%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	14.7	14.7	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	10	10	mg/l	126	129	2.35%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.059	0.166	95.11%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.56	1.54	1.29%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	13.1	11.5	13.01%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	20.5	17.6	15.22%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000607	0.000636	4.67%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000621	0.000579	7.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	RG_ELKORES	RG_ELKORES
Sample ID:	RG_ELKORES_WS_2017-03-14_N	RG_DUPLICATERIV_WS_2017-03-14_FD
Date Sampled:	3/14/2017	3/14/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.0	2.6	88.89%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	125	86.6	36.29%	Pass-2
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	125	86.6	36.29%	Pass-2
ALUMINUM, D	0.003	0.003	mg/l	0.0067	0.0073	8.57%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.435	0.634	37.23%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00017	0.00022	25.64%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00035	0.00044	22.78%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0599	0.0597	0.33%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0514	0.0365	33.90%	Fail
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000035	3.3e-005	5.88%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000187	2.03e-005	8.21%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000471	8.12e-005	53.16%	Fail
CALCIUM, D	0.05	0.05	mg/l	41.8	42	0.48%	Pass
CALCIUM, T	0.05	0.05	mg/l	31.3	20.9	39.85%	Pass-2
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.46	1.38	5.63%	Pass
CHLORIDE, D	0.1	0.1	mg/l	3.71	2.48	39.74%	Pass-2
CHROMIUM, D	0.0001	0.0001	mg/l	0.00010	0.00016	46.15%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00134	0.00192	35.58%	Pass-2
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00031	0.00044	34.67%	Pass-1
CONDUCTIVITY, LAB	2	2	us/cm	365	250	37.40%	Pass-2
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00134	0.00206	42.35%	Pass-1
FLUORIDE, D	0.02	0.02	mg/l	0.129	0.083	43.40%	Pass-2
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	154	155	0.65%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.643	0.862	29.10%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000597	0.001	50.47%	Fail
LITHIUM, D	0.001	0.001	mg/l	0.0048	0.005	4.08%	Pass

LITHIUM, T	0.001	0.001	mg/l	0.0039	0.0023	51.61%	Pass-1
MAGNESIUM, D	0.1	0.1	mg/l	12.0	12.1	0.83%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	8.55	4.66	58.89%	Fail
MAJOR ANION SUM	0	0	meq/l	3.81	2.57	38.87%	Fail
MAJOR CATION SUM	0	0	meq/l	3.21	3.24	0.93%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00712	0.00692	2.85%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0265	0.0379	35.40%	Pass-2
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00167	0.00241	36.27%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000619	0.000634	2.39%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000509	0.000284	56.75%	Fail
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00101	0.00123	19.64%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.39	0.981	34.50%	Pass-2
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0059	0.0077	26.47%	Pass-2
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0802	0.108	29.54%	Pass-2
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0013	<0.001	26.09%	Pass-1
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	337	348	3.21%	Pass
pH, LAB	0.1	0.1	ph units	8.17	8.06	1.36%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0194	0.0604	102.76%	Fail
POTASSIUM, D	0.05	0.05	mg/l	0.501	0.502	0.20%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.545	0.458	17.35%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.95	5.06	2.20%	Pass
SELENIUM, T	0.05	0.05	ug/l	3.12	1.51	69.55%	Fail
SILICON, D	0.05	0.05	mg/l	1.26	1.27	0.79%	Pass
SILICON, T	0.05	0.05	mg/l	1.57	1.51	3.90%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000013	<1e-005	26.09%	Pass-1
SODIUM, D	0.05	0.05	mg/l	2.78	2.8	0.72%	Pass
SODIUM, T	0.05	0.05	mg/l	1.96	1.14	52.90%	Fail
STRONTIUM, D	0.0002	0.0002	mg/l	0.148	0.149	0.67%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.102	0.0556	58.88%	Fail
SULFATE (AS SO4), D	0.3	0.3	mg/l	52.8	33.5	44.73%	Pass-2
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	1.3e-005	26.09%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	0.00019	0.00017	11.11%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	227	157	36.46%	Pass-2
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.299	0.41	31.31%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.31	3.16	31.08%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	8.7	24.9	96.43%	Fail
TURBIDITY, LAB	0.1	0.1	ntu	6.92	21.4	102.26%	Fail
URANIUM, D	0.00001	0.00001	mg/l	0.000648	0.000645	0.46%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000462	0.000248	60.28%	Fail
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00179	0.00121	38.67%	Pass-1
ZINC, D	0.003	0.003	mg/l	0.0075	0.0078	3.92%	Pass
ZINC, T	0.003	0.003	mg/l	0.0220	0.0409	60.10%	Fail

Location:	RG_ELKORES	RG_ELKORES
Sample ID:	RG_ELKORES_WS_2017-04-11_N	RG_DUPLICATERIV_WQ_2017-04-11_FD
Date Sampled:	4/11/2017	4/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	157	154	1.93%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	1.8	57.14%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	157	156	0.64%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0119	0.0095	22.43%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.197	0.175	11.83%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00019	0.00018	5.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00025	0.00025	0.00%	Pass
BARIIUM, D	0.00005	0.00005	mg/l	0.105	0.0998	5.08%	Pass

BARIUM, T	0.00005	0.00005	mg/l	0.0992	0.0984	0.81%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000127	9.6e-006	27.80%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000267	2.86e-005	6.87%	Pass
CALCIUM, D	0.05	0.05	mg/l	52.9	55.5	4.80%	Pass
CALCIUM, T	0.05	0.05	mg/l	53.8	52.6	2.26%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.63	1.73	5.95%	Pass
CHLORIDE, D	0.1	0.1	mg/l	3.35	3.35	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00042	0.0004	4.88%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	382	376	1.58%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.136	0.137	0.73%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	200	208	3.92%	Pass
IRON, D	0.01	0.01	mg/l	0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.153	0.152	0.66%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000088	9.4e-005	6.59%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0066	0.0064	3.08%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0065	0.0061	6.35%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	16.4	16.8	2.41%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	16.0	16.8	4.88%	Pass
MAJOR ANION SUM	0	0	meq/l	4.30	4.26	0.93%	Pass
MAJOR CATION SUM	0	0	meq/l	4.15	4.31	3.78%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00063	0.00061	3.23%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00692	0.00734	5.89%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00126	0.00126	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000847	0.000841	0.71%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000910	0.000885	2.79%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00064	0.00065	1.55%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.09	1.09	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	208	236	12.61%	Pass
pH, LAB	0.1	0.1	ph units	8.25	8.29	0.48%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0108	0.01	7.69%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.670	0.685	2.21%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.702	0.699	0.43%	Pass
SELENIUM, D	0.05	0.05	ug/l	5.87	5.69	3.11%	Pass
SELENIUM, T	0.05	0.05	ug/l	5.62	5.55	1.25%	Pass
SILICON, D	0.05	0.05	mg/l	2.05	2.08	1.45%	Pass
SILICON, T	0.1	0.1	mg/l	2.48	2.41	2.86%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	3.26	3.35	2.72%	Pass
SODIUM, T	0.05	0.05	mg/l	3.22	3.26	1.23%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.171	0.173	1.16%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.179	0.176	1.69%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	46.9	46.9	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	1.3e-005	26.09%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	245	224	8.96%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.145	0.152	4.71%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.10	2.29	8.66%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	5.5	4.6	17.82%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	5.14	5.17	0.58%	Pass

URANIUM, D	0.00001	0.00001	mg/l	0.000798	0.000821	2.84%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000820	0.000859	4.65%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00078	0.00067	15.17%	Pass
ZINC, D	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass

Location:	RG_ELKORES	RG_ELKORES
Sample ID:	RG_ELKORES_WS_2017-05-16_N	RG_DUPLICATERIV_WQ_2017-05-16_FD
Date Sampled:	5/16/2017	5/16/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	138	136	1.46%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	2.2	2.4	8.70%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	140	139	0.72%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0107	0.0104	2.84%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.602	0.65	7.67%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00019	0.00021	10.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00053	0.00052	1.90%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0674	0.0685	1.62%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0733	0.0753	2.69%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000041	4.1e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000160	1.08e-005	38.81%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.000102	9.13e-005	11.07%	Pass
CALCIUM, D	0.05	0.05	mg/l	49.2	50.2	2.01%	Pass
CALCIUM, T	0.05	0.05	mg/l	49.1	50.2	2.22%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.15	1.98	8.23%	Pass
CHLORIDE, D	0.1	0.1	mg/l	1.38	1.38	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00019	0.00018	5.41%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00116	0.00123	5.86%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00033	0.00034	2.99%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	334	333	0.30%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00101	0.00109	7.62%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.148	0.149	0.67%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	182	185	1.63%	Pass
ION BALANCE	0	0	%	0.3	1.4	129.41%	Fail
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.675	0.766	12.63%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000468	0.000493	5.20%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0051	0.0053	3.85%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0060	0.006	0.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	14.4	14.5	0.69%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	14.0	14.6	4.20%	Pass
MAJOR ANION SUM	0	0	meq/l	3.71	3.68	0.81%	Pass
MAJOR CATION SUM	0	0	meq/l	3.73	3.79	1.60%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00172	0.00154	11.04%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0317	0.0314	0.95%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00338	0.00296	13.25%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000896	0.000883	1.46%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000997	0.000943	5.57%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00061	0.00064	4.80%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00178	0.00181	1.67%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.15	1.15	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass

NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0082	0.008	2.47%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0067	0.0066	1.50%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	326	326	0.00%	Pass
pH, LAB	0.1	0.1	ph units	8.29	8.29	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0439	0.0456	3.80%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.578	0.575	0.52%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.757	0.795	4.90%	Pass
SELENIUM, D	0.05	0.05	ug/l	5.4	5.17	4.35%	Pass
SELENIUM, T	0.05	0.05	ug/l	5.47	5.01	8.78%	Pass
SILICON, D	0.05	0.05	mg/l	2.15	2.11	1.88%	Pass
SILICON, T	0.1	0.1	mg/l	3.22	3.25	0.93%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000015	1.4e-005	6.90%	Pass
SODIUM, D	0.05	0.05	mg/l	1.80	1.81	0.55%	Pass
SODIUM, T	0.05	0.05	mg/l	1.89	1.89	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.143	0.144	0.70%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.148	0.147	0.68%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	37.7	37.8	0.26%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000025	2.6e-005	3.92%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	219	212	3.25%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.256	0.218	16.03%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.38	3.36	0.59%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	49.0	43.3	12.35%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	12.6	25.6	68.06%	Fail
URANIUM, D	0.00001	0.00001	mg/l	0.000775	0.000789	1.79%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000777	0.000794	2.16%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00230	0.00243	5.50%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0054	0.0058	7.14%	Pass

Location:	RG_ELKORES	RG_ELKORES
Sample ID:	RG_ELKORES_WS_2017-06-13_N	RG_DUPLICATERIV_WQ_2017-06-13_FD
Date Sampled:	6/13/2017	6/13/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	126	127	0.79%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	126	127	0.79%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0057	0.0065	13.11%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.655	0.505	25.86%	Pass-2
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00060	0.00054	10.53%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0547	0.0574	4.82%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0644	0.0628	2.52%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000042	4e-005	4.88%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000115	1.13e-005	1.75%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000891	8.46e-005	5.18%	Pass
CALCIUM, D	0.05	0.05	mg/l	44.8	46.1	2.86%	Pass
CALCIUM, T	0.05	0.05	mg/l	48.0	47.9	0.21%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.49	1.46	2.03%	Pass
CHLORIDE, D	0.1	0.1	mg/l	0.97	0.98	1.03%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00018	0.00019	5.41%	Pass

CHROMIUM, T	0.0001	0.0001	mg/l	0.00141	0.00115	20.31%	Pass-2
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00037	0.00032	14.49%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	300	292	2.70%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00103	0.00101	1.96%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.149	0.149	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	161	168	4.26%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.792	0.719	9.66%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000480	0.000446	7.34%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0050	0.0051	1.98%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0060	0.0059	1.68%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	11.9	12.7	6.50%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	13.6	13.1	3.75%	Pass
MAJOR ANION SUM	0	0	meq/l	3.32	3.35	0.90%	Pass
MAJOR CATION SUM	0	0	meq/l	3.29	3.42	3.87%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00087	0.00155	56.20%	Fail
MANGANESE, T	0.0001	0.0001	mg/l	0.0377	0.0351	7.14%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.0030000000	0.0028	6.90%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000925	0.000915	1.09%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000968	0.000945	2.40%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00056	0.0006	6.90%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00195	0.00184	5.80%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	1.12	1.11	0.90%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0046	0.0046	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	416	371	11.44%	Pass
pH, LAB	0.1	0.1	ph units	8.34	8.32	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0721	0.066	8.83%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.509	0.533	4.61%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.733	0.669	9.13%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.25	4.3	1.17%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.69	4.72	0.64%	Pass
SILICON, D	0.05	0.05	mg/l	1.76	1.8	2.25%	Pass
SILICON, T	0.1	0.1	mg/l	3.01	2.64	13.10%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000011	1.1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.29	1.36	5.28%	Pass
SODIUM, T	0.05	0.05	mg/l	1.31	1.28	2.32%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.135	0.141	4.35%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.135	0.136	0.74%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	33.2	33.1	0.30%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000025	2.4e-005	4.08%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	196	193	1.54%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.252	0.199	23.50%	Pass-2
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.74	2.56	38.14%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	59.4	56.5	5.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	32.6	33.4	2.42%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000739	0.000765	3.46%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000712	0.000706	0.85%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00256	0.00208	20.69%	Pass-2
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0069	0.0071	2.86%	Pass

Location:	RG_GRASMERE	RG_GRASMERE
Sample ID:	RG_GRASMERE_WS_2017-04-11_N-U1	RG_DUPLICATES_WS_2017-04-11_FD
Date Sampled:	4/11/2017	4/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.0	1.4	33.33%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	144	147	2.06%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	144	147	2.06%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0124	0.0102	19.47%	Pass
ALUMINUM, T	0.003	0.003	mg/l	1.22	0.653	60.54%	Fail
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00013	0.00012	8.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00064	0.00066	3.08%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00146	0.00128	13.14%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0676	0.0671	0.74%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0848	0.0804	5.33%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000064	5e-005	24.56%	Pass-1
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.010	0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000072	7.5e-006	4.08%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000695	6.78e-005	2.48%	Pass
CALCIUM, D	0.05	0.05	mg/l	42.1	42.1	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	52.0	55.3	6.15%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.86	1.68	10.17%	Pass
CHLORIDE, D	0.1	0.1	mg/l	3.64	3.65	0.27%	Pass
Chlorophyll-a	0.01	0.01	ug/l	0.822	0.88	6.82%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00174	0.001	54.01%	Fail
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00089	0.00067	28.21%	Pass-2
CONDUCTIVITY, LAB	2	2	us/cm	327	324	0.92%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00210	0.00176	17.62%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.099	0.102	2.99%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	161	163	1.23%	Pass
IRON, D	0.01	0.01	mg/l	0.026	0.023	12.24%	Pass
IRON, T	0.01	0.01	mg/l	2.08	1.35	42.57%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	0.000103	<5e-005	69.28%	Pass-1
LEAD, T	0.00005	0.00005	mg/l	0.00161	0.00154	4.44%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0032	0.0033	3.08%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0050	0.0043	15.05%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	13.7	14	2.17%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	15.5	15.3	1.30%	Pass
MAJOR ANION SUM	0	0	meq/l	3.71	3.77	1.60%	Pass
MAJOR CATION SUM	0	0	meq/l	3.44	3.47	0.87%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0235	0.0226	3.90%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0939	0.0901	4.13%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00287	0.00298	3.76%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000826	0.000838	1.44%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000894	0.000824	8.15%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00237	0.00161	38.19%	Pass-1
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.336	0.337	0.30%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0012	0.0016	28.57%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0780	0.0761	2.47%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0028	0.0027	3.64%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	290	288	0.69%	Pass
pH, LAB	0.1	0.1	ph units	8.25	8.23	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0639	0.0709	10.39%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.682	0.689	1.02%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.01	0.862	15.81%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.46	1.56	6.62%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.51	1.6	5.79%	Pass
SILICON, D	0.05	0.05	mg/l	2.74	2.74	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	4.54	3.72	19.85%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000013	<1e-005	26.09%	Pass-1
SODIUM, D	0.05	0.05	mg/l	4.36	4.43	1.59%	Pass
SODIUM, T	0.05	0.05	mg/l	4.45	4.43	0.45%	Pass

STRONTIUM, D	0.0002	0.0002	mg/l	0.149	0.151	1.33%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.174	0.182	4.49%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	34.1	34	0.29%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000026	1.7e-005	41.86%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	0.013	<0.01	26.09%	Pass-1
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	200	197	1.51%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.276	0.287	3.91%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	3.14	2.93	6.92%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	95.6	93.4	2.33%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	77.0	84.9	9.76%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000902	0.000912	1.10%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00101	0.00102	0.99%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00263	0.00174	40.73%	Pass-2
ZINC, D	0.003	0.003	mg/l	0.0032	<0.003	6.45%	Pass
ZINC, T	0.003	0.003	mg/l	0.0102	0.0084	19.35%	Pass

Location:	RG_USGOLD	RG_USGOLD
Sample ID:	RG_USGOLD_WS_2017-04-24_N-U1	RG_DUPLICATERES_WQ_2017-04-24_FD
Date Sampled:	4/24/2017	4/24/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	1.1	1.3	16.67%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	138	140	1.44%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	138	140	1.44%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0113	0.0126	10.88%	Pass
ALUMINUM, T	0.003	0.003	mg/l	3.55	3.35	5.80%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00020	0.0002	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00085	0.00088	3.47%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00287	0.00275	4.27%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0682	0.0637	6.82%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.106	0.104	1.90%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	0.000174	0.000166	4.71%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	0.000069	6.5e-005	5.97%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000052	<5e-006	3.92%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.000159	0.000134	17.06%	Pass
CALCIUM, D	0.05	0.05	mg/l	41.4	39.2	5.46%	Pass
CALCIUM, T	0.05	0.05	mg/l	66.1	64.5	2.45%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.75	1.83	4.47%	Pass
CHLORIDE, D	0.1	0.1	mg/l	3.00	2.99	0.33%	Pass
Chlorophyll-a	0.01	0.01	ug/l	1.06	1.49	33.73%	Pass-2
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00502	0.00482	4.07%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00251	0.00238	5.32%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	316	316	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	0.00501	0.00488	2.63%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.094	0.094	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	156	149	4.59%	Pass
IRON, D	0.01	0.01	mg/l	0.024	0.025	4.08%	Pass
IRON, T	0.01	0.01	mg/l	5.52	5.34	3.31%	Pass
LEAD, D	0.00005	0.00005	mg/l	0.000058	6.2e-005	6.67%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.00424	0.00393	7.59%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0026	0.0029	10.91%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0090	0.0088	2.25%	Pass

MAGNESIUM, D	0.1	0.1	mg/l	12.9	12.4	3.95%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	17.6	17.4	1.14%	Pass
MAJOR ANION SUM	0	0	meq/l	3.50	3.53	0.85%	Pass
MAJOR CATION SUM	0	0	meq/l	3.32	3.16	4.94%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0270	0.0246	9.30%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.196	0.188	4.17%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.00817	0.00648	23.07%	Pass-2
Methyl Mercury, T	0.00005	0.00005	ug/l	0.000156	9.6e-005	47.62%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000817	0.000763	6.84%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000965	0.000933	3.37%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00621	0.00592	4.78%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.340	0.341	0.29%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0010	0.0012	18.18%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0993	0.1	0.70%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0029	0.003	3.39%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	290	287	1.04%	Pass
pH, LAB	0.1	0.1	ph units	8.28	8.29	0.12%	Pass
PHOSPHORUS	0.02	0.02	mg/l	0.195	0.171	13.11%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.656	0.641	2.31%	Pass
POTASSIUM, T	0.05	0.05	mg/l	1.46	1.4	4.20%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.62	1.44	11.76%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.52	1.52	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	2.50	2.49	0.40%	Pass
SILICON, T	0.1	0.1	mg/l	7.47	7.13	4.66%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	0.000032	3e-005	6.45%	Pass
SODIUM, D	0.05	0.05	mg/l	3.92	3.67	6.59%	Pass
SODIUM, T	0.05	0.05	mg/l	4.00	3.99	0.25%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.143	0.134	6.50%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.189	0.185	2.14%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	30.3	30.2	0.33%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000061	5.7e-005	6.78%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	0.034	0.032	6.06%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	197	193	2.05%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.451	0.43	4.77%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	5.17	5.18	0.19%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	323	321	0.62%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	222	222	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000918	0.000861	6.41%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00106	0.00101	4.83%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00636	0.00595	6.66%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0230	0.0227	1.31%	Pass

Location:	RG_USGOLD	RG_USGOLD
Sample ID:	RG_USGOLD_WS_2017-07-11_N-U1	RG_DUPLICATERES_WS_2017-07-11_N_U1
Date Sampled:	7/11/2017	7/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	88.6	90.3	1.90%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	3.4	2.6	26.67%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	92.0	92.9	0.97%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0092	0.0087	5.59%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0260	0.0261	0.38%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00036	0.0005	32.56%	Pass-1
ARSENIC, T	0.0001	0.0001	mg/l	0.00036	0.00035	2.82%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0400	0.0389	2.79%	Pass

BARIUM, T	0.00005	0.00005	mg/l	0.0374	0.0365	2.44%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	31.6	29.7	6.20%	Pass
CALCIUM, T	0.05	0.05	mg/l	29.0	29.2	0.69%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.50	1.82	19.28%	Pass
Cation - Anion Balance	0	0	%	4.3	1.2	112.73%	Fail
CHLORIDE, D	0.1	0.1	mg/l	1.09	1.09	0.00%	Pass
Chlorophyll-a	0.01	0.01	ug/l	2.94	2	38.06%	Pass-2
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00017	<0.0001	51.85%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	206	210	1.92%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.069	0.069	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	115	109	5.36%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.014	0.017	19.35%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0016	0.0015	6.45%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0015	0.0016	6.45%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	8.68	8.38	3.52%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	8.41	8.18	2.77%	Pass
MAJOR ANION SUM	0	0	meq/l	2.19	2.21	0.91%	Pass
MAJOR CATION SUM	0	0	meq/l	2.38	2.26	5.17%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00063	0.00068	7.63%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00152	0.00138	9.66%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	0.00056	11.32%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000528	0.000528	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000532	0.000521	2.09%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.127	0.128	0.78%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0019	0.0018	5.41%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	367	352	4.17%	Pass
pH, LAB	0.1	0.1	ph units	8.34	8.32	0.24%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0033	0.0027	20.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.504	0.471	6.77%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.437	0.422	3.49%	Pass
SELENIUM, D	0.05	0.05	ug/l	0.698	0.725	3.79%	Pass
SELENIUM, T	0.05	0.05	ug/l	0.833	0.868	4.12%	Pass
SILICON, D	0.05	0.05	mg/l	2.00	2.08	3.92%	Pass
SILICON, T	0.1	0.1	mg/l	2.28	2.23	2.22%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.81	1.77	2.23%	Pass
SODIUM, T	0.05	0.05	mg/l	1.79	1.72	3.99%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.107	0.102	4.78%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.100	0.0994	0.60%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	14.8	14.8	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	124	119	4.12%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.123	0.1	20.63%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.91	1.77	7.61%	Pass

TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	1.4	15.38%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.88	0.83	5.85%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000670	0.000633	5.68%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000622	0.000637	2.38%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	<0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	<0.0030	<0.003	0.00%	Pass

Location:	RG_USGOLD	RG_USGOLD
Sample ID:	RG_USGOLD_WS_2017-08-08_N-U1	RG_DUPLICATERES_WQ_2017-08-08_FD
Date Sampled:	8/8/2017	8/8/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	103	103	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	3.8	2.8	30.30%	Pass-1
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	107	106	0.94%	Pass
ALUMINUM, D	0.003	0.003	mg/l	0.0055	0.0051	7.55%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0169	0.0197	15.30%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00037	0.00036	2.74%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00036	0.00034	5.71%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0409	0.0456	10.87%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0403	0.0384	4.83%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	5.4e-006	7.69%	Pass
CALCIUM, D	0.05	0.05	mg/l	30.8	32.2	4.44%	Pass
CALCIUM, T	0.05	0.05	mg/l	31.9	32.3	1.25%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.55	1.51	2.61%	Pass
CHLORIDE, D	0.1	0.1	mg/l	1.54	1.54	0.00%	Pass
Chlorophyll-a	0.01	0.01	ug/l	1.71	1.67	2.37%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	<0.0001	33.33%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	238	231	2.99%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.081	0.081	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	117	119	1.69%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.012	0.014	15.38%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0019	0.0021	10.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0025	0.0017	38.10%	Pass-1
MAGNESIUM, D	0.1	0.1	mg/l	9.76	9.39	3.86%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	8.96	8.94	0.22%	Pass
MAJOR ANION SUM	0	0	meq/l	2.63	2.61	0.76%	Pass
MAJOR CATION SUM	0	0	meq/l	2.45	2.48	1.22%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00126	0.00109	14.47%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.000591	0.000584	1.19%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.000693	0.000602	14.05%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.147	0.147	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0012	0.0017	34.48%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	368	396	7.33%	Pass
pH, LAB	0.1	0.1	ph units	8.43	8.26	2.04%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	0.002	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.491	0.554	12.06%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.498	0.486	2.44%	Pass
SELENIUM, D	0.05	0.05	ug/l	1.07	0.987	8.07%	Pass
SELENIUM, T	0.05	0.05	ug/l	1.01	0.975	3.53%	Pass
SILICON, D	0.05	0.05	mg/l	1.64	1.74	5.92%	Pass
SILICON, T	0.1	0.1	mg/l	1.75	1.64	6.49%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	2.26	2.13	5.92%	Pass
SODIUM, T	0.05	0.05	mg/l	2.19	2	9.07%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.114	0.116	1.74%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.114	0.117	2.60%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	20.9	21	0.48%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	15	15	mg/l	138	138	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.095	0.087	8.79%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.44	1.5	4.08%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.7	2	16.22%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.51	0.57	11.11%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.000669	0.000662	1.05%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.000629	0.000619	1.60%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	LC_LC3GS	LC_LC3GS
Sample ID:	LC_LC3GS_WG_Q3_N	WL_DUP_WG_Q3_N
Date Sampled:	9/3/2017	9/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	2.1	5.3	86.49%	Pass-1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	243	250	2.84%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	243	250	2.84%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0040	0.0033	19.18%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0499	0.0497	0.40%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0471	0.0474	0.63%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	131	130	0.77%	Pass
CALCIUM, T	0.05	0.05	mg/l	137	137	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.90	1.48	48.74%	Pass-1
Cation - Anion Balance	0	0	%	0.8	-0.2	200.00%	Fail

CHLORIDE, D	0.5	0.5	mg/l	0.91	0.89	2.22%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00017	51.85%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00012	0.0002	50.00%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	< 5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	967	972	0.52%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	0.00248	132.89%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.164	0.198	18.78%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	584	579	0.86%	Pass
HYDROGEN SULFIDE	0.021	0.021	mg/l	< 0.021	< 0.021	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	< 0.010	0.022	75.00%	Pass-1
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0087	0.0086	1.16%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0083	0.0084	1.20%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	62.2	61.4	1.29%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	56.0	57	1.77%	Pass
MAJOR ANION SUM	0	0	meq/l	11.6	11.7	0.86%	Pass
MAJOR CATION SUM	0	0	meq/l	11.8	11.6	1.71%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	< 0.00010	0.00014	33.33%	Pass-1
MANGANESE, T	0.0001	0.0001	mg/l	0.00075	0.00043	54.24%	Fail
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	2.84e-005	140.12%	Pass-1
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	< 0.0005	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00135	0.00139	2.92%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00154	0.00151	1.97%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
NICKEL, T	0.0005	< 0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	10.2	10.1	0.99%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0010	< 0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0101	67.55%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	< 0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	263	265	0.76%	Pass
pH, LAB	0.1	0.1	ph units	8.11	8.09	0.25%	Pass
PHOSPHORUS	0.002	0.002	mg/l	< 0.0020	< 0.002	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	1.00	1	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.916	0.937	2.27%	Pass
SELENIUM, D	0.05	0.05	ug/l	146	145	0.69%	Pass
SELENIUM, T	0.05	0.05	ug/l	130	129	0.77%	Pass
SILICON, D	0.05	0.05	mg/l	4.05	4.04	0.25%	Pass
SILICON, T	0.1	0.1	mg/l	3.91	3.97	1.52%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.37	1.35	1.47%	Pass
SODIUM, T	0.05	0.05	mg/l	1.26	1.29	2.35%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.128	0.127	0.78%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.134	0.135	0.74%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	285	285	0.00%	Pass
SULFIDE (as S), T	0.02	0.02	mg/l	< 0.020	< 0.02	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	701	686	2.16%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.931	0.389	82.12%	Fail
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.98	1.16	16.82%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.3	< 1	26.09%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.39	0.3	26.09%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.00265	0.00259	2.29%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00270	0.00269	0.37%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	0.022	152.00%	Pass-1
ZINC, T	0.003	0.003	mg/l	< 0.0030	< 0.003	0.00%	Pass

Location:	LC_LC3GS	LC_LC3GS
Sample ID:	LC_LC3GS_WS_Q2_N	WL_DUP_WG_Q2_002
Date Sampled:	6/11/2017	6/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ACIDITY TO pH 8.3 (As CaCO3)	1	1	mg/l	8.2	9.7	16.76%	Pass
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	229	214	6.77%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	229	214	6.77%	Pass
ALUMINIUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINIUM, T	0.003	0.003	mg/l	0.0655	0.0696	6.07%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00018	0.0002	10.53%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0832	0.08	3.92%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0792	0.0796	0.50%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BORON, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000115	1.25e-005	8.33%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000224	2.43e-005	8.14%	Pass
CALCIUM, D	0.05	0.05	mg/l	128	130	1.55%	Pass
CALCIUM, T	0.05	0.05	mg/l	130	132	1.53%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.31	0.59	75.79%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	0.92	0.92	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00028	0.00031	10.17%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
CONDUCTIVITY, LAB	2	2	us/cm	873	880	0.80%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.216	0.212	1.87%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	521	522	0.19%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.100	0.106	5.83%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	0.000060	6.2e-005	3.28%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0080	0.0084	4.88%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0078	0.0075	3.92%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	48.9	48.2	1.44%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	50.3	51.4	2.16%	Pass
MAJOR ANION SUM	0	0	meq/l	10.5	10.2	2.90%	Pass
MAJOR CATION SUM	0	0	meq/l	10.5	10.5	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.00297	0.00318	6.83%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	0.0005000000	0.0015	100.00%	Pass-1
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00141	0.00142	0.71%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00132	0.00134	1.50%	Pass
NICKEL, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	10.0	10.1	1.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	< 0.0010	0.001	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0064	<0.005	24.56%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
OXIDATION-REDUCTION POTENTIAL, LAB	1000	1000	mv	361	345	4.53%	Pass
pH, LAB	0.1	0.1	ph units	7.96	7.98	0.25%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0040	0.004	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	0.964	0.951	1.36%	Pass
POTASSIUM, T	0.05	0.05	mg/l	0.930	0.962	3.38%	Pass
SELENIUM, D	0.05	0.05	ug/l	122	118	3.33%	Pass

SELENIUM, T	0.05	0.05	ug/l	119	121	1.67%	Pass
SILICON, D	0.05	0.05	mg/l	4.42	4.32	2.29%	Pass
SILICON, T	0.1	0.1	mg/l	4.30	4.38	1.84%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	1.37	1.36	0.73%	Pass
SODIUM, T	0.05	0.05	mg/l	1.41	1.44	2.11%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.136	0.137	0.73%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.135	0.138	2.20%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	250	251	0.40%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	711	697	1.99%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.490	0.477	2.69%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.23	0.66	60.32%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	9.9	11.3	13.21%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	6.36	7.24	12.94%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00228	0.00228	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00217	0.00218	0.46%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00071	0.00076	6.80%	Pass
ZINC, D	0.001	0.001	mg/l	0.0077	0.0065	16.90%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_01162017_N	WL_SP30_01162017_N
Date Sampled:	1/16/2017	1/16/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, T	0.003	0.003	mg/l	0.0039	0.0031	22.86%	Pass-1
ANTIMONY, T	0.0001	0.0001	mg/l	0.00028	0.00026	7.41%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00019	0.0002	5.13%	Pass
BARIIUM, T	0.00005	0.00005	mg/l	0.0306	0.0289	5.71%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.020	0.019	5.13%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000083	<5e-006	49.62%	Pass-1
CALCIUM, T	0.05	0.05	mg/l	238	223	6.51%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00029	0.00028	3.51%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1100	1170	6.17%	Pass
IRON, T	0.01	0.01	mg/l	0.317	0.325	2.49%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0564	0.0538	4.72%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	158	148	6.54%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.117	0.11	6.17%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00367	0.00344	6.47%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00429	0.00394	8.51%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.036	<0.025	36.07%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0439	0.0475	7.88%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0224	0.0202	10.33%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.61	3.41	5.70%	Pass
SELENIUM, T	0.05	0.05	ug/l	15.6	14.1	10.10%	Pass
SILICON, T	0.05	0.05	mg/l	1.96	1.83	6.86%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	18.0	16.8	6.90%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.233	0.221	5.29%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass

TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.20	1.56	26.09%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.3	1.1	16.67%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.37	1.42	3.58%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0109	0.0103	5.66%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00055	<0.0005	9.52%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_01232017_N	WL_SP30_01232017_N
Date Sampled:	1/23/2017	1/23/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00029	0.00027	7.14%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00011	0.0001	9.52%	Pass
BARIIUM, T	0.00005	0.00005	mg/l	0.0297	0.0291	2.04%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.019	0.018	5.41%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000069	7.9e-006	13.51%	Pass
CALCIUM, T	0.05	0.05	mg/l	243	236	2.92%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00028	0.00028	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1130	1140	0.88%	Pass
IRON, T	0.01	0.01	mg/l	0.305	0.297	2.66%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0566	0.0501	12.18%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	137	134	2.21%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.105	0.103	1.92%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00355	0.00343	3.44%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00366	0.00352	3.90%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.057	0.032	56.18%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0078	0.0106	30.43%	Pass-1
PHOSPHORUS	0.002	0.01	mg/l	0.0544	0.056	2.90%	Pass
PHOSPHORUS, D	0.002	0.01	mg/l	0.0215	0.061	95.76%	Fail
POTASSIUM, T	0.05	0.05	mg/l	2.71	2.68	1.11%	Pass
SELENIUM, T	0.05	0.05	ug/l	13.9	13.7	1.45%	Pass
SILICON, T	0.05	0.05	mg/l	1.83	1.77	3.33%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	11.4	11.1	2.67%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.232	0.224	3.51%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.33	1.13	16.26%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	1.2	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.32	1.36	2.99%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0112	0.011	1.80%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_01312017_N	WL_SP30_01312017_N
Date Sampled:	1/31/2017	1/31/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, T	0.015	0.003	mg/l	< 0.015	<0.003	133.33%	Pass-1
ANTIMONY, T	0.0005	0.0001	mg/l	< 0.00050	<0.0001	133.33%	Pass-1
ARSENIC, T	0.0005	0.0001	mg/l	< 0.00050	<0.0001	133.33%	Pass-1
BARIIUM, T	0.00025	0.00005	mg/l	0.0320	0.00661	131.52%	Fail
BERYLLIUM, T	0.0001	0.00002	mg/l	< 0.00010	<2e-005	133.33%	Pass-1
BISMUTH, T	0.00025	0.00005	mg/l	< 0.00025	<5e-005	133.33%	Pass-1

BORON, T	0.05	0.01	mg/l	< 0.050	<0.01	133.33%	Pass-1
CADMIUM, T	0.000025	0.000005	mg/l	< 0.000025	<5e-006	133.33%	Pass-1
CALCIUM, T	0.25	0.05	mg/l	219	46.9	129.45%	Fail
CHROMIUM, T	0.0005	0.0001	mg/l	< 0.00050	<0.0001	133.33%	Pass-1
COBALT, T	0.0005	0.0001	mg/l	< 0.00050	<0.0001	133.33%	Pass-1
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, T	0.0025	0.0005	mg/l	< 0.0025	<0.0005	133.33%	Pass-1
Hardness, Total or Dissolved CaCO3	0.63	0.5	mg/l	1170	234	133.33%	Fail
IRON, T	0.05	0.01	mg/l	0.308	0.066	129.41%	Fail
LEAD, T	0.00025	0.00005	mg/l	< 0.00025	<5e-005	133.33%	Pass-1
LITHIUM, T	0.005	0.001	mg/l	0.0426	0.0092	128.96%	Fail
MAGNESIUM, T	0.025	0.005	mg/l	140	28.4	132.54%	Fail
MANGANESE, T	0.0005	0.0001	mg/l	0.111	0.0222	133.33%	Fail
MOLYBDENUM, T	0.00025	0.00005	mg/l	0.00316	0.000645	132.19%	Fail
NICKEL, T	0.0025	0.0005	mg/l	0.0038	0.00082	129.00%	Pass-1
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.035	0.029	18.75%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0074	0.0096	25.88%	Pass-1
PHOSPHORUS	0.002	0.002	mg/l	0.0518	0.0539	3.97%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0207	0.0214	3.33%	Pass
POTASSIUM, T	0.25	0.05	mg/l	2.62	0.547	130.91%	Fail
SELENIUM, T	0.25	0.05	ug/l	11.4	2.47	128.77%	Fail
SILICON, T	0.25	0.05	mg/l	1.83	0.388	130.03%	Fail
SILVER, T	0.00005	0.00001	mg/l	< 0.000050	<1e-005	133.33%	Pass-1
SODIUM, T	0.25	0.05	mg/l	10.9	2.23	132.06%	Fail
STRONTIUM, T	0.001	0.0002	mg/l	0.214	0.0444	131.27%	Fail
THALLIUM, T	0.00005	0.00001	mg/l	< 0.000050	<1e-005	133.33%	Pass-1
TIN, T	0.0005	0.0001	mg/l	< 0.00050	<0.0001	133.33%	Pass-1
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.38	1.91	32.22%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.5	1.1	30.77%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.25	1.09	13.68%	Pass
URANIUM, T	0.00005	0.00001	mg/l	0.00928	0.00203	128.21%	Fail
VANADIUM, T	0.0025	0.0005	mg/l	< 0.0025	<0.0005	133.33%	Pass-1
ZINC, T	0.015	0.003	mg/l	< 0.015	<0.003	133.33%	Pass-1

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_02142017_N	WL_SP30_02142017_N
Date Sampled:	2/14/2017	2/14/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00028	0.00027	3.64%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0318	0.0297	6.83%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.032	0.031	3.17%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000079	6.1e-006	25.71%	Pass-1
CALCIUM, T	0.05	0.05	mg/l	226	211	6.86%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00034	0.00032	6.06%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.357	0.339	5.17%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0494	0.0467	5.62%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	133	126	5.41%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.113	0.108	4.52%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.0123	0.0118	4.15%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00336	0.0032	4.88%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.032	<0.025	24.56%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0052	3.92%	Pass
PHOSPHORUS	0.002	0.01	mg/l	0.0505	0.055	8.53%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0161	0.0161	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.32	2.25	3.06%	Pass
SELENIUM, T	0.05	0.05	ug/l	12.7	12.4	2.39%	Pass
SILICON, T	0.05	0.05	mg/l	1.83	1.8	1.65%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass

SODIUM, T	0.05	0.05	mg/l	9.66	9.24	4.44%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.228	0.215	5.87%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.47	1.22	18.59%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	1.4	15.38%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.30	1.35	3.77%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00979	0.00939	4.17%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_2017-10-23_N	WL_SP30_2017-10-23_N
Date Sampled:	10/23/2017	10/23/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0034	0.0035	2.90%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00017	5.71%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0198	0.0202	2.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0228	0.0227	0.44%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.020	0.02	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.021	0.02	4.88%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	156	157	0.64%	Pass
CALCIUM, T	0.05	0.05	mg/l	166	164	1.21%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.73	1.04	35.03%	Pass-1
CHLORIDE, D	2.5	2.5	mg/l	38.6	81.5	71.44%	Fail
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00355	189.04%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	0.12	18.18%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	751	759	1.06%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	751	779	3.66%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	779	759	2.60%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	779	779	0.00%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	0.048	131.03%	Pass-1
IRON, T	0.01	0.01	mg/l	0.082	0.077	6.29%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0581	0.0601	3.38%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0590	0.0563	4.68%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	88.0	89	1.13%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	88.4	89.5	1.24%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0204	0.0211	3.37%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0237	0.0234	1.27%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00237	0.00243	2.50%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00227	0.00228	0.44%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00528	0.0054	2.25%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00559	0.00551	1.44%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.115	0.032	112.93%	Pass-1

NITRATE NITROGEN (NO3), AS N	-	0.025	mg/l	0.23	0.032	151.15%	Fail
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0140	0.0051	93.19%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0051	1.98%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0081	0.0079	2.50%	Pass
PHOSPHORUS, D	0.001	0.001	mg/l	0.0037	0.0041	10.26%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.37	2.39	0.84%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.58	2.56	0.78%	Pass
SELENIUM, D	0.05	0.05	ug/l	7.15	7.42	3.71%	Pass
SELENIUM, T	0.05	0.05	ug/l	7.47	7.34	1.76%	Pass
SILICON, D	0.1	0.1	mg/l	1.74	1.76	1.14%	Pass
SILICON, T	0.1	0.1	mg/l	1.66	1.58	4.94%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	11.8	11.6	1.71%	Pass
SODIUM, T	0.05	0.05	mg/l	11.6	11.4	1.74%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.214	0.223	4.12%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.220	0.213	3.23%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	225	473	71.06%	Fail
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.086	0.073	16.35%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.66	1.31	65.99%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.46	1.15	85.71%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.00619	0.00627	1.28%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00564	0.00529	6.40%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	0.0043	35.62%	Pass-1

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_2017-10-30_N	WL_SP30_2017-10-30_N
Date Sampled:	10/30/2017	10/30/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00016	0.00015	6.45%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0280	0.0261	7.02%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0267	0.0263	1.51%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.022	0.022	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.021	0.02	4.88%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	0.27	7.69%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	147	145	1.37%	Pass
CALCIUM, T	0.05	0.05	mg/l	150	150	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.10	1.04	5.61%	Pass
CHLORIDE, D	2.5	2.5	mg/l	76.0	75	1.32%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00045	127.27%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	20	20	mg/l	< 20	<20	0.00%	Pass

COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.16	0.19	17.14%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	685	682	0.44%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	685	683	0.29%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	701	682	2.75%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	701	683	2.60%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	0.011	9.52%	Pass
IRON, T	0.01	0.01	mg/l	0.131	0.13	0.77%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0704	0.0693	1.57%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0610	0.0632	3.54%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	80.8	78.1	3.40%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	75.3	74.6	0.93%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0150	0.0146	2.70%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0154	0.0154	0.00%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00240	0.00231	3.82%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00231	0.00223	3.52%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00423	0.0042	0.71%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00400	0.00404	1.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.043	0.047	8.89%	Pass
NITRATE NITROGEN (NO3), AS N	-	0.025	mg/l	0.23	0.047	132.13%	Fail
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0104	70.13%	Pass-1
PHOSPHORUS	0.001	0.001	mg/l	0.0123	0.0128	3.98%	Pass
PHOSPHORUS, D	0.001	0.001	mg/l	0.0046	0.0048	4.26%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.53	2.42	4.44%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.40	2.42	0.83%	Pass
SELENIUM, D	0.05	0.05	ug/l	6.43	6.48	0.77%	Pass
SELENIUM, T	0.05	0.05	ug/l	6.56	6.55	0.15%	Pass
SILICON, D	0.1	0.1	mg/l	1.64	1.65	0.61%	Pass
SILICON, T	0.1	0.1	mg/l	1.62	1.6	1.24%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	12.7	12.4	2.39%	Pass
SODIUM, T	0.05	0.05	mg/l	11.5	11.8	2.58%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.224	0.218	2.71%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.230	0.217	5.82%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	398	396	0.50%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KjELDAHL NITROGEN	0.05	0.05	mg/l	0.101	0.159	44.62%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.98	0.92	6.32%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.79	0.67	16.44%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00443	0.00437	1.36%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00417	0.00404	3.17%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_2017-10-31_N	WL_SP30_2017-10-31_N
Date Sampled:	10/31/2017	10/31/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
Dimethylselenoxide, D	-	-	ug/l	1.55	1.16	28.78%	Fail
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.210	0.204	2.90%	Pass
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	2.44	2.62	7.11%	Pass

Se(VI) – selenate SeO4(-2), D	-	-	ug/l	0.878	0.917	4.35%	Pass
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	0.020	0.02	0.00%	Pass
Selenosulfate, SeSO3, D	-	-	ug/l	< 0.015	<0.015	0.00%	Pass
SeMe – selenomethionine CH3SeCH2CH2CH(NH2)CO2H, D	-	-	ug/l	< 0.005	<0.005	0.00%	Pass
Unknown selenium species	-	-	ug/l	< 0.015	0.016	6.45%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_2017-11-06_N	WL_SP30_2017-11-06_N
Date Sampled:	11/6/2017	11/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	183	192	4.80%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	183	192	4.80%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0040	<0.003	28.57%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00011	0.00011	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00022	0.00021	4.65%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0312	0.0317	1.59%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0329	0.0317	3.72%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.021	0.021	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.021	0.02	4.88%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	142	143	0.70%	Pass
CALCIUM, T	0.05	0.05	mg/l	146	141	3.48%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.70	0.61	13.74%	Pass
CHLORIDE, D	2.5	2.5	mg/l	75.8	76.5	0.92%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	20	20	mg/l	< 20	<20	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.21	0.21	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	646	631	2.35%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.121	0.099	20.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0628	0.0625	0.48%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0654	0.0647	1.08%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	70.5	70.8	0.42%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	68.3	67.8	0.73%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0157	0.0157	0.00%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0212	0.0178	17.44%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00248	0.0025	0.80%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00258	0.00264	2.30%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00490	0.00489	0.20%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00498	0.00482	3.27%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.069	<0.025	93.62%	Pass-1
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass

ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0011	0.0012	8.70%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0098	0.0092	6.32%	Pass
PHOSPHORUS, D	0.001	0.001	mg/l	0.0047	0.0059	22.64%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.39	2.44	2.07%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.33	2.31	0.86%	Pass
SELENIUM, D	0.05	0.05	ug/l	5.38	5.37	0.19%	Pass
SELENIUM, T	0.05	0.05	ug/l	5.3	5.25	0.95%	Pass
SILICON, D	0.05	0.05	mg/l	1.53	1.54	0.65%	Pass
SILICON, T	0.1	0.1	mg/l	1.50	1.5	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	12.9	13.2	2.30%	Pass
SODIUM, T	0.05	0.05	mg/l	13.3	13.1	1.52%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.230	0.229	0.44%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.237	0.241	1.67%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	381	383	0.52%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	857	869	1.39%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.146	0.093	44.35%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.65	0.7	7.41%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.63	0.58	8.26%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00356	0.00352	1.13%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00347	0.00347	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	0.00090	0.00087	3.39%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_2017-11-07_N	WL_SP30_2017-11-07_N
Date Sampled:	11/7/2017	11/7/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
Dimethylselenoxide, D	-	-	ug/l	0.806	0.766	5.09%	Pass
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.137	0.145	5.67%	Pass
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	2.02	2.11	4.36%	Pass
Se(VI) – selenate SeO4(-2), D	-	-	ug/l	0.619	0.638	3.02%	Pass
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	< 0.015	<0.015	0.00%	Pass
Selenosulfate, SeSO3, D	-	-	ug/l	< 0.015	<0.015	0.00%	Pass
SeMe – selenomethionine CH3SeCH2CH2CH(NH2)CO2H, D	-	-	ug/l	< 0.005	<0.005	0.00%	Pass
Unknown selenium species	-	-	ug/l	< 0.015	<0.015	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_2017-11-14_N	WL_SP30_2017-11-14_N
Date Sampled:	11/14/2017	11/14/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0375	0.0372	0.80%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0380	0.0382	0.52%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass

BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.021	0.021	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	142	141	0.71%	Pass
CALCIUM, T	0.05	0.05	mg/l	132	130	1.53%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.93	1.31	33.93%	Pass-1
CHLORIDE, D	2.5	2.5	mg/l	83.0	80.5	3.06%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.13	0.13	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	616	607	1.47%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	616	642	4.13%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	645	607	6.07%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	645	642	0.47%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	0.013	<0.01	26.09%	Pass-1
IRON, T	0.01	0.01	mg/l	0.109	0.108	0.92%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0576	0.0585	1.55%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0587	0.0569	3.11%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	70.2	70.5	0.43%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	69.6	68.6	1.45%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0274	0.0271	1.10%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0304	0.0298	1.99%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00227	0.00234	3.04%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00223	0.00228	2.22%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00504	0.00492	2.41%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00487	0.00475	2.49%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.216	0.24	10.53%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0057	0.0076	28.57%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0134	0.0105	24.27%	Pass-1
PHOSPHORUS	0.001	0.001	mg/l	0.0100	0.0096	4.08%	Pass
PHOSPHORUS, D	0.001	0.001	mg/l	0.0078	0.0042	60.00%	Fail
POTASSIUM, D	0.05	0.05	mg/l	2.47	2.46	0.41%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.49	2.5	0.40%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.45	4.58	2.88%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.03	3.97	1.50%	Pass
SILICON, D	0.1	0.1	mg/l	1.52	1.52	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	1.52	1.48	2.67%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	14.7	14.5	1.37%	Pass
SODIUM, T	0.05	0.05	mg/l	14.2	14.2	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.221	0.217	1.83%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.219	0.228	4.03%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	397	404	1.75%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.175	0.134	26.54%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.05	1.15	9.09%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	1.2	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.90	0.65	32.26%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00399	0.00376	5.94%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00395	0.00383	3.08%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass

VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0044	<0.003	37.84%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.0036	0.0031	14.93%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_2017-11-20_N_0900	WL_SP30_2017-11-20_N
Date Sampled:	11/20/2017	11/20/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
NITRATE NITROGEN (NO3), AS N	-	0.025	mg/l	0.335	0.298	11.69%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_2017-11-28_N	WL_SP30_2017-11-28_N
Date Sampled:	11/28/2017	11/28/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0032	<0.003	6.45%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0374	0.0374	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0412	0.042	1.92%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.021	0.021	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.023	0.023	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	147	152	3.34%	Pass
CALCIUM, T	0.05	0.05	mg/l	153	152	0.66%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.79	0.52	41.22%	Pass-1
CHLORIDE, D	2.5	2.5	mg/l	87.7	88.4	0.80%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.21	0.2	4.88%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	664	676	1.79%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.107	0.105	1.89%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0612	0.0654	6.64%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0642	0.0678	5.45%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	71.9	71.8	0.14%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	81.3	82.9	1.95%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0161	0.0159	1.25%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0217	0.0218	0.46%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00260	0.00266	2.28%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00268	0.00268	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00453	0.00449	0.89%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00493	0.00502	1.81%	Pass
NITRATE NITROGEN (NO3), AS N	-	0.025	mg/l	0.015	0.174	168.25%	Fail

NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.174	0.174	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0108	0.0109	0.92%	Pass
PHOSPHORUS, D	0.001	0.001	mg/l	0.0055	0.0056	1.80%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.55	2.56	0.39%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.73	2.75	0.73%	Pass
SELENIUM, D	0.05	0.05	ug/l	3.83	3.81	0.52%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.33	4.08	5.95%	Pass
SILICON, D	0.1	0.1	mg/l	1.69	1.68	0.59%	Pass
SILICON, T	0.1	0.1	mg/l	1.72	1.7	1.17%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	16.5	16.5	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	18.2	18.3	0.55%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.243	0.234	3.77%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.246	0.247	0.41%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	423	424	0.24%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.328	0.081	120.78%	Fail
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.95	0.73	26.19%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.74	0.94	23.81%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00388	0.00397	2.29%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00415	0.00408	1.70%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0035	0.0041	15.79%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_2017-12-04_N	WL_SP30_2017-12-04_N
Date Sampled:	12/4/2017	12/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	209	209	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	209	209	0.00%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0376	0.0359	4.63%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0378	0.0358	5.43%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.020	0.02	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.021	0.021	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	150	154	2.63%	Pass
CALCIUM, T	0.05	0.05	mg/l	154	154	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.56	0.61	8.55%	Pass
CHLORIDE, D	2.5	2.5	mg/l	80.3	80.8	0.62%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.20	0.2	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	655	674	2.86%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	655	687	4.77%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	693	674	2.78%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	693	687	0.87%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.078	0.078	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0764	0.0788	3.09%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0740	0.076	2.67%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	68.3	70.4	3.03%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	74.7	73.3	1.89%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0158	0.0164	3.73%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0175	0.0177	1.14%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00272	0.00266	2.23%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00267	0.00259	3.04%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00437	0.00444	1.59%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00426	0.0044	3.23%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.184	0.17	7.91%	Pass
NITRATE NITROGEN (NO3), AS N	-	0.025	mg/l	0.23	0.17	30.00%	Fail
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0073	0.009	20.86%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0018	0.0023	24.39%	Pass-1
PHOSPHORUS	0.001	0.001	mg/l	0.0082	0.0082	0.00%	Pass
PHOSPHORUS, D	0.001	0.001	mg/l	0.0046	0.0051	10.31%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.27	2.32	2.18%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.34	2.35	0.43%	Pass
SELENIUM, D	0.05	0.05	ug/l	3.7	3.75	1.34%	Pass
SELENIUM, T	0.05	0.05	ug/l	3.97	3.97	0.00%	Pass
SILICON, D	0.1	0.1	mg/l	1.56	1.6	2.53%	Pass
SILICON, T	0.1	0.1	mg/l	1.66	1.6	3.68%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	14.4	14.7	2.06%	Pass
SODIUM, T	0.05	0.05	mg/l	14.4	14.4	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.247	0.241	2.46%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.245	0.239	2.48%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	406	409	0.74%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	911	893	2.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.088	0.065	30.07%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.67	0.58	14.40%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.64	0.72	11.76%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00376	0.00389	3.40%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00384	0.00384	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.006	0.006	mg/l	< 0.0060	<0.006	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_2017-12-05_N	WL_SP30_2017-12-05_N
Date Sampled:	12/5/2017	12/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
Dimethylselenoxide, D	-	-	ug/l	0.723	0.377	62.91%	Fail
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.148	0.147	0.68%	Pass
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	1.61	1.74	7.76%	Pass
Se(VI) – selenate SeO4(-2), D	-	-	ug/l	0.573	0.61	6.26%	Pass
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	0.029	0.036	21.54%	Fail
Selenosulfate, SeSO3, D	-	-	ug/l	< 0.005	<0.015	100.00%	Fail
SeMe – selenomethionine CH3SeCH2CH2CH(NH2)CO2H, D	-	-	ug/l	< 0.005	<0.005	0.00%	Pass
Unknown selenium species	-	-	ug/l	< 0.030	<0.03	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_2017-12-11_N	WL_SP30_2017-12-11_N
Date Sampled:	12/11/2017	12/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0034	0.0034	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0400	0.0411	2.71%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0382	0.0386	1.04%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.021	0.021	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.021	0.021	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	139	139	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	153	151	1.32%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.95	0.87	8.79%	Pass
CHLORIDE, D	0.5	0.5	mg/l	77.2	77	0.26%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.201	0.185	8.29%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	647	643	0.62%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	647	662	2.29%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	667	643	3.66%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	667	662	0.75%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.104	0.104	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0745	0.0745	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0815	0.0815	0.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	72.7	71.5	1.66%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	69.2	69.2	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0280	0.0273	2.53%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0285	0.0285	0.00%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00260	0.00268	3.03%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00273	0.00271	0.74%	Pass

NICKEL, D	0.0005	0.0005	mg/l	0.00509	0.00517	1.56%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00510	0.0051	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.178	0.174	2.27%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0013	0.0018	32.26%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0093	0.0094	1.07%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0096	0.0095	1.05%	Pass
PHOSPHORUS, D	0.001	0.001	mg/l	0.0043	0.0045	4.55%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.39	2.38	0.42%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.36	2.38	0.84%	Pass
SELENIUM, D	0.05	0.05	ug/l	4.02	3.95	1.76%	Pass
SELENIUM, T	0.05	0.05	ug/l	4.06	3.84	5.57%	Pass
SILICON, D	0.1	0.1	mg/l	1.76	1.79	1.69%	Pass
SILICON, T	0.1	0.1	mg/l	1.74	1.75	0.57%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	14.3	14.4	0.70%	Pass
SODIUM, T	0.05	0.05	mg/l	15.2	15.2	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.230	0.235	2.15%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.247	0.243	1.63%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	378	376	0.53%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KjELDAHL NITROGEN	0.05	0.05	mg/l	0.154	0.145	6.02%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.93	1.09	15.84%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.63	0.63	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00420	0.00413	1.68%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00414	0.00424	2.39%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0031	0.0137	126.19%	Pass-1

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_2017-12-18_N	WL_SP30_2017-12-18_N
Date Sampled:	12/18/2017	12/18/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0387	0.0391	1.03%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0385	0.0366	5.06%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.021	0.021	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.021	0.021	0.00%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	149	149	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	151	149	1.33%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.86	0.83	3.55%	Pass
CHLORIDE, D	0.5	0.5	mg/l	74.4	74.3	0.13%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.210	0.211	0.48%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	662	666	0.60%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	662	675	1.94%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	693	666	3.97%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	693	675	2.63%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.097	0.095	2.08%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0787	0.0774	1.67%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0765	0.0759	0.79%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	70.2	71.5	1.83%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	76.4	73.4	4.01%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0123	0.0125	1.61%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0133	0.0131	1.52%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00255	0.00264	3.47%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00259	0.00261	0.77%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00384	0.00384	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00418	0.00399	4.65%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.250	0.251	0.40%	Pass
NITRATE NITROGEN (NO3), AS N	-	0.005	mg/l	0.282	0.251	11.63%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0012	0.0015	22.22%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0068	0.0069	1.46%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0098	0.0087	11.89%	Pass
PHOSPHORUS, D	0.001	0.001	mg/l	0.0057	0.0043	28.00%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	2.53	2.58	1.96%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.63	2.5	5.07%	Pass
SELENIUM, D	0.05	0.05	ug/l	3.28	3.46	5.34%	Pass
SELENIUM, T	0.05	0.05	ug/l	3.57	3.38	5.47%	Pass
SILICON, D	0.1	0.1	mg/l	1.67	1.72	2.95%	Pass
SILICON, T	0.1	0.1	mg/l	1.73	1.72	0.58%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	15.1	15.6	3.26%	Pass
SODIUM, T	0.05	0.05	mg/l	15.9	15.6	1.90%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.232	0.238	2.55%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.239	0.238	0.42%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	376	377	0.27%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.148	0.122	19.26%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.82	0.74	10.26%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.49	0.56	13.33%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00387	0.00385	0.52%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00382	0.00386	1.04%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	0.0041	30.99%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.0081	0.005	47.33%	Pass-1

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_2017-12-27_N	WL_SP30_2017-12-27_N
Date Sampled:	12/27/2017	12/27/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	0.0036	18.18%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0384	0.0383	0.26%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0397	0.04	0.75%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.021	0.02	4.88%	Pass
BROMIDE, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	152	149	1.99%	Pass
CALCIUM, T	0.05	0.05	mg/l	165	157	4.97%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.74	0.6	20.90%	Pass-1
CHLORIDE, D	0.5	0.5	mg/l	74.2	74.2	0.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.02	0.02	mg/l	0.177	0.18	1.68%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	685	667	2.66%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	685	724	5.54%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	752	667	11.98%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	752	724	3.79%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	0.014	33.33%	Pass-1
IRON, T	0.01	0.01	mg/l	0.116	0.115	0.87%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0776	0.0719	7.63%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0810	0.0833	2.80%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	74.1	71.7	3.29%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	82.7	80.4	2.82%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.00876	0.00854	2.54%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0101	0.00977	3.32%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00265	0.00259	2.29%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00287	0.00288	0.35%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00362	0.00354	2.23%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00381	0.00374	1.85%	Pass
NITRATE NITROGEN (NO3), AS N	0.005	0.005	mg/l	0.194	0.195	0.51%	Pass
NITRITE NITROGEN (NO2), AS N	0.001	0.001	mg/l	0.0019	0.0014	30.30%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0054	<0.005	7.69%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0085	0.0097	13.19%	Pass
PHOSPHORUS, D	0.001	0.001	mg/l	0.0060	0.0045	28.57%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	2.29	2.27	0.88%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.41	2.31	4.24%	Pass
SELENIUM, D	0.05	0.05	ug/l	3.58	3.52	1.69%	Pass
SELENIUM, T	0.05	0.05	ug/l	3.42	3.49	2.03%	Pass
SILICON, D	0.1	0.1	mg/l	1.75	1.7	2.90%	Pass
SILICON, T	0.1	0.1	mg/l	1.80	1.77	1.68%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	14.4	13.9	3.53%	Pass
SODIUM, T	0.05	0.05	mg/l	14.0	13.9	0.72%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.232	0.232	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.252	0.248	1.60%	Pass
SULFATE (AS SO4), D	0.3	0.3	mg/l	410	410	0.00%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.128	0.124	3.17%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.12	1.15	2.64%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.70	0.69	1.44%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00466	0.00452	3.05%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00499	0.00488	2.23%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170207_N	WL_SP30_WS_20170207_N
Date Sampled:	2/7/2017	2/7/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	249	253	1.59%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	249	253	1.59%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0060	0.0049	20.18%	Pass-1
ANTIMONY, T	0.0001	0.0001	mg/l	0.00027	0.00027	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0346	0.0326	5.95%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.017	0.016	6.06%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000078	5.4e-006	36.36%	Pass-1
CALCIUM, T	0.05	0.05	mg/l	230	214	7.21%	Pass
CHLORIDE, D	2.5	2.5	mg/l	68.9	68.7	0.29%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00051	0.0005	1.98%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.19	0.19	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1050	1030	1.92%	Pass
IRON, T	0.01	0.01	mg/l	0.443	0.512	14.45%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0503	0.0468	7.21%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	128	121	5.62%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.141	0.143	1.41%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00360	0.00336	6.90%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00344	0.00329	4.46%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	< 0.025	<0.025	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0094	61.11%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0117	0.011	6.17%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0685	0.066	3.72%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0124	0.0655	136.33%	Fail
POTASSIUM, T	0.05	0.05	mg/l	2.76	2.7	2.20%	Pass
SELENIUM, T	0.05	0.05	ug/l	12.9	12.2	5.58%	Pass
SILICON, T	0.05	0.05	mg/l	2.04	1.97	3.49%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	8.43	8.08	4.24%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.238	0.222	6.96%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	742	740	0.27%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1440	1440	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.5	1.5	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	2.59	2.51	3.14%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0107	0.0101	5.77%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0031	<0.003	3.28%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170221_N	WL_SP30_20170221_N
Date Sampled:	2/21/2017	2/21/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	0.0037	20.90%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00022	0.00022	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00059	0.00062	4.96%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0283	0.0288	1.75%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0310	0.0318	2.55%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.024	0.024	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.026	0.026	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000056	8.9e-006	45.52%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000070	5.5e-006	24.00%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	208	207	0.48%	Pass
CALCIUM, T	0.05	0.05	mg/l	220	223	1.35%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.14	2.12	0.94%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00029	0.00028	3.51%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00031	0.00031	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Dimethylselenoxide, D	-	-	ug/l	2.67	2.61	2.27%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	998	1000	0.20%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.390	0.386	1.03%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0459	0.0457	0.44%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0478	0.0486	1.66%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	116	118	1.71%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	126	131	3.89%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0833	0.0852	2.26%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0954	0.0954	0.00%	Pass
MeSe(IV) - methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.180	0.183	1.65%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00873	0.00866	0.81%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00928	0.00937	0.97%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00288	0.00295	2.40%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00326	0.00322	1.23%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	< 0.025	<0.025	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0616	0.058	6.02%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0166	0.0148	11.46%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.18	2.22	1.82%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.37	2.36	0.42%	Pass
Se(IV) - selenite SeO3(-2), D	-	-	ug/l	4.64	4.49	3.29%	Pass
Se(VI) - selenate SeO4(-2), D	-	-	ug/l	0.652	0.686	5.08%	Pass
SeCN - selenocyanate SeCN(-1), D	-	-	ug/l	0.091	0.099	8.42%	Pass
SELENIUM, D	0.05	0.05	ug/l	15.2	17.5	14.07%	Pass
SELENIUM, T	0.05	0.05	ug/l	14	14	0.00%	Pass
Selenosulfate, SeSO3, D	-	-	ug/l	< 0.030	<0.03	0.00%	Pass
SeMe - selenomethionine CH3SeCH2CH2CH(NH2)CO2H, D	-	-	ug/l	< 0.005	<0.005	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	1.67	1.81	8.05%	Pass
SILICON, T	0.05	0.05	mg/l	1.83	1.81	1.10%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass

SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.31	7.5	2.57%	Pass
SODIUM, T	0.05	0.05	mg/l	8.10	8.51	4.94%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.217	0.218	0.46%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.232	0.235	1.28%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	0.157	103.38%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.09	2.18	4.22%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	1.2	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.74	1.75	0.57%	Pass
Unknown selenium species	-	-	ug/l	< 0.030	<0.03	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00909	0.00924	1.64%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0101	0.0101	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0019	0.002	5.13%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170227_N	WL_SP30_20170227_N
Date Sampled:	2/27/2017	2/27/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.001	0.001	mg/l	0.0017	<0.001	51.85%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0039	0.0036	8.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00021	0.00027	25.00%	Pass-1
ANTIMONY, T	0.0001	0.0001	mg/l	0.00028	0.00036	25.00%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00017	0.00015	12.50%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0353	0.0371	4.97%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0484	0.0447	7.95%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.022	0.023	4.44%	Pass
BORON, T	0.01	0.01	mg/l	0.022	0.024	8.70%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	2.49e-005	133.11%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000072	8.4e-006	15.38%	Pass
CALCIUM, D	0.05	0.05	mg/l	208	209	0.48%	Pass
CALCIUM, T	0.05	0.05	mg/l	207	212	2.39%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.63	1.56	4.39%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00029	0.00032	9.84%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00037	0.00038	2.67%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0002	0.0002	mg/l	< 0.00020	0.0251	196.84%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1020	1080	5.71%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	0.321	0.175	58.87%	Fail
IRON, T	0.01	0.01	mg/l	0.342	0.375	9.21%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	0.000129	88.27%	Pass-1
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0498	0.0517	3.74%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0504	0.0527	4.46%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	123	137	10.77%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	158	164	3.73%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0859	0.0938	8.79%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.117	0.112	4.37%	Pass

MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00720	0.00722	0.28%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00762	0.00761	0.13%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00326	0.00347	6.24%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00442	0.00411	7.27%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.031	<0.025	21.43%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0496	0.0472	4.96%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0152	0.0164	7.59%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.54	2.49	1.99%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.39	3.12	8.29%	Pass
SELENIUM, D	0.05	0.05	ug/l	24.1	31	25.05%	Pass-2
SELENIUM, T	0.05	0.05	ug/l	11.2	12.1	7.73%	Pass
SILICON, D	0.05	0.05	mg/l	1.67	1.79	6.94%	Pass
SILICON, T	0.05	0.05	mg/l	1.71	1.98	14.63%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.62	9.46	9.29%	Pass
SODIUM, T	0.05	0.05	mg/l	11.5	11.1	3.54%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.228	0.233	2.17%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.233	0.237	1.70%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	0.00024	82.35%	Pass-1
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.069	0.095	31.71%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.62	1.65	1.83%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.3	1.3	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.29	1.32	2.30%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00909	0.00901	0.88%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00930	0.00933	0.32%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0022	0.0098	126.67%	Pass-1
ZINC, T	0.003	0.003	mg/l	0.0033	0.0032	3.08%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170228_N	WL_SP30_20170228_N
Date Sampled:	2/28/2017	2/28/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
Dimethylselenoxide, D	-	-	ug/l	0.933	2.37	87.01%	Fail
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.205	0.246	18.18%	Pass
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	5.11	4.97	2.78%	Pass
Se(VI) – selenate SeO4(-2), D	-	-	ug/l	0.763	0.75	1.72%	Pass
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	0.133	0.151	12.68%	Pass
Selenosulfate, SeSO3, D	-	-	ug/l	< 0.030	<0.03	0.00%	Pass
SeMe – selenomethionine CH3SeCH2CH2CH(NH2)CO2H, D	-	-	ug/l	< 0.010	<0.01	0.00%	Pass
Unknown selenium species	-	-	ug/l	< 0.030	<0.03	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170306_N	WL_SP30_WS_20170306_N
Date Sampled:	3/6/2017	3/6/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	218	241	10.02%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	218	241	10.02%	Pass
ALUMINUM, D	0.001	0.001	mg/l	0.0010	0.0011	9.52%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	0.0031	3.28%	Pass

ANTIMONY, D	0.0001	0.0001	mg/l	0.00023	0.00022	4.44%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00029	0.00025	14.81%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	0.00018	57.14%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0376	0.0354	6.03%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0399	0.0388	2.80%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	< 2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.019	0.021	10.00%	Pass
BORON, T	0.01	0.01	mg/l	0.020	0.023	13.95%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	< 0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000103	8e-006	25.14%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000061	8.3e-006	30.56%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	209	228	8.70%	Pass
CALCIUM, T	0.05	0.05	mg/l	219	240	9.15%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	< 0.50	1.19	81.66%	Pass-1
CHLORIDE, D	2.5	2.5	mg/l	68.5	69.3	1.16%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00010	0.00012	18.18%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00038	0.00039	2.60%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00042	0.0004	4.88%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	< 10	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	< 5	0.00%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00041	0.00068	49.54%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	0.00148	< 0.0005	98.99%	Pass-1
FLUORIDE, D	0.1	0.1	mg/l	0.17	0.18	5.71%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1080	1100	1.83%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	< 0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	0.014	0.018	25.00%	Pass-1
IRON, T	0.01	0.01	mg/l	0.360	0.334	7.49%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0455	0.0504	10.22%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0459	0.0531	14.55%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	135	129	4.55%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	139	134	3.66%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.107	0.106	0.94%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.116	0.111	4.41%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	< 5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	< 0.0005	0.00%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	< 0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00554	0.00592	6.63%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00609	0.00635	4.18%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00397	0.00379	4.64%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00414	0.00413	0.24%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.061	< 0.025	83.72%	Pass-1
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	0.0063	23.01%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0073	0.007	4.20%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0148	0.0145	2.05%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0612	0.0689	11.84%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0380	0.0585	42.49%	Pass-2
POTASSIUM, D	0.05	0.05	mg/l	2.39	2.42	1.25%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.46	2.5	1.61%	Pass
SELENIUM, D	0.05	0.05	ug/l	15.1	11.1	30.53%	Pass-2
SELENIUM, T	0.05	0.05	ug/l	14.8	15.8	6.54%	Pass
SILICON, D	0.05	0.05	mg/l	1.89	1.84	2.68%	Pass
SILICON, T	0.05	0.05	mg/l	1.96	2.11	7.37%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.27	8.67	4.72%	Pass
SODIUM, T	0.05	0.05	mg/l	9.07	9.05	0.22%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.233	0.245	5.02%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.255	0.258	1.17%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	738	745	0.94%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	< 0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass

TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1380	1400	1.44%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	0.241	131.27%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	< 0.50	1.2	82.35%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.47	1.45	1.37%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00905	0.00929	2.62%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00999	0.00978	2.12%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	0.00141	95.29%	Pass-1
ZINC, D	0.001	0.001	mg/l	0.0061	0.0061	9.38%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170313_N	WL_SP30_20170313_N
Date Sampled:	3/13/2017	3/13/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.001	mg/l	< 0.0030	<0.001	100.00%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00023	0.00023	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00023	0.00026	12.24%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0349	0.0343	1.73%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0373	0.0346	7.51%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.016	0.018	11.76%	Pass
BORON, T	0.01	0.01	mg/l	0.018	0.02	10.53%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000055	<5e-006	9.52%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	225	205	9.30%	Pass
CALCIUM, T	0.05	0.05	mg/l	196	222	12.44%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.51	1.28	16.49%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00032	0.00035	8.96%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00026	0.00027	3.77%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0002	mg/l	0.00325	0.00325	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1100	1010	8.53%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	0.013	0.015	14.29%	Pass
IRON, T	0.01	0.01	mg/l	0.308	0.31	0.65%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0533	0.0472	12.14%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0354	0.0512	36.49%	Pass-2
MAGNESIUM, D	0.1	0.005	mg/l	131	122	7.11%	Pass
MAGNESIUM, T	0.1	0.005	mg/l	137	127	7.58%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0725	0.0712	1.81%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0782	0.0779	0.38%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00531	0.00481	9.88%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00521	0.00539	3.40%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00360	0.00348	3.39%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00351	0.00347	1.15%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.104	0.085	20.11%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0122	0.0115	5.91%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0672	0.0691	2.79%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0286	0.0298	4.11%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.37	2.22	6.54%	Pass

POTASSIUM, T	0.05	0.05	mg/l	2.57	2.23	14.17%	Pass
SELENIUM, D	0.05	0.05	ug/l	19.4	12.3	44.79%	Pass-2
SELENIUM, T	0.05	0.05	ug/l	17.3	14.8	15.58%	Pass
SILICON, D	0.05	0.05	mg/l	1.67	1.79	6.94%	Pass
SILICON, T	0.05	0.05	mg/l	1.75	1.87	6.63%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.73	8.48	2.91%	Pass
SODIUM, T	0.05	0.05	mg/l	9.25	8.96	3.19%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.227	0.212	6.83%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.222	0.23	3.54%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.294	0.288	2.06%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.47	1.31	11.51%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.07	1.05	1.89%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00902	0.00864	4.30%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00887	0.00952	7.07%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.001	mg/l	0.0039	0.0042	7.41%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170314_N	WL_SP30_20170314_N
Date Sampled:	3/14/2017	3/14/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
Dimethylselenoxide, D	-	-	ug/l	2.84	2.73	3.95%	Pass
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.226	0.229	1.32%	Pass
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	5.22	5.24	0.38%	Pass
Se(VI) – selenate SeO4(-2), D	-	-	ug/l	0.278	0.281	1.07%	Pass
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	0.143	0.13	9.52%	Pass
Selenosulfate, SeSO3, D	-	-	ug/l	< 0.030	<0.03	0.00%	Pass
SeMe – selenomethionine CH3SeCH2CH2CH(NH2)CO2H, D	-	-	ug/l	< 0.005	<0.005	0.00%	Pass
Unknown selenium species	-	-	ug/l	< 0.030	<0.03	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170321_N	WL_SP30_20170321_N
Date Sampled:	3/21/2017	3/21/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.001	0.001	mg/l	< 0.0010	<0.001	0.00%	Pass
ALUMINUM, D	0.003	0.001	mg/l	< 0.0030	<0.001	100.00%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0121	0.0109	10.43%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0140	0.0109	24.90%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00019	0.0002	5.13%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00020	0.0002	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00025	0.00026	3.92%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00027	0.00026	3.77%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	0.00012	18.18%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00014	0.00012	15.38%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0314	0.032	1.89%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0334	0.032	4.28%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0353	0.039	9.96%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0409	0.039	4.76%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass

BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.023	0.024	4.26%	Pass
BORON, D	0.01	0.01	mg/l	0.024	0.024	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.028	0.031	10.17%	Pass
BORON, T	0.01	0.01	mg/l	0.032	0.031	3.17%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	6.9e-006	31.93%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	0.0000051	6.9e-006	30.00%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000076	9.3e-006	20.12%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000100	9.3e-006	7.25%	Pass
CALCIUM, D	0.05	0.05	mg/l	202	206	1.96%	Pass
CALCIUM, D	0.05	0.05	mg/l	226	206	9.26%	Pass
CALCIUM, T	0.05	0.05	mg/l	210	246	15.79%	Pass
CALCIUM, T	0.05	0.05	mg/l	257	246	4.37%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.10	1.19	7.86%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00013	0.00015	14.29%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00014	0.00015	6.90%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00013	0.00016	20.69%	Pass-1
COBALT, T	0.0001	0.0001	mg/l	0.00018	0.00016	11.76%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0002	0.0002	mg/l	0.00068	0.00063	7.63%	Pass
COPPER, D	0.0005	0.0002	mg/l	0.00073	0.00063	14.71%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1020	1050	2.90%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1110	1050	5.56%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.276	0.312	12.24%	Pass
IRON, T	0.01	0.01	mg/l	0.334	0.312	6.81%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0392	0.0397	1.27%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0418	0.0397	5.15%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0408	0.0482	16.63%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0512	0.0482	6.04%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	126	129	2.35%	Pass
MAGNESIUM, D	0.1	0.005	mg/l	131	129	1.54%	Pass
MAGNESIUM, T	0.1	0.005	mg/l	143	159	10.60%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	169	159	6.10%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0327	0.034	3.90%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0342	0.034	0.59%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0416	0.0452	8.29%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0487	0.0452	7.45%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00505	0.00539	6.51%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00550	0.0065	16.67%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00665	0.0065	2.28%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00314	0.00343	8.83%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00331	0.00343	3.56%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00324	0.00388	17.98%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00406	0.00388	4.53%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.116	0.083	33.17%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0112	0.0111	0.90%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0441	0.0404	8.76%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0191	0.0174	9.32%	Pass
POTASSIUM, D	0.05	0.05	mg/l	4.70	4.88	3.76%	Pass
POTASSIUM, D	0.05	0.05	mg/l	5.28	4.88	7.87%	Pass
POTASSIUM, T	0.05	0.05	mg/l	5.44	5.7	4.67%	Pass
POTASSIUM, T	0.05	0.05	mg/l	6.08	5.7	6.45%	Pass
SELENIUM, D	0.05	0.05	ug/l	26.6	32.7	20.57%	Pass-2
SELENIUM, D	0.05	0.05	ug/l	37.8	32.7	14.47%	Pass
SELENIUM, T	0.05	0.05	ug/l	16.9	19.6	14.79%	Pass
SELENIUM, T	0.05	0.05	ug/l	20.4	19.6	4.00%	Pass
SILICON, D	0.05	0.05	mg/l	1.15	1.17	1.72%	Pass
SILICON, D	0.05	0.05	mg/l	1.17	1.17	0.00%	Pass
SILICON, T	0.05	0.05	mg/l	1.37	1.48	7.72%	Pass
SILICON, T	0.05	0.05	mg/l	1.53	1.48	3.32%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass

SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	31.0	32	3.17%	Pass
SODIUM, D	0.05	0.05	mg/l	34.1	32	6.35%	Pass
SODIUM, T	0.05	0.05	mg/l	32.8	37.7	13.90%	Pass
SODIUM, T	0.05	0.05	mg/l	40.4	37.7	6.91%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.203	0.206	1.47%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.207	0.206	0.48%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.199	0.252	23.50%	Pass-2
STRONTIUM, T	0.0002	0.0002	mg/l	0.262	0.252	3.89%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KjELDAHL NITROGEN	0.05	0.05	mg/l	0.222	0.206	7.48%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.26	1.25	0.80%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.4	1.2	15.38%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.85	1.85	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00771	0.00801	3.82%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00828	0.00801	3.31%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00855	0.0105	20.47%	Pass-2
URANIUM, T	0.00001	0.00001	mg/l	0.0112	0.0105	6.45%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.001	0.001	mg/l	0.0017	0.0016	6.06%	Pass
ZINC, D	0.003	0.001	mg/l	< 0.0030	0.0016	60.87%	Pass-1
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170327_N	WL_SP30_20170327_N
Date Sampled:	3/27/2017	3/27/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.001	mg/l	< 0.0030	<0.001	100.00%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	0.0098	0.0069	34.73%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00024	0.00029	18.87%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00025	0.00032	24.56%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0275	0.0262	4.84%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0301	0.0259	15.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.020	0.022	9.52%	Pass
BORON, T	0.01	0.01	mg/l	0.018	0.024	28.57%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	0.0000050	5.3e-006	5.83%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000059	5.2e-006	12.61%	Pass
CALCIUM, D	0.05	0.05	mg/l	218	249	13.28%	Pass
CALCIUM, T	0.05	0.05	mg/l	238	252	5.71%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.21	2.04	8.00%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00032	0.0004	22.22%	Pass-1
COBALT, T	0.0001	0.0001	mg/l	0.00028	0.00028	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0002	mg/l	0.00088	0.00044	66.67%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	0.00066	<0.0005	27.59%	Pass-1
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1130	1180	4.33%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	0.013	26.09%	Pass-1
IRON, T	0.01	0.01	mg/l	0.244	0.231	5.47%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

LITHIUM, D	0.001	0.001	mg/l	0.0499	0.0527	5.46%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0436	0.055	23.12%	Pass-2
MAGNESIUM, D	0.1	0.005	mg/l	142	135	5.05%	Pass
MAGNESIUM, T	0.1	0.005	mg/l	147	132	10.75%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.114	0.105	8.22%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.120	0.11	8.70%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00469	0.00563	18.22%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00556	0.00607	8.77%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00377	0.00358	5.17%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00393	0.00355	10.16%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.056	0.036	43.48%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0343	0.04	15.34%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0152	0.0185	19.58%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.69	2.22	19.14%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.42	2.19	9.98%	Pass
SELENIUM, D	0.05	0.05	ug/l	30.3	36.9	19.64%	Pass
SELENIUM, T	0.05	0.05	ug/l	17.5	16.3	7.10%	Pass
SILICON, D	0.05	0.05	mg/l	1.83	1.82	0.55%	Pass
SILICON, T	0.05	0.05	mg/l	1.83	1.9	3.75%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	6.92	6.19	11.14%	Pass
SODIUM, T	0.05	0.05	mg/l	6.55	6.1	7.11%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.209	0.232	10.43%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.225	0.247	9.32%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.221	0.174	23.80%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.12	2.44	14.04%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.4	1.4	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.31	1.32	0.76%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00980	0.0108	9.71%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0104	0.0112	7.41%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.001	mg/l	< 0.0030	<0.0018	50.00%	Pass-1
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170403_N	WL_SP30_WS_20170403_N
Date Sampled:	4/3/2017	4/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	259	259	0.00%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	259	259	0.00%	Pass
ALUMINUM, D	0.003	0.001	mg/l	< 0.0030	0.0011	92.68%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00026	0.00022	16.67%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00028	0.00026	7.41%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0324	0.0315	2.82%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0314	0.0291	7.60%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.017	0.02	16.22%	Pass

BORON, T	0.01	0.01	mg/l	0.020	0.02	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	222	209	6.03%	Pass
CALCIUM, T	0.05	0.05	mg/l	233	196	17.25%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.96	1.95	0.51%	Pass
CHLORIDE, D	2.5	2.5	mg/l	69.5	70	0.72%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00020	0.00022	9.52%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
COPPER, D	0.0005	0.0002	mg/l	< 0.00050	<0.0002	85.71%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.16	0.17	6.06%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1040	1080	3.77%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	0.282	0.034	156.96%	Fail
IRON, T	0.01	0.01	mg/l	0.315	0.277	12.84%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0450	0.0526	15.57%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0515	0.051	0.98%	Pass
MAGNESIUM, D	0.1	0.005	mg/l	118	135	13.44%	Pass
MAGNESIUM, T	0.1	0.005	mg/l	129	128	0.78%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0696	0.054	25.24%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.0742	0.066	11.70%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00449	0.00431	4.09%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00499	0.00455	9.22%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00335	0.00356	6.08%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00349	0.00355	1.70%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.044	0.033	28.57%	Pass-1
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0206	0.0202	1.96%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0571	0.0426	29.09%	Pass-2
PHOSPHORUS, D	0.02	0.02	mg/l	0.036	0.042	15.38%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.54	2.5	1.59%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.59	2.36	9.29%	Pass
SELENIUM, D	0.05	0.05	ug/l	21.9	15.3	35.48%	Pass-2
SELENIUM, T	0.05	0.05	ug/l	15.8	14.1	11.37%	Pass
SILICON, D	0.05	0.05	mg/l	1.75	1.9	8.22%	Pass
SILICON, T	0.05	0.05	mg/l	1.92	1.81	5.90%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.10	8.02	0.99%	Pass
SODIUM, T	0.05	0.05	mg/l	8.93	7.7	14.79%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.214	0.228	6.33%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.224	0.221	1.35%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	759	763	0.53%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	200	200	mg/l	1550	1600	3.17%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.263	0.251	4.67%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.72	1.74	1.16%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.7	1.5	12.50%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.35	1.25	7.69%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00880	0.00917	4.12%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00938	0.00937	0.11%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.001	mg/l	< 0.0030	0.0016	60.87%	Pass-1

ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
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Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170404_N	WL_SP30_20170404_N
Date Sampled:	4/4/2017	4/4/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
Dimethylselenoxide, D	-	-	ug/l	3.13	3.37	7.38%	Pass
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.314	0.313	0.32%	Pass
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	5.17	5.29	2.29%	Pass
Se(VI) – selenate SeO4(-2), D	-	-	ug/l	0.391	0.39	0.26%	Pass
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	0.123	0.104	16.74%	Pass
Selenosulfate, SeSO3, D	-	-	ug/l	< 0.015	0.018	18.18%	Pass
SeMe – selenomethionine CH3SeCH2CH2CH(NH2)CO2H, D	-	-	ug/l	< 0.005	<0.005	0.00%	Pass
Unknown selenium species	-	-	ug/l	< 0.015	<0.015	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170410_N	WL_SP30_20170410_N
Date Sampled:	4/10/2017	4/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.001	mg/l	< 0.0030	<0.001	100.00%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	0.0032	6.45%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00024	0.00033	31.58%	Pass-1
ANTIMONY, T	0.0001	0.0001	mg/l	0.00025	0.00022	12.77%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00024	0.00012	66.67%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0348	0.0325	6.84%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0308	0.0318	3.19%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.019	0.018	5.41%	Pass
BORON, T	0.01	0.01	mg/l	0.024	0.019	23.26%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	0.0000066	7.9e-006	17.93%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000064	5.1e-006	22.61%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	228	224	1.77%	Pass
CALCIUM, T	0.05	0.05	mg/l	254	198	24.78%	Fail
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	2.26	1.89	17.83%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	0.00023	78.79%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00021	0.0002	4.88%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	46	128.57%	Pass-1
COPPER, D	0.0005	0.0002	mg/l	< 0.00050	0.00049	2.02%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	0.001	66.67%	Pass-1
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1170	1140	2.60%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	0.015	0.015	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.289	0.275	4.96%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0535	0.0557	4.03%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0622	0.051	19.79%	Pass
MAGNESIUM, D	0.1	0.005	mg/l	147	140	4.88%	Pass
MAGNESIUM, T	0.1	0.005	mg/l	148	129	13.72%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0537	0.0533	0.75%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0584	0.0563	3.66%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00505	0.00529	4.64%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00543	0.00502	7.85%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00410	0.00388	5.51%	Pass

NICKEL, T	0.0005	0.0005	mg/l	0.00391	0.00387	1.03%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.028	0.038	30.30%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0379	0.0396	4.39%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0161	0.0133	19.05%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.72	2.52	7.63%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.64	2.69	1.88%	Pass
SELENIUM, D	0.05	0.05	ug/l	28.8	36.1	22.50%	Pass-2
SELENIUM, T	0.05	0.05	ug/l	16.9	14.3	16.67%	Pass
SILICON, D	0.05	0.05	mg/l	1.67	1.97	16.48%	Pass
SILICON, T	0.1	0.05	mg/l	2.03	1.8	12.01%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.38	8.34	0.48%	Pass
SODIUM, T	0.05	0.05	mg/l	8.49	8.29	2.38%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.221	0.228	3.12%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.243	0.215	12.23%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.268	0.251	6.55%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.18	2.36	7.93%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.6	46.15%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	1.19	1.21	1.67%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00913	0.0096	5.02%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0102	0.00938	8.38%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	0.00060	0.00056	6.90%	Pass
ZINC, D	0.003	0.001	mg/l	< 0.0030	0.0017	55.32%	Pass-1
ZINC, T	0.003	0.003	mg/l	< 0.0030	0.0034	12.50%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170417_N	WL_SP30_20170417_N
Date Sampled:	4/17/2017	4/17/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.001	mg/l	< 0.0030	0.0011	92.68%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	0.0034	12.50%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00023	0.00025	8.33%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00025	0.00026	3.92%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0337	0.0314	7.07%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0321	0.0323	0.62%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.018	0.018	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000055	<5e-006	9.52%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	216	225	4.08%	Pass
CALCIUM, T	0.05	0.05	mg/l	220	224	1.80%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.66	1.63	1.82%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0002	mg/l	0.0125	0.00849	38.21%	Pass-2
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1050	1130	7.34%	Pass

HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.225	0.23	2.20%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0520	0.0629	18.97%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0581	0.0603	3.72%	Pass
MAGNESIUM, D	0.1	0.005	mg/l	123	138	11.49%	Pass
MAGNESIUM, T	0.1	0.005	mg/l	142	137	3.58%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0373	0.0397	6.23%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0448	0.0456	1.77%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00372	0.00397	6.50%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00402	0.00411	2.21%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00352	0.0039	10.24%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00387	0.00391	1.03%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.048	0.03	46.15%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0413	0.0434	4.96%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0162	0.0375	79.33%	Fail
POTASSIUM, D	0.05	0.05	mg/l	2.60	2.69	3.40%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.53	2.72	7.24%	Pass
SELENIUM, D	0.05	0.05	ug/l	22.2	17.6	23.12%	Pass-2
SELENIUM, T	0.05	0.05	ug/l	17.5	17	2.90%	Pass
SILICON, D	0.05	0.05	mg/l	1.76	1.97	11.26%	Pass
SILICON, T	0.1	0.05	mg/l	1.87	1.93	3.16%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.73	8.51	9.61%	Pass
SODIUM, T	0.05	0.05	mg/l	8.45	8.52	0.82%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.223	0.235	5.24%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.230	0.237	3.00%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.234	0.212	9.87%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.61	1.59	1.25%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.7	1.7	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.23	1.13	8.47%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00921	0.00937	1.72%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0102	0.00973	4.72%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.001	mg/l	0.0050	0.0026	63.16%	Pass-1
ZINC, T	0.003	0.003	mg/l	< 0.0030	0.008	90.91%	Pass-1

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170424_N	WL_SP30_20170424_N
Date Sampled:	4/24/2017	4/24/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.001	mg/l	< 0.0030	0.0017	55.32%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00024	0.00028	15.38%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00027	0.00022	20.41%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	0.00018	57.14%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0295	0.0293	0.68%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0279	0.0281	0.71%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

BORON, D	0.01	0.01	mg/l	0.016	0.015	6.45%	Pass
BORON, T	0.01	0.01	mg/l	0.022	0.016	31.58%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	235	206	13.15%	Pass
CALCIUM, T	0.05	0.05	mg/l	223	197	12.38%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.44	1.5	4.08%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0002	mg/l	0.00096	0.00065	38.51%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1190	1070	10.62%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.191	0.22	14.11%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0580	0.0546	6.04%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0551	0.0521	5.60%	Pass
MAGNESIUM, D	0.1	0.005	mg/l	147	134	9.25%	Pass
MAGNESIUM, T	0.1	0.005	mg/l	140	132	5.88%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0199	0.0184	7.83%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0306	0.0314	2.58%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00347	0.00345	0.58%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00370	0.00337	9.34%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00348	0.00356	2.27%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00351	0.00366	4.18%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.048	0.059	20.56%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0275	0.0276	0.36%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0133	0.0143	7.25%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.52	2.4	4.88%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.49	2.33	6.64%	Pass
SELENIUM, D	0.05	0.05	ug/l	16.2	46.6	96.82%	Fail
SELENIUM, T	0.05	0.05	ug/l	17.9	17.6	1.69%	Pass
SILICON, D	0.05	0.05	mg/l	1.89	1.87	1.06%	Pass
SILICON, T	0.1	0.05	mg/l	1.83	1.81	1.10%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	8.33	7.1	15.94%	Pass
SODIUM, T	0.05	0.05	mg/l	8.08	7.13	12.49%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.225	0.226	0.44%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.235	0.218	7.51%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KjELDAHL NITROGEN	0.05	0.05	mg/l	0.231	0.243	5.06%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.39	1.5	7.61%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.4	33.33%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.91	1.28	33.79%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00981	0.00981	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0107	0.00953	11.57%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.001	mg/l	< 0.0030	0.0022	30.77%	Pass-1
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location: Sample ID: Date Sampled: Sample Type:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
	WL_BFWB_OUT_SP21_20170501_N	WL_SP30_WS_20170501_N
	5/1/2017	5/1/2017
	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	276	274	0.73%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	276	274	0.73%	Pass
ALUMINUM, D	0.003	0.001	mg/l	< 0.0030	<0.001	100.00%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00024	0.00025	4.08%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00025	0.00026	3.92%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0245	0.0256	4.39%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0242	0.0265	9.07%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.015	0.017	12.50%	Pass
BORON, T	0.01	0.01	mg/l	0.016	0.018	11.76%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000053	<5e-006	5.83%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	220	222	0.90%	Pass
CALCIUM, T	0.05	0.05	mg/l	214	236	9.78%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.43	1.23	15.04%	Pass
CHLORIDE, D	2.5	2.5	mg/l	69.6	69.5	0.14%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
COPPER, D	0.0005	0.0002	mg/l	0.00169	0.00149	12.58%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.16	0.15	6.45%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1110	1120	0.90%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1140	1120	1.77%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.190	0.202	6.12%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0521	0.0536	2.84%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0493	0.0557	12.19%	Pass
MAGNESIUM, D	0.1	0.005	mg/l	144	138	4.26%	Pass
MAGNESIUM, T	0.1	0.005	mg/l	141	147	4.17%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0139	0.0134	3.66%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0240	0.0251	4.48%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00357	0.00363	1.67%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00350	0.00396	12.33%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00344	0.00351	2.01%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00326	0.00368	12.10%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.098	0.044	76.06%	Pass-1
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0101	0.0113	11.21%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0309	0.035	12.44%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0155	0.0136	13.06%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.61	2.5	4.31%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.45	2.58	5.17%	Pass
SELENIUM, D	0.05	0.05	ug/l	46	51.7	11.67%	Pass
SELENIUM, T	0.05	0.05	ug/l	16.9	17.8	5.19%	Pass
SILICON, D	0.05	0.05	mg/l	1.74	1.86	6.67%	Pass
SILICON, T	0.1	0.05	mg/l	1.81	1.93	6.42%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.57	7.72	1.96%	Pass

SODIUM, T	0.05	0.05	mg/l	7.75	8.29	6.73%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.220	0.216	1.83%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.213	0.238	11.09%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	805	802	0.37%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1520	1620	6.37%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.196	0.2	2.02%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.36	1.25	8.43%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.4	33.33%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.72	1.01	33.53%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00970	0.00932	4.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00937	0.00997	6.20%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.001	mg/l	< 0.0030	0.0013	79.07%	Pass-1
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170508_N	WL_SP30_20170508_N
Date Sampled:	5/8/2017	5/8/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00032	0.00027	16.95%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00027	0.00027	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0228	0.0223	2.22%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0234	0.0237	1.27%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.016	0.017	6.06%	Pass
BORON, T	0.01	0.01	mg/l	0.016	0.016	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000055	5.1e-006	7.55%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	245	242	1.23%	Pass
CALCIUM, T	0.05	0.05	mg/l	247	251	1.61%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.46	1.4	4.20%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00230	0.00206	11.01%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1270	1300	2.33%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.168	0.176	4.65%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0454	0.0432	4.97%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0400	0.0406	1.49%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	163	164	0.61%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	158	164	3.73%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0301	0.0288	4.41%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0451	0.0476	5.39%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass

MOLYBDENUM, D	0.0005	0.0005	mg/l	0.00425	0.00424	0.24%	Pass
MOLYBDENUM, T	0.0005	0.0005	mg/l	0.00417	0.00427	2.37%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00419	0.00405	3.40%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00387	0.00409	5.53%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.050	<0.025	66.67%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0455	0.0714	44.31%	Pass-2
PHOSPHORUS, D	0.002	0.002	mg/l	0.0216	0.0193	11.25%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.56	2.53	1.18%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.54	2.63	3.48%	Pass
SELENIUM, D	0.05	0.05	ug/l	16.7	14.4	14.79%	Pass
SELENIUM, T	0.05	0.05	ug/l	16.9	17.4	2.92%	Pass
SILICON, D	0.05	0.05	mg/l	1.76	1.72	2.30%	Pass
SILICON, T	0.1	0.1	mg/l	1.83	1.85	1.09%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	6.43	6.49	0.93%	Pass
SODIUM, T	0.05	0.05	mg/l	5.94	6.18	3.96%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.205	0.203	0.98%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.199	0.2	0.50%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KjELDAHL NITROGEN	0.05	0.05	mg/l	0.125	0.112	10.97%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.49	1.5	0.67%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.1	<1	9.52%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.02	0.87	15.87%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0111	0.011	0.90%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0110	0.0112	1.80%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170509_N	WL_SP30_20170509_N
Date Sampled:	5/9/2017	5/9/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
Dimethylselenoxide, D	-	-	ug/l	5.69	5.29	7.29%	Pass
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.312	0.322	3.15%	Pass
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	4.69	4.65	0.86%	Pass
Se(VI) – selenate SeO4(-2), D	-	-	ug/l	0.558	0.543	2.72%	Pass
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	0.047	0.046	2.15%	Pass
Selenosulfate, SeSO3, D	-	-	ug/l	< 0.015	0.018	18.18%	Pass
SeMe – selenomethionine CH3SeCH2CH2CH(NH2)CO2H, D	-	-	ug/l	< 0.005	<0.005	0.00%	Pass
Unknown selenium species	-	-	ug/l	< 0.015	<0.015	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170515_N	WL_SP30_20170515_N
Date Sampled:	5/15/2017	5/15/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.65	1.7	2.99%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.072	<0.025	96.91%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass

PHOSPHORUS	0.002	0.002	mg/l	0.0398	0.0309	25.18%	Pass-2
PHOSPHORUS, D	0.002	0.002	mg/l	0.0137	0.0142	3.58%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.196	0.205	4.49%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.61	1.69	4.85%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	1	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	1.06	1.03	2.87%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170522_N	WL_SP30_20170522_N
Date Sampled:	5/22/2017	5/22/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0033	<0.003	9.52%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00027	0.00027	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00027	0.00027	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0132	0.0137	3.72%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0147	0.0135	8.51%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.018	0.018	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.017	0.018	5.71%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	5.3e-006	5.83%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	238	235	1.27%	Pass
CALCIUM, T	0.05	0.05	mg/l	235	224	4.79%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.57	1.6	1.89%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00017	51.85%	Pass-1
CHROMIUM, T	0.0001	0.0001	mg/l	0.00014	<0.0001	33.33%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00013	0.00011	16.67%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	13	26.09%	Pass-1
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1290	1140	12.35%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	0.016	0.291	179.15%	Pass-1
IRON, T	0.01	0.01	mg/l	0.315	0.298	5.55%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0303	0.0296	2.34%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0300	0.0328	8.92%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	159	159	0.00%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	172	142	19.11%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0249	0.0318	24.34%	Pass-2
MANGANESE, T	0.0001	0.0001	mg/l	0.0377	0.0336	11.50%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00340	0.0034	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00357	0.00337	5.76%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00397	0.00397	0.00%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00423	0.00356	17.20%	Pass
NITRATE NITROGEN (NO3), AS N	0.1	0.1	mg/l	0.16	<0.1	46.15%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0387	0.0376	2.88%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0136	0.0113	18.47%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.69	2.67	0.75%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.81	2.57	8.92%	Pass
SELENIUM, D	0.05	0.05	ug/l	17.4	20.5	16.36%	Pass
SELENIUM, T	0.05	0.05	ug/l	21	20.1	4.38%	Pass
SILICON, D	0.05	0.05	mg/l	2.04	2.01	1.48%	Pass
SILICON, T	0.1	0.1	mg/l	2.09	2.24	6.93%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass

SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	4.64	4.61	0.65%	Pass
SODIUM, T	0.05	0.05	mg/l	4.76	4.19	12.74%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.156	0.155	0.64%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.154	0.159	3.19%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.197	0.179	9.57%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.59	1.97	21.35%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.2	1.4	15.38%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.98	0.92	6.32%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0116	0.0114	1.74%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0118	0.0117	0.85%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170529_N	WL_SP30_20170529_N
Date Sampled:	5/29/2017	5/29/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0034	0.0036	5.71%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0035	0.0036	2.82%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00027	0.00026	3.77%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00028	0.00032	13.33%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00031	0.00032	3.17%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0118	0.0118	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0120	0.0125	4.08%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0126	0.0125	0.80%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.022	0.022	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.022	0.022	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000109	7.7e-006	34.41%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	6.1e-006	19.82%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000066	6.1e-006	7.87%	Pass
CALCIUM, D	0.05	0.05	mg/l	196	196	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	196	202	3.02%	Pass
CALCIUM, T	0.05	0.05	mg/l	198	202	2.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.35	1.12	18.62%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00013	0.00012	8.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00014	0.00016	13.33%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00015	0.00016	6.45%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	11	9.52%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00163	0.0016	1.86%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1020	1080	5.71%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1060	1080	1.87%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.151	0.16	5.79%	Pass
IRON, T	0.01	0.01	mg/l	0.153	0.16	4.47%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0276	0.0278	0.72%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0281	0.0285	1.41%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0287	0.0285	0.70%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	130	129	0.77%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	131	140	6.64%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	138	140	1.44%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0423	0.0421	0.47%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0505	0.0545	7.62%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0532	0.0545	2.41%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00227	0.00227	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00227	0.00236	3.89%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00232	0.00236	1.71%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00410	0.00408	0.49%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00424	0.00429	1.17%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00426	0.00429	0.70%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.142	<0.025	140.12%	Fail
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0142	0.0144	1.40%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0057	0.0074	25.95%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.50	2.5	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.49	2.69	7.72%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.60	2.69	3.40%	Pass
SELENIUM, D	0.05	0.05	ug/l	15	14.8	1.34%	Pass
SELENIUM, T	0.05	0.05	ug/l	16.7	17.2	2.95%	Pass
SELENIUM, T	0.05	0.05	ug/l	17.3	17.2	0.58%	Pass
SILICON, D	0.05	0.05	mg/l	2.02	2.04	0.99%	Pass
SILICON, T	0.1	0.1	mg/l	2.04	2.08	1.94%	Pass
SILICON, T	0.1	0.1	mg/l	2.06	2.08	0.97%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	4.12	4.08	0.98%	Pass
SODIUM, T	0.05	0.05	mg/l	4.14	4.27	3.09%	Pass
SODIUM, T	0.05	0.05	mg/l	4.23	4.27	0.94%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.127	0.126	0.79%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.126	0.128	1.57%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.127	0.128	0.78%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.00010	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.093	0.086	7.82%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.28	1.28	0.00%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.2	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.60	0.62	3.28%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00830	0.00838	0.96%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00823	0.00842	2.28%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00855	0.00842	1.53%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170605_N	WL_SP30_WS_20170605_N
Date Sampled:	6/5/2017	6/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	268	265	1.13%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	268	265	1.13%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

ANTIMONY, D	0.0001	0.0001	mg/l	0.00023	0.00023	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00023	0.00024	4.26%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.00968	0.00934	3.58%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.00951	0.0097	1.98%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	< 2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	< 2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.022	0.022	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.022	0.022	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	< 0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	< 5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	< 5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	144	141	2.11%	Pass
CALCIUM, T	0.05	0.05	mg/l	141	143	1.41%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.39	1.35	2.92%	Pass
CHLORIDE, D	2.5	2.5	mg/l	63.2	63.9	1.10%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00013	0.00013	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	< 10	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	< 5	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	< 0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.15	0.15	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	743	754	1.47%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	< 0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	< 0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.131	0.135	3.01%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	< 5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0246	0.0237	3.73%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0244	0.0247	1.22%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	99.4	97.7	1.73%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	94.6	96.6	2.09%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0410	0.0411	0.24%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0471	0.0494	4.77%	Pass
MERCURY, D	0.000005	0.000005	mg/l	0.0000096	5.6e-006	52.63%	Pass-1
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	< 0.0005	0.00%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	< 0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00139	0.00138	0.72%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00139	0.00141	1.43%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00430	0.00426	0.93%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00419	0.00423	0.95%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.034	0.03	12.50%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	< 0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	< 0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0049	0.0044	10.75%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0152	0.0136	11.11%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0075	0.0078	3.92%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.51	2.46	2.01%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.37	2.42	2.09%	Pass
SELENIUM, D	0.05	0.05	ug/l	11.8	11.3	4.33%	Pass
SELENIUM, T	0.05	0.05	ug/l	13.1	13.4	2.26%	Pass
SILICON, D	0.05	0.05	mg/l	1.87	1.86	0.54%	Pass
SILICON, T	0.1	0.1	mg/l	1.91	1.87	2.12%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	3.96	3.9	1.53%	Pass
SODIUM, T	0.05	0.05	mg/l	3.88	3.95	1.79%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0927	0.0918	0.98%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0934	0.0941	0.75%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	373	376	0.80%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	< 0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	< 1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass

TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1000	971	2.94%	Pass
TOTAL KjELDAHL NITROGEN	0.05	0.05	mg/l	0.137	0.124	9.96%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.30	1.42	8.82%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.50	0.49	2.02%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00541	0.0053	2.05%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00537	0.00552	2.75%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170612_N	WL_SP30_WS_20170612_N
Date Sampled:	6/12/2017	6/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	274	268	2.21%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	274	268	2.21%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	0.0043	35.62%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00022	0.00023	4.44%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00026	0.00026	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00012	0.00012	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.00973	0.00979	0.61%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0101	0.00992	1.80%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.020	0.02	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	6e-006	18.18%	Pass
CALCIUM, D	0.05	0.05	mg/l	143	142	0.70%	Pass
CALCIUM, T	0.05	0.05	mg/l	148	148	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.69	1.6	5.47%	Pass
CHLORIDE, D	2.5	2.5	mg/l	71.0	71.3	0.42%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00014	0.00015	6.90%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00246	0.0051	69.84%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.14	0.15	6.90%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	742	744	0.27%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.174	0.189	8.26%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	7.2e-005	36.07%	Pass-1
LITHIUM, D	0.001	0.001	mg/l	0.0194	0.02	3.05%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0188	0.0195	3.66%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	90.0	90.2	0.22%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	90.7	91.2	0.55%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0459	0.0464	1.08%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0509	0.0515	1.17%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.000500000	0.0005	0.00%	Pass

MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00118	0.00121	2.51%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00122	0.00122	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00658	0.00638	3.09%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00570	0.00583	2.25%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.213	0.047	127.69%	Fail
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0063	23.01%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0029	0.0033	12.90%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0154	0.0152	1.31%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0044	0.0074	50.85%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.72	2.79	2.54%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.72	2.72	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	11	10.9	0.91%	Pass
SELENIUM, T	0.05	0.05	ug/l	12.5	12.5	0.00%	Pass
SILICON, D	0.05	0.05	mg/l	1.78	1.75	1.70%	Pass
SILICON, T	0.1	0.1	mg/l	1.74	1.78	2.27%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	6.60	6.61	0.15%	Pass
SODIUM, T	0.05	0.05	mg/l	6.75	6.79	0.59%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.0966	0.0964	0.21%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.0978	0.1	2.22%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	415	414	0.24%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	960	978	1.86%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.142	0.164	14.38%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.49	1.66	10.79%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.63	0.53	17.24%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00547	0.00548	0.18%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00544	0.0055	1.10%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0166	0.0208	22.46%	Pass-2
ZINC, T	0.003	0.003	mg/l	0.0036	0.0068	61.54%	Pass-1

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170613_N	WL_SP30_20170613_N
Date Sampled:	6/13/2017	6/13/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
Dimethylselenoxide, D	-	-	ug/l	4.20	4.12	1.92%	Pass
Dimethylselenoxide, D	-	-	ug/l	4.20	4.99	17.19%	Pass
Dimethylselenoxide, D	-	-	ug/l	4.84	4.12	16.07%	Pass
Dimethylselenoxide, D	-	-	ug/l	4.84	4.99	3.05%	Pass
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.307	0.3	2.31%	Pass
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.307	0.328	6.61%	Pass
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.322	0.3	7.07%	Pass
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.322	0.328	1.85%	Pass
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	3.03	3	1.00%	Pass
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	3.03	4.5	39.04%	Fail
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	4.11	3	31.22%	Fail
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	4.11	4.5	9.06%	Pass
Se(VI) – selenate SeO4(-2), D	-	-	ug/l	0.555	0.581	4.58%	Pass
Se(VI) – selenate SeO4(-2), D	-	-	ug/l	0.555	0.69	21.69%	Fail
Se(VI) – selenate SeO4(-2), D	-	-	ug/l	0.731	0.581	22.87%	Fail
Se(VI) – selenate SeO4(-2), D	-	-	ug/l	0.731	0.69	5.77%	Pass
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	< 0.015	<0.015	0.00%	Pass
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	< 0.015	0.026	53.66%	Fail
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	0.026	<0.015	53.66%	Fail
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	0.026	0.026	0.00%	Pass

Selenosulfate, SeSO3, D	-	-	ug/l	< 0.015	<0.015	0.00%	Pass
SeMe – selenomethionine CH3SeCH2CH2CH(NH2)CO2H, D	-	-	ug/l	< 0.005	<0.005	0.00%	Pass
Unknown selenium species	-	-	ug/l	< 0.015	<0.015	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170619_N	WL_SP30_20170619_N
Date Sampled:	6/19/2017	6/19/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0122	0.0035	110.83%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00017	0.00018	5.71%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00023	0.00024	4.26%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0103	0.0104	0.97%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0101	0.0101	0.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.020	0.02	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.019	0.018	5.41%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000096	7.2e-006	28.57%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	5.6e-006	11.32%	Pass
CALCIUM, D	0.05	0.05	mg/l	176	181	2.80%	Pass
CALCIUM, T	0.05	0.05	mg/l	167	173	3.53%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.46	1.44	1.38%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00014	0.00014	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00100	0.00103	2.96%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	822	831	1.09%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	822	911	10.27%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	886	831	6.41%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	886	911	2.78%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.159	0.156	1.90%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0239	0.0248	3.70%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0233	0.0239	2.54%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	108	111	2.74%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	98.5	96.7	1.84%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0495	0.0493	0.40%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0565	0.0552	2.33%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00130	0.00136	4.51%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00134	0.00147	9.25%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00636	0.00633	0.47%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00590	0.00573	2.92%	Pass
NITRATE NITROGEN (NO3), AS N	0.1	0.1	mg/l	0.23	<0.1	78.79%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0150	0.0142	5.48%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0055	0.0067	19.67%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.32	2.39	2.97%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.35	2.35	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	12.3	12.9	4.76%	Pass
SELENIUM, T	0.05	0.05	ug/l	13.7	13.6	0.73%	Pass
SILICON, D	0.05	0.05	mg/l	2.16	2.23	3.19%	Pass
SILICON, T	0.1	0.1	mg/l	1.98	1.98	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass

SODIUM, D	0.05	0.05	mg/l	3.68	3.81	3.47%	Pass
SODIUM, T	0.05	0.05	mg/l	3.56	3.52	1.13%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.108	0.11	1.83%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.106	0.11	3.70%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.097	0.083	15.56%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.60	1.45	9.84%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.3	<1	26.09%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.65	0.59	9.68%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00612	0.00632	3.22%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00696	0.00724	3.94%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	0.0089	99.16%	Pass-1

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170626_N	WL_SP30_20170626_N
Date Sampled:	6/26/2017	6/26/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0041	0.0031	27.78%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00021	0.0002	4.88%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00020	0.00018	10.53%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0118	0.0119	0.84%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0116	0.0115	0.87%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.022	0.022	0.00%	Pass
BORON, T	0.03	0.03	mg/l	< 0.030	<0.03	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	197	196	0.51%	Pass
CALCIUM, T	0.05	0.05	mg/l	195	195	0.00%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.67	1.55	7.45%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	0.00011	9.52%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00039	0.0004	2.53%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00049	0.00049	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	974	979	0.51%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.192	0.189	1.57%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0252	0.0251	0.40%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0251	0.0248	1.20%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	98.7	99.5	0.81%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	119	119	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.136	0.137	0.73%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.171	0.174	1.74%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00190	0.00189	0.53%	Pass

MOLYBDENUM, T	0.0005	0.0005	mg/l	0.00190	0.00187	1.59%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00586	0.00588	0.34%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00647	0.00651	0.62%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.290	0.069	123.12%	Fail
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0201	0.0197	2.01%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0097	0.0064	40.99%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.28	2.3	0.87%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.40	2.39	0.42%	Pass
SELENIUM, D	0.05	0.05	ug/l	12.4	12.3	0.81%	Pass
SELENIUM, T	0.05	0.05	ug/l	15.1	14.8	2.01%	Pass
SILICON, D	0.05	0.05	mg/l	2.04	2.05	0.49%	Pass
SILICON, T	0.1	0.1	mg/l	2.21	2.18	1.37%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	3.80	3.84	1.05%	Pass
SODIUM, T	0.05	0.05	mg/l	3.82	3.84	0.52%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.130	0.13	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.122	0.121	0.82%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.224	0.3	29.01%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.57	1.47	6.58%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.4	1.4	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.69	0.58	17.32%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00765	0.00767	0.26%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00791	0.00786	0.63%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170703_N	WL_SP30_20170703_N
Date Sampled:	7/3/2017	7/3/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	0.0031	3.28%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00021	0.00023	9.09%	Pass
ANTIMONY, T	0.0003	0.0001	mg/l	< 0.00030	0.00023	26.42%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0107	0.0102	4.78%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0111	0.011	0.90%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	2.1e-005	4.88%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.023	0.021	9.09%	Pass
BORON, T	0.01	0.01	mg/l	0.021	0.02	4.88%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000091	<5e-006	58.16%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	5.6e-006	11.32%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000058	5.6e-006	3.51%	Pass
CALCIUM, D	0.05	0.05	mg/l	219	213	2.78%	Pass
CALCIUM, T	0.05	0.05	mg/l	211	219	3.72%	Pass
CALCIUM, T	0.05	0.05	mg/l	229	219	4.46%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.76	1.77	0.57%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00010	<0.0001	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00268	0.00193	32.54%	Pass-2
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1050	1020	2.90%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1050	1100	4.65%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1150	1020	11.98%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1150	1100	4.44%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.104	0.103	0.97%	Pass
IRON, T	0.01	0.01	mg/l	0.112	0.103	8.37%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0238	0.0232	2.55%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0250	0.025	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0286	0.025	13.43%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	121	119	1.67%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	127	135	6.11%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	141	135	4.35%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0271	0.0257	5.30%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0339	0.035	3.19%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0364	0.035	3.92%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	0.22	9.52%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00149	0.00149	0.00%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00141	0.00152	7.51%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00148	0.00152	2.67%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00495	0.00477	3.70%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00488	0.00509	4.21%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00520	0.00509	2.14%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	< 0.025	<0.025	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0053	<0.005	5.83%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0134	0.0124	7.75%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0062	0.0064	3.17%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.37	2.34	1.27%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.35	2.48	5.38%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.61	2.48	5.11%	Pass
SELENIUM, D	0.05	0.05	ug/l	12	11.6	3.39%	Pass
SELENIUM, T	0.05	0.05	ug/l	13.6	14.2	4.32%	Pass
SELENIUM, T	0.05	0.05	ug/l	14	14.2	1.42%	Pass
SILICON, D	0.05	0.05	mg/l	2.12	2.1	0.95%	Pass
SILICON, T	0.1	0.1	mg/l	2.25	2.33	3.49%	Pass
SILICON, T	0.1	0.1	mg/l	2.32	2.33	0.43%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	3.83	3.75	2.11%	Pass
SODIUM, T	0.05	0.05	mg/l	3.74	3.76	0.53%	Pass
SODIUM, T	0.05	0.05	mg/l	3.94	3.76	4.68%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.140	0.134	4.38%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.134	0.132	1.50%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.135	0.132	2.25%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	0.153	0.15	1.98%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.63	1.59	2.48%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.58	0.57	1.74%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.00837	0.00827	1.20%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00820	0.00805	1.85%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00869	0.00805	7.65%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170710_N	WL_SP30_WS_20170710_N
Date Sampled:	7/10/2017	7/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	310	307	0.97%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	310	307	0.97%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00019	5.41%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00020	0.00021	4.88%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0133	0.0126	5.41%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0115	0.0112	2.64%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.023	0.021	9.09%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000089	2.93e-005	106.81%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000057	<5e-006	13.08%	Pass
CALCIUM, D	0.05	0.05	mg/l	207	212	2.39%	Pass
CALCIUM, T	0.05	0.05	mg/l	217	221	1.83%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.64	1.57	4.36%	Pass
CHLORIDE, D	2.5	2.5	mg/l	70.0	69.4	0.86%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00021	0.00019	10.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00244	0.00093	89.61%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1030	1040	0.97%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1030	1110	7.48%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1100	1040	5.61%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1100	1110	0.90%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.090	0.092	2.20%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0280	0.0277	1.08%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0267	0.0261	2.27%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	124	125	0.80%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	136	136	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0121	0.0142	15.97%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0182	0.0207	12.85%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MICROCYSTIN	0.2	0.2	ug/l	0.25	0.27	7.69%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00153	0.00154	0.65%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00155	0.00155	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00550	0.00565	2.69%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00554	0.00565	1.97%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.039	0.028	32.84%	Pass-1
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0096	63.01%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0031	0.003	3.28%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0111	0.0115	3.54%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0063	0.0066	4.65%	Pass

POTASSIUM, D	0.05	0.05	mg/l	2.37	2.41	1.67%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.49	2.59	3.94%	Pass
SELENIUM, D	0.05	0.05	ug/l	11.8	12.1	2.51%	Pass
SELENIUM, T	0.05	0.05	ug/l	13.8	13.9	0.72%	Pass
SILICON, D	0.05	0.05	mg/l	2.15	2.17	0.93%	Pass
SILICON, T	0.1	0.1	mg/l	2.27	2.31	1.75%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	3.58	3.62	1.11%	Pass
SODIUM, T	0.05	0.05	mg/l	3.92	3.96	1.02%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.142	0.139	2.14%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.152	0.151	0.66%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	713	709	0.56%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1490	1480	0.67%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.155	0.156	0.64%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.58	1.62	2.50%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.2	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.61	0.44	32.38%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00915	0.00924	0.98%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00992	0.00995	0.30%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0030	0.0055	58.82%	Pass-1
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170717_N	WL_SP30_20170717_N
Date Sampled:	7/17/2017	7/17/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	0.0031	3.28%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00020	0.0002	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00024	0.00023	4.26%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0126	0.0114	10.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0125	0.0131	4.69%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.022	0.023	4.44%	Pass
BORON, T	0.01	0.01	mg/l	0.022	0.02	9.52%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000078	7.6e-006	2.60%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000059	<5e-006	16.51%	Pass
CALCIUM, D	0.05	0.05	mg/l	234	238	1.69%	Pass
CALCIUM, T	0.05	0.05	mg/l	222	220	0.90%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.96	2.22	12.44%	Pass
CESIUM, D	0.00001	0.00001	mg/l	0.000026	2.7e-005	3.77%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00014	0.00013	7.41%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00017	0.00017	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	0.00052	0.00078	40.00%	Pass-1
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1140	1100	3.57%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1140	1120	1.77%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass

IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.109	0.104	4.69%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0269	0.0266	1.12%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0272	0.0244	10.85%	Pass
MAGNESIUM, D	0.005	0.005	mg/l	135	122	10.12%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	141	139	1.43%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0566	0.0538	5.07%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0746	0.0741	0.67%	Pass
MICROCYSTIN	0.2	0.2	ug/l	0.23	0.2	13.95%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00193	0.0019	1.57%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00190	0.00188	1.06%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00585	0.00561	4.19%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00634	0.00621	2.07%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	< 0.025	<0.025	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0063	0.0094	39.49%	Pass-1
PHOSPHORUS	0.002	0.002	mg/l	0.0108	0.0131	19.25%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0060	0.0078	26.09%	Pass-1
PHOSPHORUS, D	0.002	0.05	mg/l	0.0060	<0.05	157.14%	Pass-1
PHOSPHORUS, D	0.05	0.002	mg/l	< 0.050	0.0078	146.02%	Pass-1
PHOSPHORUS, D	0.05	0.05	mg/l	< 0.050	<0.05	0.00%	Pass
POTASSIUM, D	0.05	0.05	mg/l	3.26	3.21	1.55%	Pass
POTASSIUM, T	0.05	0.05	mg/l	3.36	3.38	0.59%	Pass
RUBIDIUM, D	0.0002	0.0002	mg/l	0.00248	0.00248	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	14.7	15.5	5.30%	Pass
SELENIUM, T	0.05	0.05	ug/l	15.8	16.6	4.94%	Pass
SILICON, D	0.1	0.1	mg/l	2.12	2.08	1.90%	Pass
SILICON, T	0.1	0.1	mg/l	2.11	2.1	0.48%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	14.0	15.5	10.17%	Pass
SODIUM, T	0.05	0.05	mg/l	14.7	14.6	0.68%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.160	0.16	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.154	0.154	0.00%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
SULFUR, D	0.5	0.5	mg/l	272	276	1.46%	Pass
TELLURIUM, D	0.0002	0.0002	mg/l	< 0.00020	<0.0002	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THORIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.0003	0.0003	mg/l	< 0.00030	<0.0003	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.162	0.14	14.57%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	2.40	2.29	4.69%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.6	1.4	13.33%	Pass
TUNGSTEN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.84	1.14	30.30%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.00915	0.00888	3.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.00910	0.00886	2.67%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZIRCONIUM, D	0.00006	0.00006	mg/l	< 0.000060	<6e-005	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170718_N	WL_SP30_20170718_N
Date Sampled:	7/18/2017	7/18/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
Dimethylselenoxide, D	-	-	ug/l	4.59	5.13	11.11%	Pass
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.319	0.362	12.63%	Pass
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	4.62	4.95	6.90%	Pass
Se(VI) – selenate SeO4(-2), D	-	-	ug/l	0.980	1.07	8.78%	Pass
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	0.027	0.022	20.41%	Fail

Selenosulfate, SeSO3, D	-	-	ug/l	< 0.015	<0.015	0.00%	Pass
SeMe – selenomethionine CH3SeCH2CH2CH(NH2)CO2H, D	-	-	ug/l	< 0.005	<0.005	0.00%	Pass
Unknown selenium species	-	-	ug/l	< 0.015	<0.015	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170724_N	WL_SP30_20170724_N
Date Sampled:	7/24/2017	7/24/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00023	0.00024	4.26%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00026	0.00025	3.92%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	0.00012	18.18%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0120	0.0121	0.83%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0123	0.012	2.47%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.020	0.019	5.13%	Pass
BORON, T	0.01	0.01	mg/l	0.020	0.02	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	2.81e-005	139.58%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000052	6.2e-006	17.54%	Pass
CALCIUM, D	0.05	0.05	mg/l	237	236	0.42%	Pass
CALCIUM, T	0.05	0.05	mg/l	240	234	2.53%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.46	1.81	21.41%	Pass-1
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1180	1170	0.85%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.111	0.088	23.12%	Pass-2
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0293	0.0278	5.25%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0325	0.0297	9.00%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	136	132	2.99%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	142	141	0.71%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0226	0.0234	3.48%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0318	0.0304	4.50%	Pass
MICROCYSTIN	0.2	0.2	ug/l	0.21	<0.2	4.88%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00187	0.00181	3.26%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00189	0.00187	1.06%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00573	0.00577	0.70%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00625	0.00615	1.61%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	< 0.025	<0.025	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	0.0061	19.82%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0097	0.0072	29.59%	Pass-1
PHOSPHORUS, D	0.002	0.002	mg/l	0.0057	0.006	5.13%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.50	2.43	2.84%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.57	2.54	1.17%	Pass
SELENIUM, D	0.05	0.05	ug/l	15.1	15.7	3.90%	Pass
SELENIUM, T	0.05	0.05	ug/l	16.9	16.5	2.40%	Pass
SILICON, D	0.1	0.1	mg/l	2.15	2.15	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	2.26	2.19	3.15%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	4.06	4.04	0.49%	Pass
SODIUM, T	0.05	0.05	mg/l	4.31	4.31	0.00%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.157	0.155	1.28%	Pass

STRONTIUM, T	0.0002	0.0002	mg/l	0.161	0.158	1.88%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.1	mg/l	0.142	0.18	23.60%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.61	1.65	2.45%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.1	<1	9.52%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.44	0.65	38.53%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.0107	0.0106	0.94%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0114	0.0108	5.41%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0146	<0.003	131.82%	Pass-1
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170731_N	WL_SP30_20170731_N
Date Sampled:	7/31/2017	7/31/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00022	0.00024	8.70%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00028	0.00026	7.41%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00011	8.70%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0135	0.0136	0.74%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0137	0.014	2.17%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	0.000864	<0.0005	53.37%	Fail
BORON, D	0.01	0.01	mg/l	0.021	0.02	4.88%	Pass
BORON, T	0.01	0.01	mg/l	0.021	0.021	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000063	6.7e-006	6.15%	Pass
CALCIUM, D	0.05	0.05	mg/l	275	274	0.36%	Pass
CALCIUM, T	0.05	0.05	mg/l	242	240	0.83%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.62	1.7	4.82%	Pass
CHLORIDE, D	2.5	2.5	mg/l	73.1	72.9	0.27%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1230	1230	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1230	1350	9.30%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1360	1230	10.04%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1360	1350	0.74%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.115	0.117	1.72%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0355	0.0351	1.13%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0323	0.0319	1.25%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	163	161	1.23%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	151	152	0.66%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0390	0.0391	0.26%	Pass

MANGANESE, T	0.0001	0.0001	mg/l	0.0426	0.043	0.93%	Pass
MICROCYSTIN	0.2	0.2	ug/l	0.24	<0.2	18.18%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00190	0.00197	3.62%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00197	0.00196	0.51%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00670	0.0066	1.50%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00682	0.00702	2.89%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.051	0.032	45.78%	Pass-1
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0068	<0.005	30.51%	Pass-1
PHOSPHORUS	0.002	0.002	mg/l	0.0127	0.0132	3.86%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0054	0.0067	21.49%	Pass-1
POTASSIUM, D	0.05	0.05	mg/l	2.82	2.85	1.06%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.72	2.79	2.54%	Pass
SELENIUM, D	0.05	0.05	ug/l	18.2	18	1.10%	Pass
SELENIUM, T	0.05	0.05	ug/l	18.9	19	0.53%	Pass
SILICON, D	0.1	0.1	mg/l	2.37	2.39	0.84%	Pass
SILICON, T	0.1	0.1	mg/l	2.39	2.42	1.25%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	4.93	4.94	0.20%	Pass
SODIUM, T	0.05	0.05	mg/l	4.83	4.98	3.06%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.171	0.171	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.168	0.165	1.80%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	867	865	0.23%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	0.000021	<1e-005	70.97%	Pass-1
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.058	0.07	18.75%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.71	2	15.63%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.41	0.32	24.66%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.0123	0.0123	0.00%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0132	0.0128	3.08%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170814_N	WL_SP30_20170814_N
Date Sampled:	8/14/2017	8/14/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	330	326	1.22%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	330	326	1.22%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0038	<0.003	23.53%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00019	0.0002	5.13%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0150	0.0153	1.98%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0151	0.0156	3.26%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.021	0.02	4.88%	Pass
BORON, T	0.01	0.01	mg/l	0.020	0.02	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	5.5e-006	9.52%	Pass

CADMIUM, T	0.000005	0.000005	mg/l	0.0000058	7.9e-006	30.66%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	255	258	1.17%	Pass
CALCIUM, T	0.05	0.05	mg/l	279	288	3.17%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.81	1.52	17.42%	Pass
CHLORIDE, D	2.5	2.5	mg/l	68.7	71.1	3.43%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00019	0.00019	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00019	0.0002	5.13%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1320	1320	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1320	1450	9.39%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1420	1320	7.30%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1420	1450	2.09%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.110	0.113	2.69%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0370	0.0371	0.27%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0367	0.0374	1.89%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	166	165	0.60%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	174	178	2.27%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0858	0.085	0.94%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0877	0.0882	0.57%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00171	0.00178	4.01%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00177	0.00188	6.03%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00757	0.00745	1.60%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00724	0.00744	2.72%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.033	0.13	119.02%	Pass-1
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0079	<0.005	44.96%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0056	0.0049	13.33%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0102	0.013	24.14%	Pass-2
PHOSPHORUS, D	0.002	0.002	mg/l	0.0057	0.0068	17.60%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.46	2.49	1.21%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.62	2.7	3.01%	Pass
SELENIUM, D	0.05	0.05	ug/l	16.3	16.6	1.82%	Pass
SELENIUM, T	0.05	0.05	ug/l	18	18.5	2.74%	Pass
SILICON, D	0.1	0.1	mg/l	2.23	2.23	0.00%	Pass
SILICON, T	0.1	0.1	mg/l	2.23	2.25	0.89%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	4.27	4.25	0.47%	Pass
SODIUM, T	0.05	0.05	mg/l	4.17	4.23	1.43%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.180	0.18	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.180	0.185	2.74%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	883	888	0.56%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1770	1790	1.12%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.105	0.104	0.96%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.83	1.49	20.48%	Pass-1
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.62	0.66	6.25%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0133	0.0135	1.49%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0130	0.0134	3.03%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0033	0.0035	5.88%	Pass

ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
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Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170815_N	WL_SP30_20170815_N
Date Sampled:	8/15/2017	8/15/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
Dimethylselenoxide, D	-	-	ug/l	4.79	4.52	5.80%	Pass
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.358	0.365	1.94%	Pass
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	5.84	5.85	0.17%	Pass
Se(VI) – selenate SeO4(-2), D	-	-	ug/l	1.60	1.58	1.26%	Pass
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	0.017	0.019	11.11%	Pass
Selenosulfate, SeSO3, D	-	-	ug/l	< 0.015	<0.015	0.00%	Pass
SeMe – selenomethionine CH3SeCH2CH2CH(NH2)CO2H, D	-	-	ug/l	< 0.005	<0.005	0.00%	Pass
Unknown selenium species	-	-	ug/l	0.018	0.017	5.71%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170821_N	WL_SP30_20170821_N
Date Sampled:	8/21/2017	8/21/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	0.0049	0.003	48.10%	Pass-1
ANTIMONY, D	0.0001	0.0001	mg/l	0.00021	0.00021	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00025	0.00025	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	0.00011	0.00012	8.70%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0166	0.0164	1.21%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0168	0.0164	2.41%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.022	0.022	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.022	0.023	4.44%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000061	5.6e-006	8.55%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	7e-006	33.33%	Pass-1
CALCIUM, D	0.05	0.05	mg/l	282	279	1.07%	Pass
CALCIUM, T	0.05	0.05	mg/l	283	280	1.07%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.59	1.46	8.52%	Pass
CHLORIDE, D	2.5	2.5	mg/l	69.9	71.1	1.70%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00049	0.00051	4.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00052	0.00053	1.90%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1430	1420	0.70%	Pass
HYDROGEN SULFIDE	0.021	0.021	mg/l	< 0.021	<0.021	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.136	0.135	0.74%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0402	0.0391	2.77%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0393	0.0397	1.01%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	169	170	0.59%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	175	176	0.57%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.194	0.195	0.51%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.202	0.199	1.50%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass

MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00210	0.00218	3.74%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00215	0.00208	3.31%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00746	0.00742	0.54%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00745	0.00751	0.80%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	< 0.025	<0.025	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0178	0.0198	10.64%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0060	0.0064	6.45%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.81	2.81	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.75	2.76	0.36%	Pass
SELENIUM, D	0.05	0.05	ug/l	14.6	14.3	2.08%	Pass
SELENIUM, T	0.05	0.05	ug/l	16.7	16.4	1.81%	Pass
SILICON, D	0.1	0.1	mg/l	2.32	2.29	1.30%	Pass
SILICON, T	0.1	0.1	mg/l	2.33	2.4	2.96%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	5.16	5.18	0.39%	Pass
SODIUM, T	0.05	0.05	mg/l	5.32	5.4	1.49%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.187	0.186	0.54%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.187	0.185	1.08%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	920	933	1.40%	Pass
SULFIDE (as S), T	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	< 0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KIELDAHL NITROGEN	0.05	0.05	mg/l	< 0.050	0.069	31.93%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.47	1.57	6.58%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.4	1.2	15.38%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.61	0.88	36.24%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.0137	0.0138	0.73%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0141	0.0139	1.43%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0033	0.0033	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0034	0.0035	2.90%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170828_N	WL_SP30_20170828_N
Date Sampled:	8/28/2017	8/28/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00026	0.00026	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00024	0.00023	4.26%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0171	0.017	0.59%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0174	0.0173	0.58%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.022	0.023	4.44%	Pass
BORON, T	0.01	0.01	mg/l	0.022	0.022	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	252	250	0.80%	Pass
CALCIUM, T	0.05	0.05	mg/l	250	263	5.07%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.33	1.45	8.63%	Pass
CHLORIDE, D	2.5	2.5	mg/l	69.7	70.6	1.28%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass

CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00015	0.00015	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00016	0.00016	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	24	19	23.26%	Pass-1
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.12	0.12	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1340	1380	2.94%	Pass
HYDROGEN SULFIDE	0.021	0.021	mg/l	< 0.021	<0.021	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.072	0.072	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0402	0.0381	5.36%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0388	0.0401	3.30%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	168	174	3.51%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	175	176	0.57%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0552	0.0559	1.26%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0586	0.0594	1.36%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00205	0.00203	0.98%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00197	0.00205	3.98%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00494	0.00509	2.99%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00503	0.00515	2.36%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.036	0.032	11.76%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0105	0.0108	2.82%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0056	0.0055	1.80%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.64	2.7	2.25%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.71	2.87	5.73%	Pass
SELENIUM, D	0.05	0.05	ug/l	14	14.7	4.88%	Pass
SELENIUM, T	0.05	0.05	ug/l	14.9	14.6	2.03%	Pass
SILICON, D	0.1	0.1	mg/l	2.35	2.36	0.42%	Pass
SILICON, T	0.1	0.1	mg/l	2.44	2.33	4.61%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	5.96	6.07	1.83%	Pass
SODIUM, T	0.05	0.05	mg/l	6.02	6.13	1.81%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.184	0.184	0.00%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.186	0.19	2.13%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	879	889	1.13%	Pass
SULFIDE (as S), T	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KjELDAHL NITROGEN	0.05	0.05	mg/l	0.089	0.098	9.63%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.42	1.53	7.46%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.61	0.4	41.58%	Pass-2
URANIUM, D	0.00001	0.00001	mg/l	0.0135	0.0132	2.25%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0133	0.0138	3.69%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0038	<0.003	23.53%	Pass-1
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170829_N	WL_SP30_20170829_N
Date Sampled:	8/29/2017	8/29/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
Dimethylselenoxide, D	-	-	ug/l	4.06	3.77	7.41%	Pass
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.319	0.337	5.49%	Pass
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	4.33	4.26	1.63%	Pass

Se(VI) – selenate SeO4(-2), D	-	-	ug/l	0.954	0.964	1.04%	Pass
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	0.018	0.019	5.41%	Pass
Selenosulfate, SeSO3, D	-	-	ug/l	< 0.015	<0.015	0.00%	Pass
SeMe – selenomethionine CH3SeCH2CH2CH(NH2)CO2H, D	-	-	ug/l	< 0.005	<0.005	0.00%	Pass
Unknown selenium species	-	-	ug/l	< 0.015	<0.015	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170905_N	WL_SP30_20170905_N
Date Sampled:	9/5/2017	9/5/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00022	0.00022	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00024	0.00024	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00012	0.00013	8.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0187	0.0187	0.00%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0191	0.0191	0.00%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.022	0.021	4.65%	Pass
BORON, T	0.01	0.01	mg/l	0.021	0.021	0.00%	Pass
BROMIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, D	0.05	0.05	mg/l	254	253	0.39%	Pass
CALCIUM, T	0.05	0.05	mg/l	252	254	0.79%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.06	1.06	0.00%	Pass
CHLORIDE, D	2.5	2.5	mg/l	69.0	71.3	3.28%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	0.00017	<0.0001	51.85%	Pass-1
COBALT, D	0.0001	0.0001	mg/l	0.00016	0.00015	6.45%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00017	0.00015	12.50%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
Dimethylselenoxide, D	-	-	ug/l	3.53	3.56	0.85%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.14	0.13	7.41%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1310	1310	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1310	1340	2.26%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1350	1310	3.01%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1350	1340	0.74%	Pass
HYDROGEN SULFIDE	0.021	0.021	mg/l	< 0.021	<0.021	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.097	0.093	4.21%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0423	0.0411	2.88%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0408	0.0406	0.49%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	164	166	1.21%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	174	172	1.16%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0576	0.0583	1.21%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0590	0.0582	1.37%	Pass
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.307	0.312	1.62%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00205	0.00204	0.49%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00232	0.00215	7.61%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00437	0.00429	1.85%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00426	0.00435	2.09%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.053	<0.025	71.79%	Pass-1
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	< 0.005	mg/l	< 0.0050	0.0084	50.75%	Pass-1
PHOSPHORUS	0.001	0.001	mg/l	0.0118	0.0117	0.85%	Pass
PHOSPHORUS, D	0.001	0.001	mg/l	0.0048	0.004	18.18%	Pass

POTASSIUM, D	0.05	0.05	mg/l	2.65	2.72	2.61%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.68	2.68	0.00%	Pass
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	4.22	4.3	1.88%	Pass
Se(VI) – selenate SeO4(-2), D	-	-	ug/l	0.928	0.944	1.71%	Pass
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	0.019	<0.015	23.53%	Fail
SELENIUM, D	0.05	0.05	ug/l	11.8	12.1	2.51%	Pass
SELENIUM, T	0.05	0.05	ug/l	13	13	0.00%	Pass
Selenosulfate, SeSO3, D	-	-	ug/l	< 0.015	<0.015	0.00%	Pass
SeMe – selenomethionine CH3SeCH2CH2CH(NH2)CO2H, D	-	-	ug/l	< 0.005	<0.005	0.00%	Pass
SILICON, D	0.1	0.1	mg/l	2.32	2.29	1.30%	Pass
SILICON, T	0.1	0.1	mg/l	2.27	2.31	1.75%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	5.83	5.95	2.04%	Pass
SODIUM, T	0.05	0.05	mg/l	5.95	5.9	0.84%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.192	0.189	1.57%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.192	0.193	0.52%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	853	894	4.69%	Pass
SULFIDE (as S), T	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KjELDAHL NITROGEN	0.05	0.05	mg/l	0.113	0.103	9.26%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.14	1.21	5.96%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.0	1.2	18.18%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.48	0.49	2.06%	Pass
Unknown selenium species	-	-	ug/l	< 0.015	<0.015	0.00%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0135	0.0132	2.25%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0134	0.0136	1.48%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0051	<0.003	51.85%	Pass-1
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170912_N	WL_SP30_WS_20170912_N
Date Sampled:	9/12/2017	9/12/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	349	345	1.15%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	349	345	1.15%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00020	0.0002	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00029	0.00026	10.91%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0200	0.0192	4.08%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0199	0.0196	1.52%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.022	0.022	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.021	0.022	4.65%	Pass
BROMIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000058	<5e-006	14.81%	Pass
CALCIUM, D	0.05	0.05	mg/l	271	272	0.37%	Pass
CALCIUM, T	0.05	0.05	mg/l	251	253	0.79%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	0.85	0.94	10.06%	Pass
CHLORIDE, D	2.5	2.5	mg/l	71.7	67.3	6.33%	Pass

CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00018	0.00017	5.71%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00018	0.00017	5.71%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1300	1290	0.77%	Pass
HYDROGEN SULFIDE	0.021	0.021	mg/l	< 0.021	<0.021	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.154	0.15	2.63%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0422	0.0423	0.24%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0427	0.0429	0.47%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	165	169	2.40%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	164	159	3.10%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0686	0.0693	1.02%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0701	0.0671	4.37%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00203	0.00204	0.49%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00200	0.002	0.00%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00444	0.00451	1.56%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00443	0.00432	2.51%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	< 0.025	0.109	125.37%	Pass-1
NITRATE NITROGEN (NO3), AS N	-	0.025	mg/l	0.23	0.109	71.39%	Fail
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0013	0.0012	8.00%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0135	0.0132	2.25%	Pass
PHOSPHORUS, D	0.001	0.001	mg/l	0.0053	0.0057	7.27%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.69	2.67	0.75%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.66	2.56	3.83%	Pass
SELENIUM, D	0.05	0.05	ug/l	11	10.9	0.91%	Pass
SELENIUM, T	0.05	0.05	ug/l	11.2	11.3	0.89%	Pass
SILICON, D	0.1	0.1	mg/l	2.31	2.37	2.56%	Pass
SILICON, T	0.1	0.1	mg/l	2.25	2.25	0.00%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	6.56	6.74	2.71%	Pass
SODIUM, T	0.05	0.05	mg/l	6.45	6.3	2.35%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.197	0.201	2.01%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.192	0.191	0.52%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	883	811	8.50%	Pass
SULFIDE (as S), T	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1680	1610	4.26%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.081	0.07	14.57%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	0.94	1.11	16.59%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.0	1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.55	0.59	7.02%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0130	0.0131	0.77%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0133	0.013	2.28%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0040	<0.003	28.57%	Pass-1

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170918_N	WL_SP30_20170918_N

Date Sampled: 9/18/2017
Sample Type: Primary

9/18/2017
Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00018	0.00018	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00023	0.00021	9.09%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0211	0.0214	1.41%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0221	0.0217	1.83%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.019	0.019	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.020	0.021	4.88%	Pass
BROMIDE, D	0.25	0.25	mg/l	0.27	<0.25	7.69%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000053	5.1e-006	3.85%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	0.0000057	<5e-006	13.08%	Pass
CALCIUM, D	0.05	0.05	mg/l	233	235	0.85%	Pass
CALCIUM, T	0.05	0.05	mg/l	275	279	1.44%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.03	1.15	11.01%	Pass
CHLORIDE, D	2.5	2.5	mg/l	73.0	73	0.00%	Pass
CHROMIUM, D	0.0003	0.0003	mg/l	< 0.00030	<0.0003	0.00%	Pass
CHROMIUM, T	0.0003	0.0003	mg/l	< 0.00030	<0.0003	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00023	0.00024	4.26%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00024	0.00023	4.26%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	< 0.10	<0.1	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1210	1230	1.64%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1210	1340	10.20%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1330	1230	7.81%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1330	1340	0.75%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.135	0.135	0.00%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0440	0.0445	1.13%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0455	0.0481	5.56%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	152	155	1.95%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	157	157	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0796	0.0809	1.62%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0810	0.0798	1.49%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00216	0.00221	2.29%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00214	0.00216	0.93%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00842	0.00841	0.12%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00818	0.00829	1.34%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.056	<0.025	76.54%	Pass-1
NITRATE NITROGEN (NO3), AS N	-	0.025	mg/l	0.23	<0.025	160.78%	Fail
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0130	0.0083	44.13%	Pass-1
PHOSPHORUS	0.001	0.001	mg/l	0.0119	0.0125	4.92%	Pass
PHOSPHORUS, D	0.001	0.001	mg/l	0.0072	0.008	10.53%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.55	2.63	3.09%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.60	2.57	1.16%	Pass
SELENIUM, D	0.05	0.05	ug/l	10.9	10.4	4.69%	Pass
SELENIUM, T	0.05	0.05	ug/l	11.5	11.9	3.42%	Pass
SILICON, D	0.1	0.1	mg/l	2.15	2.17	0.93%	Pass
SILICON, T	0.1	0.1	mg/l	2.24	2.23	0.45%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	6.56	6.74	2.71%	Pass
SODIUM, T	0.05	0.05	mg/l	6.62	6.63	0.15%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.195	0.197	1.02%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.193	0.195	1.03%	Pass

SULFATE (AS SO4), D	1.5	1.5	mg/l	898	894	0.45%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.064	0.1	43.90%	Pass-1
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.04	1.07	2.84%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1.6	46.15%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.38	0.65	52.43%	Pass-1
URANIUM, D	0.00001	0.00001	mg/l	0.0132	0.0135	2.25%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0127	0.0128	0.78%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0233	0.0445	62.54%	Fail
ZINC, T	0.003	0.003	mg/l	0.0038	0.0043	12.35%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170919_N	WL_SP30_20170919_N
Date Sampled:	9/19/2017	9/19/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
Dimethylselenoxide, D	-	-	ug/l	2.35	2.47	4.98%	Pass
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.181	0.184	1.64%	Pass
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	3.22	3.18	1.25%	Pass
Se(VI) – selenate SeO4(-2), D	-	-	ug/l	1.00	0.999	0.10%	Pass
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	0.226	0.214	5.45%	Pass
Selenosulfate, SeSO3, D	-	-	ug/l	< 0.015	<0.015	0.00%	Pass
SeMe – selenomethionine CH3SeCH2CH2CH(NH2)CO2H, D	-	-	ug/l	0.013	0.011	16.67%	Pass
Unknown selenium species	-	-	ug/l	< 0.015	<0.015	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20170925_N	WL_SP30_20170925_N
Date Sampled:	9/25/2017	9/25/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	0.28	11.32%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.05	1	4.88%	Pass
CHLORIDE, D	2.5	2.5	mg/l	72.6	71.9	0.97%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.13	0.13	0.00%	Pass
HYDROGEN SULFIDE	0.021	0.021	mg/l	< 0.021	<0.021	0.00%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.220	<0.025	159.18%	Fail
NITRATE NITROGEN (NO3), AS N	-	0.025	mg/l	0.23	<0.025	160.78%	Fail
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
PHOSPHORUS	0.001	0.001	mg/l	0.0128	0.012	6.45%	Pass
PHOSPHORUS, D	0.001	0.001	mg/l	0.0061	0.0095	43.59%	Pass-2
SULFATE (AS SO4), D	1.5	1.5	mg/l	885	875	1.14%	Pass
SULFIDE (as S), T	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.074	0.073	1.36%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.18	1.22	3.33%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.50	0.58	14.81%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20171002_N	WL_SP30_WS_20171002_N

Date Sampled: 10/2/2017
Sample Type: Primary

10/2/2017
Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	212	217	2.33%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	212	217	2.33%	Pass
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00020	0.00019	5.13%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00021	0.00019	10.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0003	0.0008	mg/l	< 0.00030	<0.0008	90.91%	Pass-1
BARIUM, D	0.00005	0.00005	mg/l	0.0236	0.0227	3.89%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0226	0.0222	1.79%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.020	0.02	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.021	0.02	4.88%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	0.0000072	<5e-006	36.07%	Pass-1
CADMIUM, T	0.000005	0.000005	mg/l	0.0000053	<5e-006	5.83%	Pass
CALCIUM, D	0.05	0.05	mg/l	254	256	0.78%	Pass
CALCIUM, T	0.05	0.05	mg/l	240	238	0.84%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.38	1.48	6.99%	Pass
CHLORIDE, D	2.5	2.5	mg/l	73.3	75.1	2.43%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00029	0.00027	7.14%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00027	0.00028	3.64%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.15	0.16	6.45%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1300	1290	0.77%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1300	1320	1.53%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1320	1290	2.30%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1320	1320	0.00%	Pass
HYDROGEN SULFIDE	0.021	0.021	mg/l	< 0.021	<0.021	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.137	0.139	1.45%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0467	0.0469	0.43%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0501	0.0488	2.63%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	166	164	1.21%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	170	170	0.00%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0849	0.0836	1.54%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0783	0.0792	1.14%	Pass
MERCURY, D	0.000005	0.000005	mg/l	< 0.0000050	5.6e-006	11.32%	Pass
MERCURY, T	0.0005	0.0005	ug/l	< 0.00050	<0.0005	0.00%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00226	0.00232	2.62%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00239	0.00245	2.48%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00975	0.00955	2.07%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00822	0.00861	4.63%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.046	0.052	12.24%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	0.0065	26.09%	Pass-1
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0087	<0.005	54.01%	Pass-1
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0027	0.0026	3.77%	Pass
PHOSPHORUS, D	0.001	0.001	mg/l	0.0075	0.0064	15.83%	Pass
PHOSPHORUS, T	0.001	0.001	mg/l	0.0149	0.0157	5.23%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.85	2.82	1.06%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.72	2.72	0.00%	Pass
SELENIUM, D	0.05	0.05	ug/l	9.92	10.3	3.76%	Pass
SELENIUM, T	0.05	0.05	ug/l	10.6	12.4	15.65%	Pass
SILICON, D	0.1	0.1	mg/l	2.13	2.17	1.86%	Pass

SILICON, T	0.1	0.1	mg/l	2.21	2.15	2.75%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.21	7.21	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	7.06	7.02	0.57%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.205	0.203	0.98%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.204	0.206	0.98%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	855	866	1.28%	Pass
SULFIDE (as S), T	0.02	0.02	mg/l	< 0.020	<0.02	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1690	1610	4.85%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.096	0.101	5.08%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.77	1.56	12.61%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.4	1	33.33%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.61	0.69	12.31%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0140	0.0139	0.72%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0133	0.013	2.28%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0040	0.0041	2.47%	Pass
ZINC, T	0.003	0.003	mg/l	0.0034	0.0039	13.70%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20171010_N	WL_SP30_20171010_N
Date Sampled:	10/10/2017	10/10/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	0.0122	121.05%	Pass-1
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00023	0.00022	4.44%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00019	0.00024	23.26%	Pass-1
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0224	0.0229	2.21%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0228	0.024	5.13%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.019	0.018	5.41%	Pass
BORON, T	0.01	0.01	mg/l	0.020	0.021	4.88%	Pass
BROMIDE, D	0.25	0.25	mg/l	0.61	0.47	25.93%	Pass-1
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	6.1e-006	19.82%	Pass
CALCIUM, D	0.05	0.05	mg/l	257	251	2.36%	Pass
CALCIUM, T	0.05	0.05	mg/l	247	265	7.03%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.15	1.12	2.64%	Pass
CHLORIDE, D	2.5	2.5	mg/l	72.1	74.7	3.54%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00021	0.0002	4.88%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00022	0.00022	0.00%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.12	0.12	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1270	1400	9.74%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	<0.0016	0.00%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.101	0.097	4.04%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass

LITHIUM, D	0.001	0.001	mg/l	0.0481	0.0464	3.60%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0427	0.0458	7.01%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	163	162	0.62%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	159	178	11.28%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0663	0.0658	0.76%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0650	0.0683	4.95%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00271	0.00264	2.62%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00262	0.00274	4.48%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00755	0.00761	0.79%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00766	0.00805	4.96%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	< 0.025	<0.025	0.00%	Pass
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	< 0.0050	<0.005	0.00%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0126	0.009	33.33%	Pass-1
PHOSPHORUS	0.001	0.001	mg/l	0.0100	0.0101	1.00%	Pass
PHOSPHORUS, D	0.001	0.001	mg/l	0.0054	0.0053	1.87%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.57	2.57	0.00%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.55	2.74	7.18%	Pass
SELENIUM, D	0.05	0.05	ug/l	9.86	9.51	3.61%	Pass
SELENIUM, T	0.05	0.05	ug/l	10.8	11	1.83%	Pass
SILICON, D	0.1	0.1	mg/l	2.12	2.09	1.43%	Pass
SILICON, T	0.1	0.1	mg/l	2.07	2.26	8.78%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.42	7.28	1.90%	Pass
SODIUM, T	0.05	0.05	mg/l	6.89	7.88	13.41%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.213	0.209	1.90%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.200	0.208	3.92%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	881	910	3.24%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	<0.0015	0.00%	Pass
THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KjELDAHL NITROGEN	0.05	0.05	mg/l	0.154	0.144	6.71%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.17	1.11	5.26%	Pass
TOTAL SUSPENDED SOLIDS, LAB	3	1	mg/l	< 3.0	<1	100.00%	Pass-1
TURBIDITY, LAB	0.1	0.1	ntu	0.41	0.45	9.30%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0135	0.013	3.77%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0132	0.0133	0.75%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	0.0053	0.0032	49.41%	Pass-1

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20171011_N	WL_SP30_20171011_N
Date Sampled:	10/11/2017	10/11/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
Dimethylselenoxide, D	-	-	ug/l	3.83	3.83	0.00%	Pass
MeSe(IV) – methylseleninic acid CH3SeO2H, D	-	-	ug/l	0.230	0.232	0.87%	Pass
Se(IV) – selenite SeO3(-2), D	-	-	ug/l	3.25	3.24	0.31%	Pass
Se(VI) – selenate SeO4(-2), D	-	-	ug/l	0.694	0.698	0.57%	Pass
SeCN – selenocyanate SeCN(-1), D	-	-	ug/l	0.135	0.14	3.64%	Pass
Selenosulfate, SeSO3, D	-	-	ug/l	< 0.015	<0.015	0.00%	Pass
SeMe – selenomethionine CH3SeCH2CH2CH(NH2)CO2H, D	-	-	ug/l	0.019	0.023	19.05%	Pass
Unknown selenium species	-	-	ug/l	< 0.015	<0.015	0.00%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_20171016_N	WL_SP30_20171016_N
Date Sampled:	10/16/2017	10/16/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALUMINUM, D	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ALUMINUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, D	0.0001	0.0001	mg/l	0.00022	0.00021	4.65%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00019	0.00019	0.00%	Pass
ARSENIC, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
BARIUM, D	0.00005	0.00005	mg/l	0.0253	0.0249	1.59%	Pass
BARIUM, T	0.00005	0.00005	mg/l	0.0245	0.024	2.06%	Pass
BERYLLIUM, D	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BIOCHEMICAL OXYGEN DEMAND, FIVE DAY	2	2	mg/l	< 2.0	<2	0.00%	Pass
BISMUTH, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, D	0.01	0.01	mg/l	0.017	0.016	6.06%	Pass
BORON, T	0.01	0.01	mg/l	0.019	0.018	5.41%	Pass
BROMIDE, D	0.25	0.25	mg/l	0.40	0.34	16.22%	Pass
CADMIUM, D	0.000005	0.000005	mg/l	< 0.0000050	5.1e-006	1.98%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	6e-006	18.18%	Pass
CALCIUM, D	0.05	0.05	mg/l	239	234	2.11%	Pass
CALCIUM, T	0.05	0.05	mg/l	256	253	1.18%	Pass
CARBON, DISSOLVED ORGANIC, D	0.5	0.5	mg/l	1.07	1.01	5.77%	Pass
CHLORIDE, D	2.5	2.5	mg/l	77.5	71.4	8.19%	Pass
CHROMIUM, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, D	0.0001	0.0001	mg/l	0.00027	0.00028	3.64%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00030	0.00029	3.39%	Pass
COD - CHEMICAL OXYGEN DEMAND	10	10	mg/l	< 10	<10	0.00%	Pass
COPPER, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.16	0.14	13.33%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1220	1200	1.65%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1220	1290	5.58%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1320	1200	9.52%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1320	1290	2.30%	Pass
HYDROGEN SULFIDE	0.0016	0.0016	mg/l	< 0.0016	0.0019	17.14%	Pass
IRON, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
IRON, T	0.01	0.01	mg/l	0.147	0.141	4.17%	Pass
LEAD, D	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, D	0.001	0.001	mg/l	0.0478	0.0476	0.42%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0524	0.0516	1.54%	Pass
MAGNESIUM, D	0.1	0.1	mg/l	151	150	0.66%	Pass
MAGNESIUM, T	0.1	0.1	mg/l	166	160	3.68%	Pass
MANGANESE, D	0.0001	0.0001	mg/l	0.0902	0.0897	0.56%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0958	0.0907	5.47%	Pass
MICROCYSTIN	0.2	0.2	ug/l	< 0.20	<0.2	0.00%	Pass
MOLYBDENUM, D	0.00005	0.00005	mg/l	0.00302	0.00301	0.33%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00304	0.00296	2.67%	Pass
NICKEL, D	0.0005	0.0005	mg/l	0.00853	0.00834	2.25%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00877	0.00854	2.66%	Pass
NITRATE NITROGEN (NO3), AS N	-	0.025	mg/l	0.23	0.103	76.28%	Fail
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.828	0.103	155.75%	Fail
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0271	0.0083	106.21%	Fail
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0108	0.0084	25.00%	Pass-1
PHOSPHORUS	0.001	0.001	mg/l	0.0135	0.0133	1.49%	Pass
PHOSPHORUS, D	0.001	0.001	mg/l	0.0069	0.0059	15.63%	Pass
POTASSIUM, D	0.05	0.05	mg/l	2.53	2.49	1.59%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.73	2.59	5.26%	Pass
SELENIUM, D	0.05	0.05	ug/l	10.8	10.9	0.92%	Pass
SELENIUM, T	0.05	0.05	ug/l	12.4	11.9	4.12%	Pass
SILICON, D	0.1	0.1	mg/l	1.94	1.87	3.67%	Pass
SILICON, T	0.1	0.1	mg/l	2.16	2.17	0.46%	Pass
SILVER, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, D	0.05	0.05	mg/l	7.59	7.47	1.59%	Pass
SODIUM, T	0.05	0.05	mg/l	8.20	7.9	3.73%	Pass
STRONTIUM, D	0.0002	0.0002	mg/l	0.218	0.211	3.26%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.214	0.213	0.47%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	948	868	8.81%	Pass
SULFIDE (as S), T	0.0015	0.0015	mg/l	< 0.0015	0.0018	18.18%	Pass

THALLIUM, D	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, D	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, D	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL KJELDAHL NITROGEN	0.05	0.05	mg/l	0.114	0.12	5.13%	Pass
TOTAL ORGANIC CARBON, T	0.5	0.5	mg/l	1.08	1.15	6.28%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	< 1.0	<1	0.00%	Pass
TURBIDITY, LAB	0.1	0.1	ntu	0.40	0.44	9.52%	Pass
URANIUM, D	0.00001	0.00001	mg/l	0.0158	0.0164	3.73%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0136	0.0136	0.00%	Pass
VANADIUM, D	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, D	0.003	0.003	mg/l	0.0031	0.0034	9.23%	Pass
ZINC, T	0.003	0.003	mg/l	0.0037	0.0032	14.49%	Pass

Location:	WL_BFWB_OUT_SP21	WL_BFWB_OUT_SP21
Sample ID:	WL_BFWB_OUT_SP21_WS_01092017_N	WL_SP30_WS_01092017_N
Date Sampled:	1/9/2017	1/9/2017
Sample Type:	Primary	Secondary

Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Primary vs. Duplicate	Category1
ALKALINITY, BICARBONATE (As CaCO3), lab measured.	1	1	mg/l	249	261	4.71%	Pass
ALKALINITY, CARBONATE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, HYDROXIDE (As CaCO3), lab measured.	1	1	mg/l	< 1.0	<1	0.00%	Pass
ALKALINITY, TOTAL (As CaCO3), lab measured.	1	1	mg/l	249	261	4.71%	Pass
ALUMINIUM, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass
ANTIMONY, T	0.0001	0.0001	mg/l	0.00029	0.00025	14.81%	Pass
ARSENIC, T	0.0001	0.0001	mg/l	0.00017	0.00014	19.35%	Pass
BARIIUM, T	0.00005	0.00005	mg/l	0.0277	0.0248	11.05%	Pass
BERYLLIUM, T	0.00002	0.00002	mg/l	< 0.000020	<2e-005	0.00%	Pass
BISMUTH, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
BORON, T	0.01	0.01	mg/l	0.017	0.016	6.06%	Pass
BROMIDE, D	0.25	0.25	mg/l	< 0.25	<0.25	0.00%	Pass
CADMIUM, T	0.000005	0.000005	mg/l	< 0.0000050	<5e-006	0.00%	Pass
CALCIUM, T	0.05	0.05	mg/l	235	204	14.12%	Pass
CHLORIDE, D	2.5	2.5	mg/l	67.9	68.3	0.59%	Pass
CHROMIUM, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
COBALT, T	0.0001	0.0001	mg/l	0.00022	0.0002	9.52%	Pass
COLOUR TRUE	5	5	CU	< 5.0	<5	0.00%	Pass
COPPER, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
FLUORIDE, D	0.1	0.1	mg/l	0.18	0.18	0.00%	Pass
Hardness, Total or Dissolved CaCO3	0.5	0.5	mg/l	1100	1030	6.57%	Pass
IRON, T	0.01	0.01	mg/l	0.224	0.238	6.06%	Pass
LEAD, T	0.00005	0.00005	mg/l	< 0.000050	<5e-005	0.00%	Pass
LITHIUM, T	0.001	0.001	mg/l	0.0507	0.0451	11.69%	Pass
MAGNESIUM, T	0.005	0.005	mg/l	145	128	12.45%	Pass
MANGANESE, T	0.0001	0.0001	mg/l	0.0753	0.0734	2.56%	Pass
MOLYBDENUM, T	0.00005	0.00005	mg/l	0.00354	0.00314	11.98%	Pass
NICKEL, T	0.0005	0.0005	mg/l	0.00381	0.00339	11.67%	Pass
NITRATE NITROGEN (NO3), AS N	0.025	0.025	mg/l	0.135	0.057	81.25%	Fail
NITRITE NITROGEN (NO2), AS N	0.005	0.005	mg/l	0.0254	0.0233	8.62%	Pass
NITROGEN, AMMONIA (AS N)	0.005	0.005	mg/l	0.0080	0.0089	10.65%	Pass
ORTHO-PHOSPHATE	0.001	0.001	mg/l	0.0229	0.0222	3.10%	Pass
PHOSPHORUS	0.002	0.002	mg/l	0.0560	0.0502	10.92%	Pass
PHOSPHORUS, D	0.002	0.002	mg/l	0.0260	0.023	12.24%	Pass
POTASSIUM, T	0.05	0.05	mg/l	2.53	2.29	9.96%	Pass
SELENIUM, T	0.05	0.05	ug/l	14.3	13	9.52%	Pass
SILICON, T	0.05	0.05	mg/l	1.92	1.75	9.26%	Pass
SILVER, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
SODIUM, T	0.05	0.05	mg/l	8.24	7.44	10.20%	Pass
STRONTIUM, T	0.0002	0.0002	mg/l	0.221	0.193	13.53%	Pass
SULFATE (AS SO4), D	1.5	1.5	mg/l	715	721	0.84%	Pass
THALLIUM, T	0.00001	0.00001	mg/l	< 0.000010	<1e-005	0.00%	Pass
TIN, T	0.0001	0.0001	mg/l	< 0.00010	<0.0001	0.00%	Pass
TITANIUM, T	0.01	0.01	mg/l	< 0.010	<0.01	0.00%	Pass
TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	20	20	mg/l	1390	1430	2.84%	Pass
TOTAL SUSPENDED SOLIDS, LAB	1	1	mg/l	1.0	1.2	18.18%	Pass

TURBIDITY, LAB	0.1	0.1	ntu	1.36	1.34	1.48%	Pass
URANIUM, T	0.00001	0.00001	mg/l	0.0104	0.00909	13.44%	Pass
VANADIUM, T	0.0005	0.0005	mg/l	< 0.00050	<0.0005	0.00%	Pass
ZINC, T	0.003	0.003	mg/l	< 0.0030	<0.003	0.00%	Pass

Appendix E – Hold Time Exceedance Summary

Summary of Hold Time Exceedance Issues Recorded in 2017

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-01-02	0200337	LC_LC3	ORTHO-PHOSPHATE	N	mg/l	HTD,EHT
2017-01-02	E297110	LC_LCDSSLCC	ORTHO-PHOSPHATE	N	mg/l	HTD,EHT
2017-01-09	0200028	LC_LC5	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTL
2017-01-09	0200044	LC_LC4	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTL
2017-01-09	0200335	LC_LC2	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHT
2017-01-09	0200337	LC_LC3	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHT
2017-01-09	E261958	LC_WLC	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHT
2017-01-09	E282149	LC_SLC	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHT
2017-01-09	E293369	LC_LCUSWLC	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHT
2017-01-09	E297110	LC_LCDSSLCC	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHT
2017-01-09	0200028	LC_LC5	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHTL
2017-01-09	0200044	LC_LC4	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHTL
2017-01-09	0200335	LC_LC2	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHT
2017-01-09	0200337	LC_LC3	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHT
2017-01-09	E261958	LC_WLC	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHT
2017-01-09	E282149	LC_SLC	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHT
2017-01-09	E293369	LC_LCUSWLC	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHT
2017-01-09	E297110	LC_LCDSSLCC	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHT
2017-01-09	0200028	LC_LC5	TURBIDITY, LAB	N	ntu	EHTL
2017-01-09	0200044	LC_LC4	TURBIDITY, LAB	N	ntu	EHTL
2017-01-10	E291569	WL_BFWB_OUT_SP21	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHTL
2017-02-04	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-02-04	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-02-04	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-02-05	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-02-05	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-02-05	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-02-07	0200337	LC_LC3	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-02-07	0200337	LC_LC3	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-02-08	E102679	EV_OC1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-02-08	E208043	EV_GC2	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-02-08	E294312	RG_ELKORES	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-02-08	E298594	EV_SPR2	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-02-08	E102679	EV_OC1	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHTR
2017-02-08	E208043	EV_GC2	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHTR
2017-02-08	E294312	RG_ELKORES	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-02-08	E298594	EV_SPR2	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHTR
2017-02-08	E102679	EV_OC1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-02-08	E208043	EV_GC2	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-02-08	E294312	RG_ELKORES	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-02-08	E298594	EV_SPR2	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-02-08	E102679	EV_OC1	TURBIDITY, LAB	N	ntu	EHTR
2017-02-08	E208043	EV_GC2	TURBIDITY, LAB	N	ntu	EHTR
2017-02-08	E294312	RG_ELKORES	TURBIDITY, LAB	N	ntu	EHTR
2017-02-08	E298594	EV_SPR2	TURBIDITY, LAB	N	ntu	EHTR
2017-02-09	E0200384	GH_CC1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-02-09	E0200384	GH_CC1	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHTR
2017-02-09	E0200384	GH_CC1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-02-09	E0200384	GH_CC1	TURBIDITY, LAB	N	ntu	EHTR
2017-02-11	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-02-11	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-02-11	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-02-12	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-02-12	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-02-12	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-02-14	0200378	GH_FR1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-02-14	0206661	GH_ER1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-02-14	200389	GH_ER2	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-02-14	E257796	GH_LC1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-02-14	E300090	GH_ERC	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-02-14	0200378	GH_FR1	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHTR
2017-02-14	0206661	GH_ER1	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-02-14	200389	GH_ER2	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-02-14	E257796	GH_LC1	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHTR
2017-02-14	E300090	GH_ERC	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-02-14	0200378	GH_FR1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-02-14	0206661	GH_ER1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-02-14	200389	GH_ER2	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-02-14	E257796	GH_LC1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-02-14	E300090	GH_ERC	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-02-14	0200378	GH_FR1	TURBIDITY, LAB	N	ntu	EHTR
2017-02-14	0206661	GH_ER1	TURBIDITY, LAB	N	ntu	EHTR
2017-02-14	200389	GH_ER2	TURBIDITY, LAB	N	ntu	EHTR
2017-02-14	E257796	GH_LC1	TURBIDITY, LAB	N	ntu	EHTR
2017-02-14	E300090	GH_ERC	TURBIDITY, LAB	N	ntu	EHTR
2017-02-16	E304835	FR_LP1	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-02-23	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTL
2017-02-23	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTL
2017-02-23	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTL
2017-03-07	0200203	EV_MC3	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-03-07	0200378	GH_FR1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-03-07	0200393	EV_ER1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-03-07	E102709	GH_GH1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-03-07	E206231	EV_GT1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-03-07	E258135	EV_LC1	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-03-07	E298594	EV_SPR2	ORTHO-PHOSPHATE	N	mg/l	EHTL

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-03-07	E300091	EV_MC2	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-03-07	E310168	EV_MC2A	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-03-07	0200378	GH_FR1	TURBIDITY, LAB	N	ntu	EHTR
2017-03-07	0200393	EV_ER1	TURBIDITY, LAB	N	ntu	EHTR
2017-03-07	E102709	GH_GH1	TURBIDITY, LAB	N	ntu	EHTR
2017-03-07	E206231	EV_GT1	TURBIDITY, LAB	N	ntu	EHTR
2017-03-07	E258135	EV_LC1	TURBIDITY, LAB	N	ntu	EHTL
2017-03-07	E300091	EV_MC2	TURBIDITY, LAB	N	ntu	EHTR
2017-03-07	E310168	EV_MC2A	TURBIDITY, LAB	N	ntu	EHTR
2017-03-09	E102481	FR_CC1	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-03-14	0200378	GH_FR1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-03-14	E102709	GH_GH1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-03-14	0200378	GH_FR1	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHTR
2017-03-14	E102709	GH_GH1	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHTR
2017-03-14	0200378	GH_FR1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-03-14	E102709	GH_GH1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-03-14	0200378	GH_FR1	TURBIDITY, LAB	N	ntu	EHTR
2017-03-14	E102679	EV_OC1	TURBIDITY, LAB	N	ntu	EHTR
2017-03-14	E102709	GH_GH1	TURBIDITY, LAB	N	ntu	EHTR
2017-03-15	E300097	FR_FRRD	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-03-15	E300097	FR_FRRD	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-03-15	E300097	FR_FRRD	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-03-15	200385	GH_PC1	TURBIDITY, LAB	N	ntu	EHTR
2017-03-15	E300097	FR_FRRD	TURBIDITY, LAB	N	ntu	EHTR
2017-03-16	0200337	LC_LC3	TURBIDITY, LAB	N	ntu	EHTR
2017-03-17	0200337	LC_LC3	TURBIDITY, LAB	N	ntu	EHTR
2017-03-25	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-03-25	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-03-25	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-03-30	E291569	WL_BFWB_OUT_SP21	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-03-30	E293370	WL_LCI_SP02	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHTL
2017-03-30	E293371	WL_WLCI_SP01	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHTL
2017-03-31	E216144	LC_LC7	TURBIDITY, LAB	N	ntu	EHTR
2017-03-31	E221268	LC_LC9	TURBIDITY, LAB	N	ntu	EHTR
2017-04-01	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-04-01	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-04-01	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-04-03	E304835	FR_LP1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-04-03	E306924	FR_LMP1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-04-03	E304835	FR_LP1	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-04-03	E306924	FR_LMP1	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-04-03	E304835	FR_LP1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-04-03	E306924	FR_LMP1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-04-03	E304835	FR_LP1	TURBIDITY, LAB	N	ntu	EHTR
2017-04-03	E306924	FR_LMP1	TURBIDITY, LAB	N	ntu	EHTR
2017-04-04	0200378	GH_FR1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHT
2017-04-04	0206661	GH_ER1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHT
2017-04-04	E300090	GH_ERC	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHT
2017-04-04	E300096	FR_HC3	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-04-04	0200378	GH_FR1	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHT
2017-04-04	0206661	GH_ER1	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHT
2017-04-04	E300090	GH_ERC	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHT
2017-04-04	E300096	FR_HC3	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-04-04	E300096	FR_HC3	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-04-04	E300096	FR_HC3	TURBIDITY, LAB	N	ntu	EHTR
2017-04-06	E291569	WL_BFWB_OUT_SP21	TOTAL SUSPENDED SOLIDS, LAB	N	mg/l	HTD,EHT
2017-04-11	0200027	EV_ER4	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-04-11	0200378	GH_FR1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-04-11	E102682	EV_HC1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-04-11	E294312	RG_ELKORES	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-04-11	0200027	EV_ER4	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-04-11	0200378	GH_FR1	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHTR
2017-04-11	E102682	EV_HC1	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHTR
2017-04-11	E294312	RG_ELKORES	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-04-11	0200027	EV_ER4	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-04-11	0200378	GH_FR1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-04-11	E102682	EV_HC1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-04-11	E294312	RG_ELKORES	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-04-11	0200027	EV_ER4	TURBIDITY, LAB	N	ntu	EHTR
2017-04-11	0200111	EV_ER2	TURBIDITY, LAB	N	ntu	EHTR
2017-04-11	0200378	GH_FR1	TURBIDITY, LAB	N	ntu	EHTR
2017-04-11	E102679	EV_OC1	TURBIDITY, LAB	N	ntu	EHTR
2017-04-11	E102681	EV_SM1	TURBIDITY, LAB	N	ntu	EHTR
2017-04-11	E102682	EV_HC1	TURBIDITY, LAB	N	ntu	EHTR
2017-04-11	E102709	GH_GH1	TURBIDITY, LAB	N	ntu	EHTR
2017-04-11	E207437	GH_RLP	TURBIDITY, LAB	N	ntu	EHTR
2017-04-11	E208043	EV_GC2	TURBIDITY, LAB	N	ntu	EHTR
2017-04-11	E294312	RG_ELKORES	TURBIDITY, LAB	N	ntu	EHTR
2017-04-11	E298590	EV_DC1	TURBIDITY, LAB	N	ntu	EHTR
2017-04-11	E298591	EV_FC1	TURBIDITY, LAB	N	ntu	EHTR
2017-04-11	E298592	EV_BLM2	TURBIDITY, LAB	N	ntu	EHTR
2017-04-14	E306924	FR_LMP1	TOTAL SUSPENDED SOLIDS, LAB	N	mg/l	EHTR
2017-04-14	E306924	FR_LMP1	TURBIDITY, LAB	N	ntu	EHTR
2017-04-17	E300094	RG_BORDER	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-04-17	E306924	FR_LMP1	TOTAL SUSPENDED SOLIDS, LAB	N	mg/l	EHTR
2017-04-17	E306924	FR_LMP1	TURBIDITY, LAB	N	ntu	EHTR
2017-04-18	E297110	LC_LCDSSLCC	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-04-21	E306924	FR_LMP1	TURBIDITY, LAB	N	ntu	EHTR
2017-04-29	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-04-29	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-04-29	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-05-01	E298590	EV_DC1	ORTHO-PHOSPHATE	N	mg/l	EHT
2017-05-01	E300096	FR_HC3	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-05-01	E304835	FR_LP1	ORTHO-PHOSPHATE	N	mg/l	EHT
2017-05-01	E306924	FR_LMP1	ORTHO-PHOSPHATE	N	mg/l	EHT
2017-05-01	E300096	FR_HC3	TURBIDITY, LAB	N	ntu	EHTL
2017-05-01	E304835	FR_LP1	TURBIDITY, LAB	N	ntu	EHT
2017-05-01	E306924	FR_LMP1	TURBIDITY, LAB	N	ntu	EHT
2017-05-02	0200378	GH_FR1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-05-02	200389	GH_ER2	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTL
2017-05-02	E102709	GH_GH1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTL
2017-05-02	E300090	GH_ERC	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTL
2017-05-02	0200378	GH_FR1	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHTR
2017-05-02	200389	GH_ER2	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTL
2017-05-02	E102709	GH_GH1	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTL
2017-05-02	E300090	GH_ERC	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTL
2017-05-02	0200378	GH_FR1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-05-02	200389	GH_ER2	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-05-02	E300090	GH_ERC	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-05-02	0200378	GH_FR1	TURBIDITY, LAB	N	ntu	EHTR
2017-05-05	0200044	LC_LC4	TURBIDITY, LAB	N	ntu	EHTR
2017-05-05	0200251	FR_FR1	TURBIDITY, LAB	N	ntu	EHTR
2017-05-05	0200335	LC_LC2	TURBIDITY, LAB	N	ntu	EHTR
2017-05-05	E216142	LC_LC1	TURBIDITY, LAB	N	ntu	EHTR
2017-05-05	E216777	FR_UFR1	TURBIDITY, LAB	N	ntu	EHTR
2017-05-05	E216778	FR_HC1	TURBIDITY, LAB	N	ntu	EHTR

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-05-05	E306924	FR_LMP1	TURBIDITY, LAB	N	ntu	EHTR
2017-05-05	E306924	FR_LMP1	TURBIDITY, LAB	N	ntu	EHTR
2017-05-06	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-05-06	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-05-06	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-05-08	0206661	GH_ER1	ORTHO-PHOSPHATE	N	mg/l	EHT
2017-05-08	0200201	FR_FR2	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	N	mg/l	HTD,EHT
2017-05-08	200385	GH_PC1	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	N	mg/l	HTD,EHT
2017-05-08	E0200384	GH_CC1	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	N	mg/l	HTD,EHT
2017-05-08	E221329	GH_SC1	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	N	mg/l	HTD,EHT
2017-05-09	0200027	EV_ER4	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-05-09	0200378	GH_FR1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTL
2017-05-09	200389	GH_ER2	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTL
2017-05-09	E102682	EV_HC1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTL
2017-05-09	E102709	GH_GH1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTL
2017-05-09	E294312	RG_ELKORES	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-05-09	E300090	GH_ERC	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTL
2017-05-09	E300091	EV_MC2	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-05-09	E309911	GH_GH2	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTL
2017-05-09	0200027	EV_ER4	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-05-09	0200378	GH_FR1	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTL
2017-05-09	200389	GH_ER2	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTL
2017-05-09	E102682	EV_HC1	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTL
2017-05-09	E102709	GH_GH1	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTL
2017-05-09	E294312	RG_ELKORES	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-05-09	E300090	GH_ERC	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTL
2017-05-09	E300091	EV_MC2	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-05-09	E309911	GH_GH2	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTL
2017-05-09	0200027	EV_ER4	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-05-09	0200378	GH_FR1	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-05-09	200389	GH_ER2	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-05-09	E102682	EV_HC1	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-05-09	E294312	RG_ELKORES	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-05-09	E300090	GH_ERC	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-05-09	E300091	EV_MC2	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-05-09	E309911	GH_GH2	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-05-09	0200027	EV_ER4	TURBIDITY, LAB	N	ntu	EHTR
2017-05-09	0200111	EV_ER2	TURBIDITY, LAB	N	ntu	EHTL
2017-05-09	0200378	GH_FR1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-09	200389	GH_ER2	TURBIDITY, LAB	N	ntu	EHTL
2017-05-09	E102679	EV_OC1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-09	E102681	EV_SM1	TURBIDITY, LAB	N	ntu	EHTR
2017-05-09	E102682	EV_HC1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-09	E294312	RG_ELKORES	TURBIDITY, LAB	N	ntu	EHTR
2017-05-09	E298590	EV_DC1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-09	E298591	EV_FC1	TURBIDITY, LAB	N	ntu	EHTR
2017-05-09	E298592	EV_BLM2	TURBIDITY, LAB	N	ntu	EHTR
2017-05-09	E300090	GH_ERC	TURBIDITY, LAB	N	ntu	EHTL
2017-05-09	E300091	EV_MC2	TURBIDITY, LAB	N	ntu	EHTR
2017-05-09	E309911	GH_GH2	TURBIDITY, LAB	N	ntu	EHTL
2017-05-13	0200044	LC_LC4	TURBIDITY, LAB	N	ntu	EHTR
2017-05-13	0200335	LC_LC2	TURBIDITY, LAB	N	ntu	EHTR
2017-05-14	0200044	LC_LC4	TURBIDITY, LAB	N	ntu	EHTL
2017-05-15	0206661	GH_ER1	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	N	mg/l	EHT
2017-05-18	E300097	FR_FRRD	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-05-18	E300097	FR_FRRD	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-05-19	0200044	LC_LC4	TURBIDITY, LAB	N	ntu	EHTR
2017-05-20	E102681	EV_SM1	TURBIDITY, LAB	N	ntu	EHTR
2017-05-24	0206661	GH_ER1	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHTL
2017-05-24	0206661	GH_ER1	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHTL
2017-05-24	0200097	EV_EC1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	0206661	GH_ER1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	200388	GH_MC1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E102685	EV_BC1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E102709	GH_GH1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E102714	GH_TC1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E206231	EV_GT1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E207436	GH_TC2	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E207437	GH_RLP	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E208057	EV_MG1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E210369	EV_AQ1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E257795	GH_WC1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E257796	GH_LC1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E287432	GH_COUGAR	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E287433	GH_WADE	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E296311	EV_SP1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E298593	EV_TC1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E302170	EV_AQ6	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E305854	GH_WILLOW_SP1	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E305875	GH_NNC	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E305876	GH_ER1A	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E305877	GH_ERSC2	TURBIDITY, LAB	N	ntu	EHTL
2017-05-24	E305878	GH_ERSC4	TURBIDITY, LAB	N	ntu	EHTL
2017-06-05	200388	GH_MC1	MERCURY	T	mg/l	EHT
2017-06-05	200388	GH_MC1	ORTHO-PHOSPHATE	N	mg/l	EHT

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-06-05	E257796	GH_LC1	ORTHO-PHOSPHATE	N	mg/l	EHT
2017-06-05	E287432	GH_COUGAR	ORTHO-PHOSPHATE	N	mg/l	EHT
2017-06-05	E287433	GH_WADE	ORTHO-PHOSPHATE	N	mg/l	EHT
2017-06-05	E287437	GH_BR_F	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-06-05	E293370	WL_LCi_SP02	ORTHO-PHOSPHATE	N	mg/l	HTD,EHT
2017-06-05	E293371	WL_WLCi_SP01	ORTHO-PHOSPHATE	N	mg/l	HTD,EHT
2017-06-05	E300096	FR_HC3	ORTHO-PHOSPHATE	N	mg/l	HTD,EHTL
2017-06-05	E305854	GH_WILLOW_SP1	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-06-05	E305875	GH_NNC	ORTHO-PHOSPHATE	N	mg/l	EHT
2017-06-05	E305878	GH_ERSC4	ORTHO-PHOSPHATE	N	mg/l	EHT
2017-06-05	E287437	GH_BR_F	TURBIDITY, LAB	N	ntu	EHTL
2017-06-05	E305854	GH_WILLOW_SP1	TURBIDITY, LAB	N	ntu	EHTL
2017-06-06	E305876	GH_ER1A	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-06-06	E305876	GH_ER1A	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-06-06	E300093	RG_USGOLD	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-06-06	E300093	RG_USGOLD	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-06-06	E300093	RG_USGOLD	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-06-06	E300094	RG_BORDER	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-06-06	E300094	RG_BORDER	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-06-06	E300094	RG_BORDER	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-06-06	E300095	RG_KERRRD	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-06-06	E300095	RG_KERRRD	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-06-06	E300230	RG_DSELK	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-06-06	E300230	RG_DSELK	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-06-06	E300230	RG_DSELK	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-06-06	E305876	GH_ER1A	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-06-06	E300092	RG_GRASMERE	TURBIDITY, LAB	N	ntu	EHTL
2017-06-06	E300092	RG_GRASMERE	TURBIDITY, LAB	N	ntu	EHTL
2017-06-06	E300092	RG_GRASMERE	TURBIDITY, LAB	N	ntu	EHTL

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-06-06	E300093	RG_USGOLD	TURBIDITY, LAB	N	ntu	EHTL
2017-06-06	E300093	RG_USGOLD	TURBIDITY, LAB	N	ntu	EHTL
2017-06-06	E300093	RG_USGOLD	TURBIDITY, LAB	N	ntu	EHTL
2017-06-06	E300094	RG_BORDER	TURBIDITY, LAB	N	ntu	EHTL
2017-06-06	E300094	RG_BORDER	TURBIDITY, LAB	N	ntu	EHTL
2017-06-06	E300094	RG_BORDER	TURBIDITY, LAB	N	ntu	EHTL
2017-06-06	E300095	RG_KERRRD	TURBIDITY, LAB	N	ntu	EHTL
2017-06-06	E300095	RG_KERRRD	TURBIDITY, LAB	N	ntu	EHTL
2017-06-06	E300230	RG_DSELK	TURBIDITY, LAB	N	ntu	EHTR
2017-06-06	E300230	RG_DSELK	TURBIDITY, LAB	N	ntu	EHTR
2017-06-06	E300230	RG_DSELK	TURBIDITY, LAB	N	ntu	EHTR
2017-06-06	E305876	GH_ER1A	TURBIDITY, LAB	N	ntu	EHTR
2017-06-07	E102709	GH_GH1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-06-07	E102714	GH_TC1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-06-07	E207436	GH_TC2	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-06-07	E287438	GH_TPS	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-06-07	E305877	GH_ERSC2	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-06-07	E309911	GH_GH2	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-06-07	E102709	GH_GH1	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHTR
2017-06-07	E102714	GH_TC1	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHTR
2017-06-07	E207436	GH_TC2	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-06-07	E287438	GH_TPS	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-06-07	E305877	GH_ERSC2	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-06-07	E309911	GH_GH2	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHTR
2017-06-07	E102709	GH_GH1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-06-07	E102714	GH_TC1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-06-07	E207436	GH_TC2	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-06-07	E287438	GH_TPS	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-06-07	E305877	GH_ERSC2	ORTHO-PHOSPHATE	N	mg/l	EHTR

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-06-07	E309911	GH_GH2	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-06-07	0200097	EV_EC1	TURBIDITY, LAB	N	ntu	EHTR
2017-06-07	E102709	GH_GH1	TURBIDITY, LAB	N	ntu	EHTR
2017-06-07	E102714	GH_TC1	TURBIDITY, LAB	N	ntu	EHTR
2017-06-07	E207436	GH_TC2	TURBIDITY, LAB	N	ntu	EHTR
2017-06-07	E208057	EV_MG1	TURBIDITY, LAB	N	ntu	EHTR
2017-06-07	E287438	GH_TPS	TURBIDITY, LAB	N	ntu	EHTR
2017-06-07	E296311	EV_SP1	TURBIDITY, LAB	N	ntu	EHTR
2017-06-07	E298593	EV_TC1	TURBIDITY, LAB	N	ntu	EHTR
2017-06-07	E305877	GH_ERSC2	TURBIDITY, LAB	N	ntu	EHTR
2017-06-07	E309911	GH_GH2	TURBIDITY, LAB	N	ntu	EHTR
2017-06-10	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTL
2017-06-10	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-06-10	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-06-13	0200378	GH_FR1	MERCURY	T	ug/l	EHT
2017-06-13	E300090	GH_ERC	MERCURY	T	ug/l	EHT
2017-06-13	0200027	EV_ER4	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-06-13	0200393	EV_ER1	ORTHO-PHOSPHATE	N	mg/l	EHTL
2017-06-13	0200027	EV_ER4	TURBIDITY, LAB	N	ntu	EHTL
2017-06-13	0200393	EV_ER1	TURBIDITY, LAB	N	ntu	EHTL
2017-06-14	E216778	FR_HC1	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-06-14	E216778	FR_HC1	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-06-17	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-06-17	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-06-17	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-06-19	0200378	GH_FR1	MERCURY	T	ug/l	EHT
2017-06-19	E207436	GH_TC2	MERCURY	T	ug/l	EHT
2017-06-19	E300090	GH_ERC	MERCURY	T	ug/l	EHT
2017-06-20	0206661	GH_ER1	MERCURY	T	ug/l	EHT

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-06-24	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-06-24	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-06-24	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-06-27	0200378	GH_FR1	MERCURY	T	ug/l	EHT
2017-06-27	0206661	GH_ER1	MERCURY	T	ug/l	EHT
2017-06-27	E300090	GH_ERC	MERCURY	T	ug/l	EHT
2017-07-04	0200027	EV_ER4	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHTL
2017-07-04	E102682	EV_HC1	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHTL
2017-07-04	E300092	RG_GRASMERE	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-04	E300092	RG_GRASMERE	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-04	E300092	RG_GRASMERE	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-04	E300093	RG_USGOLD	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-04	E300093	RG_USGOLD	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-04	E300093	RG_USGOLD	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-04	E300094	RG_BORDER	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-04	E300094	RG_BORDER	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-04	E300094	RG_BORDER	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-04	E300094	RG_BORDER	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-04	E300095	RG_KERRRD	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-04	E300095	RG_KERRRD	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-04	E300095	RG_KERRRD	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-04	E300230	RG_DSELK	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-04	E300230	RG_DSELK	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-04	E300230	RG_DSELK	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-04	0200027	EV_ER4	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHTL
2017-07-04	E102682	EV_HC1	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHTL
2017-07-04	E300092	RG_GRASMERE	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-07-04	E300092	RG_GRASMERE	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-07-04	E300092	RG_GRASMERE	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-07-04	E300093	RG_USGOLD	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-07-04	E300093	RG_USGOLD	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-07-04	E300093	RG_USGOLD	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-07-04	E300094	RG_BORDER	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-07-04	E300094	RG_BORDER	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-07-04	E300094	RG_BORDER	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-07-04	E300095	RG_KERRRD	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-07-04	E300095	RG_KERRRD	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-07-04	E300095	RG_KERRRD	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-07-04	E300230	RG_DSELK	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-07-04	E300230	RG_DSELK	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-07-04	E300230	RG_DSELK	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-07-05	0200384	GH_CC1	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-05	200385	GH_PC1	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-05	E0200384	GH_CC1	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-07-05	0200384	GH_CC1	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHT
2017-07-05	200385	GH_PC1	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHT
2017-07-05	E0200384	GH_CC1	NITRITE NITROGEN (NO2), AS N	N	mg/l	DLDS,EHT
2017-07-08	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-07-08	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-07-08	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-07-11	0200378	GH_FR1	MERCURY	T	ug/l	EHT
2017-07-11	0206661	GH_ER1	MERCURY	T	ug/l	EHT
2017-07-11	E102709	GH_GH1	MERCURY	T	ug/l	EHT
2017-07-11	E300090	GH_ERC	MERCURY	T	ug/l	EHT
2017-07-25	E258175	CM_MC1	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-07-25	E258175	CM_MC1	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-07-25	0200044	LC_LC4	ORTHO-PHOSPHATE	N	mg/l	HTD,EHT
2017-07-25	E258175	CM_MC1	ORTHO-PHOSPHATE	N	mg/l	EHTR
2017-07-25	E258175	CM_MC1	TOTAL SUSPENDED SOLIDS, LAB	N	mg/l	EHTR

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-07-25	E258175	CM_MC1	TURBIDITY, LAB	N	ntu	EHTR
2017-07-27	E291569	WL_BFWB_OUT_SP21	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHTL
2017-07-27	E293370	WL_LCI_SP02	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHTL
2017-07-27	E293371	WL_WLCI_SP01	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHTL
2017-07-29	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-07-29	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-07-29	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-07-30	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-07-30	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-07-30	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-08-02	0206661	GH_ER1	TURBIDITY, LAB	N	ntu	EHT
2017-08-02	E102714	GH_TC1	TURBIDITY, LAB	N	ntu	EHT
2017-08-02	E207436	GH_TC2	TURBIDITY, LAB	N	ntu	EHTL
2017-08-02	E257796	GH_LC1	TURBIDITY, LAB	N	ntu	EHT
2017-08-02	E305875	GH_NNC	TURBIDITY, LAB	N	ntu	EHTL
2017-08-02	E305876	GH_ER1A	TURBIDITY, LAB	N	ntu	EHT
2017-08-02	E305877	GH_ERSC2	TURBIDITY, LAB	N	ntu	EHT
2017-08-02	E305878	GH_ERSC4	TURBIDITY, LAB	N	ntu	EHT
2017-08-09	0200251	FR_FR1	TURBIDITY, LAB	N	ntu	EHT
2017-08-10	0200201	FR_FR2	TURBIDITY, LAB	N	ntu	EHT
2017-08-26	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-08-26	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-08-26	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-08-28	E293370	WL_LCI_SP02	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-09-05	0200028	LC_LC5	ORTHO-PHOSPHATE	N	mg/l	EHT
2017-09-05	0200044	LC_LC4	ORTHO-PHOSPHATE	N	mg/l	EHT
2017-09-08	E305878	GH_ERSC4	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTR
2017-09-08	E305878	GH_ERSC4	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTR
2017-09-08	E305878	GH_ERSC4	ORTHO-PHOSPHATE	N	mg/l	EHTR

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-09-09	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-09-09	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-09-09	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-09-10	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-09-10	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-09-10	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-09-12	E310168	EV_MC2A	MERCURY	D	mg/l	EHT
2017-09-12	E310168	EV_MC2A	MERCURY	T	mg/l	EHT
2017-09-12	E298594	EV_SPR2	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	N	mg/l	HTD,EHT
2017-09-16	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-09-16	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-09-16	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-09-20	E261958	LC_WLC	NITRITE NITROGEN (NO ₂), AS N	N	mg/l	HTD,EHT
2017-09-30	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-09-30	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-09-30	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-10-02	E258135	EV_LC1	ALKALINITY, TOTAL (As CaCO ₃), lab measured.	N	mg/l	HTD,EHT
2017-10-02	E258135	EV_LC1	CONDUCTIVITY, LAB	N	us/cm	HTD,EHT
2017-10-02	E300091	EV_MC2	MERCURY	D	mg/l	EHT
2017-10-02	E310168	EV_MC2A	MERCURY	T	mg/l	EHT
2017-10-03	0200097	EV_EC1	ALKALINITY, TOTAL (As CaCO ₃), lab measured.	N	mg/l	EHT
2017-10-03	0200393	EV_ER1	ALKALINITY, TOTAL (As CaCO ₃), lab measured.	N	mg/l	EHT
2017-10-03	E208057	EV_MG1	ALKALINITY, TOTAL (As CaCO ₃), lab measured.	N	mg/l	EHT
2017-10-03	E296310	EV_GH1	ALKALINITY, TOTAL (As CaCO ₃), lab measured.	N	mg/l	EHT
2017-10-03	E296311	EV_SP1	ALKALINITY, TOTAL (As CaCO ₃), lab measured.	N	mg/l	EHT

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-10-03	E298594	EV_SPR2	ALKALINITY, TOTAL (As CaCO3), lab measured.	N	mg/l	EHT
2017-10-03	E302170	EV_AQ6	ALKALINITY, TOTAL (As CaCO3), lab measured.	N	mg/l	EHT
2017-10-03	E257796	GH_LC1	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-10-03	E305876	GH_ER1A	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHT
2017-10-03	E305878	GH_ERSC4	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHT
2017-10-03	E257796	GH_LC1	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHT
2017-10-03	E305876	GH_ER1A	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHT
2017-10-03	E305878	GH_ERSC4	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHT
2017-10-03	E291569	WL_BFWB_OUT_SP21	TOTAL SUSPENDED SOLIDS, LAB	N	mg/l	EHT
2017-10-03	E293370	WL_LCI_SP02	TOTAL SUSPENDED SOLIDS, LAB	N	mg/l	EHT
2017-10-03	E293371	WL_WLCI_SP01	TOTAL SUSPENDED SOLIDS, LAB	N	mg/l	EHT
2017-10-03	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTL
2017-10-03	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTL
2017-10-03	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTL
2017-10-04	0200201	FR_FR2	ALKALINITY, TOTAL (As CaCO3), lab measured.	N	mg/l	EHT
2017-10-04	0200209	CM_CC1	ALKALINITY, TOTAL (As CaCO3), lab measured.	N	mg/l	EHT
2017-10-04	0200252	FR_KC1	ALKALINITY, TOTAL (As CaCO3), lab measured.	N	mg/l	EHT
2017-10-04	E0200384	GH_CC1	ALKALINITY, TOTAL (As CaCO3), lab measured.	N	mg/l	EHT
2017-10-04	E221329	GH_SC1	ALKALINITY, TOTAL (As CaCO3), lab measured.	N	mg/l	EHT
2017-10-04	E298734	CM_SOW	ALKALINITY, TOTAL (As CaCO3), lab measured.	N	mg/l	EHT
2017-10-07	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-10-07	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-10-07	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-10-08	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-10-08	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-10-08	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-10-14	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-10-14	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-10-14	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-10-21	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-10-21	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-10-21	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-10-23	E310046	FR_NL1H	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-10-23	E310049	FR_SKP1H	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-10-23	E310050	FR_SKP2H	NITRATE NITROGEN (NO3), AS N	N	mg/l	HTD,EHT
2017-10-23	E310046	FR_NL1H	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-10-23	E310049	FR_SKP1H	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-10-23	E310050	FR_SKP2H	NITRITE NITROGEN (NO2), AS N	N	mg/l	HTD,EHT
2017-10-24	0200044	LC_LC4	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTL
2017-10-24	0200337	LC_LC3	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTL
2017-10-24	E261958	LC_WLC	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTL
2017-10-24	E293369	LC_LCUSWLC	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTL
2017-10-24	E297110	LC_LCDSSLCC	NITRATE NITROGEN (NO3), AS N	N	mg/l	EHTL
2017-10-24	0200044	LC_LC4	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTL
2017-10-24	0200337	LC_LC3	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTL
2017-10-24	E261958	LC_WLC	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTL
2017-10-24	E293369	LC_LCUSWLC	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTL
2017-10-24	E297110	LC_LCDSSLCC	NITRITE NITROGEN (NO2), AS N	N	mg/l	EHTL
2017-11-04	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-11-04	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-11-04	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-11-16	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTL
2017-11-16	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTL

Date	EMS ID	Location Code	Parameter	Fraction	Unit	Issue
2017-11-16	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTL
2017-11-23	0200044	LC_LC4	TURBIDITY, LAB	N	ntu	EHTR
2017-11-25	E291569	WL_BFWB_OUT_SP21	TURBIDITY, LAB	N	ntu	EHTR
2017-11-25	E293370	WL_LCI_SP02	TURBIDITY, LAB	N	ntu	EHTR
2017-11-25	E293371	WL_WLCI_SP01	TURBIDITY, LAB	N	ntu	EHTR
2017-12-07	E207437	GH_RLP	ORTHO-PHOSPHATE	N	mg/l	HTD,EHT
2017-12-12	E305878	GH_ERSC4	ALKALINITY, TOTAL (As CaCO3), lab measured.	N	mg/l	EHT
2017-12-12	E102714	GH_TC1	TURBIDITY, LAB	N	ntu	EHT
2017-12-12	E257795	GH_WC1	TURBIDITY, LAB	N	ntu	EHT
2017-12-12	E305878	GH_ERSC4	TURBIDITY, LAB	N	ntu	EHT

EHTL = Exceeded recommended hold time prior to analysis. Sample received less than 24 hours prior to expiry.

EHTR = Exceeded recommended hold time prior to sample receipt.

EHT = Exceeded recommended hold time prior to analysis.

Appendix F – BCWQG Exceedance

Summary of Results Above British Columbia Water Quality Guidelines in 2017

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
2/20/2017	0200393	EV_ER1	pH, Field	4.5	ph units	9	6.5	BCWQG Approved Max
2/21/2017	E300091	EV_MC2	pH, Field	5.6	ph units	9	6.5	BCWQG Approved Max
2/21/2017	0200027	EV_ER4	pH, Field	5.8	ph units	9	6.5	BCWQG Approved Max
3/6/2017	0200027	EV_ER4	pH, Field	4.1	ph units	9	6.5	BCWQG Approved Max
3/6/2017	0200111	EV_ER2	pH, Field	5	ph units	9	6.5	BCWQG Approved Max
3/16/2017	E298593	EV_TC1	MERCURY - Ultra Trace	0.00161	ug/l	0.00125		BCWQG Approved Average
3/16/2017	E298591	EV_FC1	BERYLLIUM	0.254	ug/l	0.13		BCWQG Working Average
3/16/2017	E298591	EV_FC1	IRON	3.91	mg/l	1		BCWQG Approved Max
3/16/2017	E298591	EV_FC1	MERCURY - Ultra Trace	0.00727	ug/l	0.00125		BCWQG Approved Average
3/16/2017	0200203	EV_MC3	IRON	1.7	mg/l	1		BCWQG Approved Max
3/16/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.003355	ug/l	0.00125		BCWQG Approved Average
3/20/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.00348	ug/l	0.00125		BCWQG Approved Average
3/20/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.001285	ug/l	0.00125		BCWQG Approved Average
3/29/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.00291	ug/l	0.00125		BCWQG Approved Average
3/29/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.0014175	ug/l	0.00125		BCWQG Approved Average
4/3/2017	E298592	EV_BLM2	MERCURY - Ultra Trace	0.00295	ug/l	0.00125		BCWQG Approved Average
4/3/2017	E298591	EV_FC1	BERYLLIUM	0.163	ug/l	0.13		BCWQG Working Average
4/3/2017	E298591	EV_FC1	IRON	1.41	mg/l	1		BCWQG Approved Max
4/3/2017	E298591	EV_FC1	MERCURY - Ultra Trace	0.006245	ug/l	0.00125		BCWQG Approved Average
4/4/2017	E298593	EV_TC1	MERCURY - Ultra Trace	0.00191	ug/l	0.00125		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
4/4/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.002884	ug/l	0.00125		BCWQG Approved Average
4/5/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.001334	ug/l	0.00125		BCWQG Approved Average
4/12/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.003072	ug/l	0.00125		BCWQG Approved Average
4/12/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.001464	ug/l	0.00125		BCWQG Approved Average
4/20/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.002025	ug/l	0.00125		BCWQG Approved Average
4/20/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.0013925	ug/l	0.00125		BCWQG Approved Average
4/24/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.001756	ug/l	0.00125		BCWQG Approved Average
4/26/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.002266	ug/l	0.00125		BCWQG Approved Average
5/2/2017	E298591	EV_FC1	MERCURY - Ultra Trace	0.004695	ug/l	0.00125		BCWQG Approved Average
5/2/2017	E298592	EV_BLM2	BERYLLIUM	0.1475	ug/l	0.13		BCWQG Working Average
5/2/2017	E298592	EV_BLM2	IRON	3.7	mg/l	1		BCWQG Approved Max
5/2/2017	E298592	EV_BLM2	MERCURY - Ultra Trace	0.01034	ug/l	0.00125		BCWQG Approved Average
5/2/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.001922	ug/l	0.00125		BCWQG Approved Average
5/3/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.002528	ug/l	0.00125		BCWQG Approved Average
5/3/2017	E298593	EV_TC1	MERCURY - Ultra Trace	0.00239	ug/l	0.00125		BCWQG Approved Average
5/9/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.002752	ug/l	0.00125		BCWQG Approved Average
5/10/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.002938	ug/l	0.00125		BCWQG Approved Average
5/10/2017	0200393	EV_ER1	MERCURY - Ultra Trace	0.00169	ug/l	0.00125		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
5/16/2017	0200027	EV_ER4	MERCURY - Ultra Trace	0.001372	ug/l	0.00125		BCWQG Approved Average
5/16/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.00314	ug/l	0.00125		BCWQG Approved Average
5/17/2017	0200203	EV_MC3	IRON	1.01	mg/l	1		BCWQG Approved Max
5/17/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.00407	ug/l	0.00125		BCWQG Approved Average
5/17/2017	0200393	EV_ER1	MERCURY - Ultra Trace	0.00237	ug/l	0.00125		BCWQG Approved Average
5/23/2017	0200027	EV_ER4	MERCURY - Ultra Trace	0.001962	ug/l	0.00125		BCWQG Approved Average
5/23/2017	E300091	EV_MC2	IRON	2.08	mg/l	1		BCWQG Approved Max
5/23/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.00461	ug/l	0.00125		BCWQG Approved Average
5/24/2017	0200203	EV_MC3	IRON	7.65	mg/l	1		BCWQG Approved Max
5/24/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.010254	ug/l	0.00125		BCWQG Approved Average
5/24/2017	0200203	EV_MC3	SILVER	0.199	ug/l	0.1		BCWQG Approved Max
5/24/2017	0200203	EV_MC3	ZINC	61.5	ug/l	33		BCWQG Approved Max
5/24/2017	0200393	EV_ER1	IRON	7.44	mg/l	1		BCWQG Approved Max
5/24/2017	0200393	EV_ER1	MERCURY - Ultra Trace	0.008314	ug/l	0.00125		BCWQG Approved Average
5/30/2017	0200203	EV_MC3	IRON	1.91	mg/l	1		BCWQG Approved Max
5/30/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.01151	ug/l	0.00125		BCWQG Approved Average
5/30/2017	0200393	EV_ER1	IRON	3.32	mg/l	1		BCWQG Approved Max
5/30/2017	0200393	EV_ER1	MERCURY - Ultra Trace	0.01019	ug/l	0.00125		BCWQG Approved Average
5/30/2017	0200027	EV_ER4	IRON	2.39	mg/l	1		BCWQG Approved Max
5/30/2017	0200027	EV_ER4	MERCURY - Ultra Trace	0.003292	ug/l	0.00125		BCWQG Approved Average
5/30/2017	E300091	EV_MC2	IRON	2.24	mg/l	1		BCWQG Approved Max
5/30/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.005764	ug/l	0.00125		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
6/5/2017	E298591	EV_FC1	MERCURY - Ultra Trace	0.0017	ug/l	0.00125		BCWQG Approved Average
6/5/2017	E298592	EV_BLM2	IRON	1.09	mg/l	1		BCWQG Approved Max
6/5/2017	E298592	EV_BLM2	MERCURY - Ultra Trace	0.00582	ug/l	0.00125		BCWQG Approved Average
6/5/2017	0200111	EV_ER2	IRON	1.53	mg/l	1		BCWQG Approved Max
6/5/2017	0200111	EV_ER2	MERCURY - Ultra Trace	0.00491	ug/l	0.00125		BCWQG Approved Average
6/5/2017	E298594	EV_SPR2	DISSOLVED OXYGEN, FIELD	7.69	mg/l		8	BCWQG Approved Average
6/6/2017	0200203	EV_MC3	BERYLLIUM	0.1326	ug/l	0.13		BCWQG Working Average
6/6/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.012128	ug/l	0.00125		BCWQG Approved Average
6/6/2017	0200203	EV_MC3	ZINC	20.42	ug/l	17.505		BCWQG Approved Average
6/6/2017	0200393	EV_ER1	BERYLLIUM	0.1374	ug/l	0.13		BCWQG Working Average
6/6/2017	0200393	EV_ER1	IRON	1.08	mg/l	1		BCWQG Approved Max
6/6/2017	0200393	EV_ER1	MERCURY - Ultra Trace	0.010986	ug/l	0.00125		BCWQG Approved Average
6/6/2017	0200027	EV_ER4	IRON	1.11	mg/l	1		BCWQG Approved Max
6/6/2017	0200027	EV_ER4	MERCURY - Ultra Trace	0.004036	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.006138	ug/l	0.00125		BCWQG Approved Average
6/13/2017	0200027	EV_ER4	MERCURY - Ultra Trace	0.004074	ug/l	0.00125		BCWQG Approved Average
6/13/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.011842	ug/l	0.00125		BCWQG Approved Average
6/13/2017	0200203	EV_MC3	ZINC	19.92	ug/l	16.005		BCWQG Approved Average
6/13/2017	0200393	EV_ER1	BERYLLIUM	0.139	ug/l	0.13		BCWQG Working Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
6/13/2017	0200393	EV_ER1	MERCURY - Ultra Trace	0.010994	ug/l	0.00125		BCWQG Approved Average
6/14/2017	E298593	EV_TC1	MERCURY - Ultra Trace	0.00134	ug/l	0.00125		BCWQG Approved Average
6/14/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.005928	ug/l	0.00125		BCWQG Approved Average
6/20/2017	0200027	EV_ER4	MERCURY - Ultra Trace	0.00393	ug/l	0.00125		BCWQG Approved Average
6/21/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.010922	ug/l	0.00125		BCWQG Approved Average
6/21/2017	0200203	EV_MC3	ZINC	18.6	ug/l	11.355		BCWQG Approved Average
6/21/2017	0200393	EV_ER1	BERYLLIUM	0.135	ug/l	0.13		BCWQG Working Average
6/21/2017	0200393	EV_ER1	MERCURY - Ultra Trace	0.010604	ug/l	0.00125		BCWQG Approved Average
6/21/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.005674	ug/l	0.00125		BCWQG Approved Average
6/21/2017	0200027	EV_ER4	MERCURY - Ultra Trace	0.004725	ug/l	0.00125		BCWQG Approved Average
6/27/2017	0200027	EV_ER4	MERCURY - Ultra Trace	0.00436167	ug/l	0.00125		BCWQG Approved Average
6/28/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.004428	ug/l	0.00125		BCWQG Approved Average
6/28/2017	0200393	EV_ER1	MERCURY - Ultra Trace	0.004552	ug/l	0.00125		BCWQG Approved Average
6/28/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.003894	ug/l	0.00125		BCWQG Approved Average
7/4/2017	0200027	EV_ER4	MERCURY - Ultra Trace	0.003275	ug/l	0.00125		BCWQG Approved Average
7/5/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.002684	ug/l	0.00125		BCWQG Approved Average
7/5/2017	0200393	EV_ER1	MERCURY - Ultra Trace	0.002454	ug/l	0.00125		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
7/5/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.002222	ug/l	0.00125		BCWQG Approved Average
7/10/2017	0200027	EV_ER4	MERCURY - Ultra Trace	0.00264167	ug/l	0.00125		BCWQG Approved Average
7/11/2017	E298594	EV_SPR2	DISSOLVED OXYGEN, FIELD	6.31	mg/l		8	BCWQG Approved Average
7/11/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.001724	ug/l	0.00125		BCWQG Approved Average
7/12/2017	0200393	EV_ER1	MERCURY - Ultra Trace	0.001564	ug/l	0.00125		BCWQG Approved Average
7/12/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.001676	ug/l	0.00125		BCWQG Approved Average
8/2/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.0017775	ug/l	0.00125		BCWQG Approved Average
8/2/2017	E298594	EV_SPR2	DISSOLVED OXYGEN, FIELD	6.775	mg/l		8	BCWQG Approved Average
8/2/2017	E298594	EV_SPR2	MERCURY - Ultra Trace	0.00201667	ug/l	0.00125		BCWQG Approved Average
8/2/2017	0200203	EV_MC3	MERCURY - Ultra Trace	0.0017775	ug/l	0.00125		BCWQG Approved Average
8/2/2017	E298594	EV_SPR2	MERCURY - Ultra Trace	0.00201667	ug/l	0.00125		BCWQG Approved Average
8/3/2017	0200393	EV_ER1	MERCURY - Ultra Trace	0.0017275	ug/l	0.00125		BCWQG Approved Average
8/3/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.001584	ug/l	0.00125		BCWQG Approved Average
8/3/2017	0200393	EV_ER1	MERCURY - Ultra Trace	0.0017275	ug/l	0.00125		BCWQG Approved Average
8/3/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.001584	ug/l	0.00125		BCWQG Approved Average
8/9/2017	0200111	EV_ER2	MERCURY - Ultra Trace	0.00389	ug/l	0.00125		BCWQG Approved Average
8/10/2017	E298592	EV_BLM2	MERCURY - Ultra Trace	0.00244	ug/l	0.00125		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
8/15/2017	E298592	EV_BLM2	MERCURY - Ultra Trace	0.001825	ug/l	0.00125		BCWQG Approved Average
9/12/2017	E298594	EV_SPR2	DISSOLVED OXYGEN, FIELD	7.55	mg/l		8	BCWQG Approved Average
10/2/2017	E298591	EV_FC1	MERCURY - Ultra Trace	0.00184	ug/l	0.00125		BCWQG Approved Average
10/3/2017	E298594	EV_SPR2	DISSOLVED OXYGEN, FIELD	7.915	mg/l		8	BCWQG Approved Average
10/24/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.0036	ug/l	0.00125		BCWQG Approved Average
10/31/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.003166	ug/l	0.00125		BCWQG Approved Average
11/15/2017	E300091	EV_MC2	MERCURY - Ultra Trace	0.0038325	ug/l	0.00125		BCWQG Approved Average
12/6/2017	E310168	EV_MC2A	MERCURY - Ultra Trace	0.0028	ug/l	0.00125		BCWQG Approved Average
1/5/2017	0200209	CM_CC1	COBALT	11.1375	ug/l	4		BCWQG Approved Average
1/5/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.056175	mg/l	0.04		BCWQG Approved Average
1/5/2017	E258937	CM_MC2	COBALT	4.0725	ug/l	4		BCWQG Approved Average
1/12/2017	E258937	CM_MC2	COBALT	4.43	ug/l	4		BCWQG Approved Average
1/17/2017	0200209	CM_CC1	COBALT	12.2667	ug/l	4		BCWQG Approved Average
1/17/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.0660667	mg/l	0.04		BCWQG Approved Average
1/17/2017	E258937	CM_MC2	COBALT	4.3025	ug/l	4		BCWQG Approved Average
1/24/2017	0200209	CM_CC1	COBALT	11.4	ug/l	4		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
1/24/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.0707333	mg/l	0.04		BCWQG Approved Average
1/30/2017	0200209	CM_CC1	COBALT	11.325	ug/l	4		BCWQG Approved Average
1/30/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.0626	mg/l	0.04		BCWQG Approved Average
1/31/2017	0200209	CM_CC1	COBALT	11.42	ug/l	4		BCWQG Approved Average
1/31/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.05762	mg/l	0.04		BCWQG Approved Average
2/1/2017	0200209	CM_CC1	COBALT	11.6167	ug/l	4		BCWQG Approved Average
2/1/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.0542	mg/l	0.04		BCWQG Approved Average
2/7/2017	0200209	CM_CC1	COBALT	11.6833	ug/l	4		BCWQG Approved Average
2/7/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.0523833	mg/l	0.04		BCWQG Approved Average
2/21/2017	0200209	CM_CC1	COBALT	11.31	ug/l	4		BCWQG Approved Average
3/1/2017	0200209	CM_CC1	COBALT	11.152	ug/l	4		BCWQG Approved Average
3/7/2017	0200209	CM_CC1	COBALT	12.415	ug/l	4		BCWQG Approved Average
3/7/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.060575	mg/l	0.06		BCWQG Approved Average
3/15/2017	0200209	CM_CC1	COBALT	14.69	ug/l	4		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
3/15/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.0917	mg/l	0.06		BCWQG Approved Average
3/15/2017	E258937	CM_MC2	COBALT	4.72667	ug/l	4		BCWQG Approved Average
3/21/2017	E258937	CM_MC2	COBALT	4.55429	ug/l	4		BCWQG Approved Average
3/22/2017	E258937	CM_MC2	COBALT	4.66	ug/l	4		BCWQG Approved Average
3/22/2017	0200209	CM_CC1	COBALT	15.092	ug/l	4		BCWQG Approved Average
3/22/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.08592	mg/l	0.06		BCWQG Approved Average
3/29/2017	0200209	CM_CC1	COBALT	16.36	ug/l	4		BCWQG Approved Average
3/29/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.08918	mg/l	0.06		BCWQG Approved Average
3/29/2017	E258937	CM_MC2	COBALT	4.9925	ug/l	4		BCWQG Approved Average
4/5/2017	E258175	CM_MC1	BERYLLIUM	0.138	ug/l	0.13		BCWQG Working Average
4/5/2017	E258175	CM_MC1	pH, Field	10	ph units	9	6.5	BCWQG Approved Max
4/5/2017	0200209	CM_CC1	COBALT	16.62	ug/l	4		BCWQG Approved Average
4/5/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.08802	mg/l	0.06		BCWQG Approved Average
4/5/2017	E258937	CM_MC2	COBALT	5.47286	ug/l	4		BCWQG Approved Average
4/12/2017	E258937	CM_MC2	COBALT	5.35143	ug/l	4		BCWQG Approved Average
4/12/2017	0200209	CM_CC1	COBALT	15.7	ug/l	4		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
4/12/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.0842	mg/l	0.06		BCWQG Approved Average
4/19/2017	0200209	CM_CC1	COBALT	15.9	ug/l	4		BCWQG Approved Average
4/19/2017	E258937	CM_MC2	COBALT	5.04167	ug/l	4		BCWQG Approved Average
4/24/2017	E258937	CM_MC2	COBALT	5.312	ug/l	4		BCWQG Approved Average
4/26/2017	0200209	CM_CC1	COBALT	15.32	ug/l	4		BCWQG Approved Average
5/2/2017	E258937	CM_MC2	COBALT	5.432	ug/l	4		BCWQG Approved Average
5/2/2017	0200209	CM_CC1	COBALT	15.08	ug/l	4		BCWQG Approved Average
5/9/2017	E258937	CM_MC2	COBALT	5.14	ug/l	4		BCWQG Approved Average
5/9/2017	0200209	CM_CC1	COBALT	14.208	ug/l	4		BCWQG Approved Average
5/16/2017	E258175	CM_MC1	MERCURY - Ultra Trace	0.001298	ug/l	0.00125		BCWQG Approved Average
5/16/2017	E258175	CM_MC1	pH, Field	5.7	ph units	9	6.5	BCWQG Approved Max
5/16/2017	E258937	CM_MC2	COBALT	4.712	ug/l	4		BCWQG Approved Average
5/16/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.001268	ug/l	0.00125		BCWQG Approved Average
5/16/2017	0200209	CM_CC1	COBALT	12.742	ug/l	4		BCWQG Approved Average
5/23/2017	E258175	CM_MC1	MERCURY - Ultra Trace	0.001926	ug/l	0.00125		BCWQG Approved Average
5/23/2017	E258937	CM_MC2	IRON	1.14	mg/l	1		BCWQG Approved Max
5/23/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.001698	ug/l	0.00125		BCWQG Approved Average
5/23/2017	0200209	CM_CC1	COBALT	10.382	ug/l	4		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
5/30/2017	E258175	CM_MC1	MERCURY - Ultra Trace	0.002508	ug/l	0.00125		BCWQG Approved Average
5/30/2017	0200209	CM_CC1	COBALT	9.642	ug/l	4		BCWQG Approved Average
5/30/2017	0200209	CM_CC1	MERCURY - Ultra Trace	0.001252	ug/l	0.00125		BCWQG Approved Average
5/30/2017	E258937	CM_MC2	IRON	1.41	mg/l	1		BCWQG Approved Max
5/30/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.002068	ug/l	0.00125		BCWQG Approved Average
6/6/2017	0200209	CM_CC1	COBALT	9.242	ug/l	4		BCWQG Approved Average
6/14/2017	E258175	CM_MC1	MERCURY - Ultra Trace	0.003005	ug/l	0.00125		BCWQG Approved Average
6/14/2017	0200209	CM_CC1	COBALT	11.234	ug/l	4		BCWQG Approved Average
6/14/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.0022825	ug/l	0.00125		BCWQG Approved Average
6/21/2017	E258175	CM_MC1	MERCURY - Ultra Trace	0.0029325	ug/l	0.00125		BCWQG Approved Average
6/21/2017	0200209	CM_CC1	COBALT	14.44	ug/l	4		BCWQG Approved Average
6/21/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.0022425	ug/l	0.00125		BCWQG Approved Average
6/28/2017	E258175	CM_MC1	MERCURY - Ultra Trace	0.00219	ug/l	0.00125		BCWQG Approved Average
6/28/2017	0200209	CM_CC1	COBALT	16.3	ug/l	4		BCWQG Approved Average
6/28/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.00168	ug/l	0.00125		BCWQG Approved Average
7/4/2017	E258175	CM_MC1	MERCURY - Ultra Trace	0.0013525	ug/l	0.00125		BCWQG Approved Average
7/5/2017	0200209	CM_CC1	COBALT	18.12	ug/l	4		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
7/5/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.04258	mg/l	0.04		BCWQG Approved Average
7/12/2017	0200209	CM_CC1	COBALT	19.66	ug/l	4		BCWQG Approved Average
7/12/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.04832	mg/l	0.04		BCWQG Approved Average
7/19/2017	0200209	CM_CC1	COBALT	18.38	ug/l	4		BCWQG Approved Average
7/19/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.05218	mg/l	0.04		BCWQG Approved Average
7/25/2017	E258175	CM_MC1	pH, Field	6.2	ph units	9	6.5	BCWQG Approved Max
7/25/2017	E258937	CM_MC2	TEMPERATURE, FIELD	15.15	deg c	15		BCWQG Approved Max
7/25/2017	0200209	CM_CC1	COBALT	16.36	ug/l	4		BCWQG Approved Average
7/25/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.05512	mg/l	0.04		BCWQG Approved Average
7/25/2017	0200209	CM_CC1	TEMPERATURE, FIELD	15.14	deg c	15		BCWQG Approved Max
8/1/2017	E258937	CM_MC2	NITRITE NITROGEN (NO2), AS N	0.02004	mg/l	0.02		BCWQG Approved Average
8/1/2017	0200209	CM_CC1	COBALT	14.62	ug/l	4		BCWQG Approved Average
8/1/2017	0200209	CM_CC1	MERCURY - Ultra Trace	0.001404	ug/l	0.00125		BCWQG Approved Average
8/1/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.05676	mg/l	0.04		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
8/8/2017	E258937	CM_MC2	NITRITE NITROGEN (NO2), AS N	0.0209	mg/l	0.02		BCWQG Approved Average
8/8/2017	0200209	CM_CC1	COBALT	12.424	ug/l	4		BCWQG Approved Average
8/8/2017	0200209	CM_CC1	MERCURY - Ultra Trace	0.0014	ug/l	0.00125		BCWQG Approved Average
8/8/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.05476	mg/l	0.04		BCWQG Approved Average
8/15/2017	0200209	CM_CC1	COBALT	9.996	ug/l	4		BCWQG Approved Average
8/15/2017	0200209	CM_CC1	MERCURY - Ultra Trace	0.0014	ug/l	0.00125		BCWQG Approved Average
8/15/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.05086	mg/l	0.04		BCWQG Approved Average
8/22/2017	0200209	CM_CC1	COBALT	9.036	ug/l	4		BCWQG Approved Average
8/22/2017	0200209	CM_CC1	MERCURY - Ultra Trace	0.0014	ug/l	0.00125		BCWQG Approved Average
8/22/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.04814	mg/l	0.04		BCWQG Approved Average
8/29/2017	0200209	CM_CC1	COBALT	7.542	ug/l	4		BCWQG Approved Average
8/29/2017	0200209	CM_CC1	MERCURY - Ultra Trace	0.0014	ug/l	0.00125		BCWQG Approved Average
8/29/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.0457	mg/l	0.04		BCWQG Approved Average
9/5/2017	0200209	CM_CC1	COBALT	6.36	ug/l	4		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
9/5/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.04104	mg/l	0.04		BCWQG Approved Average
9/12/2017	0200209	CM_CC1	COBALT	5.6	ug/l	4		BCWQG Approved Average
9/12/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.04956	mg/l	0.04		BCWQG Approved Average
9/19/2017	0200209	CM_CC1	COBALT	4.13	ug/l	4		BCWQG Approved Average
9/19/2017	0200209	CM_CC1	NITRITE NITROGEN (NO2), AS N	0.0433	mg/l	0.04		BCWQG Approved Average
10/12/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.0014	ug/l	0.00125		BCWQG Approved Average
10/16/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.00172727	ug/l	0.00125		BCWQG Approved Average
10/17/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.001625	ug/l	0.00125		BCWQG Approved Average
10/19/2017	E258937	CM_MC2	IRON	2.41	mg/l	1		BCWQG Approved Max
10/19/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.00211667	ug/l	0.00125		BCWQG Approved Average
10/20/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.00233846	ug/l	0.00125		BCWQG Approved Average
10/23/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.00252857	ug/l	0.00125		BCWQG Approved Average
10/24/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.00239333	ug/l	0.00125		BCWQG Approved Average
10/26/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.00269333	ug/l	0.00125		BCWQG Approved Average
10/30/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.0028375	ug/l	0.00125		BCWQG Approved Average
10/31/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.0027	ug/l	0.00125		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
11/7/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.00338231	ug/l	0.00125		BCWQG Approved Average
11/7/2017	0200209	CM_CC1	COBALT	8.2	ug/l	4		BCWQG Approved Average
11/9/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.00338231	ug/l	0.00125		BCWQG Approved Average
11/14/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.0032475	ug/l	0.00125		BCWQG Approved Average
11/21/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.00250778	ug/l	0.00125		BCWQG Approved Average
11/28/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.00181571	ug/l	0.00125		BCWQG Approved Average
12/6/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.001285	ug/l	0.00125		BCWQG Approved Average
12/6/2017	0200209	CM_CC1	COBALT	8.37	ug/l	4		BCWQG Approved Average
12/12/2017	E258937	CM_MC2	MERCURY - Ultra Trace	0.001428	ug/l	0.00125		BCWQG Approved Average
4/20/2017	0200201	FR_FR2	IRON	2.3	mg/l	1		BCWQG Approved Max
4/20/2017	0200201	FR_FR2	MERCURY - Ultra Trace	0.00242333	ug/l	0.00125		BCWQG Approved Average
4/20/2017	E300071	FR_FRCP1	IRON	1.05	mg/l	1		BCWQG Approved Max
4/20/2017	E300071	FR_FRCP1	MERCURY - Ultra Trace	0.0034675	ug/l	0.00125		BCWQG Approved Average
4/24/2017	E216777	FR_UFR1	MERCURY - Ultra Trace	0.001865	ug/l	0.00125		BCWQG Approved Average
4/24/2017	E300071	FR_FRCP1	MERCURY - Ultra Trace	0.00353	ug/l	0.00125		BCWQG Approved Average
4/25/2017	0200201	FR_FR2	MERCURY - Ultra Trace	0.0032	ug/l	0.00125		BCWQG Approved Average
4/25/2017	E300097	FR_FRRD	MERCURY - Ultra Trace	0.00399	ug/l	0.00125		BCWQG Approved Average
5/2/2017	E216777	FR_UFR1	MERCURY - Ultra Trace	0.00182	ug/l	0.00125		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
5/2/2017	E300071	FR_FRCP1	MERCURY - Ultra Trace	0.003582	ug/l	0.00125		BCWQG Approved Average
5/2/2017	0200201	FR_FR2	MERCURY - Ultra Trace	0.00297714	ug/l	0.00125		BCWQG Approved Average
5/3/2017	E300097	FR_FRRD	ALUMINUM	0.0568	mg/l	0.05		BCWQG Approved Average
5/3/2017	E300097	FR_FRRD	MERCURY - Ultra Trace	0.00209	ug/l	0.00125		BCWQG Approved Average
5/3/2017	E300097	FR_FRRD	ALUMINUM	0.0568	mg/l	0.05		BCWQG Approved Average
5/3/2017	E300097	FR_FRRD	ALUMINUM	0.151	mg/l	0.1		BCWQG Approved Max
5/3/2017	E300097	FR_FRRD	MERCURY - Ultra Trace	0.00209	ug/l	0.00125		BCWQG Approved Average
5/8/2017	0200201	FR_FR2	MERCURY - Ultra Trace	0.00353	ug/l	0.00125		BCWQG Approved Average
5/9/2017	E300071	FR_FRCP1	MERCURY - Ultra Trace	0.003854	ug/l	0.00125		BCWQG Approved Average
5/9/2017	E216777	FR_UFR1	MERCURY - Ultra Trace	0.00241	ug/l	0.00125		BCWQG Approved Average
5/16/2017	E216777	FR_UFR1	MERCURY - Ultra Trace	0.0022275	ug/l	0.00125		BCWQG Approved Average
5/16/2017	0200201	FR_FR2	MERCURY - Ultra Trace	0.00357	ug/l	0.00125		BCWQG Approved Average
5/16/2017	E300071	FR_FRCP1	MERCURY - Ultra Trace	0.00385	ug/l	0.00125		BCWQG Approved Average
5/18/2017	E300097	FR_FRRD	MERCURY - Ultra Trace	0.0018325	ug/l	0.00125		BCWQG Approved Average
5/23/2017	E300071	FR_FRCP1	MERCURY - Ultra Trace	0.002452	ug/l	0.00125		BCWQG Approved Average
5/23/2017	E216777	FR_UFR1	MERCURY - Ultra Trace	0.002392	ug/l	0.00125		BCWQG Approved Average
5/23/2017	0200201	FR_FR2	MERCURY - Ultra Trace	0.00211833	ug/l	0.00125		BCWQG Approved Average
5/30/2017	E216777	FR_UFR1	MERCURY - Ultra Trace	0.002338	ug/l	0.00125		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
5/30/2017	0200201	FR_FR2	MERCURY - Ultra Trace	0.00186833	ug/l	0.00125		BCWQG Approved Average
5/30/2017	E300071	FR_FRCP1	MERCURY - Ultra Trace	0.0025	ug/l	0.00125		BCWQG Approved Average
6/6/2017	0200201	FR_FR2	MERCURY - Ultra Trace	0.001815	ug/l	0.00125		BCWQG Approved Average
6/6/2017	0200201	FR_FR2	MERCURY - Ultra Trace	0.001815	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E216777	FR_UFR1	MERCURY - Ultra Trace	0.00221	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E300071	FR_FRCP1	MERCURY - Ultra Trace	0.002776	ug/l	0.00125		BCWQG Approved Average
6/13/2017	0200201	FR_FR2	MERCURY - Ultra Trace	0.00159667	ug/l	0.00125		BCWQG Approved Average
6/13/2017	E300071	FR_FRCP1	MERCURY - Ultra Trace	0.002472	ug/l	0.00125		BCWQG Approved Average
6/20/2017	E300071	FR_FRCP1	MERCURY - Ultra Trace	0.002366	ug/l	0.00125		BCWQG Approved Average
6/20/2017	0200201	FR_FR2	MERCURY - Ultra Trace	0.00151333	ug/l	0.00125		BCWQG Approved Average
6/26/2017	E300071	FR_FRCP1	MERCURY - Ultra Trace	0.001754	ug/l	0.00125		BCWQG Approved Average
6/26/2017	0200201	FR_FR2	MERCURY - Ultra Trace	0.00126667	ug/l	0.00125		BCWQG Approved Average
8/28/2017	0200251	FR_FR1	DISSOLVED OXYGEN, FIELD	7.83	mg/l		8	BCWQG Approved Average
10/31/2017	0200201	FR_FR2	MERCURY - Ultra Trace	0.002	ug/l	0.00125		BCWQG Approved Average
11/1/2017	0200201	FR_FR2	MERCURY - Ultra Trace	0.001625	ug/l	0.00125		BCWQG Approved Average
11/2/2017	0200201	FR_FR2	MERCURY - Ultra Trace	0.0023	ug/l	0.00125		BCWQG Approved Average
3/7/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.001515	ug/l	0.00125		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
3/14/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.001775	ug/l	0.00125		BCWQG Approved Average
3/21/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.00231667	ug/l	0.00125		BCWQG Approved Average
3/28/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.00209	ug/l	0.00125		BCWQG Approved Average
4/4/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.001936	ug/l	0.00125		BCWQG Approved Average
4/4/2017	E300230	RG_DSELK	IRON	2.68	mg/l	1		BCWQG Approved Max
4/4/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00471	ug/l	0.00125		BCWQG Approved Average
4/4/2017	E300092	RG_GRASMERE	IRON	1.17	mg/l	1		BCWQG Approved Max
4/4/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00205	ug/l	0.00125		BCWQG Approved Average
4/4/2017	E300092	RG_GRASMERE	IRON	1.21	mg/l	1		BCWQG Approved Max
4/4/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00205	ug/l	0.00125		BCWQG Approved Average
4/4/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00147	ug/l	0.00125		BCWQG Approved Average
4/4/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00147	ug/l	0.00125		BCWQG Approved Average
4/11/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.001812	ug/l	0.00125		BCWQG Approved Average
4/11/2017	E300094	RG_BORDER	ALUMINUM	0.0927667	mg/l	0.05		BCWQG Approved Average
4/11/2017	E300094	RG_BORDER	ALUMINUM	0.133	mg/l	0.1		BCWQG Approved Max
4/11/2017	E300094	RG_BORDER	IRON	0.37	mg/l	0.35		BCWQG Approved Max
4/11/2017	E300094	RG_BORDER	IRON	1.01	mg/l	1		BCWQG Approved Max
4/11/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00183333	ug/l	0.00125		BCWQG Approved Average
4/11/2017	E300094	RG_BORDER	ALUMINUM	0.0927667	mg/l	0.05		BCWQG Approved Average
4/11/2017	E300094	RG_BORDER	ALUMINUM	0.137	mg/l	0.1		BCWQG Approved Max
4/11/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00183333	ug/l	0.00125		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
4/11/2017	E300094	RG_BORDER	ALUMINUM	0.0927667	mg/l	0.05		BCWQG Approved Average
4/11/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00183333	ug/l	0.00125		BCWQG Approved Average
4/11/2017	E300230	RG_DSELK	BERYLLIUM	0.1335	ug/l	0.13		BCWQG Working Average
4/11/2017	E300230	RG_DSELK	IRON	5.09	mg/l	1		BCWQG Approved Max
4/11/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.007225	ug/l	0.00125		BCWQG Approved Average
4/11/2017	E300092	RG_GRASMERE	IRON	2.08	mg/l	1		BCWQG Approved Max
4/11/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00232333	ug/l	0.00125		BCWQG Approved Average
4/11/2017	E300093	RG_USGOLD	IRON	1.17	mg/l	1		BCWQG Approved Max
4/11/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00187	ug/l	0.00125		BCWQG Approved Average
4/17/2017	E300230	RG_DSELK	BERYLLIUM	0.139333	ug/l	0.13		BCWQG Working Average
4/17/2017	E300230	RG_DSELK	IRON	2.69	mg/l	1		BCWQG Approved Max
4/17/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00730667	ug/l	0.00125		BCWQG Approved Average
4/17/2017	E300092	RG_GRASMERE	IRON	2.01	mg/l	1		BCWQG Approved Max
4/17/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.0024225	ug/l	0.00125		BCWQG Approved Average
4/17/2017	E300093	RG_USGOLD	IRON	1.24	mg/l	1		BCWQG Approved Max
4/17/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.001945	ug/l	0.00125		BCWQG Approved Average
4/17/2017	E300094	RG_BORDER	ALUMINUM	0.0514167	mg/l	0.05		BCWQG Approved Average
4/17/2017	E300094	RG_BORDER	IRON	1.25	mg/l	1		BCWQG Approved Max
4/17/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00191333	ug/l	0.00125		BCWQG Approved Average
4/17/2017	E300094	RG_BORDER	ALUMINUM	0.0514167	mg/l	0.05		BCWQG Approved Average
4/17/2017	E300094	RG_BORDER	IRON	1.11	mg/l	1		BCWQG Approved Max

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
4/17/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00191333	ug/l	0.00125		BCWQG Approved Average
4/17/2017	E300094	RG_BORDER	ALUMINUM	0.0514167	mg/l	0.05		BCWQG Approved Average
4/17/2017	E300094	RG_BORDER	IRON	1.06	mg/l	1		BCWQG Approved Max
4/17/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00191333	ug/l	0.00125		BCWQG Approved Average
4/18/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.001732	ug/l	0.00125		BCWQG Approved Average
4/24/2017	E300095	RG_KERRRD	IRON	2.03	mg/l	1		BCWQG Approved Max
4/24/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.00323	ug/l	0.00125		BCWQG Approved Average
4/24/2017	E300094	RG_BORDER	IRON	1.99	mg/l	1		BCWQG Approved Max
4/24/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00206	ug/l	0.00125		BCWQG Approved Average
4/24/2017	E300094	RG_BORDER	IRON	1.63	mg/l	1		BCWQG Approved Max
4/24/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00206	ug/l	0.00125		BCWQG Approved Average
4/24/2017	E300094	RG_BORDER	IRON	1.56	mg/l	1		BCWQG Approved Max
4/24/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00206	ug/l	0.00125		BCWQG Approved Average
4/24/2017	E300092	RG_GRASMERE	IRON	2.15	mg/l	1		BCWQG Approved Max
4/24/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.002524	ug/l	0.00125		BCWQG Approved Average
4/24/2017	E300230	RG_DSELK	ARSENIC	5.41	ug/l	5		BCWQG Approved Max
4/24/2017	E300230	RG_DSELK	BERYLLIUM	0.209	ug/l	0.13		BCWQG Working Average
4/24/2017	E300230	RG_DSELK	IRON	13.5	mg/l	1		BCWQG Approved Max
4/24/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.012055	ug/l	0.00125		BCWQG Approved Average
4/24/2017	E300093	RG_USGOLD	IRON	5.52	mg/l	1		BCWQG Approved Max
4/24/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00319	ug/l	0.00125		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
4/25/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.001652	ug/l	0.00125		BCWQG Approved Average
5/1/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.001752	ug/l	0.00125		BCWQG Approved Average
5/2/2017	E300094	RG_BORDER	IRON	1.85	mg/l	1		BCWQG Approved Max
5/2/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00212	ug/l	0.00125		BCWQG Approved Average
5/2/2017	E300094	RG_BORDER	IRON	1.48	mg/l	1		BCWQG Approved Max
5/2/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00212	ug/l	0.00125		BCWQG Approved Average
5/2/2017	E300230	RG_DSELK	BERYLLIUM	0.1944	ug/l	0.13		BCWQG Working Average
5/2/2017	E300230	RG_DSELK	IRON	4.86	mg/l	1		BCWQG Approved Max
5/2/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.010754	ug/l	0.00125		BCWQG Approved Average
5/2/2017	E300092	RG_GRASMERE	IRON	13.3	mg/l	1		BCWQG Approved Max
5/2/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00418667	ug/l	0.00125		BCWQG Approved Average
5/2/2017	E300093	RG_USGOLD	IRON	4.32	mg/l	1		BCWQG Approved Max
5/2/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00358667	ug/l	0.00125		BCWQG Approved Average
5/2/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.002255	ug/l	0.00125		BCWQG Approved Average
5/9/2017	E294312	RG_ELKORES	IRON	1.12	mg/l	1		BCWQG Approved Max
5/9/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.002544	ug/l	0.00125		BCWQG Approved Average
5/9/2017	E300094	RG_BORDER	IRON	3.11	mg/l	1		BCWQG Approved Max
5/9/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00278571	ug/l	0.00125		BCWQG Approved Average
5/9/2017	E300094	RG_BORDER	IRON	3.25	mg/l	1		BCWQG Approved Max
5/9/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00278571	ug/l	0.00125		BCWQG Approved Average
5/9/2017	E300094	RG_BORDER	IRON	3.24	mg/l	1		BCWQG Approved Max

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
5/9/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00278571	ug/l	0.00125		BCWQG Approved Average
5/9/2017	E300230	RG_DSELK	BERYLLIUM	0.2264	ug/l	0.13		BCWQG Working Average
5/9/2017	E300230	RG_DSELK	COPPER	7.296	ug/l	5.944		BCWQG Approved Average
5/9/2017	E300230	RG_DSELK	IRON	8.54	mg/l	1		BCWQG Approved Max
5/9/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.011706	ug/l	0.00125		BCWQG Approved Average
5/9/2017	E300092	RG_GRASMERE	BERYLLIUM	0.1512	ug/l	0.13		BCWQG Working Average
5/9/2017	E300092	RG_GRASMERE	IRON	7.01	mg/l	1		BCWQG Approved Max
5/9/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.006244	ug/l	0.00125		BCWQG Approved Average
5/9/2017	E300093	RG_USGOLD	IRON	2.93	mg/l	1		BCWQG Approved Max
5/9/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.004554	ug/l	0.00125		BCWQG Approved Average
5/9/2017	E300095	RG_KERRRD	IRON	3.28	mg/l	1		BCWQG Approved Max
5/9/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.00324333	ug/l	0.00125		BCWQG Approved Average
5/16/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.002968	ug/l	0.00125		BCWQG Approved Average
5/16/2017	E300094	RG_BORDER	IRON	1.32	mg/l	1		BCWQG Approved Max
5/16/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00300214	ug/l	0.00125		BCWQG Approved Average
5/16/2017	E300094	RG_BORDER	IRON	1.27	mg/l	1		BCWQG Approved Max
5/16/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00300214	ug/l	0.00125		BCWQG Approved Average
5/16/2017	E300094	RG_BORDER	IRON	1.21	mg/l	1		BCWQG Approved Max
5/16/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00300214	ug/l	0.00125		BCWQG Approved Average
5/16/2017	E300230	RG_DSELK	BERYLLIUM	0.2066	ug/l	0.13		BCWQG Working Average
5/16/2017	E300230	RG_DSELK	COPPER	6.736	ug/l	5.616		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
5/16/2017	E300230	RG_DSELK	IRON	1.95	mg/l	1		BCWQG Approved Max
5/16/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.010444	ug/l	0.00125		BCWQG Approved Average
5/16/2017	E300092	RG_GRASMERE	BERYLLIUM	0.1442	ug/l	0.13		BCWQG Working Average
5/16/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.006054	ug/l	0.00125		BCWQG Approved Average
5/16/2017	E300093	RG_USGOLD	IRON	1.16	mg/l	1		BCWQG Approved Max
5/16/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.004512	ug/l	0.00125		BCWQG Approved Average
5/16/2017	E300095	RG_KERRRD	IRON	1.2	mg/l	1		BCWQG Approved Max
5/16/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.0030325	ug/l	0.00125		BCWQG Approved Average
5/23/2017	E294312	RG_ELKORES	ALUMINUM	0.106	mg/l	0.1		BCWQG Approved Max
5/23/2017	E294312	RG_ELKORES	IRON	1.42	mg/l	1		BCWQG Approved Max
5/23/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.003928	ug/l	0.00125		BCWQG Approved Average
5/23/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00292143	ug/l	0.00125		BCWQG Approved Average
5/23/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00292143	ug/l	0.00125		BCWQG Approved Average
5/23/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00292143	ug/l	0.00125		BCWQG Approved Average
5/23/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.004556	ug/l	0.00125		BCWQG Approved Average
5/23/2017	E300230	RG_DSELK	BERYLLIUM	0.189	ug/l	0.13		BCWQG Working Average
5/23/2017	E300230	RG_DSELK	COPPER	6.21	ug/l	5.248		BCWQG Approved Average
5/23/2017	E300230	RG_DSELK	IRON	1.84	mg/l	1		BCWQG Approved Max
5/23/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00977	ug/l	0.00125		BCWQG Approved Average
5/23/2017	E300092	RG_GRASMERE	BERYLLIUM	0.1356	ug/l	0.13		BCWQG Working Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
5/23/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.005944	ug/l	0.00125		BCWQG Approved Average
5/23/2017	E300095	RG_KERRRD	IRON	3.45	mg/l	1		BCWQG Approved Max
5/23/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.003808	ug/l	0.00125		BCWQG Approved Average
5/30/2017	E294312	RG_ELKORES	IRON	3.17	mg/l	1		BCWQG Approved Max
5/30/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.006168	ug/l	0.00125		BCWQG Approved Average
5/30/2017	E300094	RG_BORDER	IRON	1.13	mg/l	1		BCWQG Approved Max
5/30/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00289786	ug/l	0.00125		BCWQG Approved Average
5/30/2017	E300094	RG_BORDER	IRON	1.06	mg/l	1		BCWQG Approved Max
5/30/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00289786	ug/l	0.00125		BCWQG Approved Average
5/30/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00289786	ug/l	0.00125		BCWQG Approved Average
5/30/2017	E300093	RG_USGOLD	IRON	2.02	mg/l	1		BCWQG Approved Max
5/30/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00352286	ug/l	0.00125		BCWQG Approved Average
5/30/2017	E300093	RG_USGOLD	IRON	1.86	mg/l	1		BCWQG Approved Max
5/30/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00352286	ug/l	0.00125		BCWQG Approved Average
5/30/2017	E300093	RG_USGOLD	IRON	1.39	mg/l	1		BCWQG Approved Max
5/30/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00352286	ug/l	0.00125		BCWQG Approved Average
5/30/2017	E300092	RG_GRASMERE	BERYLLIUM	0.1378	ug/l	0.13		BCWQG Working Average
5/30/2017	E300092	RG_GRASMERE	IRON	2.22	mg/l	1		BCWQG Approved Max
5/30/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.005954	ug/l	0.00125		BCWQG Approved Average
5/30/2017	E300230	RG_DSELK	BERYLLIUM	0.1342	ug/l	0.13		BCWQG Working Average
5/30/2017	E300230	RG_DSELK	IRON	4.11	mg/l	1		BCWQG Approved Max

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
5/30/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.005752	ug/l	0.00125		BCWQG Approved Average
5/30/2017	E300095	RG_KERRRD	IRON	4.41	mg/l	1		BCWQG Approved Max
5/30/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.004364	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E294312	RG_ELKORES	IRON	1.84	mg/l	1		BCWQG Approved Max
6/6/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.006978	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E300230	RG_DSELK	IRON	1.36	mg/l	1		BCWQG Approved Max
6/6/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00448714	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00448714	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E300230	RG_DSELK	IRON	1.44	mg/l	1		BCWQG Approved Max
6/6/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00448714	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E300095	RG_KERRRD	IRON	2.23	mg/l	1		BCWQG Approved Max
6/6/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.00441667	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E300095	RG_KERRRD	IRON	2.28	mg/l	1		BCWQG Approved Max
6/6/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.00441667	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E300094	RG_BORDER	IRON	1.45	mg/l	1		BCWQG Approved Max
6/6/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00277267	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E300094	RG_BORDER	IRON	1.54	mg/l	1		BCWQG Approved Max
6/6/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00277267	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00277267	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E300094	RG_BORDER	TEMPERATURE, FIELD	15.4	deg c	15		BCWQG Approved Max
6/6/2017	E300093	RG_USGOLD	IRON	1.16	mg/l	1		BCWQG Approved Max

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
6/6/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00286556	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E300093	RG_USGOLD	IRON	1.43	mg/l	1		BCWQG Approved Max
6/6/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00286556	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00286556	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00341	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E300092	RG_GRASMERE	IRON	1.58	mg/l	1		BCWQG Approved Max
6/6/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00341	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00341	ug/l	0.00125		BCWQG Approved Average
6/13/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.006522	ug/l	0.00125		BCWQG Approved Average
6/13/2017	E300094	RG_BORDER	ALUMINUM	0.323	mg/l	0.1		BCWQG Approved Max
6/13/2017	E300094	RG_BORDER	IRON	1.11	mg/l	1		BCWQG Approved Max
6/13/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00206733	ug/l	0.00125		BCWQG Approved Average
6/13/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00206733	ug/l	0.00125		BCWQG Approved Average
6/13/2017	E300093	RG_USGOLD	IRON	2.19	mg/l	1		BCWQG Approved Max
6/13/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00248182	ug/l	0.00125		BCWQG Approved Average
6/13/2017	E300093	RG_USGOLD	IRON	1.19	mg/l	1		BCWQG Approved Max
6/13/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00248182	ug/l	0.00125		BCWQG Approved Average
6/13/2017	E300094	RG_BORDER	IRON	1.58	mg/l	1		BCWQG Approved Max
6/13/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00206733	ug/l	0.00125		BCWQG Approved Average
6/13/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00248182	ug/l	0.00125		BCWQG Approved Average
6/13/2017	E300093	RG_USGOLD	TEMPERATURE, FIELD	15.4	deg c	15		BCWQG Approved Max

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
6/13/2017	E300092	RG_GRASMERE	IRON	2	mg/l	1		BCWQG Approved Max
6/13/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00229667	ug/l	0.00125		BCWQG Approved Average
6/13/2017	E300092	RG_GRASMERE	IRON	1.65	mg/l	1		BCWQG Approved Max
6/13/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00229667	ug/l	0.00125		BCWQG Approved Average
6/13/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00229667	ug/l	0.00125		BCWQG Approved Average
6/13/2017	E300230	RG_DSELK	IRON	1.78	mg/l	1		BCWQG Approved Max
6/13/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00318222	ug/l	0.00125		BCWQG Approved Average
6/13/2017	E300230	RG_DSELK	IRON	1.59	mg/l	1		BCWQG Approved Max
6/13/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00318222	ug/l	0.00125		BCWQG Approved Average
6/13/2017	E300230	RG_DSELK	IRON	1.07	mg/l	1		BCWQG Approved Max
6/13/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00318222	ug/l	0.00125		BCWQG Approved Average
6/13/2017	E300095	RG_KERRRD	IRON	1.47	mg/l	1		BCWQG Approved Max
6/13/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.00358286	ug/l	0.00125		BCWQG Approved Average
6/13/2017	E300095	RG_KERRRD	IRON	1.51	mg/l	1		BCWQG Approved Max
6/13/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.00358286	ug/l	0.00125		BCWQG Approved Average
6/20/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.006266	ug/l	0.00125		BCWQG Approved Average
6/20/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00171	ug/l	0.00125		BCWQG Approved Average
6/20/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00171	ug/l	0.00125		BCWQG Approved Average
6/20/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00171	ug/l	0.00125		BCWQG Approved Average
6/20/2017	E300094	RG_BORDER	TEMPERATURE, FIELD	15.3	deg c	15		BCWQG Approved Max
6/20/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00213	ug/l	0.00125		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
6/20/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00213	ug/l	0.00125		BCWQG Approved Average
6/20/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00213	ug/l	0.00125		BCWQG Approved Average
6/20/2017	E300093	RG_USGOLD	TEMPERATURE, FIELD	15.1	deg c	15		BCWQG Approved Max
6/20/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00196727	ug/l	0.00125		BCWQG Approved Average
6/20/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00196727	ug/l	0.00125		BCWQG Approved Average
6/20/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00196727	ug/l	0.00125		BCWQG Approved Average
6/20/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00257455	ug/l	0.00125		BCWQG Approved Average
6/20/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00257455	ug/l	0.00125		BCWQG Approved Average
6/20/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00257455	ug/l	0.00125		BCWQG Approved Average
6/20/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.00287111	ug/l	0.00125		BCWQG Approved Average
6/20/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.00287111	ug/l	0.00125		BCWQG Approved Average
6/20/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.00287111	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.0053	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00157333	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00157333	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.00157333	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E300094	RG_BORDER	TEMPERATURE, FIELD	17.3	deg c	15		BCWQG Approved Max

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
6/27/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00184067	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00184067	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00184067	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E300093	RG_USGOLD	TEMPERATURE, FIELD	17.2	deg c	15		BCWQG Approved Max
6/27/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00168308	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00168308	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00168308	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E300092	RG_GRASMERE	TEMPERATURE, FIELD	16.5	deg c	15		BCWQG Approved Max
6/27/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00204538	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E300230	RG_DSELK	TEMPERATURE, FIELD	17.3	deg c	15		BCWQG Approved Max
6/27/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00204538	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00204538	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.00192545	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.00192545	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.00192545	ug/l	0.00125		BCWQG Approved Average
7/4/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.002596	ug/l	0.00125		BCWQG Approved Average
7/4/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.001288	ug/l	0.00125		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
7/4/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.001288	ug/l	0.00125		BCWQG Approved Average
7/4/2017	E300094	RG_BORDER	MERCURY - Ultra Trace	0.001288	ug/l	0.00125		BCWQG Approved Average
7/4/2017	E300094	RG_BORDER	TEMPERATURE, FIELD	18.6	deg c	15		BCWQG Approved Max
7/4/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00130267	ug/l	0.00125		BCWQG Approved Average
7/4/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00130267	ug/l	0.00125		BCWQG Approved Average
7/4/2017	E300093	RG_USGOLD	TEMPERATURE, FIELD	16.8	deg c	15		BCWQG Approved Max
7/4/2017	E300093	RG_USGOLD	MERCURY - Ultra Trace	0.00130267	ug/l	0.00125		BCWQG Approved Average
7/4/2017	E300093	RG_USGOLD	TEMPERATURE, FIELD	19.9	deg c	15		BCWQG Approved Max
7/4/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00138067	ug/l	0.00125		BCWQG Approved Average
7/4/2017	E300092	RG_GRASMERE	TEMPERATURE, FIELD	15.6	deg c	15		BCWQG Approved Max
7/4/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00138067	ug/l	0.00125		BCWQG Approved Average
7/4/2017	E300092	RG_GRASMERE	TEMPERATURE, FIELD	17.3	deg c	15		BCWQG Approved Max
7/4/2017	E300092	RG_GRASMERE	MERCURY - Ultra Trace	0.00138067	ug/l	0.00125		BCWQG Approved Average
7/4/2017	E300092	RG_GRASMERE	TEMPERATURE, FIELD	19.8	deg c	15		BCWQG Approved Max
7/4/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.00132462	ug/l	0.00125		BCWQG Approved Average
7/4/2017	E300095	RG_KERRRD	TEMPERATURE, FIELD	16.1	deg c	15		BCWQG Approved Max
7/4/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00148733	ug/l	0.00125		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
7/4/2017	E300230	RG_DSELK	TEMPERATURE, FIELD	15.7	deg c	15		BCWQG Approved Max
7/4/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00148733	ug/l	0.00125		BCWQG Approved Average
7/4/2017	E300230	RG_DSELK	TEMPERATURE, FIELD	18.2	deg c	15		BCWQG Approved Max
7/4/2017	E300230	RG_DSELK	MERCURY - Ultra Trace	0.00148733	ug/l	0.00125		BCWQG Approved Average
7/4/2017	E300230	RG_DSELK	TEMPERATURE, FIELD	20.6	deg c	15		BCWQG Approved Max
7/4/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.00132462	ug/l	0.00125		BCWQG Approved Average
7/4/2017	E300095	RG_KERRRD	TEMPERATURE, FIELD	16.4	deg c	15		BCWQG Approved Max
7/4/2017	E300095	RG_KERRRD	MERCURY - Ultra Trace	0.00132462	ug/l	0.00125		BCWQG Approved Average
7/4/2017	E300095	RG_KERRRD	TEMPERATURE, FIELD	18.4	deg c	15		BCWQG Approved Max
7/11/2017	E300094	RG_BORDER	TEMPERATURE, FIELD	21	deg c	15		BCWQG Approved Max
7/11/2017	E300093	RG_USGOLD	TEMPERATURE, FIELD	15.6	deg c	15		BCWQG Approved Max
7/11/2017	E300093	RG_USGOLD	TEMPERATURE, FIELD	21.7	deg c	15		BCWQG Approved Max
7/11/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.001948	ug/l	0.00125		BCWQG Approved Average
7/11/2017	E300092	RG_GRASMERE	TEMPERATURE, FIELD	15.8	deg c	15		BCWQG Approved Max
7/11/2017	E300092	RG_GRASMERE	TEMPERATURE, FIELD	21.5	deg c	15		BCWQG Approved Max
7/11/2017	E300230	RG_DSELK	TEMPERATURE, FIELD	15.9	deg c	15		BCWQG Approved Max
7/11/2017	E300230	RG_DSELK	TEMPERATURE, FIELD	18.7	deg c	15		BCWQG Approved Max

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
7/11/2017	E300230	RG_DSELK	TEMPERATURE, FIELD	21	deg c	15		BCWQG Approved Max
7/11/2017	E300095	RG_KERRRD	TEMPERATURE, FIELD	16.7	deg c	15		BCWQG Approved Max
7/11/2017	E300095	RG_KERRRD	TEMPERATURE, FIELD	17.6	deg c	15		BCWQG Approved Max
7/11/2017	E300095	RG_KERRRD	TEMPERATURE, FIELD	21.1	deg c	15		BCWQG Approved Max
8/1/2017	E294312	RG_ELKORES	MERCURY - Ultra Trace	0.0013	ug/l	0.00125		BCWQG Approved Average
8/8/2017	E300094	RG_BORDER	TEMPERATURE, FIELD	15.4	deg c	15		BCWQG Approved Max
8/8/2017	E300094	RG_BORDER	TEMPERATURE, FIELD	21.8	deg c	15		BCWQG Approved Max
8/8/2017	E300093	RG_USGOLD	TEMPERATURE, FIELD	17.4	deg c	15		BCWQG Approved Max
8/8/2017	E300093	RG_USGOLD	TEMPERATURE, FIELD	21.6	deg c	15		BCWQG Approved Max
8/8/2017	E300092	RG_GRASMERE	TEMPERATURE, FIELD	16.4	deg c	15		BCWQG Approved Max
8/8/2017	E300092	RG_GRASMERE	TEMPERATURE, FIELD	21.6	deg c	15		BCWQG Approved Max
8/8/2017	E300230	RG_DSELK	TEMPERATURE, FIELD	19.3	deg c	15		BCWQG Approved Max
8/8/2017	E300095	RG_KERRRD	TEMPERATURE, FIELD	17.1	deg c	15		BCWQG Approved Max
8/8/2017	E300095	RG_KERRRD	TEMPERATURE, FIELD	19.1	deg c	15		BCWQG Approved Max
8/8/2017	E300095	RG_KERRRD	TEMPERATURE, FIELD	21.7	deg c	15		BCWQG Approved Max
9/18/2017	E300094	RG_BORDER	TEMPERATURE, FIELD	16.7	deg c	15		BCWQG Approved Max
9/18/2017	E300094	RG_BORDER	TEMPERATURE, FIELD	17.1	deg c	15		BCWQG Approved Max

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
9/18/2017	E300093	RG_USGOLD	DISSOLVED OXYGEN, FIELD	7.47333	mg/l		8	BCWQG Approved Average
9/18/2017	E300093	RG_USGOLD	DISSOLVED OXYGEN, FIELD	7.47333	mg/l		8	BCWQG Approved Average
9/18/2017	E300093	RG_USGOLD	TEMPERATURE, FIELD	16.9	deg c	15		BCWQG Approved Max
9/18/2017	E300093	RG_USGOLD	DISSOLVED OXYGEN, FIELD	7.47333	mg/l		8	BCWQG Approved Average
9/18/2017	E300093	RG_USGOLD	TEMPERATURE, FIELD	17.4	deg c	15		BCWQG Approved Max
9/18/2017	E300092	RG_GRASMERE	TEMPERATURE, FIELD	16.3	deg c	15		BCWQG Approved Max
9/18/2017	E300092	RG_GRASMERE	TEMPERATURE, FIELD	17.1	deg c	15		BCWQG Approved Max
9/18/2017	E300092	RG_GRASMERE	TEMPERATURE, FIELD	17.1	deg c	15		BCWQG Approved Max
9/18/2017	E300230	RG_DSELK	TEMPERATURE, FIELD	16.8	deg c	15		BCWQG Approved Max
9/18/2017	E300230	RG_DSELK	TEMPERATURE, FIELD	16.8	deg c	15		BCWQG Approved Max
9/18/2017	E300230	RG_DSELK	TEMPERATURE, FIELD	16.8	deg c	15		BCWQG Approved Max
9/18/2017	E300095	RG_KERRRD	TEMPERATURE, FIELD	15.9	deg c	15		BCWQG Approved Max
9/18/2017	E300095	RG_KERRRD	TEMPERATURE, FIELD	16.8	deg c	15		BCWQG Approved Max
9/18/2017	E300095	RG_KERRRD	TEMPERATURE, FIELD	16.7	deg c	15		BCWQG Approved Max
9/19/2017	E294312	RG_ELKORES	DISSOLVED OXYGEN, FIELD	7.6	mg/l		8	BCWQG Approved Average
10/3/2017	E300094	RG_BORDER	TEMPERATURE, FIELD	15.1	deg c	15		BCWQG Approved Max
10/3/2017	E300093	RG_USGOLD	DISSOLVED OXYGEN, FIELD	7.94667	mg/l		8	BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
10/3/2017	E300093	RG_USGOLD	DISSOLVED OXYGEN, FIELD	7.94667	mg/l		8	BCWQG Approved Average
10/3/2017	E300093	RG_USGOLD	TEMPERATURE, FIELD	15.2	deg c	15		BCWQG Approved Max
10/3/2017	E300093	RG_USGOLD	DISSOLVED OXYGEN, FIELD	7.94667	mg/l		8	BCWQG Approved Average
10/3/2017	E300093	RG_USGOLD	TEMPERATURE, FIELD	15.4	deg c	15		BCWQG Approved Max
10/3/2017	E300092	RG_GRASMERE	TEMPERATURE, FIELD	15.3	deg c	15		BCWQG Approved Max
10/3/2017	E300092	RG_GRASMERE	TEMPERATURE, FIELD	15.3	deg c	15		BCWQG Approved Max
10/3/2017	E300230	RG_DSELK	TEMPERATURE, FIELD	15.1	deg c	15		BCWQG Approved Max
10/3/2017	E300230	RG_DSELK	TEMPERATURE, FIELD	15.3	deg c	15		BCWQG Approved Max
1/16/2017	200389	GH_ER2	COPPER	9.57	ug/l	6.32		BCWQG Approved Average
2/15/2017	E102714	GH_TC1	MERCURY - Ultra Trace	0.00132	ug/l	0.00125		BCWQG Approved Average
3/16/2017	E287432	GH_COUGAR	MERCURY - Ultra Trace	0.00196	ug/l	0.00125		BCWQG Approved Average
3/21/2017	E287437	GH_BR_F	MERCURY - Ultra Trace	0.00318	ug/l	0.00125		BCWQG Approved Average
4/18/2017	E287437	GH_BR_F	MERCURY - Ultra Trace	0.004585	ug/l	0.00125		BCWQG Approved Average
4/18/2017	E287432	GH_COUGAR	MERCURY - Ultra Trace	0.00482	ug/l	0.00125		BCWQG Approved Average
4/20/2017	E305875	GH_NNC	MERCURY - Ultra Trace	0.00225	ug/l	0.00125		BCWQG Approved Average
4/20/2017	E102714	GH_TC1	MERCURY - Ultra Trace	0.0039	ug/l	0.00125		BCWQG Approved Average
4/24/2017	0200378	GH_FR1	MERCURY - Ultra Trace	0.001468	ug/l	0.00125		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
4/25/2017	E305877	GH_ERSC2	MERCURY - Ultra Trace	0.00278	ug/l	0.00125		BCWQG Approved Average
5/1/2017	E287437	GH_BR_F	MERCURY - Ultra Trace	0.005495	ug/l	0.00125		BCWQG Approved Average
5/1/2017	E287432	GH_COUGAR	MERCURY - Ultra Trace	0.00491	ug/l	0.00125		BCWQG Approved Average
5/1/2017	E305875	GH_NNC	MERCURY - Ultra Trace	0.00222	ug/l	0.00125		BCWQG Approved Average
5/2/2017	0200378	GH_FR1	MERCURY - Ultra Trace	0.001616	ug/l	0.00125		BCWQG Approved Average
5/3/2017	E102714	GH_TC1	MERCURY - Ultra Trace	0.002985	ug/l	0.00125		BCWQG Approved Average
5/3/2017	E305877	GH_ERSC2	MERCURY - Ultra Trace	0.00223	ug/l	0.00125		BCWQG Approved Average
5/15/2017	0206661	GH_ER1	MERCURY - Ultra Trace	0.00137	ug/l	0.00125		BCWQG Approved Average
5/16/2017	E300090	GH_ERC	MERCURY - Ultra Trace	0.001258	ug/l	0.00125		BCWQG Approved Average
5/16/2017	0200378	GH_FR1	MERCURY - Ultra Trace	0.003	ug/l	0.00125		BCWQG Approved Average
5/23/2017	200389	GH_ER2	IRON	1.1	mg/l	1		BCWQG Approved Max
5/23/2017	200389	GH_ER2	MERCURY - Ultra Trace	0.001802	ug/l	0.00125		BCWQG Approved Average
5/23/2017	E300090	GH_ERC	IRON	1.35	mg/l	1		BCWQG Approved Max
5/23/2017	E300090	GH_ERC	MERCURY - Ultra Trace	0.002388	ug/l	0.00125		BCWQG Approved Average
5/24/2017	0206661	GH_ER1	IRON	6.01	mg/l	1		BCWQG Approved Max
5/24/2017	0206661	GH_ER1	MERCURY - Ultra Trace	0.00537	ug/l	0.00125		BCWQG Approved Average
5/29/2017	E287437	GH_BR_F	TEMPERATURE, FIELD	508	deg c	15		BCWQG Approved Max
5/29/2017	0206661	GH_ER1	IRON	2.03	mg/l	1		BCWQG Approved Max
5/29/2017	0206661	GH_ER1	MERCURY - Ultra Trace	0.00656	ug/l	0.00125		BCWQG Approved Average
5/30/2017	200389	GH_ER2	IRON	2.61	mg/l	1		BCWQG Approved Max

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
5/30/2017	200389	GH_ER2	MERCURY - Ultra Trace	0.003566	ug/l	0.00125		BCWQG Approved Average
5/30/2017	E300090	GH_ERC	IRON	2.81	mg/l	1		BCWQG Approved Max
5/30/2017	E300090	GH_ERC	MERCURY - Ultra Trace	0.004282	ug/l	0.00125		BCWQG Approved Average
6/5/2017	E305878	GH_ERSC4	IRON	1.65	mg/l	1		BCWQG Approved Max
6/5/2017	E305878	GH_ERSC4	MERCURY - Ultra Trace	0.00571	ug/l	0.00125		BCWQG Approved Average
6/6/2017	E305876	GH_ER1A	IRON	1.13	mg/l	1		BCWQG Approved Max
6/6/2017	E305876	GH_ER1A	MERCURY - Ultra Trace	0.0046	ug/l	0.00125		BCWQG Approved Average
6/6/2017	0206661	GH_ER1	IRON	1.46	mg/l	1		BCWQG Approved Max
6/6/2017	0206661	GH_ER1	MERCURY - Ultra Trace	0.007462	ug/l	0.00125		BCWQG Approved Average
6/7/2017	E305877	GH_ERSC2	ALUMINUM	0.103	mg/l	0.05		BCWQG Approved Average
6/7/2017	E305877	GH_ERSC2	ALUMINUM	0.103	mg/l	0.1		BCWQG Approved Max
6/7/2017	E305877	GH_ERSC2	MERCURY - Ultra Trace	0.0032	ug/l	0.00125		BCWQG Approved Average
6/11/2017	200389	GH_ER2	IRON	1.12	mg/l	1		BCWQG Approved Max
6/11/2017	200389	GH_ER2	MERCURY - Ultra Trace	0.0049175	ug/l	0.00125		BCWQG Approved Average
6/11/2017	0200378	GH_FR1	MERCURY - Ultra Trace	0.005	ug/l	0.00125		BCWQG Approved Average
6/11/2017	E300090	GH_ERC	IRON	1.39	mg/l	1		BCWQG Approved Max
6/11/2017	E300090	GH_ERC	MERCURY - Ultra Trace	0.005925	ug/l	0.00125		BCWQG Approved Average
6/12/2017	0206661	GH_ER1	IRON	1.01	mg/l	1		BCWQG Approved Max
6/12/2017	0206661	GH_ER1	MERCURY - Ultra Trace	0.007618	ug/l	0.00125		BCWQG Approved Average
6/13/2017	0200378	GH_FR1	MERCURY - Ultra Trace	0.0038	ug/l	0.00125		BCWQG Approved Average
6/13/2017	200389	GH_ER2	MERCURY - Ultra Trace	0.004294	ug/l	0.00125		BCWQG Approved Average

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
6/13/2017	E300090	GH_ERC	MERCURY - Ultra Trace	0.00558	ug/l	0.00125		BCWQG Approved Average
6/19/2017	0200378	GH_FR1	MERCURY - Ultra Trace	0.0024	ug/l	0.00125		BCWQG Approved Average
6/19/2017	E305876	GH_ER1A	MERCURY - Ultra Trace	0.0029	ug/l	0.00125		BCWQG Approved Average
6/19/2017	E300090	GH_ERC	MERCURY - Ultra Trace	0.00559	ug/l	0.00125		BCWQG Approved Average
6/19/2017	E305877	GH_ERSC2	ALUMINUM	0.05285	mg/l	0.05		BCWQG Approved Average
6/19/2017	E305877	GH_ERSC2	MERCURY - Ultra Trace	0.00265	ug/l	0.00125		BCWQG Approved Average
6/20/2017	0206661	GH_ER1	MERCURY - Ultra Trace	0.00754	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E300090	GH_ERC	MERCURY - Ultra Trace	0.00478	ug/l	0.00125		BCWQG Approved Average
6/27/2017	0206661	GH_ER1	MERCURY - Ultra Trace	0.0039	ug/l	0.00125		BCWQG Approved Average
6/27/2017	0200378	GH_FR1	MERCURY - Ultra Trace	0.00215	ug/l	0.00125		BCWQG Approved Average
6/27/2017	E102714	GH_TC1	TEMPERATURE, FIELD	16.3	deg c	15		BCWQG Approved Max
7/4/2017	E102714	GH_TC1	TEMPERATURE, FIELD	16.8	deg c	15		BCWQG Approved Max
7/10/2017	E102714	GH_TC1	TEMPERATURE, FIELD	20.1	deg c	15		BCWQG Approved Max
7/11/2017	E305877	GH_ERSC2	MERCURY - Ultra Trace	0.00179	ug/l	0.00125		BCWQG Approved Average
7/11/2017	E300090	GH_ERC	MERCURY - Ultra Trace	0.0022825	ug/l	0.00125		BCWQG Approved Average
7/11/2017	0206661	GH_ER1	MERCURY - Ultra Trace	0.002295	ug/l	0.00125		BCWQG Approved Average
8/2/2017	E102714	GH_TC1	TEMPERATURE, FIELD	18.4	deg c	15		BCWQG Approved Max

Date	EMS ID	Location Code	Parameter	Result	Unit	Criteria (Max)	Criteria (Min)	Criteria or Guideline
8/2/2017	E305877	GH_ERSC2	MERCURY - Ultra Trace	0.00173	ug/l	0.00125		BCWQG Approved Average
8/15/2017	200389	GH_ER2	pH, Field	9.6	ph units	9	6.5	BCWQG Approved Max
9/5/2017	0206661	GH_ER1	DISSOLVED OXYGEN, FIELD	7.43	mg/l		8	BCWQG Approved Average
9/5/2017	E300090	GH_ERC	DISSOLVED OXYGEN, FIELD	7.13	mg/l		8	BCWQG Approved Average
9/11/2017	E300090	GH_ERC	DISSOLVED OXYGEN, FIELD	7.415	mg/l		8	BCWQG Approved Average
10/2/2017	E300090	GH_ERC	DISSOLVED OXYGEN, FIELD	7.94667	mg/l		8	BCWQG Approved Average
10/16/2017	200389	GH_ER2	MERCURY - Ultra Trace	0.002	ug/l	0.00125		BCWQG Approved Average
10/17/2017	200389	GH_ER2	MERCURY - Ultra Trace	0.001625	ug/l	0.00125		BCWQG Approved Average
10/24/2017	200389	GH_ER2	MERCURY - Ultra Trace	0.0014	ug/l	0.00125		BCWQG Approved Average
10/31/2017	200389	GH_ER2	MERCURY - Ultra Trace	0.00125	ug/l	0.00125		BCWQG Approved Average
11/6/2017	200389	GH_ER2	MERCURY - Ultra Trace	0.00125	ug/l	0.00125		BCWQG Approved Average
11/7/2017	E309911	GH_GH2	MERCURY - Ultra Trace	0.00275	ug/l	0.00125		BCWQG Approved Average
12/11/2017	E309911	GH_GH2	URANIUM	8.56	ug/l	8.5		BCWQG Working Average

Appendix G – Acute Toxicity Summary Table

Summary of Acute Toxicity Test Results in 2017

Sample Location/Date	48-h <i>Daphnia magna</i> 100% screening (single concentration) acute lethality toxicity test % Mortality	96-h <i>Rainbow trout</i> 100% screening (single concentration) acute lethality toxicity test % Mortality	48-h <i>Daphnia magna</i> LC50 toxicity test (the lethal dosage that would cause 50% mortality). % v/v	96-h <i>Rainbow trout</i> LC50 toxicity test (the lethal dosage that would cause 50% mortality). % v/v
CM_CC1				
01/17/2017	0	0		
CM_CCPD				
01/17/2017	0	40		
05/02/2017	0	0		
08/01/2017	0	0		
08/22/2017	0	0		
10/03/2017	0	0		
CM_PC2				
05/02/2017	0	0		
11/24/2017	10	0		
CM_SPD				
01/17/2017	0	20		
05/02/2017	0	0		
08/01/2017	0	0		
08/22/2017	0	0		
10/03/2017	0	0		
11/22/2017	0	0		
EV_AQ1				
03/15/2017	0	0		
04/04/2017	0	0		
EV_AQ6				
03/08/2017	0	10		
04/04/2017	0	0		
07/11/2017	0	0		
10/03/2017	3	0		
EV_BC1				
03/20/2017	0	0		
04/05/2017	0	0		
07/12/2017	0	0		
10/04/2017	3	0		
EV_DC1				
03/06/2017	10	0		
04/03/2017	0	0		
07/10/2017	3	0		
10/04/2017	7	0		
EV_EC1				
03/08/2017	0	0		
04/04/2017	0	0		

Sample Location/Date	48-h <i>Daphnia magna</i> 100% screening (single concentration) acute lethality toxicity test % Mortality	96-h <i>Rainbow trout</i> 100% screening (single concentration) acute lethality toxicity test % Mortality	48-h <i>Daphnia magna</i> LC50 toxicity test (the lethal dosage that would cause 50% mortality). % v/v	96-h <i>Rainbow trout</i> LC50 toxicity test (the lethal dosage that would cause 50% mortality). % v/v
07/11/2017	7	0		
10/03/2017	20	0		
EV_GC2				
03/06/2017	0	0		
04/05/2017	0	0		
05/30/2017			0	0
07/12/2017	0	0		
10/03/2017	7	0		
10/13/2017	3	30		
10/30/2017		0		0
EV_GT1				
03/07/2017	0	0		
04/05/2017	0	0		
07/12/2017	3	0		
10/02/2017	0	0		
EV_LC1				
03/07/2017	0	0		
04/05/2017	0	0		
07/12/2017	0	0		
10/02/2017	0	0		
EV_MG1				
03/08/2017	0	0		
04/04/2017	0	0		
07/11/2017	0	0		
10/03/2017	0	0		
EV_OC1				
03/06/2017	0	0		
03/17/2017	0	0		
04/03/2017	0	0		
07/10/2017	0	0		
10/02/2017	0	0		
EV_SM1				
03/06/2017	0	0		
04/03/2017	0	0		
07/10/2017	0	0		
10/02/2017	0	0		
EV_SP1				
03/08/2017	0	0		
04/04/2017	0	0		
07/11/2017	3	0		

Sample Location/Date	48-h <i>Daphnia magna</i> 100% screening (single concentration) acute lethality toxicity test % Mortality	96-h <i>Rainbow trout</i> 100% screening (single concentration) acute lethality toxicity test % Mortality	48-h <i>Daphnia magna</i> LC50 toxicity test (the lethal dosage that would cause 50% mortality). % v/v	96-h <i>Rainbow trout</i> LC50 toxicity test (the lethal dosage that would cause 50% mortality). % v/v
10/03/2017	37	0		
10/17/2017	17		20	
FR_CC1				
03/14/2017	0	0		
05/01/2017	0	0		
08/08/2017	0	0		
11/20/2017	0	0		
FR_EC1				
03/22/2017	0	0		
05/01/2017	0	0		
11/28/2017	0	0		
FR_EC1H				
09/25/2017	0	0		
FR_LMP1				
01/12/2017	0	0		
01/24/2017	0	0		
04/20/2017	0			
04/21/2017	93.3	0	0	
04/27/2017	0	0		
05/01/2017	0	0		
05/05/2017	0	0		
05/06/2017	0	0		
05/10/2017	0	0		
08/08/2017	0	0		
11/20/2017	0	0		
FR_LP1				
03/14/2017	0	0		
05/01/2017	0	0		
09/25/2017	0	0		
11/20/2017	0	0		
FR_NL1				
03/28/2017	3	0		
04/04/2017	0	0		
11/27/2017	0	0		
FR_SKP2				
05/30/2017	0	0		
FR_SP1				
03/22/2017	0	0		
05/01/2017	0	0		
08/08/2017	0	0		

Sample Location/Date	48-h <i>Daphnia magna</i> 100% screening (single concentration) acute lethality toxicity test % Mortality	96-h <i>Rainbow trout</i> 100% screening (single concentration) acute lethality toxicity test % Mortality	48-h <i>Daphnia magna</i> LC50 toxicity test (the lethal dosage that would cause 50% mortality). % v/v	96-h <i>Rainbow trout</i> LC50 toxicity test (the lethal dosage that would cause 50% mortality). % v/v
11/20/2017	0	0		
GH_CC1				
03/21/2017	90	0	70.7	
05/08/2017	100	0	77.1	
08/08/2017	67	10	89.1	
11/01/2017	100	0	77.1	
GH_COUGAR				
06/05/2017	0	0		
GH_GH1				
01/09/2017	0	0		
06/08/2017	0	0		
07/11/2017	0	0		
10/04/2017	0	0		
GH_GH2				
11/07/2017	0	0		
GH_LC1				
02/21/2017	0	0		
06/05/2017	0	0		
07/10/2017	0	0		
10/03/2017	0	0		
GH_MC1				
03/22/2017	0	0		
06/05/2017	0	0		
GH_PC1				
02/09/2017	40	0		
05/08/2017	0	0		
08/08/2017	3	0		
GH_SC1				
03/21/2017	36.7	0		
05/08/2017	0	0		
08/08/2017	0	10		
11/01/2017	93	0	0	
GH_TC1				
01/10/2017	0	0		
06/19/2017	0	0		
07/10/2017	0	0		
10/04/2017	0	0		
GH_TC2				
01/10/2017	0	10		
06/19/2017	0	0		

Sample Location/Date	48-h <i>Daphnia magna</i> 100% screening (single concentration) acute lethality toxicity test % Mortality	96-h <i>Rainbow trout</i> 100% screening (single concentration) acute lethality toxicity test % Mortality	48-h <i>Daphnia magna</i> LC50 toxicity test (the lethal dosage that would cause 50% mortality). % v/v	96-h <i>Rainbow trout</i> LC50 toxicity test (the lethal dosage that would cause 50% mortality). % v/v
07/10/2017	0	0		
10/03/2017	0	0		
GH_WADE				
03/22/2017	0	0		
06/05/2017	0	0		
07/10/2017	0	0		
11/28/2017	0	0		
GH_WC1				
03/27/2017	0	0		
06/05/2017	0	10		
12/12/2017	0	0		
GH_WILLOW_SP1				
06/05/2017	0	0		
LC_LC3				
07/14/2017	0	0		
07/26/2017	0	0		
08/12/2017	0	0		
09/21/2017	0	0		
09/25/2017	3	0		
LC_LC5				
01/16/2017	0	0		
08/15/2017	0	0		
09/05/2017	0	0		
10/02/2017	0	10		
11/28/2017	0	0		
12/04/2017	0	0		
LC_LC7				
03/21/2017	0	0		
03/27/2017	0	0		
04/04/2017	0	0		
05/06/2017	0	0		
07/07/2017	0	0		
10/03/2017	0	10		
LC_LC9				
03/21/2017	0	0		
04/04/2017	0	0		
LC_LCDSSLCC				
01/16/2017	0	0		
03/20/2017	0	0		
08/15/2017	0	0		

Sample Location/Date	48-h <i>Daphnia magna</i> 100% screening (single concentration) acute lethality toxicity test % Mortality	96-h <i>Rainbow trout</i> 100% screening (single concentration) acute lethality toxicity test % Mortality	48-h <i>Daphnia magna</i> LC50 toxicity test (the lethal dosage that would cause 50% mortality). % v/v	96-h <i>Rainbow trout</i> LC50 toxicity test (the lethal dosage that would cause 50% mortality). % v/v
09/05/2017	3	0		
10/02/2017	0	0		
11/28/2017	0	0		
12/04/2017	0	0		
WL_BFWB_OUT_SP21				
01/03/2017	0	0		
01/09/2017	0	0		
01/16/2017	0	0		
01/23/2017	0	10		
01/31/2017	0	0		
02/07/2017	0	0		
02/14/2017	0	0		
02/21/2017	0	0		
02/27/2017	0	0		
03/06/2017	0	0		
03/13/2017	0	0		
03/21/2017	0	0		
03/27/2017	0	0		
04/03/2017	0	0		
04/10/2017	0	0		
04/17/2017	0	0		
04/24/2017	0	0		
05/01/2017	0	0		
06/05/2017	0	0		
06/12/2017	0	0		
07/10/2017	100	0		
07/14/2017	0	0		
07/17/2017	47	0		
07/24/2017	13	0		
07/31/2017	3	0		
08/08/2017	87	0	100	
08/12/2017	7	0		
08/14/2017	0	0		
08/21/2017	0	0		
08/28/2017	0	0		
09/05/2017	0	0		
09/12/2017	0	0		
09/18/2017	100	0		
09/21/2017	37	10		
09/25/2017	7	20		

Sample Location/Date	48-h <i>Daphnia magna</i> 100% screening (single concentration) acute lethality toxicity test % Mortality	96-h <i>Rainbow trout</i> 100% screening (single concentration) acute lethality toxicity test % Mortality	48-h <i>Daphnia magna</i> LC50 toxicity test (the lethal dosage that would cause 50% mortality). % v/v	96-h <i>Rainbow trout</i> LC50 toxicity test (the lethal dosage that would cause 50% mortality). % v/v
10/02/2017	43	0		
10/10/2017	7	0		
10/16/2017	0	0		
10/23/2017	0	0		
10/30/2017	0	0		
11/06/2017	0	0		
11/14/2017	3	0		
11/20/2017	0	0		
11/28/2017	0	0		
12/04/2017	3	0		
12/11/2017	0	0		
12/18/2017	0	0		
12/27/2017	0	0		
WL_LCI_SP02				
07/14/2017	0	0		
09/21/2017	0	0		
WL_WLCI_SP01				
07/14/2017	83.3	0		
08/12/2017	13	0		

Appendix H – Acute Toxicity Laboratory Results (COAs)

Fording River Operations (FRO) COAs



Acute Toxicity Test Results

Sample collected January 12, 2017

Final Report

January 25, 2017

Submitted to: **Teck Coal / Fording River Operations**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates				Receipt temp.
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	
FR_LMP1-WS-201701121151	12-Jan-17 at 1151h	14-Jan-17 at 1115h	17-Jan-17 at 1130h	16-Jan-17 at 1000h	6.3°C

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

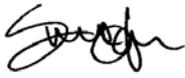
Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_LMP1-WS-201701121151	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	50.0 (36.9 – 67.7) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	53.0 (19.7 – 142.5) µg/L Zn	4.1 (3.1 – 5.5) g/L NaCl
Reference toxicant CV	64%	15%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: January 17, 2017; ² Test date: January 10, 2017



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Jan 17 / 17 @ 1130h

Work Order No.: 170024

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-LMPL-WS-20170112151
Sample Date: Jan 12 / 17
Date Received: Jan 14 / 17
Sample Volume: 1 X 20 L
Other: /

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 010417
Source: Aqua Farm
No. Fish/Volume (L): 10 / 12L
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 31 ± 2
Mean Weight ± SD (g): 0.33 ± 0.02

Range: 28 - 34
Range: 0.29 - 0.36

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn60
Stock Solution ID: 16Zn02
Date Initiated: Jan 17 / 17
96-h LC50 (95% CL): 50.0 (36.9 - 67.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 53.0 (19.7 - 142.5) µg/L Zn
Reference Toxicant CV (%): 64

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: Jan 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170025

Start Date/Time: January 16, 2017 @ 1000h
Test Species: Daphnia magna
Set up by: YLC

Sample Information:

Sample ID: FR LMP1-WS-201701121151
Sample Date: January 12, 2017
Date Received: January 14, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 122916A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 23
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC44
Stock Solution ID: 16Na02
Date Initiated: January 10, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.1-5.5) g/L NaCl
Reference Toxicant CV (%): 15

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Jan. 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-LMPL-WS-201701121151
 Work Order No.: 170025

Start Date/Time: January 16, 2017 @ 1000h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
<u>Control</u>	<u>A</u>	<u>10</u>	<u>10</u>	<u>0</u>	<u>18.5</u>	<u>19.0</u>	<u>19.0</u>	<u>8.8</u>	<u>8.6</u>	<u>8.7</u>	<u>7.8</u>	<u>7.7</u>	<u>7.6</u>	<u>359</u>	<u>366</u>
	<u>B</u>	<u>10</u>	<u>10</u>	<u>0</u>											
	<u>C</u>	<u>10</u>	<u>10</u>	<u>0</u>											
	<u>D</u>														
<u>100</u>	<u>A</u>	<u>10</u>	<u>10</u>	<u>0</u>	<u>19.0</u>	<u>19.0</u>	<u>19.0</u>	<u>8.7</u>	<u>8.5</u>	<u>8.6</u>	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>506</u>	<u>507</u>
	<u>B</u>	<u>10</u>	<u>10</u>	<u>1</u>											
	<u>C</u>	<u>10</u>	<u>10</u>	<u>0</u>											
	<u>D</u>														
	<u>A</u>														
	<u>B</u>														
	<u>C</u>														
	<u>D</u>														
	<u>A</u>														
	<u>B</u>														
	<u>C</u>														
	<u>D</u>														
Technician Initials		<u>YML</u>	<u>YML</u>	<u>YML</u>	<u>YML</u>	<u>YML</u>	<u>YML</u>	<u>YML</u>	<u>YML</u>	<u>YML</u>	<u>YML</u>	<u>YML</u>	<u>YML</u>	<u>YML</u>	<u>YML</u>

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	<u>100</u>	<u>72</u>
Highest conc.	<u>166</u>	<u>200</u>
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	<u>19.0</u>		
DO (mg/L)	<u>8.7</u>		
pH	<u>7.8</u>		
Cond (µS/cm)	<u>506</u>		
Salinity (ppt)	<u>0.2</u>		

Comments: _____ Mortality: Heartbeat checked under microscope not req'd.

Sample Description: clear, slightly yellow, no odour, no particulates.

Batch#: 122916A 7-d previous # young/brood: 23 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Jan-29, 2017

APPENDIX C – Chain-of-custody form

COC ID:	20170112-1434			TURNAROUND TIME:		RUSH:	<i>Fast Rush</i> ^① <i>KLP</i>				
PROJECT/CLIENT INFO				LABORATORY			OTHER INFO				
Facility Name / Job#	Fording River Operation			Lab Name	Nautilus Environmental		Report Format / Distribution		Excel	PDF	EDD
Project Manager	Lee Wilm			Lab Contact			Email 1:	Lee.Wilm@teck.com	x	x	x
Email				Email			Email 2:	Neil.Macdonald@teck.com	x	x	x
Address	PO Box 100			Address	8664 Commerce Court		Email 3:	teckcoal@equisonline.com			x
City	Elkford	Province	BC	City	Burnaby	Province	BC	PO number			
Postal Code	V0B 1H0	Country	Canada	Postal Code	V5A 4N7	Country	Canada				
Phone Number	1-250-865-5289			Phone Number	604-420-8773						

SAMPLE DETAILS								ANALYSIS REQUESTED				Filtered - P, Field, L, Lab, FL, Field & Lab, N, None					
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr Single Concentration - Daphnia m.	96hr Single Concentration - R.Trout								
FR_LMPI-WS-201701121151	FR_LMPI	WS		2017/01/12	11:51	G	1	17005	17001								

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
	<i>Dylan Begun</i>	<i>Jan 12</i>		
NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #	Sampler's Signature	Date/Time
Regular (default) X Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency <1 Day, ASAP or Weekend - Contact ALS	<i>Dylan Begun</i>	<i>250 865 5273</i>	<i>[Signature]</i>	<i>Jan 12/17</i>

① Regular TAT as per client instruction KLP

rec'd for 14/17 @ 11:5h by the
(KLP) 6.3 °C

END OF REPORT



Acute Toxicity Test Results

Sample collected January 24, 2017

Final Report

February 7, 2017

Submitted to: **Teck Coal / Fording River Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates				Receipt temp.
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	
FR_LMP1-WS-201701241105	24-Jan-17 at 1105h	25-Jan-17 at 1124h	27-Jan-17 at 1140h	25-Jan-17 at 1515h	9.0°C

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_LMP1-WS-201701241105	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	53.6 (43.2 – 66.4) µg/L Zn ¹	4.5 (3.5 – 6.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	54.9 (21.8 – 138.3) µg/L Zn	4.2 (3.2 – 5.5) g/L NaCl
Reference toxicant CV	59%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: January 27, 2017, ² Test date: February 1, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Jan 27 / 17 @ 1140h

Work Order No.: 1700445
~100

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR_LMPI_WS_201701241105
 Sample Date: Jan 24 / 17
 Date Received: Jan 24 57 17
 Sample Volume: 1 X 20 L
 Other: -

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
 T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
 Hardness (mg/L CaCO₃): 7
 Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 011317
 Source: Aqua Farms
 No. Fish/Volume (L): 10/10L
 Loading Density (g/L): 0.31
 Mean Length ± SD (mm): 28 ± 2 Range: 23 - 30
 Mean Weight ± SD (g): 0.31 ± 0.02 Range: 0.28 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn62
 Stock Solution ID: 16Zn06
 Date Initiated: Jan 27 / 17
 96-h LC50 (95% CL): 53.6 (43.2 - 66.4) µg/L Zn
 Reference Toxicant Mean and Historical Range: 54.9 (21.8 - 138.3) µg/L Zn
 Reference Toxicant CV (%): 59

Test Results: 0% mortality at 96 hours in the undiluted & 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Feb 6, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: FR_LMPI-WS-201701241105
 W.O. #: 1700445
 RBT Batch #: 011317¹⁶
 Date Collected/Time: Jan 24/17 @ 1105h
 Date Setup/Time: Jan 27/17 @ 1140h
 Sample Setup By: 1442

Number Fish/Volume: 10/10L
 7-d % Mortality: 0
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Yes

Thermometer: Temp-2 D.O. meter: DO-2
 Cond./Salinity: C-2 pH meter: pH-1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	9.8	/	9.7
pH	7.9	/	7.9
Cond. (µS/cm)	608	/	606
Salinity (ppt)	0.3	/	0.3

Concentration (% v/v)	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
Control				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.2	9.9	9.8	9.8	9.8	6.7	6.8	7.0	7.0	7.0	27	34	
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	9.7	9.8	9.8	9.9	9.7	7.9	7.8	8.0	7.8	7.8	606	610	
Initials				A	A	EL	EL	NML	A	A	EL	EL	NML	A	A	EL	EL	NML	A	A	EL	EL	NML	EL	

Sample Description/Comments: clear, slightly yellow, no odor, no particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: _____

Reviewed by: [Signature] Date Reviewed: Feb. 6, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 1700484
tu

Start Date/Time: January 25, 2017 @ 1515h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: FR-LMP1-WS-201701241105
Sample Date: January 24, 2017
Date Received: January 25, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 010517B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 26
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC45
Stock Solution ID: 16Na02
Date Initiated: MLSCAMBA February 1, 2017
48-h LC50 (95% CL): 4.5 (3.5 - 6.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2 - 5.5) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Feb. 6, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-LMPL-WS-20170241105
 Work Order No.: 1700484

Start Date/Time: January 25, 2017 @ 15:14
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.0	19.0	19.0	8.8	8.5	8.7	7.5	7.5	7.6	363	363
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	19.0	19.0	8.9	8.3	8.7	7.8	7.8	7.9	621	625
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Control (MHW)	100	66
Highest conc.	370	160
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.9		
pH	7.8		
Cond (µS/cm)	621		
Salinity (ppt)	0.3		

Comments: _____ Mortality: Heartbeat checked under microscope N/D

Sample Description: clear, slightly yellow, no odor, no particulates

Batch#: 010517B 7-d previous # young/brood: 26 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Feb. 6, 2017

APPENDIX C – Chain-of-custody form

COC ID:	20170124-1342	TURNAROUND TIME:		RUSH:				
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO		
Facility Name / Job#	Fording River Operation	Lab Name	Nautilus Environmental		Report Format / Distribution	Excel	PDF	EDD
Project Manager	Lee Wilm	Lab Contact			Email 1:	Lee.Wilm@teck.com	x	x
Email		Email			Email 2:	Neil.MacDonald@teck.com	x	x
Address	PO Box 100	Address	8664 Commerce Court		Email 3:	teckcoal@equisonline.com		x
City	Elkford	Province	BC	City	Burnaby	Province	BC	PO number
Postal Code	V0B 1H0	Country	Canada	Postal Code	V5A 4N7	Country	Canada	
Phone Number	1-250-865-5289	Phone Number	604-420-8773					

SAMPLE DETAILS								ANALYSIS REQUESTED														
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr Single Concentration -Daphnia m.	96hr Single Concentration - R.Trout													
FR_LMP1-WS-201701241105	FR_LMP1	WS		2017/01/24	11:05	G	1	1	1												1x 20L	Temp °C 9.0
								WO# 170044	170045													

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
	Dylan Bequin	1/24	Nautilus - Burnaby NY - Nari Yamamoto	Jan 25/17 @ 11:24

NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #
Regular (default) X Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency <1 Day, ASAP or Weekend - Contact ALS	Dylan Bequin	250 865 5273
	Sampler's Signature	Date/Time
		Jan 24 / 17

Clear, slightly yellow, no odour, no particulates

END OF REPORT



Acute Toxicity Test Results

Samples collected March 14, 2017

Final Report

March 29, 2017

Submitted to: **Teck Coal / Fording River Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_CC1_Q_02012017_N	14-Mar-17 at 1005h	15-Mar-17 at 0905h	17-Mar-17 at 1400h	15-Mar-17 at 1445h
FR_LP1-WS-201703141030	14-Mar-17 at 1030h	15-Mar-17 at 0905h	17-Mar-17 at 1400h	15-Mar-17 at 1445h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_CC1_Q_02012017_N	2.3°C	1100	260
FR_LP1-WS-201703141030	2.3°C	960	372

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_CC1_Q_02012017_N	0	0
FR_LP1-WS-201703141030	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_CC1_Q_02012017_N	Rainbow trout	None	None
FR_CC1_Q_02012017_N	<i>Daphnia magna</i>	None	None
FR_LP1-WS-201703141030	Rainbow trout	Precipitate observed on the bottom of test vessel	None
FR_LP1-WS-201703141030	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	87.1 (71.2 – 106.4) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	57.3 (22.5 – 146.4) µg/L Zn	4.2 (3.2 – 5.4) g/L NaCl
Reference toxicant CV	60%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: March 10, 2017; ² Test Date: March 15, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Mar 17 / 17 @ 1400 h

Work Order No.: 170192

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-CC1-2-02012017-N
Sample Date: Mar 17 / 17
Date Received: Mar 15 / 17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 022217
Source: Aqua Farms
No. Fish/Volume (L): 10 / 12
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.32 ± 0.05

Range: 27 - 34
Range: 0.27 - 0.41

Zinc Reference Toxicant Results:

Reference Toxicant ID: RIZn 65
Stock Solution ID: 16 Zn 02
Date Initiated: Mar 10 / 17
96-h LC50 (95% CL): 87.1 (71.2 - 106.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.3 (22.5 - 146.4) mg/L Zn
Reference Toxicant CV (%): 60

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: March 27, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: FR-LCI-Q-02012017-N
 W.O. #: 170192
 RBT Batch #: 022217
 Date Collected/Time: Mar 14/17 @ 1005h
 Date Setup/Time: Mar 14/17 @ 1400h
 Sample Setup By: EL EC

Number Fish/Volume: 10/12 L
 7-d % Mortality: 0
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.0	/	10.1
pH	7.5	/	7.4
Cond. (µS/cm)	1679	/	1679
Salinity (ppt)	0.8	/	0.8

Concentration	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	(% v/v)	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
CTL				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.7	9.8	9.8	9.8	6.9	7.0	6.9	6.8	6.9	25	28	
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.8	9.8	9.8	9.7	7.4	8.0	8.1	8.1	1679	1687		
Initials				EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	

Sample Description/Comments: Clear, Colorless, No particulates, No odour

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: no precipitation formed at 96h

Reviewed by: [Signature] Date Reviewed: March 27, 2017

Rainbow Trout Summary Sheet

Client: Teck Coat

Start Date/Time: Mar 17 / 17 @ 1400 h

Work Order No.: 170192

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-LP1-WS-2017^{EV}03141030
Sample Date: Mar 14 / 17
Date Received: Mar 15 / 17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 022217
Source: Aqua Farms
No. Fish/Volume (L): 10 / 12 L
Loading Density (g/L): 0.25
Mean Length ± SD (mm): 29 ± 1
Mean Weight ± SD (g): 0.30 ± 0.05

Range: 27 - 71
Range: 0.22 - 0.38

Zinc Reference Toxicant Results:

Reference Toxicant ID: RIZn 65
Stock Solution ID: 16 Zn 02
Date Initiated: Mar 10 / 17
96-h LC50 (95% CL): 87.1 (71.2 - 106.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.3 (22.5 - 146.4) mg/L Zn
Reference Toxicant CV (%): 60

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: March 27, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D. FR-LPI-WS-201703141030
 W.O. # 170192
 RBT Batch #: 022217
 Date Collected/Time: Mar 14/17 @ 1030h
 Date Setup/Time: Mar 17/17 @ 1400h
 Sample Setup By: EC

Number Fish/Volume: 10/12 L
 7-d % Mortality: 0
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.0	/	10.1
pH	7.9	/	7.9
Cond. (µS/cm)	1356	/	1356
Salinity (ppt)	0.7	/	0.7

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)		
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.8	9.8	9.8	9.8	6.9	7.0	6.9	6.8	6.9	25	29	
10				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.8	9.9	9.8	9.7	7.9	8.1	8.2	8.1	8.1	1356	1305	
Initials				AS	AS	EL	EL	EC	AS	AS	EL	EL	EL	AS	AS	EL	EL	EL	AS	AS	EL	EL	EL	EL	EL

Sample Description/Comments: Clear, Colorless, No particulates, No odor

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: Some precipitation formed at the bottom of the tank

Reviewed by: [Signature] Date Reviewed: March 27, 2017

Daphnia magna Summary Sheet

Client: TRCK
Work Order No.: 170191

Start Date/Time: March 15, 2017 @ 1445h
Test Species: Daphnia magna
Set up by: YK

Sample Information:

Sample ID: FR-CCLA-02012017-N
Sample Date: March 14, 2017
Date Received: March 15, 2017
Sample Volume: 1 x 20 L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 022217A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 22
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: March 27, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teek
 Sample ID: FRCC-Q-02012017-N
 Work Order No.: 170191

Start Date/Time: March 15, 2017 @ 1445h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: VW

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	18.5	19.0	19.0	8.6	8.5	8.4	7.7	7.6	7.6	354	373
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	19.0	8.9	8.5	8.4	7.5	7.7	8.0	1656	1647
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		VW/VW		VW	VW	VW	VW	VW	VW	VW	VW	VW	VW	VW	VW

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCo3)	
Control (MHW)	96	66
Highest conc.	1100	260
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	8.9		
pH	7.5		
Cond (µS/cm)	1656		
Salinity (ppt)	0.8		

Comments: no precipitation formed at 48h Mortality: Heartbeat checked under microscope not reprod

Sample Description: clear, no colour, no odour, no particulates

Batch#: 022217A 7-d previous # young/brood: 22 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: March 27, 2017

Daphnia magna Summary Sheet

Client: TRCK
Work Order No.: 170191

Start Date/Time: March 15, 2017 @ 1445h
Test Species: Daphnia magna
Set up by: YK

Sample Information:

Sample ID: FR-LPI-WS-201703141030
Sample Date: March 14, 2017
Date Received: March 15, 2017
Sample Volume: 1 x 20 L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 022217A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 22
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results:

0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by:



Date reviewed: March 27, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Peck
 Sample ID: R-LPI-WS-201703141030
 Work Order No.: 17091

Start Date/Time: March 15, 2017 @ 1445h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMC

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	18.5	19.0	19.0	8.5	8.4	8.4	7.7	7.6	7.6	354	314
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	19.0	19.0	8.8	8.4	8.3	7.9	7.8	8.3	1344	1338
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	96	66
Highest conc.	960	372
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.8		
pH	7.9		
Cond (µS/cm)	1344		
Salinity (ppt)	0.7		

Comments: no precipitation formed at 48h Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no colour, no odour, no particulates

Batch#: 022217A 7-d previous # young/brood: 22 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: March 27, 2017

APPENDIX C – Chain-of-custody form

COC ID: 20170314-1245		TURNAROUND TIME:				RUSH:						
PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job#	Fording River Operation			Lab Name	Nautilus Environmental			Report Format / Distribution	Excel	PDF	EDI	
Project Manager	Lee Wilm			Lab Contact				Email 1:	Lee.Wilm@teck.com	x	x	x
Email				Email				Email 2:	Nell.Macdonald@teck.com	x	x	x
Address	PO Box 100			Address	8664 Commerce Court			Email 3:	teckcost@equisonline.com			x
City	Elkford	Province	BC	City	Burnaby	Province	BC	PO number				
Postal Code	VOB 1H0	Country	Canada	Postal Code	VSA 4N7	Country	Canada					
Phone Number	1-250-865-5289			Phone Number	604-420-8773							

SAMPLE DETAILS							ANALYSIS REQUESTED								
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr Daphnia Single Conc. Pass/Fail	96 Hr Rainbow Trout Single Conc. Pass/Fail	28 Day H. azteca Pass/Fail	32d FHM P/F	Temp °C			
FR_CC1_Q_02012017_N	FR_CC1	WS		2017/03/14	10:05	G	1	1	1			2.3			
FR_LP1-WS-201703141030	FR_LP1	WS		2017/03/14	10:30	G	1	1	1						
FR_FRCP1_QR_23012017_N	FR_FRCP1	WS		2017/03/14	11:56	G	1			1	X				
FR_UFRI_QR_23012017_N	FR_UFRI	WS		2017/03/14	09:05	G	1			1	X				
								170191	170192	170120	170121				

32d FHM P/F conducted in Calgary

COE #

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
① Clear, colorless, No particulates, No odour	Dylan Begin	3/14	Nautilus	Mar 15/17 @ 09:05
② Clear, colorless, No particulates, No odour			NY- Nan Yaonamoto	

NR OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name	Mobile #
Regular (default)	X	Dylan Begin	250 865 5273
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge			
For Emergency <1 Day, ASAP or Weekend - Contact ALS			
		Sampler's Signature	Date/Time
		<i>[Signature]</i>	March 17, 2017

END OF REPORT



Acute Toxicity Test Results

Samples collected March 22, 2017

Final Report

April 5, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_EC1_Q_02012017_N	22-Mar-17 at 1115h	24-Mar-17 at 1100h	24-Mar-17 at 1655h	24-Mar-17 at 1310h
FR_SP1_Q_02012017_N	22-Mar-17 at 1134h	24-Mar-17 at 1100h	24-Mar-17 at 1645h	24-Mar-17 at 1310h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)		Alkalinity (mg/L CaCO ₃)	
		10°C	20°C	10°C	20°C
FR_EC1_Q_02012017_N	8.5°C	1340		318	
FR_SP1_Q_02012017_N	9.0°C	1300	1360	388	378

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test – also tested at 10°C for FR_SP1_Q_02012017_N as requested by the client, which was initiated concurrently with the standard test exposure of 20°C

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i>	
		10°C	20°C
FR_EC1_Q_02012017_N	0	n/a	0
FR_SP1_Q_02012017_N	0	0	0

n/a = not applicable

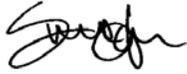
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_EC1_Q_02012017_N	Rainbow trout	Precipitate observed on the bottom of test vessel	None
FR_EC1_Q_02012017_N	<i>Daphnia magna</i>	None	None
FR_SP1_Q_02012017_N	Rainbow trout	Precipitate observed on the bottom of test vessel	None
FR_SP1_Q_02012017_N	<i>Daphnia magna</i> - 10°C	Slight precipitate observed on the bottom of test vessel	None
FR_SP1_Q_02012017_N	<i>Daphnia magna</i> - 20°C	Slight precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	96.2 (71.6 – 130.0) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	57.4 (22.5 – 146.7) µg/L Zn	4.2 (3.2 – 5.4) g/L NaCl
Reference toxicant CV	60%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: March 17, 2017; ² Test Date: March 15, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Mar 24 / 17 @ 1655h

Work Order No.: 170254

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR_ECL_Q_02012017_N
Sample Date: Mar 22 / 17
Date Received: Mar 24 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 030117
Source: Spring Valley
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 29 ± 2
Mean Weight ± SD (g): 0.31 ± 0.05

Range: 26 - 32
Range: 0.24 - 0.41

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn66
Stock Solution ID: 16Zn02
Date Initiated: Mar 17 / 17
96-h LC50 (95% CL): 96.2 (71.6 - 130.0) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.4 (22.5 - 146.7) mg/L Zn
Reference Toxicant CV (%): 60.57%

Test Results: 0% mortality at 96 hours in the undiluted 100% (w/v) sample.

Reviewed by: [Signature]

Date reviewed: April 4, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: FR-EC1-Q.02012017-N
 W.O. #: 170254
 RBT Batch #: 030117
 Date Collected/Time: Mar 22/17 @ 11:15h
 Date Setup/Time: Mar 24/17 @ 16:55h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 1/1
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER #2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	9.8	/	10.1
pH	7.7	/	7.9
Cond. (µS/cm)	1907	/	2000
Salinity (ppt)	1.0	/	1.0

Concentration (% v/v)	# Survivors							Temperature (°C)				Dissolved Oxygen (mg/L)				pH					Conductivity (µS/cm)				
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
CT1				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.0	9.8	9.6	9.7	9.8	6.8	7.0	6.9	6.9	6.9	20	21	
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.7	9.8	9.9	9.7	7.9	8.1	8.2	8.4	8.4	2000	1854	
Initials				AA	AA	EC	EL	EC	AA	AA	EL	EL	EL	AA	AA	EL	EL	EL	AA	AA	EL	EL	EL	EL	EL

Sample Description/Comments: Clear, colorless, No odor, No particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: 1 dead fish seen at 96h Precipitation formed @ 96 hrs, tank bottom

Reviewed by: [Signature] Date Reviewed: April 4, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Mar 24 117@1645h

Work Order No.: 170254

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-SPI-2-02012017-N
Sample Date: Mar 22 / 17
Date Received: Mar 24 / 17
Sample Volume: 2 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 030117
Source: Spring Valley
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.36
Mean Length ± SD (mm): 31 ± 1
Mean Weight ± SD (g): 0.36 ± 0.05

Range: 29 - 32
Range: 0.28 - 0.43

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn66
Stock Solution ID: 16Zn02
Date Initiated: Mar 17 / 17
96-h LC50 (95% CL): 96.2 (71.6-130.0) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.4 (22.5-146.7) mg/L Zn
Reference Toxicant CV (%): 60.57%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 4, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170253

Start Date/Time: March 24, 2017 @ 13:10h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: FR_ECI_Q_02012017-N
Sample Date: March 22, 2017
Date Received: March 24, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 030317 A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 25
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: April 4, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-EC-0-02012017A
 Work Order No.: 170253

Start Date/Time: March 24, 2017 @ 1310h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.0	19.5	19.5	8.7	9.0	8.8	7.5	7.9	8.0	354	368
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.5	19.5	8.9	9.1	9.0	7.9	8.2	1941	1944	
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		AS	AS	AS	YML	AS	AS	YML	AS	AS	YML	AS	AS	YML	AS

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Control (MHW)	100	74
Highest conc.	1340	318
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		19.0
DO (mg/L)	9.8	(4 min aeration)	8.9
pH	7.7		7.8
Cond (µS/cm)	1940		1941
Salinity (ppt)	1.0		1.0

Comments: no precipitation at 48h Mortality: Heartbeat checked under microscope no

Sample Description: clear, no colour, no odour, no particulates

Batch#: 030317A+B 7-d previous # young/brood: 25 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: YML Date reviewed: April 4, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170253

Start Date/Time: March 24, 2017 @ 1310h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: FR_SPL_Q_02012017-N
Sample Date: March 22, 2017
Date Received: March 24, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 030317A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 25
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.9) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample, tested at 20C

Reviewed by: [Signature]

Date reviewed: April 4, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR SP1-02-020/2017-N
 Work Order No.: 170253

Start Date/Time: March 24, 2017 @ 1310h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	19.0	19.5	19.5	8.7	9.0	8.9	7.5	7.8	7.8	354	371
	B	10	10	0											
	C	10	10	0											
	D														
100 (20°C)	A	10	10	0	18.5	18.5	19.5	9.2	9.1	9.0	7.6	8.0	8.2	1357	1245
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		ML	ML	ML	YML	ML	ML	YML	ML	ML	YML	ML	ML	YML	ML

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	74
Highest conc.	1360	378
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		
DO (mg/L)	9.2		
pH	7.6		
Cond (µS/cm)	1357		
Salinity (ppt)	0.7		

Comments: some slight precipitation at 48h on beaker bottom Mortality: Heartbeat checked under microscope no

Sample Description: clear, no colour, no odour, no particulates

Batch#: 030317A+B 7-d previous # young/brood: 25 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 4, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170253

Start Date/Time: March 24, 2017 @ 13:10h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: FR SPI-Q-02012017-N
Sample Date: March 23, 2017
Date Received: March 24, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 030317 A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 25
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample, tested at 10°C

Reviewed by: [Signature]

Date reviewed: April 4, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-SP1-Q-02012017LN
 Work Order No.: 170253

Start Date/Time: March 24, 2017 @ 13:06h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: Yue

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	11.0	11.0	11.0	10.1	10.3	10.5	7.5	7.8	7.8	353	376
	B	10	10	0											
	C	10	10	0											
	D														
100 (10°C)	A	10	10	0	11.5	11.0	11.0	9.9	10.2	10.5	7.6	8.0	7.9	1359	1319
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	A	A	MM	A	A	MM	A	A	MM	A	A	MM	A

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	~ 2472
Highest conc.	1200	388
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	11.5		
DO (mg/L)	9.9		
pH	7.6		
Cond (µS/cm)	1359		
Salinity (ppt)	0.7		

Comments: slight white precipitation at 48h on bottom of beakers Mortality: Heartbeat checked under microscope no

Sample Description: clear, no colour, no odour, no particulates

Batch#: 030317A1B 7-d previous # young/brood: 25 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: Yue Date reviewed: April 4, 2017

Client: Teek

W.O.#: 170253

Hardness and Alkalinity Datasheet

Sample ID	Alkalinity						Hardness			
	Subsample Date	Date Measured	Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/L CaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	Technician
FR-ECI-Q-02012017-N	Mar 24/17	Mar 24/17	50	16.2	16.5	318	100	13.4	1340	JJ
FR-SPI-Q-02012017-N @ 20°C			50	19.7	19.3	378	100	13.6	1360	JJ
FR-SPI-Q-02012017-N @ 10°C			50	19.6	19.8	388	100	13.0	1300	JJ
MHW @ 20°C	Mar 24/17	Mar 24/17	50	3.8	3.9	74	50	5.0	100	YML
MHW @ 10°C			L	3.7	3.8	72		5.0	100	

Notes: ① Diluted to 100 mL w/ DI water.

Reviewed by: 

Date Reviewed: April 4, 2017

APPENDIX C – Chain-of-custody form

COC ID: 20170322-1324		TURNAROUND TIME:			RUSH:							
PROJECT/CLIENT INFO				LABORATORY			OTHER INFO					
Facility Name/ Job#	Fording River Operation			Lab Name	Nautilus Environmental			Report Format / Distribution		Excel	PDF	EDD
Project Manager	Lee Wilm			Lab Contact				Email 1:	Lee.Wilm@teck.com	x	x	x
Email				Email				Email 2:	Neil.Macdonald@teck.com	x	x	x
Address	PO Box 100			Address	8664 Commerce Court			Email 3:	teckcoal@equisonline.com			x
City	Elkford	Province	BC	City	Burnaby	Province	BC	PO number				
Postal Code	V0B 1H0	Country	Canada	Postal Code	V5A 4N7	Country	Canada					
Phone Number	1-250-865-5289			Phone Number	604-420-8773							

SAMPLE DETAILS							ANALYSIS REQUESTED								
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr Daphnia Single Conc. Pass/Fail	96 Hr Rainbow Trout Single Conc. Pass/Fail	48 hr single conc Daphnia m. @ 10 deg cel					
1) FR_ECI_Q_02012017_N	FR_ECI	WS		2017/03/22	11:15	G	1	1	1						1x20L 8.5
2) FR_SPI_Q_02012017_N	FR_SPI	WS		2017/03/22	11:34	G	2	1	1	1					2x20L 9.0
								W04# 170253	170254	170253					

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS		RELINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
		Jason Gravelle		03/22/17		Nautilus Burnaby		Mar 24/17 @ 11:00	
						NY - Nari Yamamoto			
NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name		Mobile #		Date/Time			
Regular (default) X		Jason Gravelle		(250) 865-5191		Mar 22/2017			
Priority (2-3 business days) - 50% surcharge		Sampler's Signature							
Emergency (1 Business Day) - 100% surcharge		[Signature]							
For Emergency <1 Day, ASAP or Weekend - Contact ALS									

- ① Clear, colorless, No odour, No particulates.
- ② Clear, colorless, No odour, No particulates.

END OF REPORT



Acute Toxicity Test Results

Sample collected March 28, 2017

Final Report

April 12, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_NL1_Q_02012017_N	28-Mar-17 at 0945h	30-Mar-17 at 1053h	31-Mar-17 at 1200h	30-Mar-17 at 1330h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_NL1_Q_02012017_N	9.7°C	340	312

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_NL1_Q_02012017_N	0	3

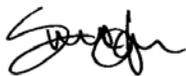
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_NL1_Q_02012017_N	Rainbow trout	None	None
FR_NL1_Q_02012017_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	66.2 (49.2 – 89.1) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	60.7 (24.2 – 152.0) µg/L Zn	4.2 (3.3 – 5.4) g/L NaCl
Reference toxicant CV	58%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: March 29, 2017; ² Test Date: April 5, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal (FRO) Start Date/Time: Mar 31 /17 @ 1200h

Work Order No.: 170265 Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR_NLI-Q-02012017-N
Sample Date: Mar 28 /17
Date Received: Mar 30 /17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 031517
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.33
Mean Length ± SD (mm): 30 ± 1 Range: 28 - 32
Mean Weight ± SD (g): 0.33 ± 0.06 Range: 0.27 - 0.42

Zinc Reference Toxicant Results:

Reference Toxicant ID: RT Zn 67
Stock Solution ID: EL 1617 ZnO2
Date Initiated: Mar 29/17
96-h LC50 (95% CL): 66.2 (49.2 - 89.1) mg/L

Reference Toxicant Mean and Historical Range: 60.7 (24.2 - 152.0) mg/L
Reference Toxicant CV (%): 58

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: April 11, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal (FRO)
 Sample I.D. FIR-NLI-Q-02012017-N
 W.O. # 170265
 RBT Batch #: 031517
 Date Collected/Time: Mar 28/17 @ 0945h
 Date Setup/Time: Mar 31/17 @ 1200h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0.08
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	8.7	/	9.1
pH	7.3	/	7.4
Cond. (µS/cm)	635	/	635
Salinity (ppt)	0.3	/	0.3

Concentration (% v/v)	# Survivors						Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)		
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Ctrl				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.0	9.9	9.8	9.7	9.9	6.7	6.9	7.0	6.8	6.8	30	36
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	9.1	9.8	9.8	9.9	9.9	7.4	7.0	7.1	8.2	8.3	635	623
Initials				AS	AS	EC	EL	EC	AS	AS	EL	EL	EL	AS	AS	EL	EL	EL	AS	AS	EL	EL	EL	EL

Sample Description/Comments: yellow, slightly turbid, odourless, some particulates.

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: No precipitation @ 96 hrs.

Reviewed by: [Signature] Date Reviewed: April 11, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170264

Start Date/Time: March 30, 2017 01330h
Test Species: Daphnia magna
Set up by: YAC

Sample Information:

Sample ID: FR-NLL Q-02012017-N
Sample Date: March 28, 2017
Date Received: March 30, 2017
Sample Volume: 1 x 20 L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 10
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC 48
Stock Solution ID: 17NaCl
Date Initiated: April 5, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 3% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: April 11, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-NU-Q-02012017-N
 Work Order No.: 170264

Start Date/Time: March 30, 2017 @ 1330h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	No. Immobilized			Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		48		48	0	24	48	0	24	48	0	24	48	0	48
		24	48	48	0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	19.0	20.0	8.5	8.4	8.8	7.5	7.6	7.4	345	350
	B	10	10	0											
	C	10	10	0											
	D														
100	A	9	9	0	20.5	19.0	20.0	8.3	8.2	8.8	6.8	8.1	7.7	634	622
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML			YML	YML		YML	YML		YML	YML		YML	

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	100	76
Highest conc.	340	312
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.5		
DO (mg/L)	8.3		
pH	6.8		
Cond (µS/cm)	634		
Salinity (ppt)	0.3		

Comments: Some precipitation of 40h in beaker bottom Mortality: Heartbeat checked under microscope no

Sample Description: yellow slightly turbid, no odor, some particulates

Batch#: 031517A 7-d previous # young/brood: 18 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 11, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected April 4, 2017

Final Report

April 18, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_NL1_Q_03042017_N	04-Apr-17 at 1300h	06-Apr-17 at 1220h	07-Apr-17 at 1500h	06-Apr-17 at 1515h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_NL1_Q_03042017_N	10.1°C	500	288

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_NL1_Q_03042017_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_NL1_Q_03042017_N	Rainbow trout	None	None
FR_NL1_Q_03042017_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	40.5 (30.6 – 53.7) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	59.3 (24.6 – 142.8) µg/L Zn	4.2 (3.3 – 5.4) g/L NaCl
Reference toxicant CV	55%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: April 6, 2017; ² Test Date: April 5, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Apr 7 117 @ 1300h

Work Order No.: 170289

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-ULI-Q-03042017-N
Sample Date: Apr 4 /17
Date Received: Apr 6 /17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 037317
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 29 ± 2
Mean Weight ± SD (g): 0.31 ± 0.03

Range: 27 - 31
Range: 0.27 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 68
Stock Solution ID: 17Zn02
Date Initiated: Apr 6 /17
96-h LC50 (95% CL): 40.5 (30.6 - 53.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.3 (24.6 - 142.8) µg/L Zn
Reference Toxicant CV (%): 55%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 17, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: FR-NL1-Q-03042017-N
 W.O. #: 170289
 RBT Batch #: 032317
 Date Collected/Time: Apr 4/17 @ 1300h
 Date Setup/Time: Apr 3/17 @ 1500h
 Sample Setup By: EC

Number Fish/Volume: 10/10L
 7-d % Mortality: 0.8
 Total Pre-aeration Time (mins): 45
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.9	/	10.5
pH	7.6	/	7.7
Cond. (µS/cm)	631	/	631
Salinity (ppt)	0.3	/	0.3

Concentration	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	(% v/v)	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Ctrl				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.8	9.7	9.7	9.8	7.7	7.7	7.7	7.7	7.7	7.7	29	32
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.8	9.8	9.7	9.7	7.7	7.7	7.7	7.7	7.7	7.7	631	624
Initials				Am	Am	EL	EL	EC	Am	Am	EL	EL	EL	Am	Am	EL	EL	EL	Am	Am	EL	EL	EL	EL	EL

Sample Description/Comments: Clear, Colorless, Odourless, Some particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: No precipitation @ 96 hrs

Reviewed by: [Signature] Date Reviewed: April 17, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170288

Start Date/Time: April 6, 2017 @ 1515h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: FR_NLI_Q-03042017LN
Sample Date: April 4, 2017
Date Received: April 6, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 24
Mortality (%) in previous 7 d: 10
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC48
Stock Solution ID: 17Na01
Date Initiated: April 5, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: April 19, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR NLI-Q-03042017-N
 Work Order No.: ~~17088~~ 170288

Start Date/Time: April 6, 2017 @ 15:15h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: temp-S DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	24		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.0	19.5	8.5	8.4	8.6	7.9	7.8	7.7	347	358
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	19.0	19.5	8.6	8.3	8.7	7.6	8.0	7.1	633	624
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	AS	AS	YML	YML	AS	YML	YML	AS	YML	YML	AS	YML	AS

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	100	76
Highest conc.	500	288
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.6		
pH	7.6		
Cond (µS/cm)	633		
Salinity (ppt)	0.3		

Comments: some precipitate at 48h on beaker bottom Mortality: Heartbeat checked under microscope no

Sample Description: clear, no colour, no odour, some particulates.

Batch#: 031517B 7-d previous # young/brood: 24 Previous 7-d Mortality (%): 10 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 17, 2017

Version 1.8; Issued February 29, 2016

APPENDIX C – Chain-of-custody form

COC ID:	20170404-1308			TURNAROUND TIME:		RUSH:				
PROJECT/CLIENT INFO				LABORATORY			OTHER INFO			
Facility Name / Job#	Fording River Operation			Lab Name	Nautilus Environmental		Report Format / Distribution	Excel	PDF	EDD
Project Manager	Neil MacDonald			Lab Contact			Email 1:	jee.wilm@teck.com	x	x
Email	Neil.MacDonald@teck.com			Email			Email 2:	Neil.Macdonald@teck.com	x	x
Address	PO Box 100			Address	8664 Commerce Court		Email 3:	teckcoal@equisonline.com		x
City	Elkford	Province	BC	City	Burnaby	Province	BC	PO number		
Postal Code	V0B 1H0	Country	Canada	Postal Code	V5A 4N7	Country	Canada			
Phone Number	1-250-865-5204			Phone Number	604-420-8773					

SAMPLE DETAILS								ANALYSIS REQUESTED													
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr Daphnia Sinige Conc. Pass/Fail	96 Hr Rainbow Trout Single Conc. Pass/Fail												
FR_NLI_Q_03042017_N	FR_NLI	WS		2017/04/04	13:00	G	1	1	2												10.1

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS			RELINQUISHED BY/AFFILIATION			DATE/TIME		ACCEPTED BY/AFFILIATION			DATE/TIME	
			Dylan Begon			4/4		Nautilus - Burnaby			Apr 06/17 @ 12:20	
								NY - Nari Yamamoto			1x20L	
NB OF BOTTLES RETURNED/DESCRIPTION												
Regular (default) X			Sampler's Name			Dylan Begon		Mobile #			250 865 5273	
Priority (2-3 business days) - 50% surcharge			Sampler's Signature					Date/Time			4/4/2017	
Emergency (1 Business Day) - 100% surcharge												
For Emergency <1 Day, ASAP or Weekend - Contact ALS												

END OF REPORT



Acute Toxicity Test Results

Sample collected April 19, 2017

Final Report

May 2, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_LMP1-WS-201704190950	19-Apr-17 at 0950h	21-Apr-17 at 1114h	21-Apr-17 at 1330h	21-Apr-17 at 1430h
FR_NGD3.5-WS-201704191040	19-Apr-17 at 1040h	21-Apr-17 at 1114h	21-Apr-17 at 1330h	21-Apr-17 at 1430h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_LMP1-WS-201704190950	10.0°C	94	172
FR_NGD3.5-WS-201704191040	10.0°C	86	118

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_LMP1-WS-201704190950	0	0
FR_NGD3.5-WS-201704191040	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_LMP1-WS-201704190950	Rainbow trout	None	None
FR_LMP1-WS-201704190950	<i>Daphnia magna</i>	Some precipitate observed on the bottom of test vessel	None
FR_NGD3.5-WS-201704191040	Rainbow trout	None	None
FR_NGD3.5-WS-201704191040	<i>Daphnia magna</i>	Some precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	97.5 (71.0 – 137.2) µg/L Zn ¹	3.4 (2.9 – 4.1) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	55.5 (25.7 – 119.9) µg/L Zn	4.2 (3.3 – 5.4) g/L NaCl
Reference toxicant CV	47%	13%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: April 20, 2017; ² Test Date: April 24, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Apr 21 / 17 @ 1330h

Work Order No.: 170353

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-LMPL-WS-201704190950
Sample Date: Apr 19 / 17
Date Received: Apr 21 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 040517
Source: Aque Farms
No. Fish/Volume (L): 10 / 10
Loading Density (g/L): 0.30
Mean Length ± SD (mm): 29 ± 2
Mean Weight ± SD (g): 0.30 ± 0.03

Range: 26 - 31
Range: 0.26 - 0.55

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn69
Stock Solution ID: 17Zn02
Date Initiated: Apr 20/17
96-h LC50 (95% CL): 97.5 (71.0-137.2) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.5 (25.7-119.9) mg/L Zn
Reference Toxicant CV (%): 54.7%
EC

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 27, 2017

Rainbow Trout Summary Sheet

Client: Tecle Coal

Start Date/Time: Apr 21 /17 @ 1330h

Work Order No.: 170353

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-NG03.5-WS-201704191040
Sample Date: Apr 19 /17
Date Received: Apr 21 /17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 040517
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10L
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 28 ± 2
Mean Weight ± SD (g): 0.31 ± 0.04

Range: 25 - 31
Range: 0.26 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn69
Stock Solution ID: 17Zn02
Date Initiated: Apr 20/17
96-h LC50 (95% CL): 97.5 (71.0-137.2) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.5 (25.7-119.9) mg/L Zn
Reference Toxicant CV (%): \$ 47. EC

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 27, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170352

Start Date/Time: April 21, 2017 @ 1430h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: FR-LMPI-WS-2017.04190950
Sample Date: April 19, 2017
Date Received: April 21, 2017
Sample Volume: 1x20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 033017B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 18
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC49
Stock Solution ID: 17NaCl
Date Initiated: April 24, 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: April 27, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-LMPL-WS-201704190950
 Work Order No.: 170352

Start Date/Time: April 21, 2017 @ 1430h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: Ym

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	18.5	18.0	19.0	8.7	8.9	8.6	7.5	7.8	7.9	348	355
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	21.0	20.0	19.0	8.9	8.9	8.7	7.7	8.1	8.3	404	402
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		JP	JP	JP	MM	MM	MM	MM	MM	MM	MM	MM	MM	MM	MM

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	94	66
Highest conc.	94	172
Hardness adjusted	-	

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	21.0		
DO (mg/L)	8.9		
pH	7.7		
Cond (µS/cm)	4045		
Salinity (ppt)	0.2		

Comments: Some precipitation at 48h Mortality: Heartbeat checked under microscope NO

Sample Description: brown, turbid, no odour, some particulates.

Batch#: 0330173 7-d previous # young/brood: 10 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: April 27, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170352

Start Date/Time: April 21, 2017 01430h
Test Species: Daphnia magna
Set up by: Yuc

Sample Information:

Sample ID: FR-NGD35-WS-20170419 (040)
Sample Date: April 19, 2017
Date Received: April 21, 2017
Sample Volume: 1 X 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 033017B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 18
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC49
Stock Solution ID: 17NaCl
Date Initiated: April 24, 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: April 27, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-NGD3-S-WS-201704191040
 Work Order No.: 170352

Start Date/Time: April 21, 2017 @ 1430h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: Ym

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	18.0	19.0	8.7	8.9	8.6	7.5	7.9	8.0	348	357
	B	10	10	0			19.0								
	C	10	10	0											
	D														
100	A	10	10	0	20.0	20.0	19.0	9.1	8.9	8.7	7.4	8.0	52	224	231
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		Ym	Ym	Ym	Ym	Ym	Ym	Ym	Ym	Ym	Ym	Ym	Ym	Ym	Ym

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	94	66
Highest conc.	86	118
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	9.1		
pH	7.4		
Cond (µS/cm)	224		
Salinity (ppt)	0.1		

Comments: some precipitation at 48h Mortality: Heartbeat checked under microscope no

Sample Description: brown, turbid, no odour, some particulates

Batch#: 03301713 7-d previous # young/brood: 18 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: April 27, 2017

APPENDIX C – Chain-of-custody form

COC ID:	20170419-1323	TURNAROUND TIME:		RUSH:	
PROJECT/CLIENT INFO			LABORATORY		OTHER INFO
Facility Name / Job#	Fording River Operation	Lab Name	Nautilus Environmental	Report Format / Distribution	Excel PDF EDD
Project Manager	Neil MacDonald	Lab Contact		Email 1:	Lee.Wilm@teck.com x x x
Email	Neil.MacDonald@teck.com	Email		Email 2:	Neil.MacDonald@teck.com x x x
Address	PO Box 100	Address	8664 Commerce Court	Email 3:	teckcoai@equisonline.com x
City	Elkford	Province	BC	City	Burnaby
Postal Code	VOB 1H0	Country	Canada	Province	BC
Phone Number	1-250-865-5204	Postal Code	V5A 4N7	Country	Canada
		Phone Number	604-420-8773	PO number	

SAMPLE DETAILS								ANALYSIS REQUESTED				Filtered - F; Field, L; Lab, EL; Field & Lab, N; None			
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr Single Concentration -Daphnia in.	96hr Single Concentration - R.Trout						
FR_LMP1-WS-201704190950	FR_LMP1	WS		2017/04/19	09:50	G	1	170352	170353						Temp °C
FR_NGD3.5-WS-201704191040	FR_NGD3.5	WS		2017/04/19	10:40	G	1	1	2						10.0
															10.0

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
	Jason Gravelle	04/19/17	Nautilus - Burnaby	Apr 21/17 @ 11:14
			NY - Nain Yamamoto	
NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #	Date/Time	
Regular (default) X	Jason Gravelle	(230) 865-5191	April 19/2017	
Priority (2-3 business days) - 50% surcharge	Sampler's Signature			
Emergency (1 Business Day) - 100% surcharge				
For Emergency <1 Day, ASAP or Weekend - Contact ALS				

- ① Brown, turbid, Odourless, Some particulates
- ② Brown, turbid, Odourless, Some particulates

END OF REPORT



Acute Toxicity Test Results

Sample collected April 20, 2017

Final Report

May 9, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates		
	Collected	Received	<i>Daphnia magna</i> test initiation
FR_LMP1-WS-201704201150 ¹	20-Apr-17 at 1150h	24-Apr-17 at 0800h	24-Apr-17 at 1200h

¹ Sample container leaked during transport

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_LMP1-WS-201704201150	11.3°C	320	142

TESTS

- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample <i>Daphnia magna</i>
FR_LMP1-WS-201704201150	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_LMP1-WS-201704201150	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	3.4 (2.9 – 4.1) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	4.2 (3.3 – 5.4) g/L NaCl
Reference toxicant CV	13%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date: April 24, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170370

Start Date/Time: April 24, 2017 @ 1200h
Test Species: Daphnia magna
Set up by: YMC

Sample Information:

Sample ID: ER-CMP1-WS-201704201150
Sample Date: April 20, 2017
Date Received: April 24, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 040717B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 24
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC49
Stock Solution ID: 17NaCl
Date Initiated: April 24, 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: May 9, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-LMPL-WS-201704201150
 Work Order No.: 170370

Start Date/Time: April 28²⁴ 2017 @ 12¹² noon
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: VW

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	19.0	19.0	8.5	8.4	8.4	7.6	7.5	7.5	358	366
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	22.5	19.0	19.0	8.4	8.3	8.5	7.6	7.6	7.6	359	361
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		VW	VW	VW	VW	VW	VW	VW	VW	VW	VW	VW	VW	VW	VW

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	98	70
Highest conc.	320	142
Hardness adjusted	—	

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	22.5		
DO (mg/L)	8.4		
pH	7.6		
Cond (µS/cm)	359		
Salinity (ppt)	0.2		

Comments: Slight precipitate at bottom Mortality: Heartbeat checked under microscope not req'd

Sample Description: brown turbid, some particulates, no odor.

Batch#: 040717B 7-d previous # young/brood: 24 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 9, 2017

APPENDIX C – Chain-of-custody form

COC ID:	20170420-1313			TURNAROUND TIME:		RUSH:						
PROJECT/CLIENT INFO				LABORATORY			OTHER INFO					
Facility Name / Job#	Fording River Operation			Lab Name	Nautilus Environmental			Report Format / Distribution	Excel	PDF	EDD	
Project Manager	Neil MacDonald			Lab Contact				Email 1:	Lee.Wilm@teck.com	x	x	x
Email	Neil.MacDonald@teck.com			Email				Email 2:	Neil.MacDonald@teck.com	x	x	x
Address	PO Box 100			Address	8664 Commerce Court			Email 3:	teckcoal@equisonline.com			x
City	Elkford	Province	BC	City	Burnaby	Province	BC	PO number				
Postal Code	VOB 1H0	Country	Canada	Postal Code	V5A 4N7	Country	Canada					
Phone Number	1-250-865-5204			Phone Number	604-420-8773							

SAMPLE DETAILS								ANALYSIS REQUESTED								Filtered - F: Field; L: Lab; P: Field & Lab; N: None	
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS
FR_LMP1-WS-201704201150	FR_LMP1	WS		2017/04/20	11:50	G	1	48 hr Single Concentration - Daphnia m.	96hr Single Concentration - R.Trout								113 ^c

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
	Dylan Begin	04/20/17	Emma Matus Nautilus Environmental	April 24/17 00 2017

NR OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #	Date/Time
Regular (default) X Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency <1 Day, ASAP or Weekend - Contact ALS	Jason Gravelle	(250) 865-5191	April 20, 2017

① Apparently carboy leaked, arrived 1/5 full but not enough for RBT testing inside the cooler. NY

② Client wants to proceed with Daphnia testing even with expired sample (Emma) - NY

END OF REPORT



Acute Toxicity Test Results

Sample collected April 21, 2017

Final Report

May 8, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_LMP1-WS-201704211040	21-Apr-17 at 1040h	24-Apr-17 at 0800h	24-Apr-17 at 1230h	24-Apr-17 at 1000h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_LMP1-WS-201704211040	10.6°C	112	150

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_LMP1-WS-201704211040	0	93

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_LMP1-WS-201704211040	Rainbow trout	None	None
FR_LMP1-WS-201704211040	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	97.5 (71.0 – 137.2) µg/L Zn ¹	3.4 (2.9 – 4.1) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	55.5 (25.7 – 119.9) µg/L Zn	4.2 (3.3 – 5.4) g/L NaCl
Reference toxicant CV	47%	13%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: April 20, 2017; ² Test Date: April 24, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck (oa)

Start Date/Time: Apr 24 / 17 @ 1230h

Work Order No.: 170356

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-LMP1-NS-201704-11040
Sample Date: Apr 21 / 17
Date Received: Apr 24 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 040517
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10L
Loading Density (g/L): 0.34
Mean Length ± SD (mm): 31 ± 1
Mean Weight ± SD (g): 0.34 ± 0.05
Range: 29 - 33
Range: 0.28 - 0.44

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn69
Stock Solution ID: 17Zn02
Date Initiated: Apr 20/17
96-h LC50 (95% CL): 97.5 (71.0-137.2) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.5 (25.7-119.9) mg/L Zn
Reference Toxicant CV (%): 64%
EC

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: May 5, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170385

Start Date/Time: April 24, 2017 @ 1000h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: FR-LMPL-WS-201704211040
Sample Date: April 21, 2017
Date Received: April 24, 2017
Sample Volume: 1 X 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 040717A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 24
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC49
Stock Solution ID: 17NaCl
Date Initiated: April 24, 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0.933% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: May 5, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-LMP1-WS-201704211040
 Work Order No.: 170355

Start Date/Time: April 24, 2017 @ 1000h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: VM

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	19.0	19.0	8.8	8.6	8.4	7.5	7.5	7.6	352	365
	B	10	10	0											
	C	10	10	0											
	D														
100	A	100	00	0	18.5	19.0	19.0	8.9	8.4	8.2	7.9	7.7	7.8	359	363
	B	100	00	0											
	C	100	20	2											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		<u>VM VM VM</u>			<u>VM VM VM</u>			<u>VM VM VM</u>			<u>VM VM VM</u>			<u>VM VM</u>	

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Control (MHW)	96	68
Highest conc.	112	150
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		
DO (mg/L)	8.9		
pH	7.9		
Cond (µS/cm)	359		
Salinity (ppt)	0.2		

Comments: ^{0 organisms} on surface ² slight precipitation at top on beaker bottom Mortality: Heartbeat checked under microscope yes

Sample Description: Brown, turbid, no colour, some particulates

Batch#: 040717A 7-d previous # young/brood: 24 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 5, 2017

APPENDIX C – Chain-of-custody form

COC ID: 20170421-1125		TURNAROUND TIME:				RUSH:						
PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job# Fording River Operation				Lab Name Nautilus Environmental				Report Format / Distribution		Excel	PDF	EDD
Project Manager Neil MacDonald				Lab Contact				Email 1:	Lee.Wilm@teck.com	x	x	x
Email Neil.MacDonald@teck.com				Email				Email 2:	Neil.MacDonald@teck.com	x	x	x
Address PO Box 100				Address 8664 Commerce Court				Email 3:	teckcoal@equisonline.com			x
City Elkford		Province BC	City Burnaby		Province BC	PO number						
Postal Code V0B 1H0		Country Canada	Postal Code V5A 4N7		Country Canada							
Phone Number 1-250-865-5204		Phone Number 604-420-8773										

SAMPLE DETAILS							ANALYSIS REQUESTED														
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr Single Concentration - Daphnia m.	96hr Single Concentration - R.Trout												
FR_LMP1-WS-201704211040	FR_LMP1	WS		2017/04/21	10:40	G	1	170355	170356												Temp °C
																					10.6

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
	<i>[Signature]</i>	2017/04/21	Nautilus Burnaby	Apr 24/17 @ 08:00
			1x 20L	
			Immamatus	

NB OF BOTTLES RETURNED/DESCRIPTION	Regular (default) X	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend - Contact ALS	Sampler's Name	Mobile #	Date/Time
					<i>[Signature]</i>	250 865 5204	April 21 2017

Brown, turbid, Odourless,
Some particulates.

END OF REPORT



Acute Toxicity Test Results

Sample collected April 21, 2017

Final Report

May 17, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates		
	Collected	Received	<i>Daphnia magna</i> test initiation
FR_LMP1-WS-201704211040	21-Apr-17 at 1040h	24-Apr-17 at 0800h	28-Apr-17 at 1130h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_LMP1-WS-201704211040	10.6°C	110	156

TEST

- *Daphnia magna* 48-h LC50 test

RESULTS

Toxicity test results

Sample ID	LC50 (%v/v)
FR_LMP1-WS-201704211040	>100

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_LMP1-WS-201704211040	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	3.4 (2.9 – 4.1) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	4.2 (3.3 – 5.4) g/L NaCl
Reference toxicant CV	13%
Organism health history	Acceptable
Protocol deviations	Yes (see below)
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

² Test date: April 24, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

Based on the results of an earlier test on the same sample, the client requested an additional test be conducted. At this time, the sample was outside of the 5-day hold time as required in the protocol, and the client agreed to proceed with testing.



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* LC50 test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	Five concentrations, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Statistical software	CETIS Version 1.8.7
Test endpoints	Survival (48-hour LC50)
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170382

Start Date/Time: April 28, 2017 @ 1130h
Test Species: Daphnia magna
Set up by: MW

Sample Information:

Sample ID: FR_LMPI-WS-20170421040
Sample Date: April 21, 2017
Date Received: April 24, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 041217A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 21
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC49
Stock Solution ID: 17NaCl
Date Initiated: April 24, 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: The 48h LC50 is estimated to be >100% (v/v)

Reviewed by: [Signature]

Date reviewed: May 10, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-LMP1-WS-2a709211040
 Work Order No.: 170382

Start Date/Time: April 28, 2017 @ 1130h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: Ym

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.0	19.0	19.0	8.5	8.7	8.5	7.5	7.7	7.7	356	367
	B														
	C														
	D														
6.25	A	10	10	0	19.0	19.0	19.0	8.4	8.6	8.5	7.6	7.8	7.8	355	368
	B														
	C														
	D														
12.5	A	10	10	0	19.5	19.0	19.0	8.4	8.7	8.6	7.6	7.8	7.8	355	367
	B														
	C														
	D														
25	A	10	10	0	19.5	19.0	19.0	8.4	8.6	8.5	7.6	7.9	7.9	356	365
	B														
	C														
	D														
50	A	10	10	0	20.0	19.0	19.0	8.6	8.8	8.5	7.7	7.9	7.9	357	364
	B														
	C														
	D														
100	A	10	10	0	21.0	19.0	19.0	8.9	8.8	8.5	7.8	8.0	8.0	360	363
	B														
	C														
	D														
Technician Initials		A	A	A	Ym	A	A	Ym	A	A	Ym	A	A	Ym	A

	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Control (MHW)	96	68
Highest conc.	110	156
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	21.0		
DO (mg/L)	8.9		
pH	7.8		
Cond (µS/cm)	360		
Salinity (ppt)	0.12		

Comments: Some precipitation at 48h Mortality: Heartbeat checked under microscope ND

Sample Description: brown, turbid, no odour, some particulates

Batch#: 041217A 7-d previous # young/brood: 21 Previous 7-d Mortality (%): 0 Day of 1st Brood: 60

Reviewed by: [Signature] Date reviewed: May 10, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected April 27, 2017

Final Report

May 17, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_LMP1-WS-201704270915	27-Apr-17 at 0915h	28-Apr-17 at 1320h	01-May-17 at 1045h	01-May-17 at 1200h
FR_NGD1-WS-201704271345	27-Apr-17 at 01345h	28-Apr-17 at 1320h	N/A	01-May-17 at 1200h

N/A = Not applicable

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_LMP1-WS-201704270915	13.0°C	270	166
FR_NGD1-WS-201704271345	13.0°C	242	168

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_LMP1-WS-201704270915	0	0
FR_NGD1-WS-201704271345	N/A	0

N/A = Not applicable

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_LMP1-WS-201704211040	Rainbow trout	None	None
FR_LMP1-WS-201704270915	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
FR_NGD1-WS-201704271345	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	97.5 (71.0 – 137.2) µg/L Zn ¹	3.4 (2.9 – 4.1) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	55.5 (25.7 – 119.9) µg/L Zn	4.2 (3.3 – 5.4) g/L NaCl
Reference toxicant CV	47%	13%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: April 20, 2017; ² Test Date: April 24, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: May 1 / 17 @ 1045h

Work Order No.: 170381

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-LMPLWS.201704270915
Sample Date: Apr 27 / 17
Date Received: Apr 28 / 17
Sample Volume: 2 x 20 L
Other: _____

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 040517
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10
Loading Density (g/L): 0.43
Mean Length ± SD (mm): 32 ± 2
Mean Weight ± SD (g): 0.43 ± 0.05

Range: 29 - 35
Range: 0.31 - 0.49

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn69
Stock Solution ID: 17Zn02
Date Initiated: Apr 20 / 17
96-h LC50 (95% CL): 97.5 (71.0 - 137.2) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.5 (25.7 - 119.9) mg/L Zn
Reference Toxicant CV (%): 47%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: May 10, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170380

Start Date/Time: May 1, 2017 @ 12:00h
Test Species: Daphnia magna
Set up by: YUL

Sample Information:

Sample ID: FR_LMPI_WS-201704270915
Sample Date: April 27, 2017
Date Received: April 28, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 041217A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC49
Stock Solution ID: 17NaCl
Date Initiated: April 24, 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: May 10, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR LMP1-65-201704270915
 Work Order No.: 170380

Start Date/Time: May 1, 2017 @ 1200h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: Yun

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	18.5	19.0	19.0	8.8	8.6	8.4	7.5	7.5	7.6	364	367
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	19.0	8.7	8.7	8.5	7.6	7.8	7.8	435	438
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		Yun	Yun	Yun	Yun	Yun	Yun	Yun	Yun	Yun	Yun	Yun	Yun	Yun	Yun

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	98	70
Highest conc.	270	166
Hardness adjusted	—	

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	8.7		
pH	7.6		
Cond (µS/cm)	435		
Salinity (ppt)	0.2		

Comments: slight precipitation at 48h Mortality: Heartbeat checked under microscope not
in beaker bottom neg

Sample Description: light brown, turbid, no odour, some particulates

Batch#: 041217A 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: May 10, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170380

Start Date/Time: May 1, 2017 @ 1200h
Test Species: Daphnia magna
Set up by: YLC

Sample Information:

Sample ID: NGDI
FR-NDOT-WS-201704271345
Sample Date: April 27, 2017
Date Received: April 28, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 041217A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC49
Stock Solution ID: 17NaCl
Date Initiated: April 24, 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: May 10, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck NEPI
 Sample ID: FR ND64-WS-201704271345
 Work Order No.: 170380

Start Date/Time: May 1, 2017 @ 1200h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMc

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	19.0	19.0	8.8	8.5	8.5	7.5	7.4	7.6	364	366
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	19.0	8.6	8.6	8.4	7.6	7.8	7.8	433	436
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YMc	YMc	YMc	YMc	YMc	YMc	YMc	YMc	YMc	YMc	YMc	YMc	YMc	YMc

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	98	70
Highest conc.	242	168
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		/
DO (mg/L)	8.6		/
pH	7.6		/
Cond (µS/cm)	433		/
Salinity (ppt)	0.2		/

Comments: Slight precipitation at 48h in beaker bottom Mortality: Heartbeat checked under microscope not seen

Sample Description: clear, no color, no odors, no particulates

Batch#: 041217A 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 60

Reviewed by: [Signature] Date reviewed: May 10, 2017

APPENDIX C – Chain-of-custody form

COC ID: 20170427-1228		TURNAROUND TIME:				RUSH:								
PROJECT/CLIENT INFO					LABORATORY			OTHER INFO						
Facility Name / Job# Forging River Operation					Lab Name Nautilus Environmental			Report Format / Distribution						
Project Manager Neil MacDonald					Lab Contact			Email 1: Lee.Wilm@teck.com						
Email Neil.MacDonald@teck.com					Email			Email 2: Neil.MacDonald@teck.com						
Address PO Box 100					Address 8664 Commerce Court			Email 3: teckcoal@equisonline.com						
City Elkford		Province BC		City Burnaby		Province BC		PO number						
Postal Code V0B 1H0		Country Canada		Postal Code V5A 4N7		Country Canada								
Phone Number 1-250-865-5204				Phone Number 604-420-8773										
SAMPLE DETAILS					ANALYSIS REQUESTED			Filtered - F; Field; L; Lab; PL; Field & Lab; N; No						
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 HR-450 FOR 48 HR SINGLE CONCENTRATION - DAPNIA M.	TIE Daphnia m.	96HR SINGLE CONCENTRATION - R.TROUT				
FR_LMP1-WS-201704270915	FR_LMP1	WS		2017/04/27	09:15	G	1	1	1	1				13.0
FR_NGD1-WS-201704271345	FR_NGD1	WS		2017/04/27	13:45	G	2	1						13.0
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS					RELINQUISHED BY/AFFILIATION			DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME		
					Dylan Bean			9/27		Yvonne Lee Apr. 28/17 @ 1320h				
NB OF BOTTLES RETURNED/DESCRIPTION					SAMPLER'S NAME			MOBILE #		DATE/TIME				
Regular (default) X					Dylan Bean			250 865 5273		Apr 27/17				
Priority (2-3 business days) - 50% surcharge					SAMPLER'S SIGNATURE									
Emergency (1 Business Day) - 100% surcharge														
For Emergency <1 Day, ASAP or Weekend - Contact ALS														

2x 20L
2x 1L #4

① Not tested due to pif results

END OF REPORT



Acute Toxicity Test Results

Samples collected May 1, 2017

Final Report

May 17, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_CC1_Q_03042017_N	01-May-17 at 1140h	03-May-17 at 0945h	04-May-17 at 0830h	03-May-17 at 1500h
FR_EC1_Q_03042017_N	01-May-17 at 1135h	03-May-17 at 0945h	04-May-17 at 0830h	03-May-17 at 1500h
FR_LMP1_Q_03042017_N	01-May-17 at 1210h	03-May-17 at 0945h	04-May-17 at 0830h	03-May-17 at 1500h
FR_SP1_Q_03042017_N	01-May-17 at 1115h	03-May-17 at 0945h	04-May-17 at 0830h	03-May-17 at 1500h/1505h
FR_LP1-WS-201705011150	01-May-17 at 1150h	03-May-17 at 0945h	04-May-17 at 0830h	03-May-17 at 1500h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_CC1_Q_03042017_N	9.5°C	900	218
FR_EC1_Q_03042017_N	9.5°C	1300	286
FR_LMP1_Q_03042017_N	9.5°C	236	180
FR_SP1_Q_03042017_N	11.0°C	970 (20°C) / 950 (10°C)	390 (20°C) / 448 (10°C)
FR_LP1-WS-201705011150	11.0°C	760	264

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_CC1_Q_03042017_N	0	0
FR_EC1_Q_03042017_N	0	0
FR_LMP1_Q_03042017_N	0	0
FR_SP1_Q_03042017_N	0	0 (20°C) / 0 (10°C)
FR_LP1-WS-201705011150	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_CC1_Q_03042017_N	Rainbow trout	Some precipitate observed on the bottom of test vessel	None
FR_CC1_Q_03042017_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
FR_EC1_Q_03042017_N	Rainbow trout	Some precipitate observed on the bottom of test vessel	None
FR_EC1_Q_03042017_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
FR_LMP1_Q_03042017_N	Rainbow trout	Some precipitate observed on the bottom of test vessel	None
FR_LMP1_Q_03042017_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
FR_SP1_Q_03042017_N	Rainbow trout	Some precipitate observed on the bottom of test vessel	None
FR_SP1_Q_03042017_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel (both at 20°C and 10°C)	None
FR_LP1-WS-201705011150	Rainbow trout	Some precipitate observed on the bottom of test vessel	None
FR_LP1-WS-201705011150	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	81.0 (61.1 – 107.4) µg/L Zn ¹	3.4 (2.9 – 4.1) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	55.0 (26.1 – 115.9) µg/L Zn	4.2 (3.3 – 5.4) g/L NaCl
Reference toxicant CV	45%	13%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None for standard screening tests ³
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: May 2, 2017; ² Test date: April 24, 2017; LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

³ Additional screening test conducted at 10±2°C as part of the project study to compare survival data from two exposure temperatures



Report By:
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Reviewed By:
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Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: May 4 /17 @ 0830h

Work Order No.: EL H170407

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-LL1-Q-03042017-N
Sample Date: May 1 /17
Date Received: May 2 /17
Sample Volume: 1X20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 041817
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 28 ± 1
Mean Weight ± SD (g): 0.31 ± 0.03

Range: 27 - 30
Range: 0.27 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn70
Stock Solution ID: 17 ZnO2
Date Initiated: May 2 /17
96-h LC50 (95% CL): 81.0 (61.1 - 107.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.0 (26.1 - 115.9) mg/L Zn
Reference Toxicant CV (%): EL 55.45

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: May 15, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: May 4 /17 @ 0830h

Work Order No.: 170407

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR E11-Q03042017-N
 Sample Date: May 1 /17
 Date Received: May 3 /17
 Sample Volume: 1 X20 L
 Other: -

Test Validity Criteria:
 ≥ 90% control survival
WQ Ranges:
 T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
 Hardness (mg/L CaCO₃): 12
 Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 041817
 Source: Aqua Farms
 No. Fish/Volume (L): 10/10
 Loading Density (g/L): 0.30
 Mean Length ± SD (mm): 28 ± 2
 Mean Weight ± SD (g): 0.30 ± 0.02

Range: 26 - 31
 Range: 0.27 - 0.33

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn70
 Stock Solution ID: 17 Zn02
 Date Initiated: May 2/17
 96-h LC50 (95% CL): 81.0 (61.1 - 107.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.0 (26.1 - 115.9) mg/L Zn
 Reference Toxicant CV (%): FL 55.45

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by:  Date reviewed: May 15, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: FR-EC1-0-0304 2017-N
 W.O. #: 170407
 RBT Batch #: 541817
 Date Collected/Time: May 1/17 @ 1135h
 Date Setup/Time: May 4/17 @ 0830h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0.1
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.5	/	14.5
D.O. (mg/L)	10.0	/	10.1
pH	7.7	/	7.8
Cond. (µS/cm)	2200	/	2250
Salinity (ppt)	1.1	/	1.1

Concentration (% v/v)	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
41				10	10	10	10	14.5	14.5	15.0	15.0	15.0	10.1	9.9	9.6	9.9	9.9	6.8	6.9	7.2	7.1	7.0	39	41	
100				10	10	10	10	14.5	14.5	15.0	15.0	15.0	10.1	9.8	9.7	9.6	9.7	7.8	8.0	8.1	8.0	8.0	2250	22800	
Initials				EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	

Sample Description/Comments: Clear, colorless, No particulates, No odour

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: Some precipitation present @ 96 hrs on tank bottom

Reviewed by: [Signature] Date Reviewed: May 15, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: May 4 /17 @ 0830h

Work Order No.: 170407

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-LMPI-Q-03042017-N
Sample Date: May 1 /17
Date Received: May 3 /17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 041817
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 29 ± 1
Mean Weight ± SD (g): 0.31 ± 0.03

Range: 27 - 31
Range: 0.27 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn70
Stock Solution ID: 17 Zn02
Date Initiated: May 2/17
96-h LC50 (95% CL): 81.0 (61.1 - 107.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.0 (26.1 - 115.9) mg/L Zn
Reference Toxicant CV (%): EL 55.45

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: May 15, 2017

Rainbow Trout Summary Sheet

Client: Teek Coal

Start Date/Time: May 4 /17 @ 0830h

Work Order No.: 1704047
FL

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-SPI-Q-0304 2017-N
Sample Date: May 1 /17
Date Received: May 3 /17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 041817
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.32
Mean Length ± SD (mm): 30 ± 1
Mean Weight ± SD (g): 0.32 ± 0.02

Range: 28 - 31
Range: 0.27 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn70
Stock Solution ID: 17Zn02
Date Initiated: May 2/17
96-h LC50 (95% CL): 81.0 (61.1 - 107.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.0 (26.1 - 115.9) mg/L Zn
Reference Toxicant CV (%): FL 55.45

Test Results: 0% mortality at 96 hours in the undiluted 100% (ulv) sample.

Reviewed by: [Signature]

Date reviewed: May 15, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: FR-SPI-Q-03042017-N
 W.O. #: 170407
 RBT Batch #: 041817
 Date Collected/Time: May 1/17 @ 1115h
 Date Setup/Time: May 4/17 @ 0830h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0.1
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.5	/	14.5
D.O. (mg/L)	10.4	/	10.3
pH	7.3	/	7.4
Cond. (µS/cm)	1349	/	1347
Salinity (ppt)	0.7	/	0.7

Concentration (% v/v)	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
41				10	60	10	10	14.5	14.5	15.0	15.0	16.0	10.1	9.9	9.6	9.6	9.9	6.8	6.7	7.2	7.1	7.0	39	44	
100				10	60	10	10	14.5	14.5	15.0	15.0	15.0	10.3	9.9	9.7	9.8	9.7	7.4	8.1	8.3	8.2	8.2	1347	1075	
Initials				EL	AS	AS	EL	EC	EL	AS	AS	EL	EL	EL	AS	AS	EL	EL	EL	AS	AS	EL	EL	EL	

Sample Description/Comments: Clear, Colorless, Odorless, No particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: Some precipitation present @ 96 hrs on tank bottom

Reviewed by: [Signature] Date Reviewed: May 15, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: May 4 / 17 @ 0830h

Work Order No.: 170407

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-LP1-WS-20170501150
 Sample Date: May 1 / 17
 Date Received: May 3 / 17
 Sample Volume: 1 X 20 L
 Other: -

Test Validity Criteria:
 ≥ 90% control survival
WQ Ranges:
 T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
 Hardness (mg/L CaCO₃): 12
 Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 041817
 Source: Aqua Farms
 No. Fish/Volume (L): 10/10
 Loading Density (g/L): 0.31
 Mean Length ± SD (mm): 29 ± 2
 Mean Weight ± SD (g): 0.31 ± 0.04

Range: 26 - 31
 Range: 0.25 - 0.36

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn70
 Stock Solution ID: 17Zn02
 Date Initiated: May 2 / 17
 96-h LC50 (95% CL): 81.0 (61.1 - 107.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.0 (26.1 - 115.9) mg/L Zn
 Reference Toxicant CV (%): FL 55.45

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: 

Date reviewed: May 15, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170406

Start Date/Time: May 3, 2017 @ 1500h
Test Species: Daphnia magna
Set up by: JML

Sample Information:

Sample ID: FR-CC1Q-03042017-N
Sample Date: May 1, 2017
Date Received: May 3, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 041917 A4B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC49
Stock Solution ID: 17Na01
Date Initiated: April 24, 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl

Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: May 15, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: May 3/17 15:00h
 Sample ID: FR-CC1-Q-03042017-N No. Organisms/volume: 10/200mL
 Work Order No.: 170406 Test Organism: D. magna
 Set up by: YYL
 Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	19.5	19.0	20.0	8.5	8.4	8.4	7.5	7.6	7.6	335	339
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	20.0	9.0	8.3	8.0	7.8	8.0	7.9	1960	1926
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO3)	
Control (MHW)	98	70
Highest conc.	900	218
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	9.0		
pH	7.8		
Cond (µS/cm)	1960		
Salinity (ppt)	0.0		

Comments: slight precipitate at 48h on beaker bottom Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no colour, no odour, no particles

Batch#: 041917AAB 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 15, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170406

Start Date/Time: May 3, 2017 @ 1500h
Test Species: Daphnia magna
Set up by: JML

Sample Information:

Sample ID: FR_ECI-Q-03042017-N
Sample Date: May 1, 2017
Date Received: May 3, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 041917A4B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC49
Stock Solution ID: 17NaCl
Date Initiated: April 24, 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: May 15, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Tede
 Sample ID: FR-001-Q-03042017
 Work Order No.: 170406

Start Date/Time: May 3/17 @ 1500h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YYL

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	24		48		Temperature (°C)	Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		0	24	48	0		24	48	0	24	48	0	48		
Control	A	10	10	0	18.5	19.0	20.0	8.5	8.4	8.3	7.5	7.6	7.6	346	340
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	18.0	19.0	20.0	8.4	8.4	8.2	7.7	7.9	8.0	2250	2220
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	98	70
Highest conc.	1300	286
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		
DO (mg/L)	8.4		
pH	7.7		
Cond (µS/cm)	2250		
Salinity (ppt)	1.2		

Comments: slight precipitate at 48h on beaker bottom Mortality: Heartbeat checked under microscope not resp cot

Sample Description: clear, no colour, no odour, no particles

Batch#: 041917A4B 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: YYL Date reviewed: May 15, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170406

Start Date/Time: May 3, 2017 @ 1500h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: FR_LMPLQ-03042017-LN
Sample Date: May 1, 2017
Date Received: May 3, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 04R17A6B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC49
Stock Solution ID: 17NaCl
Date Initiated: April 24, 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: May 15, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: May 3/17 15:00h
 Sample ID: FR-LMP1-Q-0304 2017 No. Organisms/volume: 10/200mL
 Work Order No.: 170400 Test Organism: D. magna
 Set up by: YYL

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.5	19.0	20.0	8.5	8.4	8.2	7.5	7.6	7.6	335	339
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	20.0	9.0	8.3	7.9	6.0	7.0	6.1	438	446
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	98	70
Highest conc.	236	180
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	9.0		
pH	8.0		
Cond (µS/cm)	438		
Salinity (ppt)	0.2		

Comments: slight precipitate at 48h on heater bottom Mortality: Heartbeat checked under microscope not required

Sample Description: yellow, turbid, no odour, no particulates

Batch#: 041917AAS 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 15, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170406

Start Date/Time: May 3, 2017 @ 1500 h
Test Species: Daphnia magna
Set up by: JML

Sample Information:

Sample ID: FR-SPI-Q-03042017-N
Sample Date: May 1, 2017
Date Received: May 3, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 04R17A4B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC49
Stock Solution ID: 17NaCl
Date Initiated: April 24, 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 13

Test Results:

0% mortality at 48h in the 100% (v/v) undiluted sample, tested at 20°C

Reviewed by:

JML

Date reviewed:

May 15, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: May 3/17 @ 1500h
 Sample ID: FR SPI-Q-03042017-2 No. Organisms/volume: 10/200mL
 Work Order No.: 170406 Test Organism: D. magna
 Set up by: YYL

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	24		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
		Control	A		10	10	0	19.5	19.0	20.0	8.5	8.4	8.3	7.5	7.6
	B	10	10	0											
	C	10	10	0											
	D														
100 (20°C)	A	10	10	0	19.2	19.0	20.0	8.1	8.3	8.1	7.2	7.4	7.5	1326	1318
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	98	70
Highest conc.	970	390
Hardness adjusted	/	

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.2		
DO (mg/L)	8.1		
pH	7.2		
Cond (µS/cm)	1326		
Salinity (ppt)	0.7		

Comments: slight precipitate at 48h on beaker bottom + organisms look Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no colour, no odour, no particulates

Batch#: 041917AAS 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 15, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170406

Start Date/Time: May 3, 2017 @ 1505h
Test Species: Daphnia magna
Set up by: JML

Sample Information:

Sample ID: FR-SPI-Q-03042017-LN
Sample Date: May 1, 2017
Date Received: May 3, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 041917A43
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC49
Stock Solution ID: 17NaCl
Date Initiated: April 24, 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample, tested at 10x

Reviewed by: [Signature]

Date reviewed: May 15, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-SPT-Q 03042017-N
 Work Order No.: 170406

Start Date/Time: May 3, 2017 @ 1505H
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: MM

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	11.5	12.0	12.0	9.5	10.3	10.5	7.6	7.6	7.6	1339	1337
	B	10	10	0			11.0								
	C	10	10	0											
	D						11.0								
100 (10°C)	A	10	10	0	11.5	12.0	12.0	9.4	10.3	10.4	7.2	7.9	8.0	1327	1315
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		MM	MM	MM	MM	MM	MM	MM	MM	MM	MM	MM	MM	MM	MM

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	96	64
Highest conc.	950	448
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	11.5		
DO (mg/L)	9.4		
pH	7.2		
Cond (µS/cm)	1337		
Salinity (ppt)	0.7		

Comments: slight precipitate on container bottom + organisms bottom at 48h Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no colour, no odour, no particulates

Batch#: 041917A1B 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: MM Date reviewed: May 15, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170406

Start Date/Time: May 3, 2017 @ 1500h
Test Species: Daphnia magna
Set up by: YMC

Sample Information:

Sample ID: FR_LPI-WS-20170501150
Sample Date: May 1, 2017
Date Received: May 3, 2017
Sample Volume: 1x20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 04R17A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC49
Stock Solution ID: 17NaCl
Date Initiated: April 24, 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: May 15, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-LPI-WS-20170501150
 Work Order No.: 170406

Start Date/Time: May 3/17 1500h
 No. Organisms/volume: 10/200ml
 Test Organism: D.magna
 Set up by: YYL

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	24		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	19.0	20.0	6.5	8.3	8.2	7.5	7.5	7.6	335	
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	18.5	19.0	20.0	6.4	8.2	8.1	7.9	7.9	7.9	1244	1246
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCo3)	
Control (MHW)	98	70
Highest conc.	760	264
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		
DO (mg/L)	6.4		
pH	7.9		
Cond (µS/cm)	1244		
Salinity (ppt)	0.6		

Comments: Slight precipitate at 48h in beaker bottom Mortality: Heartbeat checked under microscope not required

Sample Description: clear, no colour, no odour, no particulates

Batch#: 041917AAS 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 15, 2017

Version 1.8; Issued February 29, 2016

Nautilus Environmental Company Inc.

Client: Teck

W.O.#: 170406

Hardness and Alkalinity Datasheet

Alkalinity							Hardness			
Sample ID	Subsample Date	Date Measured	Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/LCaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	Technician
FR-CL-Q-03042017-N	May 3/17		50	14.9 11.1	15.2 11.3	218	100	13.0 9.0	1300 900	YML
FR-EL-Q-03042017-N			50	14.6	14.9	286	100	13.0	1300	YML
FR-LMPL-Q-03042017-N			50	9.2	9.4	180	50	11.8	236	YML
FR-SPL-Q-03042017-N			50	19.7	19.9	448	100	9.7	970	YML
@ 20°C			50	19.7	19.9	390	100	9.7	970	YML
@ 10°C			50	22.6	22.8	448	100	9.5	950	YML
FR-LPI-W5-20170501150			50	13.4	13.6	264	100	7.6	760	YML
MHW @ 20°C	May 3/17	May 3/17	50	3.6	3.7	70	50	4.8	96	YML
@ 10°C	↓	↓	↓	3.3	3.4	64	50	4.8	96	YML

Notes: ① Diluted to 100 mL w/ DI water.

Reviewed by:  Date Reviewed: May 11, 2017

APPENDIX C – Chain-of-custody form

COC ID:	20170501-1431			TURNAROUND TIME:		RUSH:				
PROJECT/CLIENT INFO				LABORATORY			OTHER INFO			
Facility Name / Job#	Fording River Operation			Lab Name	Nautilus Environmental		Report Format / Distribution	Excel	PDF	EDD
Project Manager	Neil MacDonald			Lab Contact			Email 1:	Lee.Willm@teck.com	x	x
Email	Neil.MacDonald@teck.com			Email			Email 2:	Neil.MacDonald@teck.com	x	x
Address	PO Box 100			Address	8664 Commerce Court		Email 3:	teckcoal@equisonline.com		x
City	Elkford	Province	BC	City	Burnaby	Province	BC	PO number		
Postal Code	V0B 1H0	Country	Canada	Postal Code	V5A 4N7	Country	Canada			
Phone Number	1-250-865-5204			Phone Number	604-420-8773					

SAMPLE DETAILS

ANALYSIS REQUESTED

Filtered - F, Field - L, Lab - LL, Solid - Lab, N, N/A

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS	Temp °C
FR_CCI_Q_03042017_N	FR_CCI	WS		2017/05/01	11:40	G	1x20L	170406 48 hr Daphnia Single Conc. Pass/Fail	9.5
FR_ECI_Q_03042017_N	FR_ECI	WS		2017/05/01	11:35	G	1x20L	170407 96 Hr Rainbow Trout Single Conc. Pass/Fail	9.5
FR_LMPI_Q_03042017_N	FR_LMPI	WS		2017/05/01	12:10	G	1x20L	170406 48H Daphnia Single Conc. Pass/Fail @ 10	9.5
FR_SPI_Q_03042017_N	FR_SPI	WS		2017/05/01	11:15	G	1x20L		11.0
FR_LPI-WS-201705011150	FR_LPI	WS		2017/05/01	11:50	G	1x20L		11.0

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ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS		RELINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
① Clear, Colorless, No odour, No particulates. ② Clear, Colorless, No particulates, No odour.						Nautilus - Burnaby		May 03/17 @ 09:45	
						NY - Nan Yamamoto			
NB OF BOTTLES RETURNED/DESCRIPTION									
Regular (default) <input checked="" type="checkbox"/>				Sampler's Name		Mobile #		250 919 2487	
Priority (2-3 business days) - 50% surcharge				Sampler's Signature		Date/Time		May 2, 2017 2:17	
Emergency (1 Business Day) - 100% surcharge									
For Emergency <1 Day, ASAP or Weekend - Contact ALS									

- ③ yellow turbid, No odour, No particulates
- ④ Clear, colorless, odorless, No particulates.
- ⑤ Clear, Colorless, No odour, No particulates.

END OF REPORT



Acute Toxicity Test Results

Sample collected May 5, 2017

Final Report

May 23, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_LMP1-WS-201705051025	05-May-17 at 1025h	06-May-17 at 1130h	08-May-17 at 1200h	08-May-17 at 1100h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_LMP1-WS-201705051025	10.3°C	184	114

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_LMP1-WS-201705051025	0	0

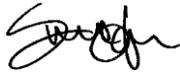
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_LMP1-WS-201705051025	Rainbow trout	None	None
FR_LMP1-WS-201705051025	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	81.0 (61.1 – 107.4) µg/L Zn ¹	3.4 (2.9 – 4.1) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	55.0 (26.1 – 115.9) µg/L Zn	4.2 (3.3 – 5.4) g/L NaCl
Reference toxicant CV	45%	13%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: May 2, 2017; ² Test date: April 24, 2017; LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: May 8 /17 @ 1200h

Work Order No.: 170429

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR_CMLWS-201705051025
Sample Date: May 8 /17
Date Received: May 6 /17
Sample Volume: 1x20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 041817
Source: Aquafarms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.33
Mean Length ± SD (mm): 31 ± 1
Mean Weight ± SD (g): 0.33 ± 0.08

Range: 29 - 32
Range: 0.26 - 0.48

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn70
Stock Solution ID: 17 Zn02
Date Initiated: May 2 /17
96-h LC50 (95% CL): 81.0 (61.1 - 107.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.0 (26.1 - 115.9) mg/L Zn
Reference Toxicant CV (%): EC 55 45

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample

Reviewed by: [Signature]

Date reviewed: May 19, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D. FR-LMPL-WS-201705051025
 W.O. # 170429
 RBT Batch #: 041817
 Date Collected/Time: May 17/17 @ 1130h
 Date Setup/Time: May 8/17 @ 1200h
 Sample Setup By: EL

Number Fish/Volume: 10/10L
 7-d % Mortality: 0.06
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	15.0	/	15.0
D.O. (mg/L)	10.0		10.0
pH	7.8		7.9
Cond. (µS/cm)	279		279
Salinity (ppt)	0.1		0.1

Concentration	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
(41)				10	10	10	10	15.0	15.0	15.0	15.0	15.0	10.0	9.9	9.8	9.8	9.8	7.0	7.0	7.0	7.0	7.0	34	38	
100				10	10	10	10	15.0	15.0	15.0	15.0	15.0	10.0	9.9	9.8	9.8	9.9	7.9	7.9	7.8	7.8	7.9	279	281	
Initials				EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	

Sample Description/Comments: light Brown, turbid, Odourless, Some particulates

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: No precipitation @ 96 hours.

Reviewed by: [Signature] Date Reviewed: May 19, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170428

Start Date/Time: May 8, 2017 @ 11:00h
Test Species: Daphnia magna
Set up by: YTC

Sample Information:

Sample ID: FR-LMPL-US-201705051025
Sample Date: May 5, 2017
Date Received: May 6, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 041917B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 23
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC 49
Stock Solution ID: 17Na01
Date Initiated: April 24 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality of 48h in the (00% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: May 19, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-LMP1-WS-201705051025
 Work Order No.: 170428

Start Date/Time: May 8, 2017 @ 11:00h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: Yui

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	24		48		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		0	24	48	0		24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	19.0	19.5	19.5	8.6	8.5	8.3	7.6	7.5	7.7	265	3713		
	B	10	10	0													
	C	10	10	0													
	D																
100	A	10	10	0	20.5	19.5	19.5	8.8	8.4	8.4	7.4	7.6	7.8	282	287		
	B	10	10	0													
	C	10	10	0													
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
Technician Initials		AW	EL	EC	Yui	Yui	EL	Yui	Yui	EL	Yui	Yui	EL	Yui	EL		

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	98	70
Highest conc.	184	114
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.5		
DO (mg/L)	8.8		
pH	7.4		
Cond (µS/cm)	282		
Salinity (ppt)	0.1		

Comments: No precipitation @ 96 hrs Mortality: Heartbeat checked under microscope NO

Sample Description: light brown, turbid, no odor, some particulates

Batch#: 04177B 7-d previous # young/brood: 23 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 19, 2017

APPENDIX C – Chain-of-custody form

COC ID: 20170505-1316 TURNAROUND TIME: RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job#	Fording River Operation			Lab Name	Nautilus Environmental			Report Format / Distribution	Excel	PDF	EDD	
Project Manager	Neil MacDonald			Lab Contact				Email 1:	Lee.Wilm@teck.com	x	x	x
Email	Neil.MacDonald@teck.com			Email				Email 2:	Neil.Macdonald@teck.com	x	x	x
Address	PO Box 100			Address	8664 Commerce Court			Email 3:	teckcoal@equisonline.com			x
City	Elkford	Province	BC	City	Burnaby	Province	BC	PO number				
Postal Code	V0B 1H0	Country	Canada	Postal Code	V5A 4N7	Country	Canada					
Phone Number	1-250-865-5204			Phone Number	604-420-8773							

SAMPLE DETAILS								ANALYSIS REQUESTED													
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr Single Concentration - Daphnia m.	96hr Single Concentration - R.Trout	Filtered - P, Field, L, Lab, F, Y, G & L, E, N, Ni											
FR_LMP1-WS-201705051025	FR_LMP1	WS		2017/05/05	10:25	G	1	1	1	<div style="text-align: right;">T_{OC}</div> <div style="text-align: right;">10.3</div>											
								17051	17051												

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
light brown, turbid, no odour, sm. particulate.	Jason Granelle	05/05/17		

NO OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #	Sampler's Signature	Date/Time
Regular (default) X Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency <1 Day, ASAP or Weekend - Contact ALS	Jason Granelle	(250) 865-5191	<i>Jason Granelle</i>	May 05/17

Rec'd by AWS

1720L → ok

My 6/17 @ 1135h

END OF REPORT



Acute Toxicity Test Results

Sample collected May 6, 2017

Final Report

May 24, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_LMP1-WS-201705061725	06-May-17 at 1725h	10-May-17 at 0945h	11-May-17 at 0845h	11-May-17 at 1000h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_LMP1-WS-201705061725	9.0°C	156	134

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_LMP1-WS-201705061725	0	0

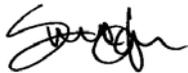
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_LMP1-WS-201705061725	Rainbow trout	None	None
FR_LMP1-WS-201705061725	<i>Daphnia magna</i>	Precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	81.0 (61.1 – 107.4) µg/L Zn ¹	4.5 (3.8 – 5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	55.0 (26.1 – 115.9) µg/L Zn	4.1 (3.2 – 5.3) g/L NaCl
Reference toxicant CV	45%	13%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: May 2, 2017; ² Test Date: May 17, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: May 11 17 @ 0845h

Work Order No.: 170455

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR.LMP1-WS.201705061725
Sample Date: May 6 / 17
Date Received: May 10 / 17
Sample Volume: 1x20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 041817
Source: Aquac Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.32
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.32 ± 0.04

Range: 27 - 37
Range: 0.27 - 0.36

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn70
Stock Solution ID: 17 Zn02
Date Initiated: May 2 / 17
96-h LC50 (95% CL): 81.0 (61.1 - 107.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.0 (26.1 - 115.9) mg/L Zn
Reference Toxicant CV (%): EC 55.45

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: May 22, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170454

Start Date/Time: May 11, 2017 @ 1000h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: FR-LMFI-WS-201705061725
Sample Date: May 6, 2017
Date Received: May 10, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 042617A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 18
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC50
Stock Solution ID: 17NaCl
Date Initiated: May 17, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.2 - 5.3) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h TA the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: May 22, 2017

**Freshwater Acute
48 Hour Toxicity Test Data Sheet**

Client: Teck Coal
 Sample ID: FR-LMP1-WS-201705061725-TE
 Work Order No.: 170454

Start Date/Time: May 17^{11 EL} @ 1000h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: EL

Thermometer: Temp-5 DO meter: DO 2/3 pH meter: pH 1/3 Cond./Salinity: C-2/3

Concentration (X, V/M)	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	20.0	19.0	22.0	8.9	2.6	2.6	7.7	7.8	7.8	357	354
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	19.0	22.0	9.0	2.6	2.6	7.8	7.9	8.1	355	361
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	EL	AW	AW	EL	EL	AW	EL	EL	AW	EL	EL	AW	EL	AW	

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity*
Control (MHW)	100	76
Highest conc.	156	134
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	9.0		
pH	7.8		
Cond (µS/cm)	355		
Salinity (ppt)	0.2		

Comments: precipitate @ 48-h on beaker bottom Mortality: Heartbeat checked under microscope NO

Sample Description: light yellow slightly turbid, no odour, some particulates

Batch#: 042617A 7-d previous # young/brood: 18 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 22, 2017

APPENDIX C – Chain-of-custody form

COC ID: 20170509-1354		TURNAROUND TIME:				RUSH:							
PROJECT/CLIENT INFO				LABORATORY				OTHER INFO					
Facility Name / Job# Fording River Operation				Lab Name Nautilus Environmental				Report Format / Distribution					
Project Manager Neil MacDonald				Lab Contact				Email 1: Lee.Willm@teck.com		Excel	PDF	EDD	
Email Neil.MacDonald@teck.com				Email				Email 2: Neil.MacDonald@teck.com		x	x	x	
Address PO Box 100				Address 8664 Commerce Court				Email 3: teckcoal@equisonline.com				x	
City Elkford		Province BC		City Burnaby		Province BC		PO number					
Postal Code V0B 1H0		Country Canada		Postal Code V5A 4N7		Country Canada							
Phone Number 1-250-865-5204				Phone Number 604-420-8773									
SAMPLE DETAILS								ANALYSIS REQUESTED					
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr Single Concentration - Daphnia m.	96hr Single Concentration - R.Trout	Temp °C			
FR_LMP1-WS-201705061725	FR_LMP1	WS		2017/05/06	17:25	G	1	1	1	9.0 1x20L			
								170454	170455				
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION				DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
light yellow, slightly turbid, odorless, some particulates				Jason Gravelle				05/09/17		Nautilus-Burnaby		May 10/17 @ 09:45	
										NT-Min Yamamoto			
NB OF BOTTLES RETURNED/DESCRIPTION				SAMPLER'S INFO				MOBILE & DATE					
Regular (default) <input checked="" type="checkbox"/>				Sampler's Name		Jason Gravelle		Mobile #		(250) 865-5191			
Priority (2-3 business days) - 50% surcharge				Sampler's Signature		[Signature]		Date/Time		May 09/2017			
Emergency (1 Business Day) - 100% surcharge													
For Emergency <1 Day, ASAP or Weekend - Contact ALS													

END OF REPORT



Acute Toxicity Test Results

Sample collected May 10, 2017

Final Report

May 24, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_LMP1-WS-201705101050	10-May-17 at 1050h	11-May-17 at 1230h	12-May-17 at 1400h	11-May-17 at 1330h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_LMP1-WS-201705101050	13.3°C	178	152

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_LMP1-WS-201705101050	0	0

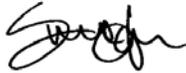
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_LMP1-WS-201705101050	Rainbow trout	None	None
FR_LMP1-WS-201705101050	<i>Daphnia magna</i>	Precipitate observed on bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	86.3 (64.8 – 115.3) µg/L Zn ¹	4.5 (3.8 – 5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	55.0 (26.1 – 115.9) µg/L Zn	4.1 (3.2 – 5.3) g/L NaCl
Reference toxicant CV	45%	13%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: May 12, 2017; ² Test Date: May 17, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teede Coal

Start Date/Time: May 12 / 17 @ 1400h

Work Order No.: 170463

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-LMPLWS-201705101050
Sample Date: May 10 / 17
Date Received: May 11 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 042417
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.34
Mean Length ± SD (mm): 31 ± 3
Mean Weight ± SD (g): 0.34 ± 0.08

Range: 28 - 35
Range: 0.27 - 0.50

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 71
Stock Solution ID: 17Zn02
Date Initiated: May 12 / 17
96-h LC50 (95% CL): 886.3 (64.8 - 115.3) µg/L Zn
_{Ev}

Reference Toxicant Mean and Historical Range: 55.0 (26.1 - 115.9) µg/L Zn
Reference Toxicant CV (%): 85.45
_R

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample

Reviewed by: [Signature] Date reviewed: May 22, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170464

Start Date/Time: May 11, 2017 @ 1330 h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: FR-LMPI-W3-20170510050
Sample Date: MAY 10, 2017
Date Received: MAY 11, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 042617A + B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC50
Stock Solution ID: 17NaCl
Date Initiated: MAY 17, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.2 - 5.3) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h TA the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: May 22, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-LMPL-WS-201705101050
 Work Order No.: 170464

Start Date/Time: May 11/17 @ 1330h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: EC

Thermometer: Temp-5 DO meter: DO 2/3 pH meter: pH 1/3 Cond./Salinity: C-2/3

Concentration	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.0	19.0	20.0	8.1	2.5	2.6	7.7	7.7	7.8	357	362
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10 ¹⁰	10 ¹⁰	0	19.0	19.0	20.0	9.1	2.6	2.5	7.6	7.7	8.0	389	392
	B	10 ¹⁰	10 ¹⁰	0											
	C	10 ¹⁰	10 ¹⁰	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	EC	AW	AW	EC	EL	AS	EL	EL	AS	EL	EL	AS	EL	EL	AS

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	100	76
Highest conc.	178	152
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	9.1		
pH	7.6		
Cond (µS/cm)	389		
Salinity (ppt)	0.2		

Comments: 0 organisms on surface precipitation @ 48-h on water bottom Mortality: Heartbeat checked under microscope NO

Sample Description: dark yellow, slightly turbid, no odour, some particulates

Batch#: 041917-ATB 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 22, 2017

Version 1.8; Issued February 28, 2016

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected May 30, 2017

Final Report

June 14, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_SKP2_Q_03042017_N	30-May-17 at 1029h	31-May-17 at 0930h	01-Jun-17 at 1000h	31-May-17 at 1205h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_SKP2_Q_03042017_N	11.0°C	520	264

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_SKP2_Q_03042017_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_SKP2_Q_03042017_N	Rainbow trout	None	None
FR_SKP2_Q_03042017_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	75.5 (56.2 – 101.7) µg/L Zn ¹	4.5 (3.8 – 5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	55.6 (25.9 – 119.4) µg/L Zn	4.1 (3.2 – 5.3) g/L NaCl
Reference toxicant CV	46%	13%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: May 30, 2017; ² Test Date: May 17, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: June 1 / 17 @ 1000h

Work Order No.: 1705380

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-SKP2-Q-03042017-N
Sample Date: May 30 / 17
Date Received: May 31 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 218
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: OSIS17
Source: Aqua Farms
No. Fish/Volume (L): 10/12L
Loading Density (g/L): 0.28
Mean Length ± SD (mm): 31 ± 2
Mean Weight ± SD (g): 0.34 ± 0.04

Range: 29 - 34
Range: 0.28 - 0.38

Zinc Reference Toxicant Results:

Reference-Toxicant ID: RTZn72
Stock Solution ID: 17Zn02
Date Initiated: May 30 / 17
96-h LC50 (95% CL): 75.5 (56.2 - 101.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 55.6 (25.9 - 119.4) µg/L Zn
Reference Toxicant CV (%): 46

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: June 12, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170529

Start Date/Time: May 31, 2017 @ 1205h
Test Species: Daphnia magna
Set up by: AWD

Sample Information:

Sample ID: FR-SKP2-Q-03042017-N
Sample Date: May 30, 2017
Date Received: May 31, 2017
Sample Volume: 1x20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 051717A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 18
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC50
Stock Solution ID: 17NA01
Date Initiated: May 17, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.2 - 5.3) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality of 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: June 12, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: May 24/17 @ 12:05h
 Sample ID: PE-SRP2 @_03042017-N No. Organisms/volume: 10/200mL
 Work Order No.: 170527 Test Organism: D.magna
 Set up by: AW

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	20.7	20.0	20.5	8.9	8.9	8.3	7.7	7.6	7.5	352	354
	B	10	10	0											
	C	10	10	0											
	D														
100	A	100	100	0	21.0	20.0	20.5	9.1	8.6	8.2	8.0	7.4	1076	1026	
	B	100	100	0											
	C	100	100	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	A	A	A	A	A	A	A	A	A	A	A	A	A

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	98	66
Highest conc.	520	264
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	21.0		
DO (mg/L)	9.1		
pH	8.0		
Cond (µS/cm)	1076		
Salinity (ppt)	0.5		

Comments: 0 adher on surface Mortality: Heartbeat checked under microscope not respid

Sample Description: no precipitate at 48h clear, no colour, no odour, no particulates

Batch#: 051777A 7-d previous # young/brood: 18 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: June 12, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected August 8, 2017

Final Report

August 23, 2017

Submitted to: **Teck Coal / Fording River Operations**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_CC1_Q_03072017_N	08-Aug-17 at 1030h	09-Aug-17 at 0745h	10-Aug-17 at 1535h	09-Aug-17 at 1430h
FR_LMP1_Q_03072017_N	08-Aug-17 at 1110h	09-Aug-17 at 0745h	10-Aug-17 at 1535h	09-Aug-17 at 1430h
FR_SP1_Q_03072017_N	08-Aug-17 at 1140h	09-Aug-17 at 0745h	10-Aug-17 at 1535h	09-Aug-17 at 1430h/1650h
GH_CC1_Q_03072017_N	08-Aug-17 at 0950h	09-Aug-17 at 0745h	10-Aug-17 at 1535h	09-Aug-17 at 1430h/1645h
GH_SC1_Q_03072017_N	08-Aug-17 at 1034h	09-Aug-17 at 0745h	10-Aug-17 at 1535h/	09-Aug-17 at 1430h/1650h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_CC1_Q_03072017_N	19.4°C	1290 [20°C]	230 [20°C]
FR_LMP1_Q_03072017_N	19.6°C	238 [20°C]	222 [20°C]
FR_SP1_Q_03072017_N	18.1°C	950 [20°C] / 1000 [11°C]	420 [20°C] / 490 [11°C]
GH_CC1_Q_03072017_N	17.1°C	2300/2200 [20°C] / 2380 [10°C]	450/460 [20°C] / 710 [10°C]
GH_SC1_Q_03072017_N	18.8°C	1820 [20°C] / 1790 [11°C]	370 [20°C] / 390 [11°C]

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test, conducted at 10°C, 11°C and the standard 20°C
- *Daphnia magna* 48-h LC50 test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_CC1_Q_03072017_N	0	0 [20°C]
FR_LMP1_Q_03072017_N	0	0 [20°C]
FR_SP1_Q_03072017_N	0	0 [20°C] / 0 [11°C]
GH_CC1_Q_03072017_N	10	67 [20°C] / 13 [10°C]
GH_SC1_Q_03072017_N	10	0 [20°C] / 10 [11°C]

Sample ID	<i>Daphnia magna</i>
	LC50 (%v/v) [95% CL]
GH_CC1_Q_03072017_N	89.1 [66.1 – 100]

CL = Confidence limits

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_CC1_Q_03072017_N	Rainbow trout	None	None
FR_CC1_Q_03072017_N	<i>Daphnia magna</i>	None	None
FR_LMP1_Q_03072017_N	Rainbow trout	None	None
FR_LMP1_Q_03072017_N	<i>Daphnia magna</i>	None	None
FR_SP1_Q_03072017_N	Rainbow trout	None	None
FR_SP1_Q_03072017_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel at 20°C, none at 11°C	None at 20°C and 11°C
GH_CC1_Q_03072017_N	Rainbow trout	Some precipitate observed on the bottom of test vessel	None
GH_CC1_Q_03072017_N	<i>Daphnia magna</i>	Some precipitate observed on the bottom of test vessel at 20°C and 10°C in the 100% sample	Some precipitate observed on organisms bodies at 20°C and 10°C in the 100% sample
GH_SC1_Q_03072017_N	Rainbow trout	Slight precipitate observed on the bottom of test vessel	None
GH_SC1_Q_03072017_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel at 20°C and 11°C	None at 20°C and 11°C

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	142.1 (106.1 – 200.2) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	81.4 (39.4 – 168.2) µg/L Zn	4.1 (3.3 – 5.0) g/L NaCl
Reference toxicant CV	44%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	Yes (see below) ³
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: August 18, 2017; ² Test date: August 9, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

³ Additional screening tests were conducted at 10/11°C, as part of the project study to compare survival data from two exposure temperatures. For GH_CC1, the initial screening test was conducted previously on the same sample, and as a follow-up, the client requested LC50 testing to proceed despite 5-day sample hold-time expiry.



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* LC50 test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	Five concentrations, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Statistical software	CETIS Version 1.8.7
Test endpoints	Survival (48-hour LC50)
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Aug 10 / 17 @ 1535h

Work Order No.: 170781

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-CC1-Q-03072017-N
Sample Date: Aug 8 / 17
Date Received: Aug 9 / 17
Sample Volume: 1 x 20 L
Other: /

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 072717a
Source: Sun Valley Trout Farms
No. Fish/Volume (L): 10 x 12 L
Loading Density (g/L): 0.24
Mean Length ± SD (mm): 30 ± 3
Mean Weight ± SD (g): 0.29 ± 0.08

Range: 26 - 34
Range: 0.17 - 0.45

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn81
Stock Solution ID: 16Zn02
Date Initiated: Aug 18 / 17
96-h LC50 (95% CL): 142.1 (106.1 - 200.2) mg/L Zn

Reference Toxicant Mean and Historical Range: 81.4 (39.4 - 168.2) mg/L Zn
Reference Toxicant CV (%): 44

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: Aug 23, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: FR-CC1-Q-03072017-N
 W.O. #: 170781
 RBT Batch #: 072717a Sun Valley
 Date Collected/Time: Aug 8/17 @ 1030 h
 Date Setup/Time: Aug 10/17 @ 1535 h
 CER #: 3
 Sample Setup By: pc ym

Number Fish/Volume: 10 / 12L
 7-d % Mortality: 0%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CEA3
 D.O. meter/probe: 2 1D2
 Cond./Salinity meter/probe: 2 1CP2
 pH meter/probe: 1 1 p2

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	16.0	/	15.5
D.O. (mg/L)	10.2	/	9.8
pH	8.1	/	8.1
Cond. (µS/cm)	1448	/	1447
Salinity (ppt)	0.7	/	0.7

Concentration	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	(% v/v)	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Ctrl				10	10	10	10	15.5	15.6	15.0	15.0	15.0	10.0	9.5	9.5	9.7	8.3	7.1	7.2	7.1	7.0	7.3	44	49	
100				10	10	10	10	15.5	15.0	15.0	15.0	15.0	9.8	9.7	9.6	9.7	8.4	8.1	8.3	8.3	8.3	8.3	1851447	1427	
Initials				ME	ER	JS	PC	PC	PC	ER	JS	PC	PC	PC	ER	JS	PC	PC	PC	ER	JS	PC	PC	PC	

Sample Description/Comments: transparent, colourless liquid, no odour, no particulates

Fish Description at 96 h All fish appear to be normal Number of Stressed Fish at 96 h 0

Other Observations: No precipitate on tank bottom at 96h. No precipitate on fish at 96h.

Reviewed by: [Signature]

Date Reviewed: Aug 23, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Aug 10 117 @ 1535 L

Work Order No.: 170781

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR_LMP1-2-03072017-N
Sample Date: Aug 8 117
Date Received: Aug 9 117
Sample Volume: 1 X 20 L
Other: /

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 072717a
Source: Sun Valley Trout Farms
No. Fish/Volume (L): 10 X 12 L
Loading Density (g/L): 0.25
Mean Length ± SD (mm): 33 ± 2 Range: 30-36
Mean Weight ± SD (g): 0.30 ± 0.07 Range: 0.21 - 0.39

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn81
Stock Solution ID: 16 Zn O2
Date Initiated: Aug 18 117
96-h-LC50 (95% CL): 142.1 (106.1 - 200.2) mg/L Zn
Reference Toxicant Mean and Historical Range: 81.4 (39.4 - 168.2) mg/L Zn
Reference Toxicant CV (%): 44

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Aug 10 117 @ 1535h

Work Order No.: 170781

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-SPI-Q-03072017-N
Sample Date: Aug 8 117
Date Received: Aug 8 117
Sample Volume: 2x20 L
Other: /

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 072717a
Source: Sun Valley Trout Farms
No. Fish/Volume (L): 10 x 12L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 35 ± 2 Range: 32-37
Mean Weight ± SD (g): 0.31 ± 0.05 Range: 0.26-0.40

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn81
Stock Solution ID: 16 ZnO2
Date Initiated: Aug 18 117
96-h LC50 (95% CL): 142.1 (106.1-200.2) mg/L Zn
Reference Toxicant Mean and Historical Range: 81.4 (39.4-168.2) mg/L Zn
Reference Toxicant CV (%): 44

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Rainbow Trout Summary Sheet

Client: Tech

Start Date/Time: Aug 10 117 @ 1535h

Work Order No.: 170781

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-CC1.2-03072017-N
Sample Date: Aug 8 117
Date Received: Aug 8 117
Sample Volume: 2x20 L
Other: /

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 072717a
Source: Sun Valley Trout Farms
No. Fish/Volume (L): 10 x 12 L
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 35 ± 2
Mean Weight ± SD (g): 0.32 ± 0.06

Range: 32 - 38
Range: 0.22 - 0.40

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn81
Stock Solution ID: 16 ZnO2
Date Initiated: Aug 18 117
96-h LC50 (95% CL): 142.1 (106.1 - 200.2) mg/L Zn

Reference Toxicant Mean and Historical Range: 81.4 (39.4 - 168.2) mg/L Zn
Reference Toxicant CV (%): 44

Test Results: 10% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D. GH-CC1-Q-03072017-N
 W.O. # 170781
 RBT Batch #: 072717a Sun Valley
 Date Collected/Time: Aug 8/17 @ 0950 h
 Date Setup/Time: Aug 10/17 @ 1535 h
 CER #: 3
 Sample Setup By: RC NML

Number Fish/Volume: 10 / 12 L
 7-d % Mortality: 0%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER 3
 D.O. meter/probe: 21 DC
 Cond./Salinity meter/probe: 2 IC2
 pH meter/probe: 1 IP2

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	16.0	/	16.0
D.O. (mg/L)	10.0	/	9.7
pH	7.9	/	7.9
Cond. (µS/cm)	3350	/	3340
Salinity (ppt)	1.7	/	1.7

Concentration (% v/v)	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
Ctrl				10	10	10	10	15.5	15.0	15.0	15.0	15.0	9.9	9.4	9.4	9.8	8.5	7.1	7.3	7.2	7.2	7.3	44	49	
100				10	10	10	9	16.0	15.0	15.0	15.0	15.0	9.7	9.4	9.5	9.6	8.6	7.9	8.1	8.1	8.1	8.2	3340	3100	
Initials																									

Sample Description/Comments: Translucent, colourless liquid, no odour, no particulates

Fish Description at 96 h all surviving fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: white precipitate on tank bottom at 96h. No ppt on fish at 96h

Reviewed by: [Signature] Date Reviewed: Aug 23, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Aug 10 117 @ 1535h

Work Order No.: 170781

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-SKCI-Q-03072017-N
Sample Date: Aug 8 117
Date Received: Aug 8 117
Sample Volume: 2x10 L
Other: /

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 072717a
Source: Sun Valley Trout Farms
No. Fish/Volume (L): 10 x 12 L
Loading Density (g/L): 0.22
Mean Length ± SD (mm): 34 ± 3
Mean Weight ± SD (g): 0.27 ± 0.08

Range: 29 - 38
Range: 0.17 - 0.43

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn81
Stock Solution ID: 16 Zn 02
Date Initiated: Aug 18 117
96-h LC50 (95% CL): 142.1 (106.1 - 200.2) mg/L Zn

Reference Toxicant Mean and Historical Range: 81.4 (39.4 - 168.2) mg/L Zn
Reference Toxicant CV (%): 44

Test Results: 10% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: AH-SC1-Q-03072017-N
 W.O. #: 170781
 RBT Batch #: 072717a Sun Valley
 Date Collected/Time: Aug 8/17 @ 0950h
 Date Setup/Time: Aug 10/17 @ 1535h
 CER #: 3
 Sample Setup By: RC/YM

Number Fish/Volume: 10 / 12L
 7-d % Mortality: 0%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CEA 3
 D.O. meter/probe: 2 1 p2
 Cond./Salinity meter/probe: 2 1CP2
 pH meter/probe: 1 1 p2

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	16.0	/	16.0
D.O. (mg/L)	10.3	/	9.8
pH	8.1	/	8.2
Cond. (µS/cm)	2440	/	2430
Salinity (ppt)	1.3	/	1.3

Concentration (% v/v)	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
Ctrl				10	10	10	10	15.5	15.0	15.0	15.0	15.0	10.0	9.4	9.5	9.6	8.3	7.1	7.3	7.1	7.2	7.3	44	50	
100				10	10	10	9	16.0	15.0	15.0	15.0	15.0	9.8	9.8	9.6	9.7	8.5	8.2	8.3	8.3	8.3	8.3	2430	2370	
Initials				RC	EL	JS	RC	RC	RC	EL	JS	RC	RC	RC	EL	JS	RC	RC	RC	EL	JS	RC	RC	RC	

Sample Description/Comments: Transparent, colourless liquid, no odour, no particulates

Fish Description at 96 h all surviving All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: slight white precipitate on tank bottom at 96h. No precipitate on fish at 96h

Reviewed by: [Signature] Date Reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: FR-CL-Q-03072017-N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617 A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC54
Stock Solution ID: 17N901
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Aug 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-CLL-Q-03072017-N
 Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: EC

Thermometer: CER#5 DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	20.0	20.0	19.5	8.4	8.4	8.4	7.7	7.8	7.8	352	364
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	20.0	19.5	8.0	8.3	8.3	7.9	8.0	8.1	1483	1462
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	EL	Ym		Ym	EC	EL	MW	EL	EL	Ym	EL	EL	Ym	EL	Ym

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity*
Control (MHW)	100	70
Highest conc.	1290	230
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	8.0		
pH	7.9		
Cond (µS/cm)	1483		
Salinity (ppt)	0.7		

Comments: No precipitation at 48h Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no colour, no colour, some particulates

Batch#: 072617 A B 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: FR-LMPL-Q-03012017-N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17N901
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Aug 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-LMPL-0-03072017-N
 Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: EC

Thermometer: CER#5 DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	20.0	9.5	8.4	8.3	8.4	7.7	7.8	7.8	352	361
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	20.0	9.5	8.5	8.4	8.3	8.2	8.2	8.3	500	504
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		EL	YML	YML	EC	EC	YML	EL	EL	YML	EL	EL	YML	EL	YML

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	100	70
Highest conc.	238	222
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	8.5		
pH	8.2		
Cond (µS/cm)	500		
Salinity (ppt)	0.2		

Comments: No precipitation at 48h Mortality: Heartbeat checked under microscope not required

Sample Description: clear, no colour, no colour, some particulates

Batch#: 072617 A B 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: FR_SPL-Q-03072017-N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 2x20L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617 A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17Na01
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample, tested at 20°C

Reviewed by: [Signature]

Date reviewed: Aug 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-SPL-Q-03 07 2017 N
 Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: EC

Thermometer: CER#5 DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	22.0	22.0	19.5	8.4	8.4	8.3	7.7	7.8	7.8	352	363
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	22.0	19.5	8.0	8.3	8.3	7.1	7.8	7.1	1304	1233
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	EL	UM	UM	UM	EC	EC	UM	EL	EL	UM	EL	EL	UM	EL	UM

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCo3)	
Control (MHW)	100	70
Highest conc.	950	420
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	8.0		
pH	7.1		
Cond (µS/cm)	1304		
Salinity (ppt)	0.6		

Comments: sight precipitation at 48h on beaker bottom Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no colour, no odour, some particulates

Batch#: 072617 B 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1650h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: FR-SPI-Q-03072017-N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617CFD
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 18
Mortality (%) in previous 7 d: 10
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17N901
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results:

0% mortality at 48h in the 100% (v/v) undiluted sample, tested at 11°C

Reviewed by:

[Signature]

Date reviewed:

Aug. 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FRSP1-Q-03072017-N
 Work Order No.: 170780

Start Date/Time: Aug 1, 2017 @ 1650h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YM

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	11.0	11.5	11.0	10.3	10.6	10.5	7.7	7.6	7.8	352	362
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	11.0	11.5	11.0	9.1	10.5	10.4	7.1	7.8	8.1	1306	1217
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YM	YM	YM	YM	YM	YM	YM	YM	YM	YM	YM	YM	YM	YM

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Control (MHW)	96	68
Highest conc.	1000	490
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	11.0		
DO (mg/L)	9.1		
pH	7.1		
Cond (µS/cm)	1306		
Salinity (ppt)	0.7		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not moved

Sample Description: clear, no colour, no odour, some particulates

Batch#: 072617C4D 7-d previous # young/brood: 18 Previous 7-d Mortality (%): 10 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug. 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: GHCCI-Q-03072017N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617 A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC54
Stock Solution ID: 17N901
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 67% mortality at 48h in the 100% (v/v) undiluted sample, tested at 20°C

Reviewed by: [Signature]

Date reviewed: Aug 29, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-CC1-Q-03072017-1
 Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: EC

Thermometer: CERBS DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	No. Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	20.0	19.5	8.4	8.4	8.3	7.7	7.8	7.8	352	361
	B	10	10	0											
	C	10	10	0											
	D	10	10	0											
100	A	10	1	1	20.0	20.0	19.5	8.4	8.2	7.7	7.6	7.8	3500	3370	
	B	10	4	4											
	C	10	5	5											
	D	10													
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	EL	NM	YM	EC	EL	NM	EL	EL	NM	EL	EL	NM	EL	EL	YM

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	100	70
Highest conc.	2300	450
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	7.0		
pH	7.7		
Cond (µS/cm)	3500		
Salinity (ppt)	1.8		

Organisms & beaker bottom covered in precipitate

Comments: white precipitation at 48h on organisms & beaker bottom Mortality: Heartbeat checked under microscope YES

Sample Description: clear, no colour, no odour, some particulates

Batch#: 072617 B 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1645h
Test Species: Daphnia magna
Set up by: CML

Sample Information:

Sample ID: GH-CC1-Q-03072017-N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617 C+D
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 10
Mortality (%) in previous 7 d: 10
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17N901
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 13% mortality at 48h in the 100% (v/v) undiluted sample, tested at 10°C

Reviewed by: [Signature]

Date reviewed: Aug 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-CC1-D-03072017-N
 Work Order No.: 170780

Start Date/Time: Aug 7, 2017 @ 1645h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	10.5	10.0	10.0	9.9	12.7	10.4	7.7	7.6	7.7	351	361
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	9	9	10.5	10.0	10.0	10.4	12.8	10.5	7.8	7.9	7.8	3490	3480
	B	10	8	8											
	C	10	9	9											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	96	63
Highest conc.	2380	710
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	10.5		
DO (mg/L)	10.4		
pH	7.8		
Cond (µS/cm)	3490		
Salinity (ppt)	1.8		

Comments: slight white precipitate at 48h on organisms + beaker bottom Mortality: Heartbeat checked under microscope yes

Sample Description: clear, no colour, no odour, slight particulates

Batch#: 072617 C+D 7-d previous # young/brood: 18 Previous 7-d Mortality (%): 10 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug 27, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: GHSC1-a-03072017N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 2x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617 A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17N901
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample, tested at 20°C

Reviewed by: [Signature]

Date reviewed: Aug 27, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-SCI-Q-03072017-N
 Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: EC

Thermometer: CERBS DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	20.0	19.5	8.4	8.3	8.3	7.7	7.8	7.8	352	364
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	20.0	19.5	9.5	8.4	8.3	7.8	8.0	8.1	2520	2480
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		EL	YML	YML	EL	EL	YML	EL	EL	YML	EL	EL	YML	EL	YML

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	100	70
Highest conc.	1820	370
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	9.1		
pH	7.8		
Cond (µS/cm)	2520		
Salinity (ppt)	1.3		

Comments: slight precipitation at 48h on heater bottom Mortality: Heartbeat checked under microscope not record

Sample Description: clear, no colour, no odour, some particulates

Batch#: 072617 A+B 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1650h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH-SCI-Q-03072017-N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617 C+D
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 18
Mortality (%) in previous 7 d: 10
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17N901
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 10% mortality at 48h in the 100% (v/v) undiluted sample, tested at 11°C

Reviewed by: [Signature]

Date reviewed: Aug 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-SCI-2-03072017-N
 Work Order No.: 170780

Start Date/Time: Aug 8/17 @ 1650h
 No. Organisms/volume: 10/200ml
 Test Organism: D.magna
 Set up by: YU

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	11.0	11.5	11.0	10.3	10.7	10.8	7.7	7.6	7.8	352	374
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	11.0	11.5	11.0	10.5	10.7	10.7	7.9	8.0	8.1	2530	2570
	B	10	8	1											
	C	10	8	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YU	YU	YU	YU	YU	YU	YU	YU	YU	YU	YU	YU	YU	YU

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	96	68
Highest conc.	1790	390
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	11.0		
DO (mg/L)	10.5		
pH	7.8		
Cond (µS/cm)	2530		
Salinity (ppt)	1.3		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope yes

Sample Description: clear, no colour, no odour, slight particulates

Batch#: 072617C4D 7-d previous # young/brood: 18 Previous 7-d Mortality (%): 10 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 16, 2017 @ 1430h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH_CCI-Q-03072017W
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 27
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17Na01
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results:

The 48h LC50 is estimated to be 89.1% (v/v) with 95% confidence limits between 66.1 to 100% (v/v)

Reviewed by:

[Signature]

Date reviewed:

Aug 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-CC1-0-03072017-LN
 Work Order No.: 170780

Start Date/Time: August 16, 2017 @ 1430h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: Yuu

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.5	19.5	8.6	8.2	8.3	7.8	7.7	8.1	353	362
	B												7.9		
	C														
	D														
6.25	A	10	10	0	19.5	19.5	19.5	8.7	8.3	8.2	7.8	7.8	7.9	654	663
	B														
	C														
	D														
12.5	A	10	10	0	19.5	19.5	19.5	8.6	8.2	8.3	7.7	7.8	8.1	906	916
	B														
	C														
	D														
25	A	10	10	0	19.5	19.5	19.5	8.6	8.3	8.2	7.7	7.9	8.2	1363	1371
	B														
	C														
	D														
50	A	10	10	0	19.5	19.5	19.5	8.7	8.2	8.2	7.6	8.0	8.2	1958	1959
	B														
	C														
	D														
100	A	8	4	4	19.5	19.5	19.5	8.6	8.2	8.1	7.5	8.0	8.0	3400	3300
	B														
	C														
	D														
Technician Initials		Yuu Yuu		Yuu	Yuu	Yuu	Yuu	Yuu	Yuu	Yuu	Yuu	Yuu	Yuu	Yuu	Yuu

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity*
Control (MHW)	98	70
Highest conc.	2200	460
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.6		
pH	7.5		
Cond (µS/cm)	3400		
Salinity (ppt)	1.8		

Comments: precipitate on beaker bottom & oxygen bodies at 48 h in (100) Mortality: Heartbeat checked under microscope yes

Sample Description: clear, no colour, no odour, no particulates

Batch#: 07261713 7-d previous # young/brood: 27 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug 23 2017

CETIS Analytical Report

Report Date: 22 Aug-17 16:50 (p 1 of 2)
 Test Code: 170780 | 14-0334-9182

Daphnia magna 48-h Acute Survival Test

Nautilus Environmental

Analysis ID: 19-7521-0700	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.8.7
Analyzed: 22 Aug-17 16:50	Analysis: Trimmed Spearman-Kärber	Official Results: Yes
Batch ID: 01-9961-7642	Test Type: Survival (48h)	Analyst: Yvonne Lam
Start Date: 16 Aug-17 14:30	Protocol: EC/EPS 1/RM/14	Diluent: Mod-Hard Synthetic Water
Ending Date: 18 Aug-17 14:30	Species: Daphnia magna	Brine:
Duration: 48h	Source: In-House Culture	Age:
Sample ID: 03-6932-3252	Code: 16036CF4	Client: Teck Coal
Sample Date: 08 Aug-17 09:50	Material: Effluent	Project:
Receive Date: 09 Aug-17 07:45	Source: Teck Coal (TECK COAL)	
Sample Age: 8d 5h (17.1 °C)	Station: GH_CC1_Q_03072017_N	

Trimmed Spearman-Kärber Estimates

Threshold Option	Threshold	Trim	Mu	Sigma	EC50	95% LCL	95% UCL
Control Threshold	0	40.00%	1.95	0.06477	89.09	66.11	120.1

48h Survival Rate Summary

C-%	Control Type	Count	Calculated Variate(A/B)								
			Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Negative Control	1	1	1	1	0	0	0.0%	0.0%	10	10
6.25		1	1	1	1	0	0	0.0%	0.0%	10	10
12.5		1	1	1	1	0	0	0.0%	0.0%	10	10
25		1	1	1	1	0	0	0.0%	0.0%	10	10
50		1	1	1	1	0	0	0.0%	0.0%	10	10
100		1	0.4	0.4	0.4	0	0	0.0%	60.0%	4	10

48h Survival Rate Detail

C-%	Control Type	Rep 1
0	Negative Control	1
6.25		1
12.5		1
25		1
50		1
100		0.4

48h Survival Rate Binomials

C-%	Control Type	Rep 1
0	Negative Control	10/10
6.25		10/10
12.5		10/10
25		10/10
50		10/10
100		4/10

Analyst: MM QA: Aug 23/17

Daphnia magna 48-h Acute Survival Test

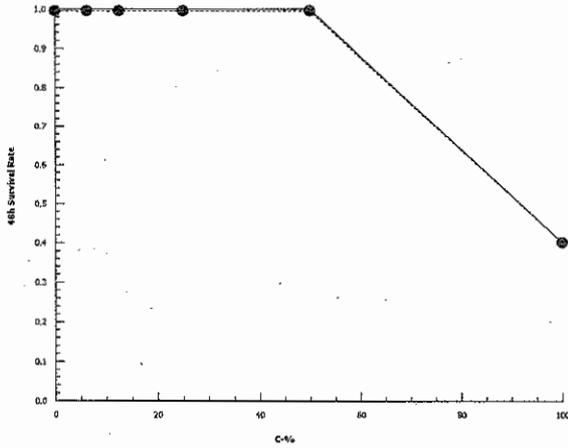
Nautilus Environmental

Analysis ID: 19-7521-0700
Analyzed: 22 Aug-17 16:50

Endpoint: 48h Survival Rate
Analysis: Trimmed Spearman-Kärber

CETIS Version: CETISv1.8.7
Official Results: Yes

Graphics



Client: Teck

W.O.#: 170780

Hardness and Alkalinity Datasheet

Sample ID	Subsample Date	Date Measured	Alkalinity				Hardness			
			Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/LCaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	Technician
FR_CCL-Q-03 072017_N	Aug 9/17	Aug 9/17	50	11.8	12.1	230	100	12.9	1290	J5
FR_SPL-Q-03 072017_N (20°C)			100	4.4	4.6	420	100	9.5	950	J5
FR_LMPI-Q-03 072017_N			50	11.3	11.5	222	50	11.9	238	J5
GH_CCL-Q-03 072017_N (20°C)			100	4.7	4.9	450	50	11.5	2300	J5
GH_SCL-Q-03 072017_N (20°C)			100	3.9	4.1	370	100	18.2	1820	J5
FR_SPL-Q-0307 2017_N @ 11°C			100	5.1	5.3	490	100	10.0	1000	J5
GH_CCL-0307 2017_N @ 10°C			100	7.4	7.7	710	50	11.9	2380 1790	J5
GH_SCL-Q-03 072017_N @ 11°C			100	4.1	4.3	390	100	17.5 17.9	950 1790	J5
MHW (20°C)			50	3.6	3.7	70	50	5.0	100	YKL
MHW (11°C)			↓	3.5	3.6	68	↓	4.8	96	↓
MHW (10°C)			↓	3.5	3.6	68	↓	4.8	96	↓

Notes: ① Diluted to 100 mL w/ DI water.

Reviewed by: 

Date Reviewed: Aug 23, 2017

APPENDIX C – Chain-of-custody form

COC ID: 20170808-1357		TURNAROUND TIME:			RUSH:			
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO		
Facility Name / Job# Fording River Operation		Lab Name Nautilus Environmental		Report Format / Distribution		Excel	PDF	EDD
Project Manager Neil MacDonald		Lab Contact		Email 1: Lee.Wilms@teck.com		x	x	x
Email Neil.MacDonald@teck.com		Email		Email 2: Neil.MacDonald@teck.com		x	x	x
Address PO Box 100		Address 8664 Commerce Court		Email 3: teckcoal@equisonline.com				x
City Elkford		Province BC	City Burnaby	Province BC	PO number			
Postal Code V0B 1H0		Country Canada	Postal Code V5A 4N7	Country Canada				
Phone Number 1-250-865-5204		Phone Number 604-420-8773						

SAMPLE DETAILS								ANALYSIS REQUESTED									
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr Daphnia Single Conc. Pass/Fail	96 Hr Rainbow Trout Single Conc. Pass/Fail	28 Day H. azteca Pass/Fail	72 Hr. P. Subseparata PF	70 Daphnia PF	48 hr Daphnia Single Conc. Pass/Fail @ 10.9 degrees	48 hr Daphnia Single Conc. Pass/Fail @ 11.4 degrees	48 hr Daphnia Single Conc. Pass/Fail @ 10 degrees	320 FHM PF conducted in Calgary	
FR_CCI_Q_03072017_N	FR_CCI	WS		2017/08/08	10:30	G	1	1	2								19.4
FR_LMPI_Q_03072017_N	FR_LMP1	WS		2017/08/08	11:10	G	1	1	2								19.6
FR_SPI_Q_03072017_N	FR_SPI	WS		2017/08/08	11:40	G	2	1	2				1				18.1
GH_CCI_Q_03072017_N	GH_CCI	WS		2017/08/08	09:50	G	2	1	2					1			17.1
GH_SCI_Q_03072017_N	GH_SCI	WS		2017/08/08	10:34	G	2	1	2					1			18.8
FR_FRCPI_QR_17072017_N	FR_FRCPI	WS		2017/08/08	11:46	G	1			2						x	19.9
FR_UFRI_QR_17072017_N	FR_UFRI	WS		2017/08/08	09:14	G	1			2						x	17.7

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	REINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
	Bryan Oger	Aug 8/17	Nautilus - Burnaby Jaymee Buchanan	Aug 09/17 @ 07:45

NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #
Regular (default) X Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency <1 Day, ASAP or Weekend - Contact ALS	Bryan Oger	250 425 3629
	Sampler's Signature	Date/Time
	<i>[Signature]</i>	Aug 8/17

5) transparent, colorless, no odor, no particulates
 6) transparent, light yellow, no odor, no particulates
 3) colorless, no odor, no particulates, transparent
 4) transparent, colorless, no odor, no particulates
 7) transparent, colorless, no odor, no particulates

① Confirmed w/ client, testing not needed.
 ② Received 2x20L of FR UFRI → forwarded 1x20L to Calgary overnight.
 Received 4x20L of FR FRCPI → forwarded 3x20L to Calgary overnight.

END OF REPORT



Acute Toxicity Test Results

Samples collected September 25, 2017

Final Report

October 10, 2017

Submitted to: **Teck Coal / Fording River Operations**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_EC1H-WS-201709251120	25-Sep-17 at 1120h	26-Sep-17 at 1030h	28-Sep-17 at 1050h	28-Sep-17 at 1220h
FR_LP1-WS-201709251100	25-Sep-17 at 1100h	26-Sep-17 at 1030h	28-Sep-17 at 1050h	28-Sep-17 at 1220h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_EC1H-WS-201709251120	13.1°C	2220	240
FR_LP1-WS-201709251100	13.1°C	1110	278

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_EC1H-WS-201709251120	0	0
FR_LP1-WS-201709251100	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_EC1H-WS-201709251120	Rainbow trout	None	None
FR_EC1H-WS-201709251120	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
FR_LP1-WS-201709251100	Rainbow trout	None	None
FR_LP1-WS-201709251100	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	105.8 (82.0 – 136.4) µg/L Zn ¹	5.2 (4.2 – 6.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	94.9 (47.2 – 191.1) µg/L Zn	4.1 (3.4 – 4.9) g/L NaCl
Reference toxicant CV	42%	10%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	Yes (see below)
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹Test date: September 15, 2017; ²Test date: September 21, 2017; LC = Lethal Concentration, CL = Confidence Limits, SD = Standard Deviation, CV = Coefficient of Variation

The *D. magna* reference toxicant LC50 was outside of 2 SD but within the acceptable 3 SD historical range.



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Fording River Operations Start Date/Time: 28 Sept 17 @ 1050h

Work Order No.: 171038

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-EC1H-WS-201709251120
Sample Date: 25 Sept 2017
Date Received: 26 Sept 2017
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 12

Test Organism Information:

Batch No.: 082417a
Source: Aqua Farms
No. Fish/Volume (L): 10/12L
Loading Density (g/L): 0.29
Mean Length ± SD (mm): 35 ± 3
Mean Weight ± SD (g): 0.35 ± 0.13

Range: 31 - 40
Range: 0.21 - 0.63

Zinc Reference Toxicant Results:

Reference Toxicant ID: RT2n87
Stock Solution ID: 17Zn04
Date Initiated: September 15, 2017
96-h LC50 (95% CL): 105.8 (82.0 - 136.4) µg/L Zn

Reference Toxicant Mean and Historical Range: 94.9 (47.2 - 191.1) µg/L Zn
Reference Toxicant CV (%): 42

Test Results: 100% survival at ^{96h} 48h in the 100% (v/v) undiluted sample. 0% mortality at ^{96h} 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: Oct 6, 2017

Rainbow Trout Summary Sheet

Client: Fording River
Teck - FRO² Operation

Start Date/Time: 28 Sept 2017 @ 1050h

Work Order No.: 171038

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-LP1-WS-201709251100
Sample Date: 25 Sept 2017
Date Received: 26 Sept 2017
Sample Volume: 1 x 20L
Other: —

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 12

Test Organism Information:

Batch No.: 082417a
Source: Aqua Farms
No. Fish/Volume (L): 10/12L
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 34 ± 3
Mean Weight ± SD (g): 0.33 ± 0.10

Range: 30 - 38
Range: 0.19 - 0.50

Zinc Reference Toxicant Results:

Reference Toxicant ID: RT2187
Stock Solution ID: 172104
Date Initiated: September 15, 2017
96-h LC50 (95% CL): 105.8 (82.0 - 136.4) µg/L Zn

Reference Toxicant Mean and Historical Range: 94.9 (47.2 - 191.1) µg/L Zn
Reference Toxicant CV (%): 42

Test Results: 100% survival at 48h^{96h} in the 100% (v/v) undiluted sample. 0% mortality^{96h} at 48h^{96h} in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Oct 6, 2017

Daphnia magna Summary Sheet

Client: Fording River Teck-FRO² Operation
Work Order No.: 171037

Start Date/Time: 28 Sept 2017 @ 1220h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: FR_EC1H-WS-20170925_1120
Sample Date: 25 Sept 2017
Date Received: 26 Sept 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 091317A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 18
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTCS6
Stock Solution ID: 17Na02
Date Initiated: September 21, 2017
48-h LC50 (95% CL): 5.2 (4.2-6.4) g/L NaCl (w/in acceptable 3SD of historical mean)
Reference Toxicant Mean and Historical Range: 4.1 (3.4-4.9) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 100% survival at 48h in the 100% (v/v) undiluted sample.
0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Oct 6, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TECK-FRO
 Sample ID: FR-EC1H-WS-20109251120
 Work Order No.: 171037

Start Date/Time: 28 Sept 17 @ 1220h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: CW

Thermometer: CERBS pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	24		48		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48	0	24		48	0	24	48	0	24	48	0	48		
<u>Control</u>	A	10	10	0	20.0	20.0	20.0	8.8	8.0	8.0	7.7	7.8	7.8	354	365		
	B	10	10	0				8.3									
	C	10	10	0													
	D																
<u>100</u>	A	10	10	0	20.0	20.0	20.0	8.8	8.0	7.4	8.1	8.3	8.2	3210	3250		
	B	10	10	0													
	C	10	10	0													
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
Technician Initials	CW	JW	JW		CW	CW	JW	CW	CW	JW	CW	CW	JW	CW	JW		

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	96	80
Highest conc.	2200	240
Hardness adjusted	—	—

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0	/	/
DO (mg/L)	8.8	/	/
pH	8.1	/	/
Cond (µS/cm)	3210	/	/
Salinity (ppt)	2.0	/	/

Comments: slight precipitate at 48h in beaker bottom Mortality: Heartbeat checked under microscope Not req'd

Sample Description: clear, colourless liquid, no odour, no particulates.

Batch#: 091317A 7-d previous # young/brood: 18 27 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Oct-6, 2017

Daphnia magna Summary Sheet

Client: Fording River Teck-FRO² Operation Start Date/Time: 28 Sept 17 @ 1220h
Work Order No.: 171037 Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: FR-LPI-NS-201709251100
Sample Date: 25 Sept 2017
Date Received: 26 Sept 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 091317 A
Age of young (Day 0): <24 h
Avg. No. young per brood in previous 7 d: 18
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTCS6
Stock Solution ID: 17Na02
Date Initiated: September 21, 2017
48-h LC50 (95% CL): 5.2 (4.2-6.4) g/L NaCl (w/in acceptable 3SD of historical mean)
Reference Toxicant Mean and Historical Range: 4.1 (3.4-4.9) g/L NaCl
Reference Toxicant CV (%): 10

Test Results:

~~The 48h LC50 is estimated to be >100% (v/v)~~
100% survival at 48h in the 100% (v/v) undiluted sample.
0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by:

CW

Date reviewed:

Oct 6, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TECK-FRO
 Sample ID: FR-LPI-WS-20170925110
 Work Order No.: 171037

Start Date/Time: 28 Sept 17 @ 1220h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: CW

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: CW 22 / 22

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	20.0	20.0	8.3	8.0	8.0	7.7	7.8	7.8	354	265
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	20.0	20.0	8.4	8.1	7.9	8.3	8.4	8.2	1616	1621
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		CW	JW	JW	CW	CW	JW	CW	CW	JW	CW	CW	JW	CW	JW

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Control (MHW)	96	80
Highest conc.	110	278
Hardness adjusted	—	—

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	8.4		
pH	8.3		
Cond (µS/cm)	1616		
Salinity (ppt)	0.8		

Comments: slight precipitate on beaker bottom w/ Mortality: Heartbeat checked under microscope Not req'd

Sample Description: Clear, colourless liquid, no odour, no particulates

Batch#: 091317.A 7-d previous # young/brood: 27 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Oct 6, 2017

Client: Teck-FRO

W.O.#: 171037

Hardness and Alkalinity Datasheet

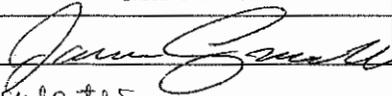
Sample ID	Alkalinity						Hardness			
	Subsample Date	Date Measured	Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/LCaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	Technician
FR-LP1- WS-201709251104	28Sept17	28Sept17	50	14.2	14.5	278	10	11.1	1110	AWZ
FR-EC1H- WS-201709251120	28Sept17	28Sept17	50	12.3	12.6	240	10	22.2	2220	AWZ
MHW	"	"	50	4.1	4.2	80	50	4.8	96	CW

Notes: ① Diluted to 100mL w/ DI water

Reviewed by:  Date Reviewed: Oct-6, 2017

APPENDIX C – Chain-of-custody form

COC ID:	20170925-1415			TURNAROUND TIME:		RUSH:					
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO					
Facility Name / Job#	Fording River Operation			Lab Name	Nautilus Environmental		Report Format / Distribution	Excel	PDF	EDD	
Project Manager	Neil MacDonald			Lab Contact			Email 1:	neil.macdonald@teck.com	X	X	X
Email	Neil.MacDonald@teck.com			Email			Email 2:	dylan.begin@teck.com	X	X	X
Address	PO Box 100			Address	8664 Commerce Court		Email 3:	bryan.ogden@teck.com	X	X	X
							Email 4:	jason.gravelle@teck.com	X	X	X
City	Elkford	Province	BC	City	Burnaby	Province	BC	Email 5:	teckcoal@equisonline.com		X
Postal Code	VOB 1H0	Country	Canada	Postal Code	VSA 4N7	Country	Canada				
Phone Number	1-250-865-5204			Phone Number	604-420-8773		PO number				

SAMPLE DETAILS								ANALYSIS REQUESTED							
Sample ID	Sample Location (sys_loc_code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr Daphnia Single Conc. Pass/Fail	96 Hr Rainbow Trout Single Conc. Pass/Fail						
① FR_ECIH-WS-201709251120	FR_ECIH	WS		2017/09/25	11:20	G	1 x 20L	1	2				13.1		
② FR_LP1-WS-201709251100	FR_LP1	WS		2017/09/25	11:00	G	1 x 20L	1	2				13.1		
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS All metals samples must be shipped to ALS Burnaby for analysis								RELINQUISHED BY/AFFILIATION Jason Gravelle		DATE/TIME 25-Sep-17		ACCEPTED BY/AFFILIATION Received by Nautilus Burnaby W4 - Nain Yamamoto		DATE/TIME Sept 26/17 @ 10:30	
SERVICE REQUEST (rush - subject to availability) Regular (default) X Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency <1 Day, ASAP or Weekend - Contact ALS								Sampler's Name Jason Gravelle		Mobile # (250)865-5191		Sampler's Signature 		Date/Time September 25, 2017	

Sample Descriptions: ① Clear, colourless liquid, no odour, no particulates
 ② Clear, colourless liquid, no odour, no particulates.

END OF REPORT



Acute Toxicity Test Results

Samples collected November 20, 2017

Final Report

December 7, 2017

Submitted to: **Teck Coal / Fording River Operations**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_CC1_MON_2017-11-06_N	20-Nov-17 at 1100h	23-Nov-17 at 1605h	24-Nov-17 at 1810h	24-Nov-17 at 1400h
FR_LMP1_MON_2017-11-06_N	20-Nov-17 at 1150h	22-Nov-17 at 1315h	24-Nov-17 at 1810h	24-Nov-17 at 1400h
FR_SP1_MON_2017-11-06_N	20-Nov-17 at 1227h	22-Nov-17 at 1315h	24-Nov-17 at 1810h	24-Nov-17 at 1400h
FR_LP1_MON_2017-11-06_N	20-Nov-17 at 1304h	22-Nov-17 at 1315h	24-Nov-17 at 1810h	24-Nov-17 at 1400h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_CC1_MON_2017-11-06_N	11.9°C	960	200
FR_LMP1_MON_2017-11-06_N	7.0°C	340	218
FR_SP1_MON_2017-11-06_N	6.0°C	900 [20°C] / 910 [10°C]	340 [20°C] / 350 [10°C]
FR_LP1_MON_2017-11-06_N	7.0°C	1020	270

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test – also tested at 10°C as requested by the client, which was initiated concurrently with the standard test exposure of 20°C

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i>	
		10°C	20°C
FR_CC1_MON_2017-11-06_N	0	n/a	0
FR_LMP1_MON_2017-11-06_N	0	n/a	0
FR_SP1_MON_2017-11-06_N	0	0	0
FR_LP1_MON_2017-11-06_N	0	n/a	0

n/a = not applicable

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_CC1_MON_2017-11-06_N	Rainbow trout	None	None
FR_CC1_MON_2017-11-06_N	<i>Daphnia magna</i>	None	None
FR_LMP1_MON_2017-11-06_N	Rainbow trout	None	None
FR_LMP1_MON_2017-11-06_N	<i>Daphnia magna</i>	None	None
FR_SP1_MON_2017-11-06_N	Rainbow trout	Slight precipitate observed on the bottom of test vessel	None
FR_SP1_MON_2017-11-06_N	<i>Daphnia magna</i>	None	Precipitate observed on carapace (at 10°C and 20°C)
FR_LP1_MON_2017-11-06_N	Rainbow trout	Precipitate observed on the bottom of test vessel	None
FR_LP1_MON_2017-11-06_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	116.4 (95.1 – 148.9) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	106.4 (60.2 – 188.1) µg/L Zn	4.2 (3.5 – 5.2) g/L NaCl
Reference toxicant CV	33%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None for standard screening tests ³
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: November 16, 2017; ² Test date: November 27, 2017; LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

³ Additional screening test is normally conducted at 10±2°C as part of the project study to compare survival data from two exposure temperatures



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck - Fording River Operation Start Date/Time: 24 Nov 17 01810 h

Work Order No.: 171417 Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR_CCI_MON-2017-11-06_N
Sample Date: 20 Nov 2017
Date Received: 23 Nov 2017
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 10
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 110117
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.44
Mean Length ± SD (mm): 36 ± 3 Range: 31 - 39
Mean Weight ± SD (g): 0.44 ± 0.13 Range: 0.25 - 0.64

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn97
Stock Solution ID: 17Zn05
Date Initiated: November 16, 2017
96-h LC50 (95% CL): 116.4 (95.1 - 148.9) µg/L Zn

Reference Toxicant Mean and Historical Range: 106.4 (60.2 - 188.1) µg/L Zn
Reference Toxicant CV (%): 33

Test Results: ^{aw} 100% 0% mortality at 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature] Date reviewed: Dec-6, 2017

Rainbow Trout Summary Sheet

Client: Teck-Fording River Operation Start Date/Time: 24 Nov 17 @ 1810 h

Work Order No.: 171417 Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR_LMPL_MON-2017-11-06_N
Sample Date: 20 Nov 2017
Date Received: 22 Nov 2017
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 10
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 110117
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10L
Loading Density (g/L): 0.43
Mean Length ± SD (mm): 36 ± 4 Range: 31 - 42
Mean Weight ± SD (g): 0.43 ± 0.18 Range: 0.23 - 0.70

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn97
Stock Solution ID: 17Zn05
Date Initiated: November 16, 2017
96-h LC50 (95% CL): 116.4 (95.1 - 148.9) µg/L Zn

Reference Toxicant Mean and Historical Range: 106.4 (60.2 - 188.1) µg/L Zn
Reference Toxicant CV (%): 33

Test Results: ^{ew} 100% 0% mortality at 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature] Date reviewed: Dec. 6, 2017

Rainbow Trout Summary Sheet

Client: Teck - Fording River Operation Start Date/Time: 24 Nov 17 0810h

Work Order No.: 171417 Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-SP1-MON-2017-11-06-N
 Sample Date: 20 NOV 2017
 Date Received: 22 Nov 2017
 Sample Volume: 2 x 20L
 Other: -

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
 T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
 Hardness (mg/L CaCO₃): 10
 Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 110117
 Source: Aqua Farms
 No. Fish/Volume (L): 10/10L
 Loading Density (g/L): 0.44
 Mean Length ± SD (mm): 36 ± 4 Range: 31 - 44
 Mean Weight ± SD (g): 0.44 ± 0.19 Range: 0.26 - 0.94

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn97
 Stock Solution ID: 17Zn05
 Date Initiated: November 16, 2017
 96-h LC50 (95% CL): 116.4 (95.1 - 148.9) µg/L Zn

Reference Toxicant Mean and Historical Range: 106.4 (60.2 - 188.1) µg/L Zn
 Reference Toxicant CV (%): 33

Test Results: 100%^{ew} 0% mortality at 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature] Date reviewed: Dec-6, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: TECK - Fording River Operations
Sample I.D.: FR_SPL_MON_2017-11-06_N
W.O. #: 171417
RBT Batch #: cw ~~110117~~ 110117
Date Collected/Time: 20 Nov 17; 1227 h
Date Setup/Time: 24 Nov 17; 1810 h
CER #: 3
Sample Setup By: RC

Number Fish/Volume: 10/10L
7-d % Mortality: 0%
Total Pre-aeration Time (mins): 30
Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Car 3
D.O. meter/probe: DO-21 2
Cond./Salinity meter/probe: C-21 2
pH meter/probe: pH-515

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	15.5	/	15.5
D.O. (mg/L)	9.4		9.5
pH	7.9		8.0
Cond. (µS/cm)	1217		1220
Salinity (ppt)	0.6		0.6

Concentration	# Survivors						Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)		
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
(% v/v)																								
Control				10	10	10	10	14.5	15.0	15.0	15.0	15.0	9.5	9.8	9.6	9.2	9.3	7.9	7.1	7.3	7.4	7.5	38	45
100%				10	10	10	10	15.5	15.0	15.0	15.0	15.0	9.5	9.8	9.6	9.3	9.3	8.0	8.4	8.5	8.5	8.7	1220	944
Initials				A	A	RC	RC	CW	A	A	RC	RC	CW	A	A	RC	RC	CW	A	A	RC	RC	CW	RC

Sample Description/Comments: Clear, ^{cw} light yellow liquid, odourless, no particulates

Fish Description at 96 h: All fish appear normal **Number of Stressed Fish at 96 h:** 0

Other Observations: At 96 h, ^{white} precipitate formed at bottom of tank in [100%]

Reviewed by: 

Date Reviewed: Dec 6, 2017

Rainbow Trout Summary Sheet

Client: Teck - Fording River Operation Start Date/Time: 24 Nov 17 @ 18:00h

Work Order No.: 171417 Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR_LPI_MON-2017-11-06-N
Sample Date: 20 Nov 2017
Date Received: 22 Nov 2017
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 10
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 110117
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10L
Loading Density (g/L): 0.50
Mean Length ± SD (mm): 38 ± 4 Range: 32 - 43
Mean Weight ± SD (g): 0.50 ± 0.18 Range: 0.27 - 0.80

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn97
Stock Solution ID: 17Zn05
Date Initiated: November 16, 2017
96-h LC50 (95% CL): 116.4 (95.1 - 148.9) µg/L Zn
Reference Toxicant Mean and Historical Range: 106.4 (60.2 - 188.1) µg/L Zn
Reference Toxicant CV (%): 33

Test Results: 100%^{aw} 0% mortality at 96h in the 100% (v/v) undiluted sample.

Reviewed by:  Date reviewed: Dec-6, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171416

Start Date/Time: NOV 24/17 @ 1400h
Test Species: Daphnia magna
Set up by: AD DWP

Sample Information:

Sample ID: FR-CC1-MON-20A-11-06-N
Sample Date: NOV 20/17
Date Received: ~~NOV 22/17~~ & NOV 23/17
Sample Volume: 1x20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 110817 B+C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 2.2
Mortality (%) in previous 7 d: 7
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DnTC60
Stock Solution ID: 17N905
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5-5.2) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 100% survival at 48h in the 100% (v/v) undiluted sample - 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Dec-6, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FRCL-MON-2017-11-06-N
 Work Order No.: 171416

Start Date/Time: Nov 24 / 12:14:00h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: As

Thermometer: CERHS pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.5	19.0	8.9	8.4	8.2	7.9	7.7	8.0	336	347
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10 ⁰	10	0	20.0	19.5	19.0	9.0	8.2	8.2	7.7	8.0	8.3	1405	1387
	B	10 ⁰	10	0											
	C	10 ⁰	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	CW	CW	A	CW	CW	A	CW	CW	A	CW	CW	A	CW

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity*
Control (MHW)	100	72
Highest conc.	900	200
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	9.0		
pH	7.7		
Cond (µS/cm)	1405		
Salinity (ppt)	0.7		

Comments: organisms on surface. Mortality: Heartbeat checked under microscope Not req'd
no precipitate at 48h

Sample Description: Clear, colourless liquid, odourless, no particulates.

Batch#: 110617 Btc 7-d previous # young/brood: 22 Previous 7-d Mortality (%): 107 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: Dec. 6, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171416

Start Date/Time: Nov 24/17 @ 1400h
Test Species: Daphnia magna
Set up by: AD AWD

Sample Information:

Sample ID: FR-LMP1_MON-11-06-N
Sample Date: Nov 20/17
Date Received: Nov 22/17
Sample Volume: 1x20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 110817 C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 22
Mortality (%) in previous 7 d: 7
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC60
Stock Solution ID: 17NaOS
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5 - 5.2) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 100% survival at 48h in the 100% (v/v) undiluted sample - 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Dec-6, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FE_LMPL-MON-2017-11-06-N
 Work Order No.: 171416

Start Date/Time: Nov 24 / 12:00 PM
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: AS

Thermometer: CE45 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.5	19.0	8.9	8.4	8.5	7.9	7.7	8.0	336	348
	B	10	10	0						8.2					
	C	10	10	0											
	D														
100%	A	10	10	0	20.0	19.5	19.0	8.9	8.3	8.5	8.2	8.3	8.1	598	606
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	AW	AW	A	MM	AW	A	MM	AW	A	MM	AW	A	AW

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	100	72
Highest conc.	340	218
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	8.9		
pH	8.2		
Cond (µS/cm)	598		
Salinity (ppt)	0.3		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope NO req'd

Sample Description: Clear, light yellow, colorless, odourless liquid, no particulates

Batch#: 1108178C 7-d previous # young/brood: 228 Previous 7-d Mortality (%): 10.7 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: Dec 6, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171416

Start Date/Time: Nov 24/17 @ 1400h
Test Species: Daphnia magna
Set up by: AD AWD

Sample Information:

Sample ID: FR-SP1-MON-2017-11-06-N
Sample Date: Nov 20/17
Date Received: Nov 22/17
Sample Volume: 1x20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 110817B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 23
Mortality (%) in previous 7 d: 7
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC60
Stock Solution ID: 17N905
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5 - 5.2) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 100% survival at 48h in the 100% (v/v) undiluted sample - 0% mortality at 48h in the 100% (w/w) undiluted sample, tested at 20°C

Reviewed by: [Signature]

Date reviewed: Dec. 6, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Tark
 Sample ID: FR SPI-MON-2017-11-06-N
 Work Order No.: 171412

Start Date/Time: Nov 24/17 @ 1400h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: AS

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	No. Organisms		Temperature (°C)	Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)				
		24	48		0	24	48	0	24	48	0	48			
Control	A	10	10	0	19.5	19.5	19.0	8.9	8.3	8.2	7.9	7.7	8.0	336	347
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10	0	20.0	19.5	19.0	9.0	8.4	8.2	7.8	7.9	8.0	1214	1126
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	CW	CW	A	UM	CW	A	UM	CW	A	UM	CW	A	CW

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	100	72
Highest conc.	900	340
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	9.0		
pH	7.8		
Cond (µS/cm)	1214		
Salinity (ppt)	0.6		

Comments: slight precipitate at 48h on organisms Mortality: Heartbeat checked under microscope Not Reg'd

Sample Description: Clear, colourless, odourless liquid, fine white particulates

Batch#: 110817-B 7-d previous # young/brood: 23 Previous 7-d Mortality (%): 7 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: Dec-6, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171410

Start Date/Time: Nov 24/17 @ 1400h
Test Species: Daphnia magna
Set up by: AD

Sample Information:

Sample ID: FR-SP1-MON-2017-11-06-N
Sample Date: Nov 20/17
Date Received: Nov 22/17
Sample Volume: 1x20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 110817C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 22
Mortality (%) in previous 7 d: 7
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DnTC60
Stock Solution ID: 17N905
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5 - 5.2) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: aw
100% survival at 48h in the 100% (v/v) undiluted sample - 0% mortality at 48h in the 100% (v/v) undiluted sample, tested at 100%

Reviewed by: 

Date reviewed: Dec 6, 2017

10 °C

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: Nov 24/17 @ 1400h
 Sample ID: FR-SPI-MON-2017-11-06-N CER #: 5
 Work Order No.: 171418 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: AW A

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	11.0	11.0	11.5	10.1	10.7	10.5	7.9	7.8	7.7	326	347
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10	0 40	11.0	11.0	11.5	10.0	10.6	10.5	8.0	8.0	8.1	1209	1160
	B	10	10	0 50											
	C	10	10	0 30											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		AW	AW	AW	A	AW	AW	A	AW	AW	A	AW	AW	A	AW

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	100	72
Highest conc.	960	350
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	11.0		
DO (mg/L)	10.0		
pH	8.0		
Cond (µS/cm)	1209		
Salinity (ppt)	0.6		

Comments: (precipitate) Daphnias stuck in solids on surface at 48h Mortality: Heartbeat checked under microscope yes not reg'd CW

Sample Description: Clear, light yellow, odorless liquid; white particulate

Batch#: 110817c 7-d previous # young/brood: 22 Previous 7-d Mortality (%): 7 Day of 1st Brood: 9

Reviewed by: AW Date reviewed: Dec 6, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171416

Start Date/Time: Nov 24/17 @ 1400 h
Test Species: Daphnia magna
Set up by: AD AND

Sample Information:

Sample ID: FR-LP1-MON-2017-11-06-N
Sample Date: Nov 20/17
Date Received: Nov 22/17
Sample Volume: 1x20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 110817 B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 23
Mortality (%) in previous 7 d: 7
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC60
Stock Solution ID: 17NaOS
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5 - 5.2) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 100% survival at 48h in the 100% (v/v) undiluted sample. 0% mortality at 48h in the 100% (w/w) undiluted sample.

Reviewed by: 

Date reviewed: Dec 6, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: Nov 24 / 12:14:00h
 Sample ID: FR-LP1-MON-2017-11- CER #: 5
 Work Order No.: 171416 ok N No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: AS

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	No. Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.5	19.0	8.9	8.4	8.2	7.9	7.7	8.0	336	344
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10	0	20.0	19.5	19.0	9.0	8.3	8.1	8.0	8.2	8.3	1554	1519
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	CW	CW	A	CW	CW	A	CW	CW	A	CW	CW	A	CW

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	72
Highest conc.	1020	270
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	9.0		
pH	8.0		
Cond (µS/cm)	1659/1554		
Salinity (ppt)	0.8		

Comments: No precipitate at 48h Mortality: Heartbeat checked under microscope NOT record
 Sample Description: clear, light yellow, colorless, odourless liquid, no particulates
 Batch#: 110817B 7-d previous # young/brood: 23 Previous 7-d Mortality (%): 10.7 Day of 1st Brood: 9
 Reviewed by: [Signature] Date reviewed: Dec 6, 2017

APPENDIX C – Chain-of-custody form

COC ID:	20171120-1425	TURNAROUND TIME:		RUSH:		
PROJECT/CLIENT INFO			LABORATORY		OTHER INFO	
Facility Name / Job#	Fording Riser Operation		Lab Name	Nautilus Environmental		
Project Manager	Neil MacDonald		Lab Contact	Report Format / Distribution		
Email	Neil.MacDonald@teck.com		Email	Email 1:	neil.macdonald@teck.com	
Address	PO Box 100		Email	Email 2:	dylan.begin@teck.com	
			Address	Email 3:	bryan.ogden@teck.com	
				Email 4:	jason.gravelle@teck.com	
				Email 5:	teckcoal@equisonline.com	
City	Elkford	Province	BC	City	Burnaby	
Postal Code	V0B 1H0	Country	Canada	Postal Code	V5A 4N7	
Phone Number	1-250-865-5204		Phone Number	604-420-8773		

SAMPLE DETAILS								ANALYSIS REQUESTED				
Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr Single Concentration -Daphnia m.	96hr Single Concentration - R. Trout	48 hr Single Concentration -Daphnia m. @10 Degree C.	Temp °C	Temp °C
FR_CCI_MON_2017-11-06_N (1)(2)	FR_CCI	WS		2017/11/20	11:00	G	1	X	X		11.9	-
FR_LMPI_MON_2017-11-06_N	FR_LMPI	WS		2017/11/20	11:50	G	1 X 20L	1	1			7.0
FR_SPI_MON_2017-11-06_N (5)	FR_SPI	WS		2017/11/20	12:27	G	2 X 20L	1	1	1		6.0
FR_LPI_MON_2017-11-06_N (6)	FR_LPI	WS		2017/11/20	13:04	G	1 X 20L	1	1			7.0

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
All metals samples must be shipped to ALS Burnaby for analysis	Jason Gravelle/ Bryan Ogden	20-Nov-17	Nautilus - Burnaby NY - Nari Yamamoto	Nov 22/17 @ 13:15

SERVICE REQUEST (rush - subject to availability)				
Regular (default) X	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend - Contact ALS	
Sampler's Name	Jason Gravelle/ Bryan Ogden	Mobile #	(250)425-3629	
Sampler's Signature	<i>Jason Gravelle</i>	Date/Time	November 20, 2107	

- (3) clear, no colour, no odour, no particulates
- (4) clear, light yellow, no odour, no particulates
- (5) clear, light yellow, no odour, no particulates
- (6) clear, light yellow, no odour, no particulates

- (1) sampled did not arrive w/ the 3 other samples - NY
- (2) sample arrived Nov 23/17 @ 16:05 1X20L - NY

END OF REPORT



Acute Toxicity Test Results

Sample collected November 27, 2017

Final Report

December 13, 2017

Submitted to: **Teck Coal / Fording River Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_NL1_MON_2017-11-06_N	27-Nov-17 at 1135h	28-Nov-17 at 1338h	30-Nov-17 at 1345h	30-Nov-17 at 1230h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_NL1_MON_2017-11-06_N	7.4°C	530	182

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_NL1_MON_2017-11-06_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_NL1_MON_2017-11-06_N	Rainbow trout	None	None
FR_NL1_MON_2017-11-06_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	77.1 (54.0 – 104.0) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	106.1 (58.6 – 192.1) µg/L Zn	4.2 (3.5 – 5.2) g/L NaCl
Reference toxicant CV	35%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: November 30, 2017; ² Test date: November 27, 2017; LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Fording River Operation Start Date/Time: 30 Nov 17 @ 1345h

Work Order No.: 171455

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-NL1-MON-2017-11-06-N
Sample Date: 27 Nov 17
Date Received: 28 Nov 17
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 10
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 111517
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.24
Mean Length ± SD (mm): 34 ± 2
Mean Weight ± SD (g): 0.26 ± 0.04

Range: 31 - 36
Range: 0.21 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RT Zn 99
Stock Solution ID: 17 Zn 05
Date Initiated: November 30, 2017
96-h LC50 (95% CL): 77.1 (54.0 - 104.0) µg/L Zn

Reference Toxicant Mean and Historical Range: 106.1 (58.6 - 192.1) µg/L Zn
Reference Toxicant CV (%): .35

Test Results: ^{at 96h} 100% mortality in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Dec-8, 2017

Daphnia magna Summary Sheet

Client: Teck - FRO
Work Order No.: 171454

Start Date/Time: 30 Nov 2017 @ 1230h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: FR-NL1-MON-2017-11-06-N
Sample Date: 27 NOV 2017
Date Received: 28 NOV 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 111517 C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 15
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC 60
Stock Solution ID: 17 Na 05
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5 - 5.2) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Dec. 8, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: FR-NL1^{ow} Teck-FRO
 Sample ID: FR-NL1-MON-2017-11-06-N
 Work Order No.: 171454

Start Date/Time: 30 Nov 2017 1230h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: ow

Thermometer: CER45 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	24		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.0	19.0	20.0	8.7	8.6	8.4	7.8	7.8	7.8	350	354
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10	0	19.0	19.0	20.0	8.2	8.2	8.3	7.7	8.1	8.2	907	890
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		ow	A	m	ow	ow	A	ow	ow	A	ow	ow	A	ow	A

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	96	76
Highest conc.	530	182
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	8.2		
pH	7.7		
Cond (µS/cm)	907		
Salinity (ppt)	0.5		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not required
grey liquid
 Sample Description: clean, colourless, odourless liquid very fine black particulates.
 Batch#: 111517C 7-d previous # young/brood: 15 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8
 Reviewed by: [Signature] Date reviewed: Dec-8, 2017

APPENDIX C – Chain-of-custody form

COC ID: 20171127-1448		TURNAROUND TIME:				RUSH:							
PROJECT/CLIENT INFO					LABORATORY				OTHER INFO				
Facility Name / Job#	Fording River Operation				Lab Name	Nautilus Environmental			Report Format / Distribution		Excel	PDF	EDD
Project Manager	Neil MacDonald				Lab Contact				Email 1:	neil_macdonald@teck.com	X	X	X
Email	Neil.MacDonald@teck.com				Email				Email 2:	bryan.begin@teck.com	X	X	X
Address	PO Box 100				Address	8664 Commerce Court			Email 3:	bryan.ogden@teck.com	X	X	X
									Email 4:	jason.gravelle@teck.com	X	X	X
									Email 5:	teckcoal@edulisonline.com			X
City	Elkford	Province	BC		City	Burnaby	Province	BC					
Postal Code	V0B 1H0	Country	Canada		Postal Code	V5A 4N7	Country	Canada					
Phone Number	1-250-865-5204				Phone Number	604-420-8773			PO number				

SAMPLE DETAILS							ANALYSIS REQUESTED						Filtered - F: Field; L: Lab; FL: Field & Lab; N: None		
Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr Single Concentration - Dapnia m.	96hr Single Concentration - R.Trout						
FR_NL1_MON_2017-11-06_N	FR_NL1	WS		2017/11/27	11:35	G	1x20L	1	1						Temp °C 7.4

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS All metals samples must be shipped to ALS Burnaby for analysis	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
	Jason Gravelle/ Bryan Ogden	27-Nov-17	Nautilus - Burnaby	Nov 28/17 @ 13:38
			NY - New Yamamoto	

SERVICE REQUEST (rush - subject to availability)				
Regular (default) <input checked="" type="checkbox"/>	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend - Contact ALS	
Sampler's Name	Jason Gravelle/ Bryan Ogden		Mobile #	(250) 425-3629
Sampler's Signature			Date/Time	November 27, 2017

sample desc: clear, grey colour, no odour, some particulates

END OF REPORT



Acute Toxicity Test Results

Sample collected November 28, 2017

Final Report

December 13, 2017

Submitted to: **Teck Coal / Fording River Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_EC1_MON_2017-11-06_N	28-Nov-17 at 1234h	01-Dec-17 at 1130h	01-Dec-17 at 1315h	01-Dec-17 at 1730h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_EC1_MON_2017-11-06_N	5.5°C	2900	248

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_EC1_MON_2017-11-06_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_EC1_MON_2017-11-06_N	Rainbow trout	Precipitate observed on the bottom of test vessel	None
FR_EC1_MON_2017-11-06_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	66.4 (50.9 – 82.0) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	103.9 (56.5 – 190.9) µg/L Zn	4.2 (3.5 – 5.2) g/L NaCl
Reference toxicant CV	36%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: November 30, 2017; ² Test date: November 27, 2017; LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck - FRO (Fording River Operation) Start Date/Time: Dec 1/17 @ 1315h
Work Order No.: 1714783 Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-EC1-NON-2017-11-06-N
Sample Date: Nov 28/17
Date Received: Nov Dec 01/17
Sample Volume: 1x20L
Other: _____

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 10
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 111617
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 34 ± 1 Range: 32 - 35
Mean Weight ± SD (g): 0.26 ± 0.02 Range: 0.22 - 0.29

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 100
Stock Solution ID: 17Zn05
Date Initiated: November 30, 2017
96-h LC50 (95% CL): 66.4 (50.9 - 82.0) µg/L Zn

Reference Toxicant Mean and Historical Range: 103.9 (56.5 - 190.9) µg/L Zn
Reference Toxicant CV (%): 36

Test Results: 0% mortality at 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature] Date reviewed: Dec 11, 2017

Daphnia magna Summary Sheet

Client: Teck-FRO (Fording River Operation) Start Date/Time: 01 Dec 2017 @ 1730h
Work Order No.: 171442 Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: FR-EC1-MON-2017-11-06-N
Sample Date: 28 Nov 2017
Date Received: 01 Dec 2017
Sample Volume: 1 x 20 L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 110817 A + B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 26
Mortality (%) in previous 7 d: 4
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC60
Stock Solution ID: 17 Na 05
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5 - 5.2) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature] Date reviewed: Dec-11, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TECK - FRO (Fording River Operation) Start Date/Time: 01 Dec 2017 @ 1930h
 Sample ID: FR-EC1-MON-2017-11-06-N CER #: 5
 Work Order No.: 171472 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: ew

Thermometer: CEN45 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	24		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.2	20.0	20.0	8.8	8.4	8.6	7.7	7.7	7.9	349	355
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10	0	18.0	20.0	20.0	9.1	8.0	8.5	8.1	8.2	8.1	3000	2970
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		VM	A	r	CW	VM	A	CW	VM	A	CW	VM	A	CW	a

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	90	76
Highest conc.	2900	248
Hardness adjusted	—	—

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		
DO (mg/L)	9.1		
pH	8.1		
Cond (µS/cm)	3000		
Salinity (ppt)	1.6		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope W

Sample Description: Clear, no colour, no odour, no particulates.

Batch#: 110817 A+B 7-d previous # young/brood: 26 Previous 7-d Mortality (%): 3.54 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: Dec 11, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT

Greenhills Operations (GHO) COAs



Acute Toxicity Test Results

Sample collected January 9, 2017

Final Report

January 25, 2017

Submitted to: **Teck Coal / Greenhills Operations**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates				Receipt temp.
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	
GH_GH1_WS_2017-01-09_N	09-Jan-17 at 0841h	11-Jan-17 at 1045h	12-Jan-17 at 1000h	11-Jan-17 at 1400h	5.1°C

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_GH1_WS_2017-01-09_N	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	71.2 (5.4 – 103.8) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	53.7 (19.6 – 147.6) µg/L Zn	4.1 (3.1 – 5.5) g/L NaCl
Reference toxicant CV	66%	15%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: January 9, 2017; ² Test date: January 10, 2017



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck (GHO)

Start Date/Time: Jan. 12/17 @ 1000h

Work Order No.: 170015

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-GH1-WS-2017-01-09-LN
Sample Date: Jan. 9 / 17
Date Received: Jan. 11 / 17
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 110916(c)
Source: Vancouver Island Trout Hatchery
No. Fish/Volume (L): 10 / 12 L
Loading Density (g/L): ~0.25 0.26
Mean Length ± SD (mm): 28 ± 2 Range: 26 - 31
Mean Weight ± SD (g): ~0.30 ± 0.04 Range: 0.28 - 0.36
0.31 ± 0.03

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn59
Stock Solution ID: 16Zn02
Date Initiated: Jan. 9 / 17
96-h LC50 (95% CL): 71.2 (5.4 - 103.8) µg/L Zn

Reference Toxicant Mean and Historical Range: 53.7 (19.6 - 147.6) µg/L Zn
Reference Toxicant CV (%): 66

Test Results: 0% mortality at 96h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Jan. 23, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck (GH0)
 Sample I.D.: GH-GHLWS-2017-01-09-N
 W.O. #: 170015
 RBT Batch #: 110916(C)
 Date Collected/Time: Jan 9/17 @ 0841h
 Date Setup/Time: Jan 12/17 @ 1000h
 Sample Setup By: EC

Number Fish/Volume: 10/12 L
 7-d % Mortality: 17
 Total Pre-aeration Time (mins): 45
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	11.0		10.5
pH	8.1		8.2
Cond. (µS/cm)	150 1632		150 1632
Salinity (ppt)	0.1		0.1

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Concentration (% v/v)	# Survivors						Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)		
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
GH				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.5	9.7	9.8	9.9	9.8	7.1	6.9	7.0	6.9	7.0	39	45
100				10	10	10 ¹⁰	10	14.0	14.0	14.0	14.0	14.0	10.5	9.7	9.7	9.9	9.9	8.2	8.2	8.3	8.2	8.2	150 1632	1565
Initials				EC	AO	AO	EC	EC	EC	AO	AO	EC	EC	EC	AO	AO	EC	EC	EC	AO	AO	EC	EC	EC

Sample Description/Comments: Clear, colorless, No odour, No particulates.

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: ① 1 fish appears dark

Reviewed by: Date Reviewed: JAN. 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170016

Start Date/Time: January 11, 2017 @ 1400h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH_GH1-WS-2017-01-09-N
Sample Date: January 9, 2017
Date Received: January 11, 2017
Sample Volume: 1 x 20 L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 122116A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC44
Stock Solution ID: 16Na02
Date Initiated: January 10, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.1-5.5) g/L NaCl
Reference Toxicant CV (%): 15

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Jan. 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TECK
 Sample ID: GH-GH-WS-2017-01-09-N
 Work Order No.: 170016

Start Date/Time: January 11, 2017 @ 1400h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	24		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	18.5	18.5	8.7	8.5	8.5	7.5	7.7	7.8	356	374
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	2	18.5	18.5	18.5	9.2	8.5	8.6	8.0	8.2	8.2	1660	1654
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	72
Highest conc.	1340	248
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		18.5
DO (mg/L)	10.4	(7 min aeration)	9.2
pH	8.0		8.0
Cond (µS/cm)	1648		1660
Salinity (ppt)	0.8		0.8

Comments: _____ Mortality: Heartbeat checked under microscope not req'd.

Sample Description: clear, no colour, no odour, no particulates.

Batch#: 172116A 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: Jan-23, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected January 10, 2017

Final Report

January 25, 2017

Submitted to: **Teck Coal / Greenhills Operations**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates				Receipt temp.
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	
GH_TC1_WS_2017-01-10_N	10-Jan-17 at 1341h	12-Jan-17 at 1000h	13-Jan-17 at 0900h	13-Jan-17 at 1100h	5.0°C
GH_TC2_WS_2017-01-10_N	10-Jan-17 at 1504h	12-Jan-17 at 1000h	13-Jan-17 at 0900h	13-Jan-17 at 1100h	5.0°C

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_TC1_WS_2017-01-10_N	0	0
GH_TC2_WS_2017-01-10_N	10	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	71.2 (5.4 – 103.8) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	53.7 (19.6 – 147.6) µg/L Zn	4.1 (3.1 – 5.5) g/L NaCl
Reference toxicant CV	66%	15%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: January 9, 2017; ² Test date: January 10, 2017



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck (GHO)

Start Date/Time: Jan. 13/17 @ 0900h

Work Order No.: 170021

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH TCI-WS-2017-01-10-N
Sample Date: Jan 10/17
Date Received: Jan. 12/17
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 110916 (c)
Source: Vancouver Island Trout Hatchery
No. Fish/Volume (L): 10/12 L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 30 ± 1 Range: 29 - 31
Mean Weight ± SD (g): 0.31 ± 0.02 Range: 0.27 - 0.33

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn59
Stock Solution ID: 16Zn02
Date Initiated: Jan. 9/17
96-h LC50 (95% CL): 71.2 (5.4 - 103.8) µg/L Zn

Reference Toxicant Mean and Historical Range: 53.7 (19.6 - 147.6) µg/L Zn
Reference Toxicant CV (%): 66

Test Results: 0% mortality at 96h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: Jan. 23, 2017

Rainbow Trout Summary Sheet

Client: Teck (GHO)

Start Date/Time: Jan. 13 / 17 @ 0900h

Work Order No.: 170021

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-TCZ-WS-2017-0110-N
Sample Date: Jan 10 / 17
Date Received: Jan 12 / 17
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 116916 (c)
Source: Vancouver Island Trout Hatchery
No. Fish/Volume (L): 10 / 12L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 31 ± 1 Range: 30-32
Mean Weight ± SD (g): 0.31 ± 0.03 Range: 0.27-0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn59
Stock Solution ID: 16Zn02
Date Initiated: Jan. 9 / 17
96-h LC50 (95% CL): 71.2 (5.4-103.8) µg/L Zn

Reference Toxicant Mean and Historical Range: 53.7 (19.6-147.6) µg/L Zn
Reference Toxicant CV (%): 66

Test Results: 10% mortality at 96h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Jan. 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170022

Start Date/Time: January 13, 2017 @ 1100h
Test Species: Daphnia magna
Set up by: YHL

Sample Information:

Sample ID: GH_TCI_WS-2017-01-10-N
Sample Date: January 10, 2017
Date Received: January 12, 2017
Sample Volume: 1 X 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 122916B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC44
Stock Solution ID: 16Na02
Date Initiated: January 10, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/LNaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.1-5.5) g/L NaCl
Reference Toxicant CV (%): 15

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: CU

Date reviewed: Jan 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-TCL-WS-2017-01-10-N
 Work Order No.: 170022

Start Date/Time: January 13, 2017 @ 1100h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: Yue

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	24		48		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48	48	0	24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	18.5	19.0	19.5	8.6	9.0	8.9	7.8	7.8	7.9	358	370	
	B	10	10	0												
	C	10	10	0												
	D															
100	A	10	10	0	19.0	19.2	19.5	8.9	9.0	8.9	8.0	8.0	8.2	1639	1606	
	B	10	10	0												
	C	10	10	0												
	D															
	A															
	B															
	C															
	D															
	A															
	B															
	C															
	D															
	A															
	B															
	C															
	D															
Technician Initials		A	A	A	Yue	A	A	Yue	A	A	Yue	A	A	Yue	A	

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Control (MHW)	100	72
Highest conc.	1240	240
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	8.9		
pH	8.0		
Cond (µS/cm)	1639		
Salinity (ppt)	0.8		

Comments: _____ Mortality: Heartbeat checked under microscope NO

Sample Description: clear, no colour, no odour, no particulates

Batch#: 122916B 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Jan-23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170022

Start Date/Time: January 13, 2017 @ 11:00h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH-TC2-WS-2017-01-10-N
Sample Date: January, 2017
Date Received: January, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 122916B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC44
Stock Solution ID: 16NA02
Date Initiated: January 10, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.1-5.5) g/L NaCl
Reference Toxicant CV (%): 15

Test Results:

0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by:

YML

Date reviewed:

Jan. 29, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-TC2-WS-2017-01-10-N
 Work Order No.: 170022

Start Date/Time: January 13, 2017 @ 1100h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YK

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
		Control	A		10	10	0	18.5	19.0	19.5	8.6	8.9	9.0	7.8	7.9
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.2	19.5	8.8	9.0	8.9	8.0	8.1	8.2	1615	1611
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		<u>YK</u>	<u>YK</u>	<u>YK</u>	<u>YK</u>	<u>YK</u>	<u>YK</u>	<u>YK</u>	<u>AS</u>	<u>AS</u>	<u>YK</u>	<u>AS</u>	<u>AS</u>	<u>YK</u>	<u>AS</u>

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCo3)	
Control (MHW)	100	72
Highest conc.	1290	250
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	8.8		
pH	8.0		
Cond (µS/cm)	1615		
Salinity (ppt)	0.8		

Comments: _____ Mortality: Heartbeat checked under microscope no

Sample Description: clear, no colour, no odour, no

Batch#: 122916B 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Jan. 23, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected February 9, 2017

Final Report

February 23, 2017

Submitted to: **Teck Coal / Greenhills Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates				Receipt temp.
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	
GH_PC1_WS_2017-02-09_N	09-Feb-17 at 1400h	14-Feb-17 at 1105h	14-Feb-17 at 1200h	14-Feb-17 at 1230h	11.8°C

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

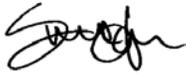
Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_PC1_WS_2017-02-09_N	0	40

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	46.6 (37.6 – 57.8) µg/L Zn ¹	4.5 (3.5 – 6.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	55.9 (22.6 – 138.4) µg/L Zn	4.2 (3.2 – 5.5) g/L NaCl
Reference toxicant CV	57%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: February 3, 2017, ² Test date: February 1, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal (GHO)

Start Date/Time: Feb 14 / 17 @ 1200h

Work Order No.: 170073

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-PCI-WS-2017-02-09-N
Sample Date: Feb 9 / 17
Date Received: Feb 14 / 17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 7
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 011917
Source: Vancouver Island Trout Hatchery
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.40
Mean Length ± SD (mm): 37 ± 2
Mean Weight ± SD (g): 0.40 ± 0.05

Range: 34 - 40
Range: 0.35 - 0.45

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn63
Stock Solution ID: 16 ZnO2
Date Initiated: Feb 3 / 17
96-h LC50 (95% CL): 46.6 (37.6-57.8) µg/L Zn

Reference Toxicant Mean and Historical Range: 55.9 (22.6-138.4) µg/L Zn
Reference Toxicant CV (%): 57.4% EC

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: 

Date reviewed: Feb 21, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170074

Start Date/Time: February 14, 2017 @ 1230h
Test Species: Daphnia magna
Set up by: ML

Sample Information:

Sample ID: GH_PCI_WS_2017-02-09-N
Sample Date: February 9, 2017
Date Received: February 14, 2017
Sample Volume: 1 x 20 L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 011917B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC45
Stock Solution ID: 16Na02
Date Initiated: February 1, 2017
48-h LC50 (95% CL): 4.5 (3.5-6.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.5) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 40% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: 

Date reviewed: Feb. 21, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GHPEL-WS-2017-02-09-N
 Work Order No.: 170074

Start Date/Time: February 14, 2017 @ 1230h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	18.5	19.0	19.5	8.7	8.4	8.0	7.8	7.6	7.4	363	367
	B	10	10	0											
	C	10	10	0											
	D														
100	A	100	80	6	18.5	19.0	19.5	9.1	8.2	7.9	7.9	7.9	8.0	1101	1102
	B	100	50	5											
	C	100	50	3											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCo3)	
Control (MHW)	98	72
Highest conc.	730	194
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		18.5
DO (mg/L)	9.9	(6 min aeration)	9.1
pH	7.9		7.9
Cond (µS/cm)	1097		1101
Salinity (ppt)	0.5		0.5

Comments: 0 daphnids on surface Mortality: Heartbeat checked under microscope yes

Sample Description: clear, no colour, no odour, no particulates.

Batch#: 0119173 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: Feb. 21, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected February 21, 2017

Final Report

March 6, 2017

Submitted to: **Teck Coal / Greenhills Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates				Receipt temp.
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	
GH_LC1_WS_2017-02-21_N	21-Feb-17 at 0910h	22-Feb-17 at 1030h	23-Feb-17 at 1215h	22-Feb-17 at 1605h	1.5°C

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

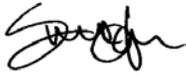
Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_LC1_WS_2017-02-21_N	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	93.3 (75.3 – 115.7) µg/L Zn ¹	3.7 (3.2 – 4.2) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	55.5 (22.3 – 138.0) µg/L Zn	4.2 (3.2 – 5.5) g/L NaCl
Reference toxicant CV	58%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: February 23, 2017; ² Test Date: February 22, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal (GH0)

Start Date/Time: Feb 23/17 @ 1215h

Work Order No.: 170118

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-LCI-WS-2017-02-01-N²
Sample Date: Feb 21 /17
Date Received: Feb 22 /17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 020717
Source: Spring Valley
No. Fish/Volume (L): 10/12L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 32 ± 2 Range: 28 - 37
Mean Weight ± SD (g): 0.31 ± 0.04 Range: 0.26 - 0.38

Zinc Reference Toxicant Results:

Reference Toxicant ID: RT Zn⁶ 84
Stock Solution ID: 16 Zn02
Date Initiated: Feb 23/17
96-h LC50 (95% CL): 93.3 (75.3 - 115.7) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.5 (22.3 - 138) mg/L Zn
Reference Toxicant CV (%): 58

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: 

Date reviewed: March 3, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal (GH0)
 Sample I.D. GH-LCL-WS-2017-02-01-N
 W.O. # 170118
 RBT Batch #: 020717
 Date Collected/Time: Feb 21/17 @ 0910h
 Date Setup/Time: Feb 23/17 @ 1215h
 Sample Setup By: EC

Number Fish/Volume: 10/12L
 7-d % Mortality: 0
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.4	/	10.3
pH	8.1	/	8.1
Cond. (µS/cm)	1580	/	1580
Salinity (ppt)	0.8	/	0.8

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Concentration	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	(% v/v)	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
10				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.2	9.9	9.8	9.7	9.7	6.7	6.9	7.0	6.8	6.9	24	30	
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.8	9.9	9.7	9.8	8.1	8.2	8.3	8.2	8.2	1580	1431	
Initials				EL	A	A	EL	EL	EL	A	A	EL	EL	EL	A	A	EL	EL	EL	A	A	EL	EL	EL	

Sample Description/Comments: clear, colorless, no particulates, odourless

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: _____

Reviewed by: Date Reviewed: March 3, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170119

Start Date/Time: February 22, 2017 @ 1605h
Test Species: Daphnia magna
Set up by: YHL

Sample Information:

Sample ID: GH LCI WS-2017-02-21-N
Sample Date: February 21, 2017
Date Received: February 22, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 020417C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 18
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC46
Stock Solution ID: 16NaO2
Date Initiated: February 22, 2017
48-h LC50 (95% CL): 3.7 (3.2-4.2) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.5) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted samples

Reviewed by: [Signature]

Date reviewed: March 3, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: CHLCL-NS-2017-02-2LN
 Work Order No.: 170119

Start Date/Time: February 22, 2017 @ 1605h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMC

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	24		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	6	0	19.0	19.5	19.5	8.5	8.3	8.3	7.6	7.6	7.8	354	366
	B	10	10	0											
	C	10	10	0											
	D														
100	A	100	100	2	21.0	19.5	19.5	8.7	8.4	8.4	8.1	7.9	8.1	1561	1510
	B	100	100	1											
	C	100	100	4											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO3)	
Control (MHW)	94	66
Highest conc.	930	276
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	21.0		
DO (mg/L)	8.7		
pH	8.1		
Cond (µS/cm)	1561		
Salinity (ppt)	0.8		

Comments: ① a few daphnids on surface Mortality: Heartbeat checked under microscope not needed (found visible to eye)

Sample Description: ② slight precipitate on organisms bodies
clear, no colour, no odour, no particulates.

Batch#: 020417C 7-d previous # young/brood: 18 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: March 3, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected March 21, 2017

Final Report

April 4, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_CC1_Q_02012017_N	21-Mar-17 at 1130h	22-Mar-17 at 0915h	23-Mar-17 at 1130h	22-Mar-17 at 1510h/1515h
GH_SC1_Q_02012017_N	21-Mar-17 at 1130h	22-Mar-17 at 0915h	23-Mar-17 at 1130h	22-Mar-17 at 1510h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)		Alkalinity (mg/L CaCO ₃)	
		10°C	20°C	10°C	20°C
GH_CC1_Q_02012017_N	3.3°C	2760	2480	320	284
GH_SC1_Q_02012017_N	3.3°C	1240	1220	208	204

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test – also tested at 10°C as requested by the client, which was initiated concurrently with the standard test exposure of 20°C
- *Daphnia magna* 48-h LC50 test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i>	
		10°C	20°C
GH_CC1_Q_02012017_N	0	0	90
GH_SC1_Q_02012017_N	0	6.7	36.7

Sample ID	LC50 (% v/v) [95% CL]
	<i>Daphnia magna</i>
GH_CC1_Q_02012017_N	70.7 [50 – 100]

CL = Confidence limits

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_CC1_Q_02012017_N	Rainbow trout	Precipitate observed on the bottom of test vessel	None
GH_CC1_Q_02012017_N	<i>Daphnia magna</i> - 10°C	Slight precipitate observed on the bottom of test vessel	Slight precipitate observed on carapace
GH_CC1_Q_02012017_N	<i>Daphnia magna</i> - 20°C	Precipitate observed on the bottom of test vessel	Precipitate observed on carapace
GH_SC1_Q_02012017_N	Rainbow trout	None	None
GH_SC1_Q_02012017_N	<i>Daphnia magna</i> - 10°C	Slight precipitate observed on the bottom of test vessel	Slight precipitate observed on carapace
GH_SC1_Q_02012017_N	<i>Daphnia magna</i> - 20°C	Slight precipitate observed on the bottom of test vessel	Slight precipitate observed on carapace

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	96.2 (71.6 – 130.0) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	57.4 (22.5 – 146.7) µg/L Zn	4.2 (3.2 – 5.4) g/L NaCl
Reference toxicant CV	60%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None for standard screening tests ³
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: March 17, 2017; ² Test Date: March 15, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

³ Additional screening test is normally conducted at 10±2°C as part of the project study to compare survival data from two exposure temperatures



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* LC50 test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	Five concentrations, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Statistical software	CETIS Version 1.8.7
Test endpoint	Survival (48-hour LC50)
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Mar 23 117 @ 1130h

Work Order No.: 170230

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-CC1-R-02^W2012017-N
Sample Date: Mar 21 / 17
Date Received: Mar 22 / 17
Sample Volume: 2 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 030117
Source: Spring Valley
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.34
Mean Length ± SD (mm): 31 ± 2
Mean Weight ± SD (g): 0.34 ± 0.09

Range: 29 - 34
Range: 0.24 - 0.55

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn66
Stock Solution ID: 16Zn02
Date Initiated: Mar 17 / 17
96-h LC50 (95% CL): 96.2 (71.6 - 130.0) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.4 (22.5 - 146.7) mg/L Zn
Reference Toxicant CV (%): 60.57%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: March 31, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Mar 23 117 @ 1130h

Work Order No.: 170230

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-SU-Q-02012017-N
Sample Date: Mar 21 117
Date Received: Mar 22 117
Sample Volume: 2 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 030117
Source: Spring Valley
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.34
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.34 ± 0.07

Range: 26 - 34^{EL}
Range: 0.26 - 0.46

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn66
Stock Solution ID: 16Zn02
Date Initiated: Mar 17 117
96-h LC50 (95% CL): 96.2 (71.6-130.0) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.4 (22.5-146.7) mg/L Zn
Reference Toxicant CV (%): 60.57%
_{EL}

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: March 31, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170229

Start Date/Time: March 22, 2017 @ 1510h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH-CC1-Q-02012017-N
Sample Date: March 21, 2017
Date Received: March 22, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 030317B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 90% mortality at 48h in the 100% (v/v) undiluted
sample, tested at 20°C.

Reviewed by: [Signature]

Date reviewed: March 31, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-CC1-Q-02012017-LN
 Work Order No.: 170229

Start Date/Time: March 22, 2017 @ 1510h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMC

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (Cb v/v)	Number of Live Organisms Rep	24		48		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48	48	0		24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	18.5	19.0	19.0	8.6	8.5	8.2	7.5	7.8	7.7	354	365		
	B	10	10	0													
	C	10	10	0													
	D																
100 (20°C)	A	10 ⁰	0 ⁰	0	19.0	19.0	19.0	9.0	8.4	8.1	7.8	7.8	7.9	3200	3050		
	B	10 ⁰	3 ⁰	3													
	C	10 ⁰	0 ⁰	0													
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
Technician Initials		YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC		

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	100	74
Highest conc.	2480	284
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		19.0
DO (mg/L)	9.7	(5 min aeration)	9.0
pH	7.8		7.8
Cond (µS/cm)	3170		3200
Salinity (ppt)	1.7		1.7

Comments: a few organisms on bottom of container ^{+ precipitate} precipitate ^{all organisms & container bottom covered in precipitate} Mortality: Heartbeat checked under microscope yes

Sample Description: clear, no colour, no odour, no particulates

Batch#: 03031713 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: March 31, 2017

Daphnia magna Summary Sheet

Client: TRCK
Work Order No.: 170229

Start Date/Time: March 22, 2017 @ 15:00h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH-CCL-Q-02012017-LN
Sample Date: March 21, 2017
Date Received: March 22, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 030317B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample, tested at 10°C.

Reviewed by: [Signature]

Date reviewed: March 31, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-CCI-Q-02012017-LN
 Work Order No.: 170228

Start Date/Time: March 22, 2017 @ 1510h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMC

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (μ b v/v)	Number of Live Organisms Rep	24		48		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (μ S/cm)	
		24	48	0	24		48	0	24	48	0	24	48	0	48		
		Control	A	10	10		0	11.5	11.0	11.0	10.6	10.6	10.5	7.5	7.7	7.6	354
	B	10	10	0	11.5			9.6									
	C	10	10	0													
	D																
100 (10°C)	A	10	10	0	11.0	11.0	11.0	10.4	10.7	10.5	7.6	8.0	8.1	23300	3150		
	B	10	10	2													
	C	10	10	0													
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
Technician Initials		YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC		

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	72
Highest conc.	2760	320
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	11.0		
DO (mg/L)	10.4		
pH	7.6		
Cond (μ S/cm)	23300		
Salinity (ppt)	1.7		

Comments: slight precipitate on organisms & container bottom at 48h Mortality: Heartbeat checked under microscope yes
 Sample Description: clear, no colour, no odour, no particulates
 Batch#: 030317B 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9
 Reviewed by: [Signature] Date reviewed: March 31, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170229

Start Date/Time: March 22, 2017 @ 1515h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH-CC1-Q-02012017-N
Sample Date: March 21, 2017
Date Received: March 22, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 030317 A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 24
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: The 48h LC50 is estimated to be 70.7% (v/v) with 95% confidence limits between 50 and 100% (v/v)

Reviewed by: _____

Date reviewed: _____

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-CCLO-0202017-N
 Work Order No.: 170229

Start Date/Time: March 22, 2017 @ 155h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	18.5	19.0	19.0	8.6	8.4	8.3	7.6	7.8	7.7	354	362
	B														
	C														
	D														
6.25	A	10	10	0	18.5	19.0	19.0	8.7	8.4	8.3	7.7	7.8	7.8	611	622
	B														
	C														
	D														
12.5	A	10	10	0	18.5	19.0	19.0	8.7	8.4	8.3	7.7	7.9	8.0	814	817
	B														
	C														
	D														
25	A	10	10	0	18.5	19.0	19.0	8.7	8.3	8.3	7.8	7.9	8.1	1213	1208
	B														
	C														
	D														
50	A	10	10	0	19.0	19.0	19.0	9.0	8.3	8.3	7.8	7.9	8.1	1916	1896
	B														
	C														
	D														
100	A	100	00	0	19.0	19.0	19.0	9.0	8.3	8.1	7.8	7.8	7.9	3200	3040
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	74
Highest conc.	2480	284
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		19.0
DO (mg/L)	9.7	(5 min aeration)	9.0
pH	7.8		7.8
Cond (µS/cm)	3170		3200
Salinity (ppt)	1.7		1.7

Comments: ① a few organisms & precipitate on container bottom ② all organisms & container bottom covered in precipitate
 Mortality: Heartbeat checked under microscope 40

Sample Description: clear, no colour, no odour, no particulates

Batch#: 030317A 7-d previous # young/brood: 24 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: March 31, 2017

CETIS Analytical Report

Report Date: 30 Mar-17 11:48 (p 1 of 2)
 Test Code: 170229 | 19-2221-0237

Daphnia magna 48-h Acute Survival Test

Nautilus Environmental

Analysis ID: 10-9124-5993	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.8.7
Analyzed: 30 Mar-17 11:48	Analysis: Binomial Method	Official Results: Yes
Batch ID: 05-4384-5424	Test Type: Survival (48h)	Analyst: Yvonne Lam
Start Date: 22 Mar-17 15:15	Protocol: EC/EPS 1/RM/14	Diluent: Mod-Hard Synthetic Water
Ending Date: 24 Mar-17 15:10	Species: Daphnia magna	Brine:
Duration: 48h	Source: In-House Culture	Age:
Sample ID: 00-6966-6651	Code: 427075B	Client: Teck Coal
Sample Date: 21 Mar-17 11:30	Material: Water Sample	Project:
Receive Date: 22 Mar-17 09:15	Source: Teck Coal (TECK COAL)	
Sample Age: 28h (3.3 °C)	Station: GH_CC1_Q_02012017_N	

Binomial/Graphical Estimates

Threshold Option	Threshold	Trim	Mu	Sigma	EC50	95% LCL	95% UCL
Control Threshold	0	0.00%	1.849	0	70.71	50	100

48h Survival Rate Summary

C-%	Control Type	Count	Calculated Variate(A/B)								
			Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Negative Control	1	1	1	1	0	0	0.0%	0.0%	10	10
6.25		1	1	1	1	0	0	0.0%	0.0%	10	10
12.5		1	1	1	1	0	0	0.0%	0.0%	10	10
25		1	1	1	1	0	0	0.0%	0.0%	10	10
50		1	1	1	1	0	0	0.0%	0.0%	10	10
100		1	0	0	0	0	0		100.0%	0	10

48h Survival Rate Detail

C-%	Control Type	Rep 1
0	Negative Control	1
6.25		1
12.5		1
25		1
50		1
100		0

48h Survival Rate Binomials

C-%	Control Type	Rep 1
0	Negative Control	10/10
6.25		10/10
12.5		10/10
25		10/10
50		10/10
100		0/10

Handwritten signature
 March 31/17

CETIS Analytical Report

Report Date: 30 Mar-17 11:48 (p 2 of 2)
Test Code: 170229 | 19-2221-0237

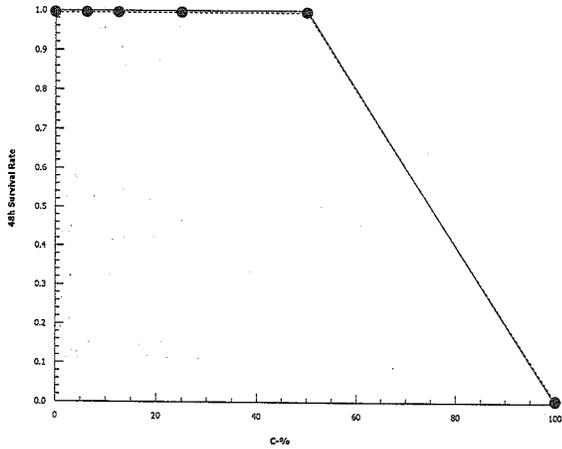
Daphnia magna 48-h Acute Survival Test

Nautilus Environmental

Analysis ID: 10-9124-5993 Endpoint: 48h Survival Rate
Analyzed: 30 Mar-17 11:48 Analysis: Binomial Method

CETIS Version: CETISv1.8.7
Official Results: Yes

Graphics



[Signature]
March 31/17
QA: _____

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170229

Start Date/Time: March 22, 2017 @ 15:0h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH-SCL-Q-02012017-N
Sample Date: March 21, 2017
Date Received: March 22, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 030317B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 36.7% mortality at 48h in the 100% (v/v) undiluted sample, tested at 20°C.

Reviewed by: 

Date reviewed: March 31, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-SEL-0-020/2017-N
 Work Order No.: 170229

Start Date/Time: March 22, 2017 @ 1510h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMC

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	18.5	19.0	19.5	8.6	8.4	8.2	7.5	7.8	7.7	354	359
	B	10	10	0											
	C	10	10	0											
	D														
100 (20°C)	A	10 ⁰	6 ⁰	6	18.5	19.0	19.5	9.0	8.5	8.0	7.8	8.1	8.2	2350	2320
	B	10 ⁰	8 ⁰	7											
	C	10 ⁰	5 ⁰	4											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC

	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Concentration		
Control (MHW)	100	74
Highest conc.	1220	204
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		18.5
DO (mg/L)	9.9	(4 min)	9.0
pH	7.8	(aeration)	7.8
Cond (µS/cm)	2350		2350
Salinity (ppt)	1.2		1.2

Comments: Organisms on surface @ organisms on surface Mortality: Heartbeat checked under microscope yes
 Sample Description: slightly yellow, slightly turbid, no odour, no particulates covered w/ slight precipitate, slight precipitate on container bottom
 Batch#: 030317B 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9
 Reviewed by: [Signature] Date reviewed: March 31, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170229

Start Date/Time: March 22, 2017 @ 1510h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH_SCI_Q-02012017-N
Sample Date: March 21, 2017
Date Received: March 22, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 030317B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 6.7% mortality at 48h in the 100% (v/v) undiluted sample, tested at 10°C.

Reviewed by: 

Date reviewed: March 31, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-SCI-Q-02012017-N
 Work Order No.: 170229

Start Date/Time: March 22, 2017 @ 1510h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMC

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (μ b v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature ($^{\circ}$ C)			Dissolved oxygen (mg/L)			pH			Conductivity (μ S/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	11.5	11.0	11.0	10.4	10.6	7.5	7.7	7.6	354	353	
	B	10	10	0	11.5			9.6							
	C	10	10	0											
	D														
100 (10 $^{\circ}$ C)	A	100	100	4	11.5	11.0	11.0	10.1	10.6	10.4	7.7	8.1	8.2	2350	2330
	B	100	100	2											
	C	100	80	7											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	

	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Concentration		
Control (MHW)	100	72
Highest conc.	1240	208
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp ($^{\circ}$ C)	11.5		
DO (mg/L)	10.1		
pH	7.7		
Cond (μ S/cm)	2350		
Salinity (ppt)	1.2		

Comments: ¹ daphnids on surface ² daphnids on surface Mortality: Heartbeat checked under microscope yes
 Sample Description: slightly yellow, surface w/ slight precipitate, faint on container bottom
slightly turbid, no odour, no particulates | slight precipitates on container bottom
 Batch#: 030317B 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9
 Reviewed by: [Signature] Date reviewed: March 31, 2017

Client: Teck

W.O.#: 170229

Hardness and Alkalinity Datasheet

Sample ID	Alkalinity						Hardness			Technician
	Subsample Date	Date Measured	Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/L CaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	
GH-CL-Q 02012017-N @ 20°C	Mar. 22/17	Mar. 22/17	50	9.5 145	9.8 148	284	50	12.4	2480	YML
GH-CL-Q 02012017-N @ 10°C			50	16.3	16.6	320	50	13.8	2760	YML
GH-SCI-Q 02012017-N @ 20°C			50	10.4	10.6	204	100	12.2	1220	YML
GH-SCI-Q 02012017-N @ 10°C			50	10.6	10.8	208	100	12.4	1240	YML
MHW @ 20°C	Mar. 22/17	Mar. 22/17	50	3.8	3.9	74	50	5.0	100	YML
MHW @ 10°C	↓	↓	↓	3.7	3.8	72	↓	5.0	100	↓

Notes: ① Diluted to 100 mL w/ DI water.

Reviewed by: _____

Date Reviewed: _____

March 31, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected March 22, 2017

Final Report

April 5, 2017

Submitted to: **Teck Coal / Greenhills Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_MC1_WS_2017-03-22_N	22-Mar-17 at 1130h	24-Mar-17 at 1100h	24-Mar-17 at 1650h	24-Mar-17 at 1310h
GH_WADE_WS_2017-03-22_N	22-Mar-17 at 1005h	24-Mar-17 at 1100h	24-Mar-17 at 1700h	24-Mar-17 at 1310h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_MC1_WS_2017-03-22_N	7.0°C	336	304
GH_WADE_WS_2017-03-22_N	7.0°C	212	258

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_MC1_WS_2017-03-22_N	0	0
GH_WADE_WS_2017-03-22_N	0	0

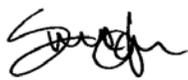
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_MC1_WS_2017-03-22_N	Rainbow trout	None	None
GH_MC1_WS_2017-03-22_N	<i>Daphnia magna</i>	None	None
GH_WADE_WS_2017-03-22_N	Rainbow trout	None	None
GH_WADE_WS_2017-03-22_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	96.2 (71.6 – 130.0) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	57.4 (22.5 – 146.7) µg/L Zn	4.2 (3.2 – 5.4) g/L NaCl
Reference toxicant CV	60%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: March 17, 2017; ² Test Date: March 15, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Mar 24 / 17 @ 1650h

Work Order No.: 170251

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-MCI-WS-2017-03-22-N
Sample Date: Mar 22 / 17
Date Received: Mar 24 / 17
Sample Volume: 2 X 10 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 030117
Source: Spring Valley
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.32
Mean Length ± SD (mm): 29 ± 2
Mean Weight ± SD (g): 0.32 ± 0.06

Range: 26 - 32
Range: 0.27 - 0.44

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn66
Stock Solution ID: 16Zn02
Date Initiated: Mar 17 / 17
96-h LC50 (95% CL): 96.2 (71.6-130.0) µg/L Zn

Reference Toxicant Mean and Historical Range: 57.4 (22.5-146.7) µg/L Zn
Reference Toxicant CV (%): 60.57%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 4, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Mar 24 / 17 @ 1700h

Work Order No.: 170251

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-WADE-WS-2017-03-22-N
Sample Date: Mar 24 2017
Date Received: Mar 24 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 030117
Source: Spring Valley
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.30
Mean Length ± SD (mm): 29 ± 2
Mean Weight ± SD (g): 0.30 ± 0.05

Range: 27 - 32
Range: 0.23 - 0.40

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn66
Stock Solution ID: 16Zn02
Date Initiated: Mar 17 / 17
96-h LC50 (95% CL): 96.2 (71.6-130.0) µg/L Zn

Reference Toxicant Mean and Historical Range: 57.4 (22.5-146.7) µg/L Zn
Reference Toxicant CV (%): 60.57%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 4, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170252

Start Date/Time: March 24, 2017 @ 1310h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH_MCI_WS_2017-03-22N
Sample Date: March 22, 2017
Date Received: March 24, 2017
Sample Volume: 2 x 10L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 0303/7A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 25
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: 

Date reviewed: April 4, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-MCI-w8 2017-03-22-2
 Work Order No.: 170252

Start Date/Time: March 24, 2017 @ 1310h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YMC

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48		0	24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	19.0	19.5	19.5	8.7	9.0	8.8	7.5	7.9	8.0	354	366	
	B	10	10	0												
	C	10	10	0												
	D															
100	A	10	10	0	19.0	19.5	19.5	9.1	9.0	8.9	7.9	8.2	8.1	694	708	
	B	10	10	0												
	C	10	10	0												
	D															
	A															
	B															
	C															
	D															
	A															
	B															
	C															
	D															
	A															
	B															
	C															
	D															
Technician Initials		Y	M	C	Y	M	C	Y	M	C	Y	M	C	Y	M	C

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	100	74
Highest conc.	336	304
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		19.0
DO (mg/L)	9.8	(3 min)	9.1
pH	7.9	(aeration)	7.9
Cond (µS/cm)	696		694
Salinity (ppt)	0.3		0.3

Comments: NO precipitation at 48h Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no colour, no odour, no particulates

Batch#: 030317A+B 7-d previous # young/brood: 25 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 4, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170252

Start Date/Time: March 24, 2017 @ 13:10h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GHLWADE_WS-2017-03-22-N
Sample Date: March 22, 2017
Date Received: March 24, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 030317A + B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 25
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: 

Date reviewed: April 4, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH WADE - WS 2017-03-22 N
 Work Order No.: 170252

Start Date/Time: March 24, 2017 @ 13:04
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.0	19.5	19.5	8.7	9.0	8.9	7.5	7.9	7.8	354	368
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	19.5	19.5	9.1	8.9	9.0	7.7	7.7	8.0	425	437
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		M	A	A	YML	A	A	YML	A	A	YML	A	A	YML	A

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	100	74
Highest conc.	212	258
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		19.5
DO (mg/L)	9.9	(4 min aeration)	9.1
pH	7.6		7.7
Cond (µS/cm)	425		425
Salinity (ppt)	0.2		0.2

Comments: no precipitation at 48h Mortality: Heartbeat checked under microscope no

Sample Description: slightly yellow ⁱⁿ clear, no odour, no particulates

Batch#: 030317A+B 7-d previous # young/brood: 25 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 4, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected March 27, 2017

Final Report

April 7, 2017

Submitted to: **Teck Coal / Greenhills Operation**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_WC1_WS_2017-03-27_N	27-Mar-17 at 1100h	29-Mar-17 at 1015h	30-Mar-17 at 1300h	29-Mar-17 at 1350h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_WC1_WS_2017-03-27_N	6.5°C	390	136

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_WC1_WS_2017-03-27_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_WC1_WS_2017-03-27_N	Rainbow trout	None	None
GH_WC1_WS_2017-03-27_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	66.2 (49.2 – 89.1) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	60.7 (24.2 – 152.0) µg/L Zn	4.2 (3.2 – 5.4) g/L NaCl
Reference toxicant CV	58%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: March 29, 2017; ² Test Date: March 15, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teek Coal

Start Date/Time: Mar 30 /17 @ 1300h

Work Order No.: 170258

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-WL1-WS-2017-03-27-N
Sample Date: Mar 27 /17
Date Received: Mar 27/17
Sample Volume: 2 x 10 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 031517
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.34
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.34 ± 0.08

Range: 28 - 32
Range: 0.19 - 0.44

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn67
Stock Solution ID: EL X617ZnO2
Date Initiated: Mar 29/17
96-h LC50 (95% CL): 66.2 (49.2 - 89.1) µg/L

Reference Toxicant Mean and Historical Range: 60.7 (24.2 - 152.0) µg/L
Reference Toxicant CV (%): 58

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 5, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: GH-WCI-WS-2017-03-27-N
 W.O. #: 170258
 RBT Batch #: 031517
 Date Collected/Time: Mar 27/17 @ 1100h
 Date Setup/Time: Mar 30/17 @ 1300h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0.07
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.1	/	10.1
pH	7.8	/	7.9
Cond. (µS/cm)	624	/	623
Salinity (ppt)	0.3	/	0.3

Concentration (% v/v)	# Survivors						Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)		
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
6.1				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.7	9.9	9.7	9.7	6.7	6.6	6.9	7.0	6.8	29	38
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.8	9.9	9.8	9.7	7.9	8.0	8.1	8.2	8.2	623	635
Initials				EC	AS	AS	EC	EC	EL	AS	AS	EL	EL	EL	AS	AS	EL	EL	EL	AS	AS	EL	EL	EL

Sample Description/Comments: yellow, slightly turbid, odourless, some particulates

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: No precipitation @ 96 hrs.

Reviewed by: [Signature] Date Reviewed: April 5, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170259

Start Date/Time: March 29, 2017 @ 1350h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH_WCI_WS_2017-03-27-01N
Sample Date: March 27, 2017
Date Received: March 29, 2017
Sample Volume: 2 x 10L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 18
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (ML) undiluted sample

Reviewed by: [Signature]

Date reviewed: April 5, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TPCK
 Sample ID: GH-WCI-WS-2017-02-07-01
 Work Order No.: 170259 -03-27-N

Start Date/Time: March 29, 2017 @ 1350h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMC

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.0	19.0	19.0	8.5	8.4	8.5	7.5	7.5	7.6	345	355
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	19.0	19.0	9.2	8.5	8.4	7.6	7.5	8.0	624	631
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCo3)	
Control (MHW)	100	76
Highest conc.	390	136
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		20.0
DO (mg/L)	10.1	(4 min aeration)	9.2
pH	7.6		7.6
Cond (µS/cm)	623		624
Salinity (ppt)	0.3		0.3

Comments: no precipitation at 48h Mortality: Heartbeat checked under microscope not required

Sample Description: slightly yellow, slightly turbid, no odour, some particulates

Batch#: 031517A 7-d previous # young/brood: 18 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 5, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected May 8, 2017

Final Report

May 24, 2017

Submitted to: **Teck Coal / Greenhills Operation**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_PC1_WS_2017-05-08_N	08-May-17 at 0943h	10-May-17 at 0945h	12-May-17 at 1400h	11-May-17 at 1415h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_PC1_WS_2017-05-08_N	9.0°C	570	218

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_PC1_WS_2017-05-08_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_PC1_WS_2017-05-08_N	Rainbow trout	None	None
GH_PC1_WS_2017-05-08_N	<i>Daphnia magna</i>	Precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	86.3 (64.8 – 115.3) µg/L Zn ¹	4.5 (3.8 – 5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	55.0 (26.1 – 115.9) µg/L Zn	4.1 (3.2 – 5.3) g/L NaCl
Reference toxicant CV	45%	13%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: May 12, 2017; ² Test Date: May 17, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Tede Coal

Start Date/Time: May 12 / 17 @ 1400h

Work Order No.: 170452

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-PC1-WS-2017-05-08-A
Sample Date: May 8 / 17
Date Received: May 10 / 17
Sample Volume: 10 x 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 042417
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.35
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.35 ± 0.06

Range: 27-32
Range: 0.28-0.47

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn71
Stock Solution ID: 17Zn02
Date Initiated: May 12/17
96-h LC50 (95% CL): 886.3 (64.8-115.3) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.0 (26.1-115.9) mg/L Zn
Reference Toxicant CV (%): 85.45

Test Results: 0% mortality at 96 hours in the undiluted 100% (w/v) sample.

Reviewed by: [Signature]

Date reviewed: May 22, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170453

Start Date/Time: May 11, 2017 @ 14:54
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: GH-PCI-W3-2017-05-08-N
Sample Date: MAY 8, 2017
Date Received: MAY 10, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 042617 041917A-13
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC50
Stock Solution ID: 17NaCl
Date Initiated: MAY 17, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.2 - 5.3) g/L NaCl
Reference Toxicant CV (%): 13

Test Results:

0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by:

[Signature]

Date reviewed:

May 22, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Coal
 Sample ID: GH-PC1-WS-2017-05-08-N
 Work Order No.: 170453

Start Date/Time: May 11/17 @ 1415h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: EC

Thermometer: Temp-5 DO meter: DO 2/3 pH meter: pH 1/3 Cond./Salinity: C-2/3

Concentration	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
<u>Control</u>	A	<u>10</u>	<u>10</u>	<u>0</u>	<u>19.0</u>	<u>19.0</u>	<u>22.0</u>	<u>8.9</u>	<u>8.6</u>	<u>8.5</u>	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>	<u>357</u>	<u>362</u>
	B	<u>10</u>	<u>10</u>	<u>0</u>											
	C	<u>10</u>	<u>10</u>	<u>0</u>											
	D														
<u>100</u>	A	<u>10</u>	<u>10</u>	<u>0</u>	<u>19.0</u>	<u>19.0</u>	<u>22.0</u>	<u>9.1</u>	<u>8.6</u>	<u>8.6</u>	<u>8.1</u>	<u>8.0</u>	<u>8.1</u>	<u>839</u>	<u>872</u>
	B	<u>10</u>	<u>10</u>	<u>0</u>											
	C	<u>10</u>	<u>10</u>	<u>0</u>											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		<u>EL</u>	<u>AW</u>	<u>AW</u>	<u>EL</u>	<u>EL</u>	<u>AW</u>	<u>EL</u>	<u>EL</u>	<u>AW</u>	<u>EL</u>	<u>EL</u>	<u>AW</u>	<u>EL</u>	<u>AW</u>

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	<u>100</u>	<u>76</u>
Highest conc.	<u>570</u>	<u>218</u>
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	<u>19.0</u>		
DO (mg/L)	<u>9.1</u>		
pH	<u>8.1</u>		
Cond (µS/cm)	<u>839</u>		
Salinity (ppt)	<u>0.4</u>		

Comments: avg. hle @ 48-h on beaker bottom Mortality: Heartbeat checked under microscope NO

Sample Description: dark yellow, turbid, no odour, no particulates

Batch#: 041917 413 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 22, 2017

Version 1.8; Issued February 29, 2016

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected May 8, 2017

Final Report

May 29, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_CC1_Q_03042017_N	08-May-17 at 1011h	10-May-17 at 0945h	12-May-17 at 1400h	11-May-17 at 1400h
GH_SC1_Q_03042017_N	08-May-17 at 1040h	10-May-17 at 0945h	12-May-17 at 1400h	11-May-17 at 1405h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_CC1_Q_03042017_N	9.0°C	1790	368
GH_SC1_Q_03042017_N	9.0°C	1210	256

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_CC1_Q_03042017_N	0	100
GH_SC1_Q_03042017_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_CC1_Q_03042017_N	Rainbow trout	Precipitate observed on the bottom of test vessel	None
GH_CC1_Q_03042017_N	<i>Daphnia magna</i>	Precipitate observed on the bottom of test vessel	Precipitate observed on carapace
GH_SC1_Q_03042017_N	Rainbow trout	None	None
GH_SC1_Q_03042017_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	86.3 (64.8 – 115.3) µg/L Zn ¹	4.5 (3.8 – 5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	55.0 (26.1 – 115.9) µg/L Zn	4.1 (3.2 – 5.3) g/L NaCl
Reference toxicant CV	45%	13%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: May 12, 2017; ² Test Date: May 17, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Tech Coal

Start Date/Time: May 12 / 17 @ 1400h

Work Order No.: 1704567

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-CC1-2-03042017-N
Sample Date: May 8 / 17
Date Received: May 10 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 042417
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.34
Mean Length ± SD (mm): 28 ± 3
Mean Weight ± SD (g): 0.324 ± 0.09

Range: 24 - 32
Range: 0.26 - 0.57

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn71
Stock Solution ID: 17Zn02
Date Initiated: May 12/17
96-h LC50 (95% CL): 886.3 (64.8 - 115.3) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.0 (26.1 - 115.9) mg/L Zn
Reference Toxicant CV (%): 85.45

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample

Reviewed by: [Signature] Date reviewed: May 24, 2017

Rainbow Trout Summary Sheet

Client: Tede Coal

Start Date/Time: May 12 / 17 @ 1400h

Work Order No.: 1704587
w

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-SCL-R-0304 2017-N
Sample Date: May 8 / 17
Date Received: May 10 / 17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 042417
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.30
Mean Length ± SD (mm): 29 ± 2
Mean Weight ± SD (g): 0.30 ± 0.03

Range: 26-31
Range: 0.26-0.36

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 71
Stock Solution ID: 17Zn02
Date Initiated: May 12/17
96-h LC50 (95% CL): 886.3 (64.8-115.3) mg/L Zn
Ev

Reference Toxicant Mean and Historical Range: 55.0 (26.1-115.9) mg/L Zn
Reference Toxicant CV (%): 85.45
Ev

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: May 24, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: GH-SCL-Q-03042017-N
 W.O. #: 1704567
 RBT Batch #: 04247
 Date Collected/Time: May 8 / 17 @ 1040 h
 Date Setup/Time: May 12 / 17 @ 1400 h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER #2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.2	/	10.3
pH	7.7	/	7.7
Cond. (µS/cm)	1900	/	1900
Salinity (ppt)	1.0	/	1.0

Concentration (% v/v)	# Survivors						Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)		
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
CT1				10	10	10	10	14.0	15.0	14.6	14.5	14.5	10.1	9.7	9.8	9.8	9.8	7.7	7.0	7.1	7.1	7.0	1900	38
100				10	10	10	10	14.0	15.0	14.6	14.5	14.5	10.3	9.6	9.7	9.8	9.9	7.7	8.0	8.1	8.1	8.2	1900	1924
Initials				EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC

Sample Description/Comments: light brown, clear, odourless, no particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: No precipitation @ 96 hours.

Reviewed by: [Signature]

Date Reviewed: May 24, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170456

Start Date/Time: May 11, 2017 @ 1400h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: GH-CC1-Q-03042017A
Sample Date: MAY 8, 2017
Date Received: MAY 10, 2017
Sample Volume: 1x20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 042617 B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 18
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC50
Stock Solution ID: 17NaCl
Date Initiated: May 17, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.2 - 5.3) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 100% mortality at 48h TA the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: May 24, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Tech Coal
 Sample ID: GH-CC-0.03042017-N
 Work Order No.: 170456

Start Date/Time: May 11/17 @ 1400h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: EL

Thermometer: Temp-5 DO meter: DO 2/3 pH meter: pH 1/3 Cond./Salinity: C-2/3

Concentration <i>(%v/v)</i>	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
<u>Control</u>	A	10	10	0	19.0	19.0	10.0	8.9	2.7	2.6	7.7	7.7	7.7	357	362
	B	10	10	0											
	C	10	10	0											
	D														
<u>100</u>	A	10 ^D	0 ^D	0	19.0	19.0	10.0	9.1	2.7	2.5	7.8	7.8	7.8	2460	2400
	B	10 ^D	0 ^D	0											
	C	10 ^D	0 ^D	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		<u>EL</u>	<u>AW</u>	<u>AW</u>	<u>EL</u>	<u>EL</u>	<u>AW</u>	<u>EL</u>	<u>EL</u>	<u>AW</u>	<u>EL</u>	<u>EL</u>	<u>AW</u>	<u>EL</u>	<u>AW</u>

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	<u>100</u>	<u>76</u>
Highest conc.	<u>1790</u>	<u>368</u>
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	<u>19.0</u>		
DO (mg/L)	<u>9.1</u>		
pH	<u>7.8</u>		
Cond (µS/cm)	<u>2460</u>		
Salinity (ppt)	<u>1.3</u>		

Comments: 0 organisms on surface ^{precipitation} locked in debris ^{@ 48h on bottom & surface} Mortality: Heartbeat checked under microscope 0/48

Sample Description: clear, no colour, no odour, no particulates

Batch#: 042617B 7-d previous # young/brood: 189 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 24, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170456

Start Date/Time: May 11, 2017 @ 1405h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: GH-SCI-Q-03042017-2
Sample Date: MAY 8, 2017
Date Received: MAY 10, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 042617B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 13
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC50
Stock Solution ID: 17NaCl
Date Initiated: May 17, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.2 - 5.3) g/L NaCl
Reference Toxicant CV (%): 13

Test Results:

0 % mortality at 48h TA the 100% (v/v) undiluted sample.

Reviewed by:

EW

Date reviewed:

May 24, 2017

**Freshwater Acute
48 Hour Toxicity Test Data Sheet**

Client: Tecol Coal
 Sample ID: GH-SC1-R-03042017-N
 Work Order No.: 170456

Start Date/Time: May 11/17 @ 1405h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: ec

Thermometer: Temp-5 DO meter: DO 2/3 pH meter: pH 1/3 Cond./Salinity: C-2/3

Concentration (X, V/V)	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	19.0	19.0	20.0	8.9	8.6	8.5	7.7	7.7	7.7	357	361
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	20.0	9.1	8.7	8.4	7.6	7.8	6.0	1918	1901
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	EL	AW	AW	EC	EL	AW	EL	EL	AW	EL	EL	AW	EL	AW	

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity*
Control (MHW)	100	76
Highest conc.	1210	256
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	9.1		
pH	7.6		
Cond (µS/cm)	1918		
Salinity (ppt)	1.0		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope no
 Sample Description: clear, light brown, no odour, no particulates
 Batch#: 042617B 7-d previous # young/brood: 107 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9
 Reviewed by: [Signature] Date reviewed: May 24, 2017

APPENDIX C – Chain-of-custody form

COC ID:	20170508-1409			TURNAROUND TIME:		RUSH:	
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO	
Facility Name / Job#	Fording River Operation			Lab Name	Nautilus Environmental		Report Format / Distribution
Project Manager	Neil MacDonald			Lab Contact		Email 1:	Lee.Wilm@teck.com
Email	Neil.MacDonald@teck.com			Email		Email 2:	Neil.Macdonald@teck.com
Address	PO Box 100			Address	8664 Commerce Court		Email 3:
						teckcoal@equisonline.com	
City	Elkford	Province	BC	City	Burnaby	Province	BC
Postal Code	V0B 1H0	Country	Canada	Postal Code	V5A 4N7	Country	Canada
Phone Number	1-250-865-5204			Phone Number	604-420-8773		PO number

SAMPLE DETAILS								ANALYSIS REQUESTED												
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr Daphnia Single Conc. Pass/Fail	96 Hr Rainbow Trout Single Conc. Pass/Fail											
GH_CCI_Q_03042017_N	GH_CCI	WS		2017/05/08	10:11	G	1	1	2											9.0
GH_SCI_Q_03042017_N	GH_SCI	WS		2017/05/08	10:40	G	1	1	2											9.0

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
	Jessam Granelle	05/08/17	Nautilus-Burnaby	May 10/17 @ 09:45
			NT - Wain Yamamoto	

NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #
Regular (default) X	Jessam Granelle	(250) 865-5991
Priority (2-3 business days) - 50% surcharge	Sampler's Signature	Date/Time
Emergency (1 Business Day) - 100% surcharge	Jessam Granelle	May 08, 2017
For Emergency <1 Day, ASAP or Weekend - Contact ALS		

- ① Clear, colorless, odourless, No particulates.
- ② Light brown, clear, odourless, no particulates.

END OF REPORT



Acute Toxicity Test Results

Sample collected May 8, 2017

Final Report

May 29, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates		<i>Daphnia magna</i> test initiation
	Collected	Received	
GH_CC1_Q_03042017_N	08-May-17 at 1011h	10-May-17 at 0945h	15-May-17 at 1100h/1115h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_CC1_Q_03042017_N	9.0°C	1720 (20°C) / 1850 (10°C)	364 (20°C) / 376 (10°C)

TESTS

- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h LC50 test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	10°C	
GH_CC1_Q_03042017_N	6.7	

Sample ID	LC50 (%v/v) [95% CL]
GH_CC1_Q_03042017_N	77.1 [67.2 – 88.4]

CL = Confidence limits

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_CC1_Q_03042017_N [20°C]	<i>Daphnia magna</i>	Precipitate observed on the bottom of test vessel	Precipitate observed on carapace
GH_CC1_Q_03042017_N [10°C]	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	Slight precipitate observed on carapace

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	4.5 (3.8 – 5.4) g/L NaCl ¹
Reference toxicant historical mean (2 SD range)	4.1 (3.2 – 5.3) g/L NaCl
Reference toxicant CV	13%
Organism health history	Acceptable
Protocol deviations	Yes (see below) ³
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date: May 17, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

³ Additional LC50 and screening tests were conducted at 20±2°C and 10±2°C, respectively, as part of the project study to compare survival data from two exposure temperatures. Initial test was conducted previously on the same sample. As a follow-up, the client requested testing to proceed despite 5-day sample hold-time expiry.



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* LC50 test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	Five concentrations, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Statistical software	CETIS Version 1.8.7
Test endpoints	Survival (48-hour LC50)
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 1704569

Start Date/Time: May 15, 2017 @ 11:00¹⁵h
Test Species: Daphnia magna
Set up by: Yuc

Sample Information:

Sample ID: GH-CC1-Q-03042017-N
Sample Date: May 8, 2017
Date Received: May 10, 2017
Sample Volume: 1 x 20 L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 042617A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 26
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC50
Stock Solution ID: 17N901
Date Initiated: May 17, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.2 - 5.3) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 6.7% mortality at 48h in the 100% (v/v) undiluted sample, tested at 10°C.

Reviewed by: [Signature]

Date reviewed: May 26, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-CCLO-0304 2017-N
 Work Order No.: 1704569

Start Date/Time: May 15, 2017 011154
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YW

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
<u>Control</u>	A	10	10	0	11.5	11.0	11.0	9.7	10.4	10.1	7.6	7.6	7.6	350	367
	B	10	10	0											
	C	10	10	0											
	D														
<u>100 (10°C)</u>	A	10	90	2	11.5	11.0	11.0	10.1	10.5	10.2	7.8	7.9	8.1	2550	2516
	B	10	10 ⁰	0											
	C	10	9 ⁰	1											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	100	68
Highest conc.	1850	376
Hardness adjusted	—	—

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	11.0		
DO (mg/L)	10.1		
pH	7.8		
Cond (µS/cm)	2550		
Salinity (ppt)	1.3		

Comments: slight precipitate on surface of bottom at first weeks
and organic organisms on surface Mortality: Heartbeat checked under microscope yes

Sample Description: clear, no colour, no odour, no particulates

Batch#: 042617A 7-d previous # young/brood: 26 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 26, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 1704569

Start Date/Time: May 15, 2017 @ 11:00h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH-CC1-Q-03042017-n
Sample Date: May 8, 2017
Date Received: May 10, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 042617A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 26
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC50
Stock Solution ID: MNA01
Date Initiated: May 17, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.2 - 5.3) g/L NaCl
Reference Toxicant CV (%): 13

Test Results:

The 48h LC50 is estimated to be 77.1% (v/v) with 95% confidence limits between 67.2 and 88.4% (v/v).

Reviewed by:

[Signature]

Date reviewed:

May 26, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Trek
 Sample ID: GHCCLO-03042017A
 Work Order No.: 1709569

Start Date/Time: May 15, 2017 @ 11:00h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMC

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.0	19.0	19.0	8.6	8.2	8.2	7.6	7.6	7.6	356	367
	B														
	C														
	D														
6.25	A	10	10	0	19.0	19.0	19.0	8.5	8.2	8.3	7.7	7.7	7.7	532	543
	B														
	C														
	D														
12.5	A	10	10	0	19.0	19.0	19.0	8.5	8.2	8.4	7.8	7.8	7.8	715	724
	B														
	C														
	D														
25	A	10	10	0	19.0	19.0	19.0	8.5	8.2	8.3	7.8	7.8	8.0	1051	1061
	B														
	C														
	D														
50	A	10	10	0	19.0	19.0	19.0	8.5	8.4	8.2	7.8	7.9	8.1	1580	1588
	B														
	C														
	D														
100	A	10 ⁰	2 ⁰	2	19.0	19.0	19.0	8.4	8.3	8.2	7.8	8.0	8.0	2530	2430
	B														
	C														
	D														
Technician Initials		YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	66
Highest conc.	1720	364
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	8.4		
pH	7.8		
Cond (µS/cm)	2530		
Salinity (ppt)	1.3		

Comments: ¹slight precipitate on surface ²precipitate on organisms bodies & beaker bottom Mortality: Heartbeat checked under microscope Yes

Sample Description: clear, no colour, no odour, no particulates

Batch#: 042617A 7-d previous # young/brood: 26 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: YMC Date reviewed: May 26, 2017

CETIS Analytical Report

Report Date: 23 May-17 13:03 (p 1 of 2)
 Test Code: 170456a | 17-5954-6767

Daphnia magna 48-h Acute Survival Test

Nautilus Environmental

Analysis ID: 02-7597-2080	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.8.7
Analyzed: 23 May-17 13:03	Analysis: Trimmed Spearman-Kärber	Official Results: Yes
Batch ID: 13-6232-2164	Test Type: Survival (48h)	Analyst: Yvonne Lam
Start Date: 15 May-17 11:00	Protocol: EC/EPS 1/RM/14	Diluent: Mod-Hard Synthetic Water
Ending Date: 17 May-17 11:00	Species: Daphnia magna	Brine:
Duration: 48h	Source: In-House Culture	Age:
Sample ID: 19-6429-4693	Code: 7514C225	Client: Teck Coal
Sample Date: 08 May-17 10:11	Material: Water Sample	Project:
Receive Date: 10 May-17 09:45	Source: Teck Coal (TECK COAL)	
Sample Age: 7d 1h (9 °C)	Station: GH_CC1_Q_03042017_N	

Trimmed Spearman-Kärber Estimates

Threshold Option	Threshold	Trim	Mu	Sigma	EC50	95% LCL	95% UCL
Control Threshold	0	20.00%	1.887	0.02975	77.11	67.24	88.43

48h Survival Rate Summary

C-%	Control Type	Count	Calculated Variate(A/B)								
			Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Negative Control	1	1	1	1	0	0	0.0%	0.0%	10	10
6.25		1	1	1	1	0	0	0.0%	0.0%	10	10
12.5		1	1	1	1	0	0	0.0%	0.0%	10	10
25		1	1	1	1	0	0	0.0%	0.0%	10	10
50		1	1	1	1	0	0	0.0%	0.0%	10	10
100		1	0.2	0.2	0.2	0	0	0.0%	80.0%	2	10

48h Survival Rate Detail

C-%	Control Type	Rep 1
0	Negative Control	1
6.25		1
12.5		1
25		1
50		1
100		0.2

48h Survival Rate Binomials

C-%	Control Type	Rep 1
0	Negative Control	10/10
6.25		10/10
12.5		10/10
25		10/10
50		10/10
100		2/10

EW
 May 26/18

CETIS Analytical Report

Report Date: 23 May-17 13:03 (p 2 of 2)
Test Code: 170456a | 17-5954-6767

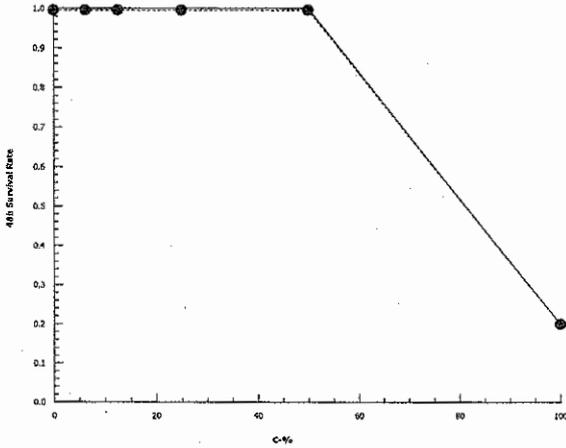
Daphnia magna 48-h Acute Survival Test

Nautilus Environmental

Analysis ID: 02-7597-2080 Endpoint: 48h Survival Rate
Analyzed: 23 May-17 13:03 Analysis: Trimmed Spearman-Kärber

CETIS Version: CETISv1.8.7
Official Results: Yes

Graphics



EW
May 26/17

APPENDIX C – Chain-of-custody form

COC ID: 20170508-1409		TURNAROUND TIME:				RUSH:								
PROJECT/CLIENT INFO					LABORATORY				OTHER INFO					
Facility Name / Job# Fording River Operation		Lab Name Nautilus Environmental		Report Format / Distribution			Excel	PDF	EDD					
Project Manager Neil MacDonald		Lab Contact		Email 1: Lee.Wilm@teck.com			x	x	x					
Email Neil.MacDonald@teck.com		Email		Email 2: Neil.Macdonald@teck.com			x	x	x					
Address PO Box 100		Address 8664 Commerce Court		Email 3: teckcoal@equisonline.com					x					
City Elkford		Province BC	City Burnaby		Province BC	PO number								
Postal Code V0B 1H0		Country Canada	Postal Code V5A 4N7		Country Canada									
Phone Number 1-250-865-5204		Phone Number 604-420-8773												
SAMPLE DETAILS					ANALYSIS REQUESTED				Fill out: E, P, D, L, Lab, FT, Field & Lab, P, No					
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr Daphnia Sinlge Conc. Pass/Fail	96 Hr Rainbow Trout Single Conc. Pass/Fail					
GH_CCI_Q_03042017_N	GH_CCI	WS		2017/05/08	10:11	G	1	1	2					9.0
GH_SCI_Q_03042017_N	GH_SCI	WS		2017/05/08	10:40	G	1	1	2					9.0
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS					RELINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME			
					Jason Gravelle		05/08/17		Nautilus-Burnaby NY - Nari Yamamoto		May 10/17 @ 09:45			
NB: # BOTTLES RETURNED/DESCRIPTION					Sampler's Name		Sampler's Signature		Mobile #		Date/Time			
Regular (default) X					Jason Gravelle		[Signature]		(250) 865-5971		May 08, 2017			
Priority (2-3 business days) - 50% surcharge														
Emergency (1 Business Day) - 100% surcharge														
For Emergency <1 Day, ASAP or Weekend - Contact ALS														

170456
 170457
 woc # 170456 -
 client requested GH-CCI sample to test
 additional LC50 + 10°C pH
 testing on D. magna

- ① Clear, colorless, odourless, No particulates.
- ② light brown, clear, odourless, no particulates.

END OF REPORT



Acute Toxicity Test Results

Sample collected May 8, 2017

Final Report

May 29, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates		<i>Daphnia magna</i> test initiation
	Collected	Received	
GH_SC1_Q_03042017_N	08-May-17 at 1040h	10-May-17 at 0945h	16-May-17 at 1000h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_SC1_Q_03042017_N	9.0°C	1290 (20°C) / 1240 (10°C)	252 (20°C) / 260 (10°C)

TESTS

- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	10°C	20°C
GH_SC1_Q_03042017_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_SC1_Q_03042017_N [10°C]	<i>Daphnia magna</i>	None	None
GH_SC1_Q_03042017_N [20°C]	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	4.5 (3.8 – 5.4) g/L NaCl ¹
Reference toxicant historical mean (2 SD range)	4.1 (3.2 – 5.3) g/L NaCl
Reference toxicant CV	13%
Organism health history	Acceptable
Protocol deviations	Yes (see below) ³
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date: May 17, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

³ Additional screening test was conducted 10±2°C as part of the project study to compare survival data from two exposure temperatures. Client requested testing to proceed despite 5-day sample hold-time expiry.



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170456 b

Start Date/Time: May 16, 2017 @ 1000h
Test Species: Daphnia magna
Set up by: EE YML

Sample Information:

Sample ID: Gff_Sel_a_03042017-N
Sample Date: MAY 8, 2017
Date Received: MAY 10, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 042617A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 26
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC50
Stock Solution ID: 17Na01
Date Initiated: MAY 17, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.2 - 5.3) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0 % mortality at 48h in the 100% (v/v) undiluted sample, tested at 20°C

Reviewed by: [Signature]

Date reviewed: MAY 25, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: 6H-SC1-0-03042017-N
 Work Order No.: 1704565

Start Date/Time: May 16, 2017 @ 1000h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YV

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.0	19.5	19.0	8.6	8.4	8.5	7.6	7.8	7.8	360	365
	B	10	10	0											
	C	10	10	0											
	D														
100 (20°C)	A	10	10	0	19.0	19.5	19.0	8.3	8.3	8.4	7.9	7.9	8.1	1921	1931
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	668
Highest conc.	1290	252
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	8.3		
pH	7.9		
Cond (µS/cm)	1921		
Salinity (ppt)	1.0		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not noted

Sample Description: clear, light brown, no odour, no particulates.

Batch#: 042617A 7-d previous # young/brood: 26 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 25, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 1704566

Start Date/Time: May 16, 2017 @ 1000h
Test Species: Daphnia magna
Set up by: EE YML

Sample Information:

Sample ID: GH_SCI_0-03042017-N
Sample Date: MAY 8, 2017
Date Received: MAY 10, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 042617A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 26
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC50
Stock Solution ID: 17Na01
Date Initiated: May 17, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.2 - 5.3) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample, tested at 10°C

Reviewed by: [Signature]

Date reviewed: May 25, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-SCI-Q-03042017LN
 Work Order No.: 1704566

Start Date/Time: May 16, 2017 @ 1000h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: MM

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	11.0	11.0	11.0	10.2	10.1	10.3	7.5	7.6	7.8	357	349
	B	10	10	0											
	C	10	10	0											
	D														
100 (200) (10°C)	A	10	10	0	11.0	11.0	11.0	10.0	10.2	10.4	7.8	7.9	8.1	1912	1921
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		MM	MM	MM	MM	MM	MM	MM	MM	MM	MM	MM	MM	MM	MM

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCo3)	
Control (MHW)	100	68
Highest conc.	1240	260
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	11.0		
DO (mg/L)	10.0		
pH	7.8		
Cond (µS/cm)	1912		
Salinity (ppt)	1.0		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not needed

Sample Description: clear, light brown, no odour, no particulates

Batch#: 042617A 7-d previous # young/brood: 26 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: MM Date reviewed: May 25, 2017

APPENDIX C – Chain-of-custody form

COC ID:	20170508-1409	TURNAROUND TIME:		RUSH:	
PROJECT/CLIENT INFO		LABORATORY		OTHER INFO	
Facility Name / Job#	Fording River Operation	Lab Name	Nautilus Environmental	Report Format / Distribution	Excel PDF EDD
Project Manager	Neil MacDonald	Lab Contact		Email 1:	Lee.Wilm@teck.com
Email	Neil.MacDonald@teck.com	Email		Email 2:	Neil.Macdonald@teck.com
Address	PO Box 100	Address	8664 Commerce Court	Email 3:	teckcoal@egulsonline.com
City	Elkford	Province	BC	City	Burnaby
Postal Code	V0B 1H0	Country	Canada	Province	BC
Phone Number	1-250-865-5204	Postal Code	V5A 4N7	Country	Canada
		Phone Number	604-420-8773	PO number	

SAMPLE DETAILS								ANALYSIS RESULTS													
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr Daphnia Single Conc. Pass/Fail	96 Hr Rainbow Trout Single Conc. Pass/Fail												
GH_CCI_Q_03042017_N	GH_CCI	WS		2017/05/08	10:11	G	1	1	2											9.0	1x2
GH_SC1_Q_03042017_N	GH_SC1	WS		2017/05/08	10:40	G	1	1	2											9.0	1x2

170456
 170457
 → with 170456 b
 client requested GH-SC1 sample to test additional 10°C + 20°C pH testing on D. magna

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
	Jasom Gravelle	05/08/17	Nautilus-Burnaby	May 10/17 @ 09:45
			NY - Wain Yamamoto	

NO. OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #
Regular (default) X	Jasom Gravelle	(250) 865-5991
Priority (2-3 business days) - 50% surcharge	Sampler's Signature	Date/Time
Emergency (1 Business Day) - 100% surcharge	Jasom Gravelle	May 08, 2017
For Emergency <1 Day, ASAP or Weekend - Contact ALS		

- ① Clear, colorless, odourless, No particulates.
- ② light brown, clear, odourless, no particulates.

END OF REPORT



Acute Toxicity Test Results

Samples collected June 5, 2017

Final Report

June 21, 2017

Submitted to: **Teck Coal / Greenhills Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_WADE_WS_2017-06-05_N	05-Jun-17 at 1113h	07-Jun-17 at 1010h	08-Jun-17 at 0930h	07-Jun-17 at 1510h
GH_LC1_WS_2017-06-05_N	05-Jun-17 at 1422h	07-Jun-17 at 1010h	08-Jun-17 at 0930h	07-Jun-17 at 1510h
GH_WC1_WS_2017-06-05_N	05-Jun-17 at 1540h	07-Jun-17 at 1010h	08-Jun-17 at 0930h	07-Jun-17 at 1510h
GH_WILLOW_SP1_WS_2017-06-05_N	05-Jun-17 at 0945h	07-Jun-17 at 1010h	08-Jun-17 at 0930h	07-Jun-17 at 1510h
GH_MC1_WS_2017-06-05_N	05-Jun-17 at 1247h	07-Jun-17 at 1010h	08-Jun-17 at 0930h	07-Jun-17 at 1510h
GH_COUGAR_WS_2017-06-05_N	05-Jun-17 at 1150h	07-Jun-17 at 1010h	08-Jun-17 at 0930h	07-Jun-17 at 1510h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_WADE_WS_2017-06-05_N	15.5°C	222	248
GH_LC1_WS_2017-06-05_N	15.5°C	1290	254
GH_WC1_WS_2017-06-05_N	15.5°C	930	240
GH_WILLOW_SP1_WS_2017-06-05_N	15.5°C	206	194
GH_MC1_WS_2017-06-05_N	15.5°C	268	232
GH_COUGAR_WS_2017-06-05_N	15.5°C	214	216

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_WADE_WS_2017-06-05_N	0	0
GH_LC1_WS_2017-06-05_N	0	0
GH_WC1_WS_2017-06-05_N	10	0
GH_WILLOW_SP1_WS_2017-06-05_N	0	0
GH_MC1_WS_2017-06-05_N	0	0
GH_COUGAR_WS_2017-06-05_N	0	0

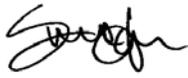
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_WADE_WS_2017-06-05_N	Rainbow trout	None	None
GH_WADE_WS_2017-06-05_N	<i>Daphnia magna</i>	None	None
GH_LC1_WS_2017-06-05_N	Rainbow trout	Some precipitate observed on the bottom of test vessel	None
GH_LC1_WS_2017-06-05_N	<i>Daphnia magna</i>	None	None
GH_WC1_WS_2017-06-05_N	Rainbow trout	None	None
GH_WC1_WS_2017-06-05_N	<i>Daphnia magna</i>	None	None
GH_WILLOW_SP1_WS_2017-06-05_N	Rainbow trout	None	None
GH_WILLOW_SP1_WS_2017-06-05_N	<i>Daphnia magna</i>	None	None
GH_MC1_WS_2017-06-05_N	Rainbow trout	None	None
GH_MC1_WS_2017-06-05_N	<i>Daphnia magna</i>	None	None
GH_COUGAR_WS_2017-06-05_N	Rainbow trout	None	None
GH_COUGAR_WS_2017-06-05_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	70.7 (52.0 – 96.3) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	57.0 (26.4 – 123.1) µg/L Zn	4.1 (3.3 – 5.0) g/L NaCl
Reference toxicant CV	47%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: June 8, 2017; ² Test date: June 7, 2017; LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Jun 8 / 17 @ 0930h

Work Order No.: 170557

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-WADE-WS-2017-06-05-N
Sample Date: June 5 / 17
Date Received: June 7 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: 052517
Source: Aqua Farms
No. Fish/Volume (L): 10/100
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 31 ± 1
Mean Weight ± SD (g): 0.33 ± 0.24

Range: 28 - 33
Range: 0.27 - 0.39

Zinc Reference Toxicant Results:

Reference Toxicant ID: RT2473
Stock Solution ID: 17Zn02
Date Initiated: June 8 / 17
96-h LC50 (95% CL): 70.7 (52.0 - 96.3) µg/L Zn

Reference Toxicant Mean and Historical Range: 57.0 (26.4 - 123.1) µg/L Zn
Reference Toxicant CV (%): 87.47

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: June 20, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: GH-WADE-WS-2017-06-05-N
 W.O. #: 170557
 RBT Batch #: 052517
 Date Collected/Time: June 5/17 @ 1113h
 Date Setup/Time: June 8/17 @ 0930h
 Sample Setup By: EC

Number Fish/Volume: 10/12 L
 7-d % Mortality: 0
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.5	/	14.5
D.O. (mg/L)	9.5	/	9.7
pH	8.2	/	8.2
Cond. (µS/cm)	472	/	473
Salinity (ppt)	0.2	/	0.2

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)		
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
11				10	10	10	10	14.5	14.5	14.5	14.5	14.5	10.0	9.9	9.8	9.8	9.8	6.9	6.9	6.9	6.8	6.8	36	40	
100				10	10	10	10	14.5	14.5	14.5	14.5	14.5	7.7	7.9	7.9	7.8	7.7	8.2	8.1	8.2	8.1	8.1	473	485	
Initials				EL	AS	AS	EL	EL	EL	AS	AS	EL	EL	EL	EL	AS	AS	EL	EL	EL	AS	AS	EL	EL	EL

Sample Description/Comments: Slightly yellow, clear, odorless; some particulates

Fish Description at 96 h: All ^{EL} fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: precipitates
no particulates at 96h

Reviewed by: [Signature] Date Reviewed: June 20, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Jun 8 / 17 @ 0930h

Work Order No.: 170557

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-LCI-WS-2017-06-08-N
Sample Date: Jun 5 / 17
Date Received: June 7 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: 052517
Source: Aqua Farms
No. Fish/Volume (L): 10/12L
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 30 ± 1
Mean Weight ± SD (g): 0.32 ± 0.02

Range: 28 - 38
Range: 0.28 - 0.36

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn73
Stock Solution ID: 17Zn02
Date Initiated: June 8/17
96-h LC50 (95% CL): 70.7 (52.0-96.3) µg/L Zn

Reference Toxicant Mean and Historical Range: 57.0 (26.4-123.1) µg/L Zn
Reference Toxicant CV (%): 68.747

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: June 20, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D. GH-LCI-WS-2017-06-05-N
 W.O. # 170557
 RBT Batch #: 052517
 Date Collected/Time: Jun 5/17 @ 1422h
 Date Setup/Time: Jun 8/17 @ 0930h
 Sample Setup By: EC

Number Fish/Volume: 10/12 L
 7-d % Mortality: 0
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.5	/	14.5
D.O. (mg/L)	9.7	/	9.8
pH	7.9	/	7.9
Cond. (µS/cm)	1938	/	1938
Salinity (ppt)	1.0	/	1.0

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
41				10	10	10	10	14.5	14.5	14.5	14.5	14.5	10.0	9.9	9.8	9.8	9.6	6.9	6.9	6.9	6.8	6.8	36	40
100				10	10	10	10	14.5	14.5	14.5	14.5	14.5	9.8	9.8	9.8	9.7	9.9	7.9	7.9	7.9	8.1	8.1	1938	1885
Initials				EL	AS	AS	EW	EC	EL	AS	AS	EL	EL	EL	AS	AS	EL	EL	EL	AS	AS	EL	EL	EL

Sample Description/Comments: Clear, Colorless, Odourless, No particulates

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: Some precipitates on the tanks @ 96 hrs

Reviewed by: [Signature] Date Reviewed: June 20, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Jun 8 / 17 @ 0930h

Work Order No.: 170557

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-WC1-WS-2017-06-05-N
Sample Date: June 5 / 17
Date Received: June 7 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: 052517
Source: Aqua Farms
No. Fish/Volume (L): 10/12L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.31 ± 0.03

Range: 27 - 32
Range: 0.27 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ₂73
Stock Solution ID: 17Zn02
Date Initiated: June 8/17
96-h LC50 (95% CL): 70.7 (52.0-96.3) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.0 (26.4-123.1) mg/L Zn
Reference Toxicant CV (%): 68.747

Test Results: 10% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: June 20, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Jun 6 / 17 @ 0930h

Work Order No.: 170557

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GHL Willow SPI WS 2017-06-05-N
Sample Date: June 5 / 17
Date Received: June 7 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: 052517
Source: Aqua farms
No. Fish/Volume (L): 10/12
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 30 ± 1
Mean Weight ± SD (g): 0.31 ± 0.03

Range: 28 - 32
Range: 0.25 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RT2,73
Stock Solution ID: 17Zn02
Date Initiated: June 8 / 17
96-h LC50 (95% CL): 70.7 (52.0 - 96.3) µg/L Zn

Reference Toxicant Mean and Historical Range: 57.0 (26.4 - 123.1) µg/L Zn
Reference Toxicant CV (%): 68747

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: June 20, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: GH-Willow-SPI-WS-2017-06-05-N
 W.O. #: 170557
 RBT Batch #: 052517
 Date Collected/Time: Jun 5/17 @ 0945h
 Date Setup/Time: Jun 8/17 @ 0930h
 Sample Setup By: EC

Number Fish/Volume: 10/12 L
 7-d % Mortality: 0.1
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.5	/	14.5
D.O. (mg/L)	7.8	/	7.9
pH	8.1	/	8.1
Cond. (µS/cm)	390	/	390
Salinity (ppt)	0.2	/	0.2

Concentration (% v/v)	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
GH				10	10	10	10	14.5	14.5	14.5	14.5	14.5	10.0	10.0	7.8	9.8	7.7	6.9	6.9	6.9	7.0	6.9	36	40	
100				10	10	10	10	14.5	14.5	14.5	14.5	14.5	7.9	9.8	10.0	9.8	7.7	8.1	8.1	8.1	8.2	8.2	390	393	
Initials				EL	AS	AS	EV	EC	EV	AS	AS	EL	EC	EL	AS	AS	EL	EC	EL	AS	AS	EL	EC	EL	

Sample Description/Comments: Slightly yellow, clear, odorless, No particulates
 Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0
 Other Observations: No precipitates present @ 96 hrs.

Reviewed by: [Signature] Date Reviewed: June 20, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Jun 8 / 17 @ 0930h

Work Order No.: 170557

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-MCL-WS-2017-2605-N
Sample Date: June 5 / 17
Date Received: June 7 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: 052517
Source: Aqua farms
No. Fish/Volume (L): 10/12L
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.32 ± 0.04

Range: 27 - 32
Range: 0.27 - 0.39

Zinc Reference Toxicant Results:

Reference Toxicant ID: RT2673
Stock Solution ID: 17Zn02
Date Initiated: June 8 / 17
96-h LC50 (95% CL): 70.7 (52.0 - 96.3) µg/L Zn

Reference Toxicant Mean and Historical Range: 57.0 (26.4 - 123.1) µg/L Zn
Reference Toxicant CV (%): 87.47

Test Results: 0% mortality at 96 hours in the undiluted 100% (1/0) sample.

Reviewed by: [Signature]

Date reviewed: June 20, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: GH_MCI_WS_2017-06-05_N
 W.O. #: 120552
 RBT Batch #: 052517
 Date Collected/Time: Jun 5/17 @ 1247h
 Date Setup/Time: Jun 8/17 @ 0930h
 Sample Setup By: EC

Number Fish/Volume: 10/12 L
 7-d % Mortality: 0
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.5	/	14.5
D.O. (mg/L)	9.9		9.9
pH	8.2		8.2
Cond. (µS/cm)	550		550
Salinity (ppt)	0.3		0.3

Concentration (% v/v)	# Survivors								Temperature (°C)				Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
10				10	10	10	10	14.5	14.5	14.5	14.5	14.5	10.0	10.0	9.8	9.8	9.8	6.9	6.9	6.9	7.0	6.9	36	40
100				10	10	10	10	14.5	14.5	14.5	14.5	14.5	9.9	10.0	9.8	9.6	9.7	8.2	8.1	8.1	8.2	8.2	550	551
Initials				EV	AV	AV	EV	EC	EV	AV	AV	EV	EC	EV	AV	AV	EV	EC	EV	AV	AV	EV	EC	EV

Sample Description/Comments: Slightly yellow, clear, odorless, no particulates
 Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0
 Other Observations: No precipitates present @ 96 hours.
 Reviewed by: [Signature] Date Reviewed: June 20, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Jun 8 / 17 @ 0930h

Work Order No.: 170557

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-COUGAR-WS-2017-06-05-N
Sample Date: June 5 / 17
Date Received: June 7 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: 052517
Source: Aqua farms
No. Fish/Volume (L): 10/12L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 31 ± 2
Mean Weight ± SD (g): 0.31 ± 0.03

Range: 28 - 33
Range: 0.27 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RT2673
Stock Solution ID: 17Zn02
Date Initiated: June 8/17
96-h LC50 (95% CL): 70.7 (52.0 - 96.3) µg/L Zn

Reference Toxicant Mean and Historical Range: 57.0 (26.4 - 123.1) µg/L Zn
Reference Toxicant CV (%): 87.47

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: June 20, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D. GH-COUGAIR-WF-2017-06-05-14
 W.O. # 170557
 RBT Batch #: 052517
 Date Collected/Time: Jun 5/17 @ 1150h
 Date Setup/Time: Jun 8/17 @ 0930h
 Sample Setup By: EC

Number Fish/Volume: 10/12 L
 7-d % Mortality: 0
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.5	/	14.5
D.O. (mg/L)	9.9		9.9
pH	8.2		8.2
Cond. (µS/cm)	404		405
Salinity (ppt)	0.2		0.2

Concentration (% v/v)	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
10				10	10	10	10	14.5	14.5	14.5	14.5	14.5	10.0	10.0	9.8	9.8	9.8	6.9	6.9	6.9	7.0	6.9	36	40	
100				10	10	10	10	14.5	14.5	14.5	14.5	14.5	9.9	9.9	9.7	9.9	9.7	8.2	8.1	8.1	8.1	8.2	405	404	
Initials				EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	

Sample Description/Comments: Slightly yellow, clear, odorless, no particulates
 Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0
 Other Observations: No precipitates present @ 96 hrs.
 Reviewed by: [Signature] Date Reviewed: June 20, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170558

Start Date/Time: June 7, 2017 @ 1510h
Test Species: Daphnia magna
Set up by: YK

Sample Information:

Sample ID: GH_WADE_WS_2017-06-05
Sample Date: June 5, 2017
Date Received: June 7, 2017
Sample Volume: 1 X 20L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 052417A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTCSI
Stock Solution ID: 17N901
Date Initiated: June 7, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: June 20, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: June 7, 2017 @ 1510h
 Sample ID: GH_WADE_WS_2017-06-05-N No. Organisms/volume: 10/200mL
 Work Order No.: 170558 Test Organism: D.magna
 Set up by: YML

Thermometer: CER#5 DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	No. Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	20.5	20.0	8.6	8.4	8.3	7.6	7.8	7.8	351	364
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	20.5	20.0	8.4	8.3	8.4	7.2	7.3	8.3	476	478
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Control (MHW)	98	66
Highest conc.	222	248
Hardness adjusted	—	—

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	8.4		
pH	8.2		
Cond (µS/cm)	476		
Salinity (ppt)	0.2		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope ^{not} not req'd

Sample Description: slightly yellow, clear, no odour, some particulates

Batch#: 052417A+B 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: June 20, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170558

Start Date/Time: June 7, 2017 @ 1510h
Test Species: Daphnia magna
Set up by: YHC

Sample Information:

Sample ID: GH_LCI_WS_2017-06-05
Sample Date: June 5, 2017
Date Received: June 7, 2017
Sample Volume: 1 X 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 052417A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTCSI
Stock Solution ID: 17Na01
Date Initiated: June 7, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: June 20, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: June 7, 2017 @ 15:00h
 Sample ID: GH-LL1-WS-2017-06-05-N No. Organisms/volume: 10/200mL
 Work Order No.: 170558 Test Organism: D. magna
 Set up by: YML

Thermometer: CER#5 DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	20.0	20.5	20.0	8.6	8.4	8.5	7.6	7.7	7.8	351	362
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10 ⁰	10 ⁰	0	20.0	20.5	20.0	8.4	8.3	8.2	7.9	8.3	8.2	194	1888
	B	10 ⁰	10 ⁰	0											
	C	10 ⁰	10 ⁰	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	98	66
Highest conc.	1290	254
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	2.4		
pH	7.9		
Cond (µS/cm)	1911		
Salinity (ppt)	1.0		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not needed
 Sample Description: 2 R_w D_n daphnids on surface clear, no colour, no odour, no particles
 Batch#: 052417A13 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9
 Reviewed by: [Signature] Date reviewed: June 20, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170558

Start Date/Time: June 7, 2017 @ 1510h
Test Species: Daphnia magna
Set up by: YK

Sample Information:

Sample ID: GH_WC1_WS_2017-06-05
Sample Date: June 5, 2017
Date Received: June 7, 2017
Sample Volume: 1 X 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 052417A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTCS1
Stock Solution ID: 17N901
Date Initiated: June 7, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: June 20, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-WC1-WS-2017-06-05-N
 Work Order No.: 170558

Start Date/Time: June 7, 2017 @ 1510h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: CER#5 DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	20.6	20.0	8.6	8.4	8.5	7.6	7.8	7.8	351	365
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	20.6	20.0	8.4	8.5	8.4	8.1	8.2	8.2	1574	1573
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCo3)	
Control (MHW)	98	62
Highest conc.	930	240
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	8.4		
pH	8.1		
Cond (µS/cm)	1574		
Salinity (ppt)	0.8		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not required

Sample Description: slightly yellow, clear, no odour, no particulates

Batch#: 052417A+B 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: June 20, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170558

Start Date/Time: June 7, 2017 @ 1510h
Test Species: Daphnia magna
Set up by: YHC

Sample Information:

Sample ID: GH-^{SPI}WILLOWWS-2017-06-05
Sample Date: June 5, 2017
Date Received: June 7, 2017
Sample Volume: 1 X 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 052417A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS1
Stock Solution ID: 17N901
Date Initiated: June 7, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: June 20, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck SPL Start Date/Time: June 7, 2017 @ 1510h
 Sample ID: GH WILLOW WS-2017-06-05-N No. Organisms/volume: 10/200mL
 Work Order No.: 170558 Test Organism: D. magna
 Set up by: YML

Thermometer: CER#5 DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	20.5	20.0	8.6	8.4	8.4	7.6	7.8	7.8	351	365
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	20.5	20.0	8.5	8.4	8.3	8.3	8.2	8.2	387	404 390
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	98	66
Highest conc.	206	194
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.5		
pH	8.3		
Cond (µS/cm)	387		
Salinity (ppt)	0.2		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not req'd

Sample Description: slightly yellow clear, no odour, no particulates

Batch#: 052417A+B 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: June 20, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170558

Start Date/Time: June 7, 2017 @ 1510h
Test Species: Daphnia magna
Set up by: YK

Sample Information:

Sample ID: GH_MCI_WS_2017-06-05
Sample Date: June 5, 2017
Date Received: June 7, 2017
Sample Volume: 1 X 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 052417A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC51
Stock Solution ID: 17N901
Date Initiated: June 7, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: June 20, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: June 7, 2017 @ 1510h
 Sample ID: GH-MC1-WS-2017-06-05-N No. Organisms/volume: 10/200mL
 Work Order No.: 170558 Test Organism: D. magna
 Set up by: YML

Thermometer: CER#5 DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	20.6	20.0	8.6	8.4	8.5	7.6	7.9	7.8	351	360
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	20.6	20.0	8.5	8.4	8.4	7.0	6.3	6.3	558	578
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCo3)	
Control (MHW)	98	66
Highest conc.	268	232
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	8.5		
pH	8.0		
Cond (µS/cm)	558		
Salinity (ppt)	0.3		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not reported

Sample Description: slightly yellow clear, no odour no particulates.

Batch#: 052417A+B 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: June 20, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170558

Start Date/Time: June 7, 2017 @ 1510h
Test Species: Daphnia magna
Set up by: YK

Sample Information:

Sample ID: GH_COUGAR_WS_2017-0605
Sample Date: June 5, 2017
Date Received: June 7, 2017
Sample Volume: 1 X 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 052417A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC51
Stock Solution ID: 17N901
Date Initiated: June 7, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: June 20, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: June 7, 2017 @ 1510h
 Sample ID: GH-ROUGAR-WS-2017-06-05-N No. Organisms/volume: 10/200mL
 Work Order No.: 170558 Test Organism: D. magna
 Set up by: YML

Thermometer: CER#5 DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	24		48		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48	0	24		48	0	24	48	0	24	48	0	48		
Control	A	10	10	0	20.0	20.6	20.0	8.6	8.5	8.4	7.6	7.8	7.8	351	368		
	B	10	10	0													
	C	10	10	0													
	D																
100	A	10	10	0	19.0	20.6	20.0	8.5	8.4	8.3	8.3	8.2	8.2	404	342		
	B	10	10	0													
	C	10	10	0													
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML		

Concentration	Hardness* (mg/L as CaCo3)	Alkalinity*
Control (MHW)	98	66
Highest conc.	214	216
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	2.5		
pH	8.3		
Cond (µS/cm)	404		
Salinity (ppt)	0.2		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not needed

Sample Description: slightly yellow, clear, no odour, no particulates

Batch#: 052417A+B 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: June 20, 2017

Client: Teck

W.O.#: 170558

Hardness and Alkalinity Datasheet

Sample ID	Alkalinity						Hardness			
	Subsample Date	Date Measured	Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/L CaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	Technician
GH-WADE-WS 2017-06-05-N	June 7/17 June 7/17	June 7/17	50	12.6	12.8	248	50	11.1	222	YML
GH-LCI-WS- 2017-06-05-N	June 7/17	June 7/17	50	12.9	13.1	254	100	12.9	1290	YML
GH-WCI-WS- 2017-06-05-N	June 7/17	June 7/17	50	12.2	12.4	240	100	9.3	930	YML
GH-WILLOW-WS- 2017-06-05-N	June 7/17	June 7/17	50	9.9	10.1	194	50	10.3	206	YML
GH-MCI-WS- 2017-06-05-N	June 7/17	June 7/17	50	11.8	12.0	232	50	13.4	268	YML
GH-SUGAR-WS- 2017-06-05-N	June 7/17	June 7/17	50	11.0	11.2	216	50	10.7	214	YML
MHW	June 7/17	June 7/17	50	3.4	3.5	66	50	4.9	98	YML

Notes: ① Diluted to 100 mL w/ DI water.

Reviewed by: 

Date Reviewed: June 19, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected June 8, 2017

Final Report

June 26, 2017

Submitted to: **Teck Coal / Greenhills Operation**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_GH1_WS_2017-06-08_N	08-Jun-17 at 1227h	12-Jun-17 at 1125h	13-Jun-17 at 1000h	13-Jun-17 at 0925h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_GH1_WS_2017-06-08_N	18.7°C	690	262

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_GH1_WS_2017-06-08_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_GH1_WS_2017-06-08_N	Rainbow trout	None	None
GH_GH1_WS_2017-06-08_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	70.7 (52.0 – 96.3) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	57.0 (26.4 – 123.1) µg/L Zn	4.1 (3.3 – 5.0) g/L NaCl
Reference toxicant CV	47%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: June 8, 2017; ² Test Date: June 7, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Eric Cheung, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Jun 13 / 17 @ 1000h

Work Order No.: 170586

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-GH1-WS-2017-0608-N
Sample Date: Jun 8 / 17
Date Received: Jun 12 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: 052517
Source: Aqua Farms
No. Fish/Volume (L): 10/12L
Loading Density (g/L): 0.44
Mean Length ± SD (mm): 40 ± 2
Mean Weight ± SD (g): 0.53 ± 0.07

Range: 35 - 43
Range: 0.40 - 0.63

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn73
Stock Solution ID: 17Zn02
Date Initiated: June 8/17
96-h LC50 (95% CL): 70.7 (52.0 - 96.3) µg/L Zn

Reference Toxicant Mean and Historical Range: 57.0 (26.4 - 123.1) µg/L Zn
Reference Toxicant CV (%): 87.47

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample

Reviewed by: [Signature]

Date reviewed: June 22, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D. G14-GH1-WS-2017-0608-N
 W.O. # 170586
 RBT Batch #: 052517
 Date Collected/Time: Jun 8/17 @ 1227h
 Date Setup/Time: Jun 13/17 @ 1000h
 Sample Setup By: EL

Number Fish/Volume: 10/12L
 7-d % Mortality: 0.6
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: (ER#2) D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.5	/	14.5
D.O. (mg/L)	9.8		9.9
pH	8.5		8.5
Cond. (µS/cm)	1160		1161
Salinity (ppt)	0.6		0.6

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)			
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96		
100				10	10	10	10	14.5	14.1	14.5	14.5	14.5	10.1	9.8	9.8	9.8	9.8	6.9	6.9	6.9	6.9	6.9	36	42		
10				10	10	10	10	14.1	14.1	14.1	14.1	14.1	10.2	9.7	9.7	9.7	9.9	8.5	8.4	8.4	8.3	8.2	1161	1168		
Initials				EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL

Sample Description/Comments: Slightly yellow, clear, No particulates, No odour -

Fish Description at 96 h all fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: No precipitates @ 96 hrs.

Reviewed by: [Signature]

Date Reviewed: June 22, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170587

Start Date/Time: June 13, 2017 @ 0925h
Test Species: Daphnia magna
Set up by: YMC

Sample Information:

Sample ID: GH-GHI-WS-2017-06-08-N
Sample Date: June 8, 2017
Date Received: June 12, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 052417B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 22
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCSI
Stock Solution ID: 17Na01
Date Initiated: June 7, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: June 22, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-GHL-WS-2017-06-08-N
 Work Order No.: 170587

Start Date/Time: June 13, 2017 @ 0925h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	24		48		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48	48	0		24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	19.5	20.0	19.5	8.6	8.4	8.6	8.0	8.0	7.9	352	357		
	B	10	10	0													
	C	10	10	0													
	D																
100	A	10	10	0	20.0	20.0	19.5	8.9	8.5	8.6	8.1	8.3	8.3	1147	1157		
	B	10	10	0													
	C	10	10	0													
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
Technician Initials		YML	EL	EL	YML	YML	EL	YML	YML	EL	YML	YML	EL	YML	EL		

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	74
Highest conc.	690	262
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	8.9		
pH	8.1		
Cond (µS/cm)	1147		
Salinity (ppt)	0.6		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not req'd
 Sample Description: Slightly yellow, clear, No particulates, No sludge
 Batch#: 05241713 7-d previous # young/brood: 22 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9
 Reviewed by: [Signature] Date reviewed: June 22, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected June 19, 2017

Final Report

July 5, 2017

Submitted to: **Teck Coal / Greenhills Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_TC1_WS_2017-06-19_N	19-Jun-17 at 1300h	21-Jun-17 at 1035h	22-Jun-17 at 1045h	21-Jun-17 at 1330h
GH_TC2_WS_2017-06-19_N	19-Jun-17 at 1200h	21-Jun-17 at 1035h	22-Jun-17 at 1045h	21-Jun-17 at 1330h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_TC1_WS_2017-06-19_N	17.3°C	850	210
GH_TC2_WS_2017-06-19_N	17.3°C	830	212

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_TC1_WS_2017-06-19_N	0	0
GH_TC2_WS_2017-06-19_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_TC1_WS_2017-06-19_N	Rainbow trout	None	None
GH_TC1_WS_2017-06-19_N	<i>Daphnia magna</i>	None	None
GH_TC2_WS_2017-06-19_N	Rainbow trout	None	None
GH_TC2_WS_2017-06-19_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	77.3 (54.3 – 114.1) µg/L Zn ¹	4.5 (3.8 – 5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	59.0 (28.1 – 123.9) µg/L Zn	4.1 (3.3 – 5.0) g/L NaCl
Reference toxicant CV	45%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: June 19, 2017; ² Test Date: June 26, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Eric Cheung, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Jun 22 / 17 @ 1045h

Work Order No.: 170629

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-TCI-WS-2017-06-19-N
Sample Date: Jun 19 / 17
Date Received: Jun 21 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: 060517
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.39
Mean Length ± SD (mm): 32 ± 1 Range: 29 - 33
Mean Weight ± SD (g): 0.39 ± 0.06 Range: 0.29 - 0.49

Zinc Reference Toxicant Results:

Reference Toxicant ID: RIZn75
Stock Solution ID: 17Zn02
Date Initiated: Jun 19 / 17
96-h LC50 (95% CL): 77.3 (54.3 - 114.1) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.0 (28.1 - 123.9) µg/L Zn
Reference Toxicant CV (%): 44 45

Test Results: 0% mortality at 96 hours in ^{the} undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: June 30, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Jun 22 / 17 @ 10:45h

Work Order No.: 170629

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-TC2-WS-2017-06-19-N
Sample Date: Jun 19 / 17
Date Received: Jun 21 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: 060517
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.33
Mean Length ± SD (mm): 31 ± 2 Range: 27 - 34
Mean Weight ± SD (g): 0.33 ± 0.04 Range: 0.29 - 0.42

Zinc Reference Toxicant Results:

Reference Toxicant ID: RIZn75
Stock Solution ID: 19Zn02
Date Initiated: Jun 19 / 17
96-h LC50 (95% CL): 77.3 (54.3 - 114.1) µg/L Zn
Reference Toxicant Mean and Historical Range: 59.0 (28.1 - 123.9) µg/L Zn
Reference Toxicant CV (%): 44 45
EL

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: June 30, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170630

Start Date/Time: June 21, 2017 @ 1330h
Test Species: Daphnia magna
Set up by: YLC

Sample Information:

Sample ID: GH-TC1-W2 2017-06-19-N
Sample Date: June 19, 2017
Date Received: June 21, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 060717B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC52
Stock Solution ID: 17N901
Date Initiated: June 26, 2017
48-h LC50 (95% CL): 4.5 (3.8-5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 10% (v/v) methanol sample.

Reviewed by: [Signature]

Date reviewed: June 30, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-TCL-WS-2017-06-19-N
 Work Order No.: 170631

Start Date/Time: June 21, 2017 @ 1335h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMC

Thermometer: temp-5 DO meter: DO-2/3 pH meter: pH-1/3 Cond./Salinity: C-2/3

Concentration (% v/v)	Number of Live Organisms Rep	24		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	19.5	19.5	8.5	8.4	8.3	7.8	7.8	7.8	353	365
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	19.5	19.5	8.8	8.2	8.3	8.2	8.2	8.3	1323	1335
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC

	Hardness*	Alkalinity*
	*(mg/L as CaCO3)	
Concentration		
Control (MHW)	94	64
Highest conc.	350	210
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.8		
pH	8.2		
Cond (µS/cm)	1323		
Salinity (ppt)	0.7		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not req'd
 Sample Description: clear, slightly yellow, no odour, some particulates.
 Batch#: 0607173 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9
 Reviewed by: [Signature] Date reviewed: June 30, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170630

Start Date/Time: June 21, 2017 @ 1330h
Test Species: Daphnia magna
Set up by: YLC

Sample Information:

Sample ID: GH-TCZ-WS-2017-06-19-N
Sample Date: June 19, 2017
Date Received: June 21, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 060717B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC52
Stock Solution ID: 17N901
Date Initiated: June 26, 2017
48-h LC50 (95% CL): 4.5 (3.8-5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: June 30, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TECK
 Sample ID: GH-TC2 WS-2017-06-19-N
 Work Order No.: 170630

Start Date/Time: June 21, 2017 @ 1330h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: Yue

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	24		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	19.5	19.5	8.5	8.4	8.3	7.8	7.8	7.8	353	366
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.5	19.5	8.9	8.2	8.4	8.2	8.3	8.3	1320	1331
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		Yue	Yue	Yue	Yue	Yue	Yue	Yue	Yue	Yue	Yue	Yue	Yue	Yue	Yue

	Hardness*	Alkalinity*
	*(mg/L as CaCO3)	
Concentration		
Control (MHW)	94	64
Highest conc.	830	212
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	8.9		
pH	8.2		
Cond (µS/cm)	1320		
Salinity (ppt)	0.7		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not req'd.
 Sample Description: clear, slightly yellow, no odour, no particulates
 Batch#: 060717B 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9
 Reviewed by: [Signature] Date reviewed: June 30, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected July 10, 2017

Final Report

July 25, 2017

Submitted to: **Teck Coal / Greenhills Operations**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_LC1_WS-T_2017-07-03_N	10-Jul-17 at 1321h	12-Jul-17 at 1125h	13-Jul-17 at 1430h	12-Jul-17 at 1805h
GH_TC1_WS-T_2017-07-03_N	10-Jul-17 at 1413h	12-Jul-17 at 1125h	13-Jul-17 at 1430h	12-Jul-17 at 1805h
GH_TC2_WS-T_2017-07-03_N	10-Jul-17 at 1455h	12-Jul-17 at 1125h	13-Jul-17 at 1430h	12-Jul-17 at 1805h
GH_WADE_WS-T_2017-07-03_N	10-Jul-17 at 1054h	12-Jul-17 at 1125h	13-Jul-17 at 1430h	12-Jul-17 at 1805h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_LC1_WS-T_2017-07-03_N	18.3°C	1090	294
GH_TC1_WS-T_2017-07-03_N	18.8°C	1000	196
GH_TC2_WS-T_2017-07-03_N	18.9°C	980	190
GH_WADE_WS-T_2017-07-03_N	16.6°C	320	290

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_LC1_WS-T_2017-07-03_N	0	0
GH_TC1_WS-T_2017-07-03_N	0	0
GH_TC2_WS-T_2017-07-03_N	0	0
GH_WADE_WS-T_2017-07-03_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_LC1_WS-T_2017-07-03_N	Rainbow trout	Some precipitate observed on the bottom of test vessel	None
GH_LC1_WS-T_2017-07-03_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
GH_TC1_WS-T_2017-07-03_N	Rainbow trout	None	None
GH_TC1_WS-T_2017-07-03_N	<i>Daphnia magna</i>	None	None
GH_TC2_WS-T_2017-07-03_N	Rainbow trout	None	None
GH_TC2_WS-T_2017-07-03_N	<i>Daphnia magna</i>	None	None
GH_WADE_WS-T_2017-07-03_N	Rainbow trout	None	None
GH_WADE_WS-T_2017-07-03_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	104.1 (77.4 – 141.2) µg/L Zn ¹	4.5 (3.8 – 5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	62.1 (32.1 – 120.0) µg/L Zn	4.1 (3.3 – 5.0) g/L NaCl
Reference toxicant CV	39%	10%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: June 30, 2017; ² Test Date: July 19, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Jul 13 / 17 @ 1430h

Work Order No.: 170693

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-LL1-WS-T-2017-07-03-N
Sample Date: Jul 10 / 17
Date Received: Jul 12 / 17
Sample Volume: 2 x 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: 061317
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.36
Mean Length ± SD (mm): 32 ± 1
Mean Weight ± SD (g): 0.36 ± 0.09

Range: 29 - 33
Range: 0.26 - 0.53

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn76
Stock Solution ID: 17Zn02
Date Initiated: June 30/17
96-h LC50 (95% CL): 104.1 (77.4 - 141.2) mg/L Zn

Reference Toxicant Mean and Historical Range: 62.1 (32.1 - 120.0) mg/L Zn
Reference Toxicant CV (%): 39%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: July 24, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: GH-LL1-WS-T.2017-07-03-N
 W.O. #: 170693
 RBT Batch #: 0613 17
 Date Collected/Time: Jul 10/17 @ 1321h
 Date Setup/Time: Jul 13/17 @ 1430h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0.1
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	15.0	/	15.0
D.O. (mg/L)	9.7	/	9.9
pH	8.0	/	8.4
Cond. (µS/cm)	1808	/	1808
Salinity (ppt)	0.1	/	0.1

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
GI				10	10	10	10	15.0	15.0	15.0	14.5	15.0	10.0	9.9	9.7	9.8	9.8	7.0	7.0	7.0	7.3	7.2	40	43
100				10	10	10	10	15.0	15.0	15.0	14.5	15.0	9.9	9.8	9.7	9.9	9.7	8.4	8.5	8.4	8.4	8.4	1808	1680
Initials				EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC

Sample Description/Comments: clear, colorless, no odour, no particulates
 Fish Description at 96 h: All fish appeared normal Number of Stressed Fish at 96 h: 0
 Other Observations: some precipitates on the tank @ 96 hrs. on tank bottom
 Reviewed by: [Signature] Date Reviewed: July 24, 2017

Rainbow Trout Summary Sheet

Client: Tede

Start Date/Time: Jul 13 / 17 @ 1430h

Work Order No.: 170693

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-TCI-WS-7-2017-07-03N
Sample Date: Jul 10 / 17
Date Received: Jul 12 / 17
Sample Volume: 2 x 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: 061317
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.34
Mean Length ± SD (mm): 32 ± 1
Mean Weight ± SD (g): 0.34 ± 0.06

Range: 31-33
Range: 0.27-0.43

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn76
Stock Solution ID: 17Zn02
Date Initiated: June 30 / 17
96-h LC50 (95% CL): 104.1 (77.4-141.2) µg/L Zn

Reference Toxicant Mean and Historical Range: 62.1 (32.1-120.0) µg/L Zn
Reference Toxicant CV (%): 39%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: July 24, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Telec
 Sample I.D. GH-TCL-WS-T-2017-07-03-N
 W.O. # 170693
 RBT Batch #: 061317
 Date Collected/Time: Jul 10/17 @ 1413h
 Date Setup/Time: Jul 13/17 @ 1430h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0-1
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	15.0	/	15.0
D.O. (mg/L)	9.6	/	9.8
pH	8.4	/	8.4
Cond. (µS/cm)	394/1618	/	1618
Salinity (ppt)	0.8	/	0.8

Concentration	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
(% v/v)																									
100				10	10	10	10	15.0	15.0	15.0	15.0	15.0	10.0	9.8	9.7	9.9	9.7	7.0	7.0	7.0	7.3	7.2	40	41	
				10	10	10	10	15.0	15.0	15.0	14.2	15.0	9.8	9.7	9.8	10.0	10.0	8.4	8.4	8.4	8.4	8.4	394	1625	
																								1618	
Initials				EL	EC	MM	EL	EC	EL	EC	MM	EL	EC	EL	EC	MM	EL	EC	EL	EC	MM	EL	EL		

Sample Description/Comments: clear, colorless, no odour, no particulates
 Fish Description at 96 h All fish appeared normal Number of Stressed Fish at 96 h 0
 Other Observations: No precipitates @ 96 hrs.
 Reviewed by: [Signature] Date Reviewed: July 24, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Jul 13 / 17 @ 1430h

Work Order No.: 170693

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GHT02-WST-2017-07-03-N
Sample Date: Jul 10 / 17
Date Received: Jul 12 / 17
Sample Volume: 2 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: 061317
Source: Aqua Farms
No. Fish/Volume (L): 10/20L
Loading Density (g/L): 0.36
Mean Length ± SD (mm): 32 ± 1
Mean Weight ± SD (g): 0.36 ± 0.08

Range: 29 - 34
Range: 0.27 - 0.53

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn76
Stock Solution ID: 17Zn02
Date Initiated: June 30/17
96-h LC50 (95% CL): 104.1 (77.4 - 141.2) µg/L Zn

Reference Toxicant Mean and Historical Range: 62.1 (32.1 - 120.0) µg/L Zn
Reference Toxicant CV (%): 39%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: July 24, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Tede
 Sample I.D. GH-TL2-WS-T-2017-07-03-N
 W.O. # 170693
 RBT Batch #: 0613 17
 Date Collected/Time: Jul 10/17 @ 1455h
 Date Setup/Time: Jul 13/17 @ 1430 h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0.1
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	15.0	/	15.0
D.O. (mg/L)	9.9	/	10.0
pH	8.5	/	8.5
Cond. (µS/cm)	1619	/	1619
Salinity (ppt)	0.8	/	0.8

Concentration (% v/v)	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
GH				10	10	10	10	15.0	15.0	15.0	14.5	15.0	10.0	9.8	9.7	9.8	9.8	7.0	7.0	7.0	7.3	7.3	40	42	
100				10	10	10	10	15.0	15.0	15.0	14.5	15.0	10.0	9.7	9.7	9.9	9.9	8.5	8.4	8.4	8.3	8.4	1619	1621	
Initials				EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	

Sample Description/Comments: clear, colorless, no odour, no particulates

Fish Description at 96 h All fish appeared normal Number of Stressed Fish at 96 h 0

Other Observations: No precipitates @ 96 hrs.

Reviewed by: [Signature]

Date Reviewed: July 24, 2017

Rainbow Trout Summary Sheet

Client: Tede

Start Date/Time: Jul 13 / 17 @ 1430h

Work Order No.: 170693

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-WADE-WS-T-2017-07-03-N
Sample Date: Jul 10 / 17
Date Received: Jul 10 / 17
Sample Volume: 2 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: 061317
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.39
Mean Length ± SD (mm): 32 ± 2
Mean Weight ± SD (g): 0.39 ± 0.09

Range: 29-34
Range: 0.30 - 0.53

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn76
Stock Solution ID: 17Zn02
Date Initiated: June 30/17
96-h LC50 (95% CL): 104.1 (77.4-141.2) mg/L Zn

Reference Toxicant Mean and Historical Range: 62.1 (32.1 - 120.0) mg/L Zn
Reference Toxicant CV (%): 39%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: July 24, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170692

Start Date/Time: July 12, 2017 @ 1805h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH-LCI-WS-T 2017-0703-N
Sample Date: July 10, 2017
Date Received: July 12, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 062817A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC53
Stock Solution ID: 17Na01
Date Initiated: July 19, 2017
48-h LC50 (95% CL): 4.5 (3.8-5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 0% mortality at 48h in the (00% v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: July 24, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: July 12, 2017 @ 1805h
 Sample ID: GM-LC1-WS-T 2017-07-03-N No. Organisms/volume: 10/200mL
 Work Order No.: 170692 Test Organism: D.magna
 Set up by: YML

Thermometer: CER#5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	24		48		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		0	24	48	0		24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	19.5	19.5	19.5	8.4	8.2	8.3	7.9	7.8	7.9	358	365		
	B	10	10	0													
	C	10	10	0													
	D																
100	A	10	10	0	19.5	19.5	19.5	9.1	8.3	8.2	7.9	8.1	8.2	1781	1761		
	B	10	10	0													
	C	10	10	0													
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
Technician Initials		YML/YML		YML		YML/YML		YML		YML/YML		YML/YML		YML		YML	

	Hardness*	Alkalinity*		Initial WQ	Adjustment	Adjusted WQ
Concentration	*(mg/L as CaCO3)			Temp (°C)	19.5	
Control (MHW)	92	74		DO (mg/L)	9.1	
Highest conc.	1090	294		pH	7.9	
Hardness adjusted				Cond (µS/cm)	1781	
				Salinity (ppt)	0.9	

Comments: slight precipitate at 48h on container bottom. Mortality: Heartbeat checked under microscope not needed

Sample Description: clear, no colour, no odour, no particulates

Batch#: 062817A 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: July 24, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170692

Start Date/Time: July 12, 2017 @ 1805h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH-TCL-WS-T-2017-07-03-N
Sample Date: July 10, 2017
Date Received: July 12, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 062817A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC53
Stock Solution ID: 17Na01
Date Initiated: July 19, 2017
48-h LC50 (95% CL): 4.5 (3.8-5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: July 24, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TRCK Start Date/Time: July 12, 2017 @ 1805h
 Sample ID: GH-TCL-W3-T-2017-07-05-N No. Organisms/volume: 10/200mL
 Work Order No.: 170692 Test Organism: D.magna
 Set up by: YML

Thermometer: CERTS DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% of U)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.5	19.5	8.4	8.3	8.2	7.9	7.8	7.9	358	356
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	19.5	19.5	8.8	8.2	8.3	8.2	8.2	8.3	1594	1590
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	92	74
Highest conc.	1000	196
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.8		
pH	8.2		
Cond (µS/cm)	1594		
Salinity (ppt)	0.8		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not needed

Sample Description: clear, no colour, no odour, no particulates

Batch#: 062817A 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: July 24, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170692

Start Date/Time: July 12, 2017 @ 1805h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH-TC2-WS-T-2017-0703-N
Sample Date: July 10, 2017
Date Received: July 12, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 062817A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC53
Stock Solution ID: 17Na01
Date Initiated: July 19, 2017
48-h LC50 (95% CL): 4.5 (3.3-5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl

Reference Toxicant CV (%): 10

Test Results: 0% mortality at 48h in the (0.01% v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: July 24, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TECK Start Date/Time: July 12, 2017 @ 1805h
 Sample ID: GH-TC2-WS-T-2017-07-03-N No. Organisms/volume: 10/200mL
 Work Order No.: 170692 Test Organism: D.magna
 Set up by: YML

Thermometer: CER#5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
		Control	A		10	10	0	19.5	19.5	19.5	8.4	8.2	8.3	7.9	7.8
	B	10	10	0											
	C	10	10	0											
	D													1595	
100	A	10	10	0	19.5	19.5	19.5	9.1	8.3	8.2	8.2	8.2	8.3	1789	1591
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	92	74
Highest conc.	980	190
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		20.0
DO (mg/L)	10.2	(11 min aeration)	9.1
pH	8.2		8.2
Cond (µS/cm)	1788		1593
Salinity (ppt)	0.908		0.908

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not needed

Sample Description: clear, no colour, no odour, no particulates

Batch#: 062817A 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: July 24, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170692

Start Date/Time: July 12, 2017 @ 1805h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH-WADE-WS-T-2017-0703-N
Sample Date: July 10, 2017
Date Received: July 12, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 062817A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC53
Stock Solution ID: 17Na01
Date Initiated: July 19, 2017
48-h LC50 (95% CL): 4.5 (3.8-5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 0% mortality at 48h in the (0.0%) (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: July 24, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TRCK Start Date/Time: July 12, 2017 @ 1805h
 Sample ID: GH-WADE-WS-T-2017-07-03-N No. Organisms/volume: 10/200mL
 Work Order No.: 170692 Test Organism: D.magna
 Set up by: YML

Thermometer: CER#5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% of U)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.5	19.5	19.5	8.4	8.2	8.3	7.9	7.8	7.9	358	365
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	19.5	19.5	9.1	8.2	8.1	8.2	8.2	8.3	508	510
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCo3)	
Control (MHW)	92	74
Highest conc.	320	290
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	9.1		
pH	8.2		
Cond (µS/cm)	508		508
Salinity (ppt)	0.2		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not req'd

Sample Description: slightly yellow, clear, no color, no particulates

Batch#: 062817A 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: July 24, 2017

APPENDIX C – Chain-of-custody form

COC ID: GRO_Q3_TOX_1-3868650055-070417_141551		TURNAROUND TIME:			RUSH:						
PROJECT/CLIENT INFO				LABORATORY			OTHER INFO				
Facility Name / Job#	Greenhills Operation			Lab Name	Nautilus Environmental - BC			Report Format / Distribution	Excel	PDF	EDD
Project Manager	Jeremy Enns			Lab Contact				Email 1:	Jeremy.Enns@teck.com		
Email	Jeremy.Enns@teck.com			Email	BCinfo@nautilusenvironmental.ca			Email 2:			
Address	P.O. BOX 5000			Address	8664 Commerce Court			Email 3:			
City	Elkford	Province	BC	City	Burnaby	Province	BC	PO number	VPO00475660		
Postal Code	VOB1H0	Country	Canada	Postal Code	V5A 4N7	Country	Canada				
Phone Number	250-865-3341			Phone Number	604-420-8773						

SAMPLE DETAILS								ANALYSIS REQUESTED					Figures: F-Field, L-Lab, P/-Field & Lab, N-None	
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# Of Cont.	NAUT_72hr_Subcap_P/F	NAUT_7d_C-Dubia_P/F	NAUT_28d_H-Azteca_P/F	NAUT_48hr_DM_P/F	NAUT_96hr_RT_P/F	Temp °C	
I_GH1_WS-T_2017-07-03_N	GH_GH1	WS				G	2				1	1		
I_LC1_WS-T_2017-07-03_N	GH_LC1	WS	N	July 10	13:21	G	2				1	1	18.3	
I_TC1_WS-T_2017-07-03_N	GH_TC1	WS	N	July 10	14:13	G	2				1	1	18.8	
I_TC2_WS-T_2017-07-03_N	GH_TC2	WS	N	July 10	14:55	G	2				1	1	18.9	
I_WADE_WS-T_2017-07-03_N	GH_WADE	WS	N	July 10	10:54	G	2				1	1	16.6	
I_WC1_WS-T_2017-07-03_N	GH_WC1	WS				G	2				1	1		

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
			Nautilus - Burnaby	Jul 10/17 @ 11:25
			NY - Nari Yamamoto	12

NB OF BOTTLES RETURNED/DESCRIPTION		Regular (default) X	Sampler's Name	Baylee Phillips	Mobile #	
Priority (2-3 business days) - 50% surcharge			Sampler's Signature	Baylee Phillips	Date/Time	
Emergency (1 Business Day) - 100% surcharge						
For Emergency <1 Day, ASAP or Weekend - Contact ALS						

- ① clear, colorless, no odour, no particulates.
- ② clear, colorless, no odour, no particulates
- ③ clear, colorless, no odour, no particulates
- ④ slightly yellow, clear, no odour, no particulates.

END OF REPORT



Acute Toxicity Test Results

Sample collected July 11, 2017

Final Report

July 27, 2017

Submitted to: **Teck Coal / Greenhills Operation**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_GH1_WS-T_2017-07-03_N	11-Jul-17 at 1414h	13-Jul-17 at 1100h	13-Jul-17 at 1645h	13-Jul-17 at 1305h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_GH1_WS-T_2017-07-03_N	19.5°C	830	206

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_GH1_WS-T_2017-07-03_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_GH1_WS-T_2017-07-03_N	Rainbow trout	None	None
GH_GH1_WS-T_2017-07-03_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	104.1 (77.4 – 141.2) µg/L Zn ¹	4.5 (3.8 – 5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	62.1 (32.1 – 120.0) µg/L Zn	4.1 (3.3 – 5.0) g/L NaCl
Reference toxicant CV	39%	10%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: June 30, 2017; ² Test Date: July 19, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

Report By:
Eric Cheung, B.Sc.
Laboratory Biologist

Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Jul 13 / 17 @ 1645h

Work Order No.: 170700

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-GH1-WS-T-2017-07-01-N
Sample Date: Jul 11 / 17
Date Received: Jul 13 / 17
Sample Volume: 2 x 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: 061317
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.34
Mean Length ± SD (mm): 31 ± 1
Mean Weight ± SD (g): 0.34 ± 0.05

Range: 29 - 33
Range: 0.26 - 0.43

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn76
Stock Solution ID: 17Zn02
Date Initiated: June 30/17
96-h LC50 (95% CL): 104.1 (77.4 - 141.2) mg/L Zn

Reference Toxicant Mean and Historical Range: 62.1 (32.1 - 120.0) mg/L Zn
Reference Toxicant CV (%): 39.5

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: July 26, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: 64-641-NS-T-2017-07-03-N
 W.O. #: 120700
 RBT Batch #: 061317
 Date Collected/Time: Jul 11/17 @ 1414h
 Date Setup/Time: Jul 13/17 @ 1645h
 Sample Setup By: EC
 Number Fish/Volume: 10/10 L
 7-d % Mortality: 0.1
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Parameters	Undiluted Sample WQ		
	Initial WQ	Adjustment	30 min WQ
Temp °C	15.0	/	15.0
D.O. (mg/L)	10.0	/	10.0
pH	8.3	/	8.3
Cond. (µS/cm)	1560	/	1560
Salinity (ppt)	0.7	/	0.6

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Concentration	# Survivors										Temperature (°C)				Dissolved Oxygen (mg/L)				pH				Conductivity (µS/cm)			
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96		
(% v/v)																										
641				10	10	10	10	15.0	15.0	15.0	14.5	15.0	9.9	9.7	9.7	9.7	9.7	10.0	9.7	9.7	9.7	9.7	7.0	7.2	41	43
100				10	10	10	10	15.0	15.0	15.0	14.5	15.0	9.8	9.7	9.7	9.7	9.7	10.0	9.7	9.7	9.7	9.7	8.4	8.4	1560	1558
Initials				EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC		

Sample Description/Comments: Clear, colorless, no odor, no particulates.
 Fish Description at 96 h: All ~~start~~ fish appeared normal Number of Stressed Fish at 96 h: 0
 Other Observations: No precipitates @ 96 hrs
 Reviewed by: [Signature] Date Reviewed: July 26, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170699

Start Date/Time: July 13, 2017 @ 1305h
Test Species: Daphnia magna
Set up by: YYL

Sample Information:

Sample ID: GH-GH1-WS-T-2017-07-05-N
Sample Date: July 11/17
Date Received: July 13/17
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 062117B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 22
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTCS3
Stock Solution ID: 17NA01
Date Initiated: July 19/17
48-h LC50 (95% CL): 4.5 (3.8-5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 0% mortality at 26 48 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: July 26, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Trck
 Sample ID: GH-GH1-WS-T-2017-07-03-1
 Work Order No.: 170699

Start Date/Time: July 13, 2017 @ 13:54
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMC

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.5	20.0	19.5	8.6	8.4	8.3	7.8	7.8	7.9	357	370
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	20.0	19.5	8.7	8.3	8.4	8.0	8.1	8.3	1540	1554
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	92	74
Highest conc.	830	206
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.7		
pH	8.0		
Cond (µS/cm)	1540		
Salinity (ppt)	0.8		

Comments: no precipitation at 48h Mortality: Heartbeat checked under microscope not record

Sample Description: clear no colour, no odour, no perfl. cells

Batch#: 062117B 7-d previous # young/brood: 22 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: July 26, 2017

APPENDIX C – Chain-of-custody form

COC ID: GHU_Q3_TOX_I-3868050055-070417.141551		TURNAROUND TIME:		RUSH:	
PROJECT/CLIENT INFO		LABORATORY		OTHER INFO	
Facility Name / Job# Greenhills Operation		Lab Name Nautilus Environmental - BC		Report Format / Distribution	
Project Manager Jeremy Enns		Lab Contact		Email 1: Jeremy.Enns@teck.com	
Email Jeremy.Enns@teck.com		Email		Email 2:	
Address P.O. BOX 5000		Address 8664 Commerce Court		Email 3:	
City Elkford		City Burnaby		PO number	
Postal Code V0B1H0		Postal Code V5A 4N7		Province BC	
Phone Number 250-865-3341		Phone Number 604-420-8773		Country Canada	
SAMPLE DETAILS		ANALYSIS REQUESTED		Filter(s) - F: Field, E: Lab, P/L: Field & Lab, N: None	

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	C=Grab C=Com	# Of Cont.	ANALYSIS	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
GH_GHI_WS-T_2017-07-03_N	GH_GHI	WS	2	2 July 11	14:14	G	2	NAUT_72hr_Subcap_P/F	170699	NAUT_48hr_DM_P/F	170699
								NAUT_7d_C-Dubia_P/F	170702	NAUT_28d_H-Azteca_P/F	170702
								NAUT_96hr_RT_P/F	170701		170701
											Temp °C
											19.5

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS		RELINQUISHED BY/AFFILIATION		DATE/TIME	
		Nautilus - Burnaby		Jul 13/17 @ 11:00	
NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name		Mobile #	
Regular (default) X		Baylee Phillips			
Priority (2-3 business days) - 50% surcharge		Sampler's Signature		Date/Time	
Emergency (1 Business Day) - 100% surcharge		Baylee Phillips			
For Emergency <1 Day, ASAP or Weekend - Contact ALS					

Cleary Coloresi, no odor, no particulates

END OF REPORT



Acute Toxicity Test Results

Samples collected August 8, 2017

Final Report

August 23, 2017

Submitted to: **Teck Coal / Fording River Operations**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
FR_CC1_Q_03072017_N	08-Aug-17 at 1030h	09-Aug-17 at 0745h	10-Aug-17 at 1535h	09-Aug-17 at 1430h
FR_LMP1_Q_03072017_N	08-Aug-17 at 1110h	09-Aug-17 at 0745h	10-Aug-17 at 1535h	09-Aug-17 at 1430h
FR_SP1_Q_03072017_N	08-Aug-17 at 1140h	09-Aug-17 at 0745h	10-Aug-17 at 1535h	09-Aug-17 at 1430h/1650h
GH_CC1_Q_03072017_N	08-Aug-17 at 0950h	09-Aug-17 at 0745h	10-Aug-17 at 1535h	09-Aug-17 at 1430h/1645h
GH_SC1_Q_03072017_N	08-Aug-17 at 1034h	09-Aug-17 at 0745h	10-Aug-17 at 1535h/	09-Aug-17 at 1430h/1650h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
FR_CC1_Q_03072017_N	19.4°C	1290 [20°C]	230 [20°C]
FR_LMP1_Q_03072017_N	19.6°C	238 [20°C]	222 [20°C]
FR_SP1_Q_03072017_N	18.1°C	950 [20°C] / 1000 [11°C]	420 [20°C] / 490 [11°C]
GH_CC1_Q_03072017_N	17.1°C	2300/2200 [20°C] / 2380 [10°C]	450/460 [20°C] / 710 [10°C]
GH_SC1_Q_03072017_N	18.8°C	1820 [20°C] / 1790 [11°C]	370 [20°C] / 390 [11°C]

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test, conducted at 10°C, 11°C and the standard 20°C
- *Daphnia magna* 48-h LC50 test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
FR_CC1_Q_03072017_N	0	0 [20°C]
FR_LMP1_Q_03072017_N	0	0 [20°C]
FR_SP1_Q_03072017_N	0	0 [20°C] / 0 [11°C]
GH_CC1_Q_03072017_N	10	67 [20°C] / 13 [10°C]
GH_SC1_Q_03072017_N	10	0 [20°C] / 10 [11°C]

Sample ID	<i>Daphnia magna</i>
	LC50 (%v/v) [95% CL]
GH_CC1_Q_03072017_N	89.1 [66.1 – 100]

CL = Confidence limits

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
FR_CC1_Q_03072017_N	Rainbow trout	None	None
FR_CC1_Q_03072017_N	<i>Daphnia magna</i>	None	None
FR_LMP1_Q_03072017_N	Rainbow trout	None	None
FR_LMP1_Q_03072017_N	<i>Daphnia magna</i>	None	None
FR_SP1_Q_03072017_N	Rainbow trout	None	None
FR_SP1_Q_03072017_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel at 20°C, none at 11°C	None at 20°C and 11°C
GH_CC1_Q_03072017_N	Rainbow trout	Some precipitate observed on the bottom of test vessel	None
GH_CC1_Q_03072017_N	<i>Daphnia magna</i>	Some precipitate observed on the bottom of test vessel at 20°C and 10°C in the 100% sample	Some precipitate observed on organisms bodies at 20°C and 10°C in the 100% sample
GH_SC1_Q_03072017_N	Rainbow trout	Slight precipitate observed on the bottom of test vessel	None
GH_SC1_Q_03072017_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel at 20°C and 11°C	None at 20°C and 11°C

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	142.1 (106.1 – 200.2) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	81.4 (39.4 – 168.2 µg/L Zn	4.1 (3.3 – 5.0) g/L NaCl
Reference toxicant CV	44%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	Yes (see below) ³
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: August 18, 2017; ² Test date: August 9, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

³ Additional screening tests were conducted at 10/11°C, as part of the project study to compare survival data from two exposure temperatures. For GH_CC1, the initial screening test was conducted previously on the same sample, and as a follow-up, the client requested LC50 testing to proceed despite 5-day sample hold-time expiry.



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* LC50 test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	Five concentrations, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Statistical software	CETIS Version 1.8.7
Test endpoints	Survival (48-hour LC50)
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Aug 10 / 17 @ 1535h

Work Order No.: 170781

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-CC1-Q-05072017-N
Sample Date: Aug 8 / 17
Date Received: Aug 9 / 17
Sample Volume: 1 x 20 L
Other: /

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 072717a
Source: Sun Valley Trout Farms
No. Fish/Volume (L): 10 x 12 L
Loading Density (g/L): 0.24
Mean Length ± SD (mm): 30 ± 3
Mean Weight ± SD (g): 0.29 ± 0.08

Range: 26 - 34
Range: 0.17 - 0.45

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn81
Stock Solution ID: 16Zn02
Date Initiated: Aug 18 / 17
96-h LC50 (95% CL): 142.1 (106.1 - 200.2) mg/L Zn

Reference Toxicant Mean and Historical Range: 81.4 (39.4 - 168.2) mg/L Zn
Reference Toxicant CV (%): 44

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: Aug 23, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: FR-CC1-Q-03072017-N
 W.O. #: 170781
 RBT Batch #: 072717a Sun Valley
 Date Collected/Time: Aug 8/17 @ 1030 h
 Date Setup/Time: Aug 10/17 @ 1535 h
 CER #: 3
 Sample Setup By: pc ym

Number Fish/Volume: 10 / 12L
 7-d % Mortality: 0%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CEA3
 D.O. meter/probe: 2 1D2
 Cond./Salinity meter/probe: 2 1CP2
 pH meter/probe: 1 1 p2

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	16.0	/	15.5
D.O. (mg/L)	10.2	/	9.8
pH	8.1	/	8.1
Cond. (µS/cm)	1448	/	1447
Salinity (ppt)	0.7	/	0.7

Concentration	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	(% v/v)	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Ctrl				10	10	10	10	15.5	15.6	15.0	15.0	15.0	10.0	9.5	9.5	9.7	8.3	7.1	7.2	7.1	7.0	7.3	44	49	
100				10	10	10	10	15.5	15.0	15.0	15.0	15.0	9.8	9.7	9.6	9.7	8.4	8.1	8.3	8.3	8.3	8.3	1851447	1427	
Initials				Mc	Er	JS	Mc	Mc	Mc	Er	JS	Mc	Mc	Mc	Er	JS	Mc	Mc	Mc	Er	JS	Mc	Mc	Mc	

Sample Description/Comments: transparent, colourless liquid, no odour, no particulates

Fish Description at 96 h All fish appear to be normal Number of Stressed Fish at 96 h 0

Other Observations: No precipitate on tank bottom at 96h. No precipitate on fish at 96h.

Reviewed by: [Signature]

Date Reviewed: Aug 23, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Aug 10 117 @ 1535 L

Work Order No.: 170781

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR_LMP1-2-03072017-N
Sample Date: Aug 8 117
Date Received: Aug 9 117
Sample Volume: 1 X 20 L
Other: /

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 072717a
Source: Sun Valley Trout Farms
No. Fish/Volume (L): 10 X 12 L
Loading Density (g/L): 0.25
Mean Length ± SD (mm): 33 ± 2 Range: 30-36
Mean Weight ± SD (g): 0.30 ± 0.07 Range: 0.21 - 0.39

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn81
Stock Solution ID: 16 Zn O2
Date Initiated: Aug 18 117
96-h-LC50 (95% CL): 142.1 (106.1 - 200.2) mg/L Zn
Reference Toxicant Mean and Historical Range: 81.4 (39.4 - 168.2) mg/L Zn
Reference Toxicant CV (%): 44

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Aug 10 117 @ 1535h

Work Order No.: 170781

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: FR-SPI-Q-03072017-N
Sample Date: Aug 8 117
Date Received: Aug 8 117
Sample Volume: 2x20 L
Other: /

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 072717a
Source: Sun Valley Trout Farms
No. Fish/Volume (L): 10 x 12L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 35 ± 2 Range: 32-37
Mean Weight ± SD (g): 0.31 ± 0.05 Range: 0.26-0.40

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn81
Stock Solution ID: 16 ZnO2
Date Initiated: Aug 18 117
96-h LC50 (95% CL): 142.1 (106.1-200.2) mg/L Zn
Reference Toxicant Mean and Historical Range: 81.4 (39.4-168.2) mg/L Zn
Reference Toxicant CV (%): 44

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Rainbow Trout Summary Sheet

Client: Tech

Start Date/Time: Aug 10 117 @ 1535h

Work Order No.: 170781

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-CC1.2-03072017-N
Sample Date: Aug 8 117
Date Received: Aug 8 117
Sample Volume: 2x20 L
Other: /

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 072717a
Source: Sun Valley Trout Farms
No. Fish/Volume (L): 10 x 12 L
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 35 ± 2
Mean Weight ± SD (g): 0.32 ± 0.06

Range: 32 - 38
Range: 0.22 - 0.40

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn81
Stock Solution ID: 16 ZnO2
Date Initiated: Aug 18 117
96-h LC50 (95% CL): 142.1 (106.1 - 200.2) mg/L Zn

Reference Toxicant Mean and Historical Range: 81.4 (39.4 - 168.2) mg/L Zn
Reference Toxicant CV (%): 44

Test Results: 10% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D. GH-CC1-Q-03072017-N
 W.O. # 170781
 RBT Batch #: 072717a Sun Valley
 Date Collected/Time: Aug 8/17 @ 0950 h
 Date Setup/Time: Aug 10/17 @ 1535 h
 CER #: 3
 Sample Setup By: RC [initials]

Number Fish/Volume: 10 / 12 L
 7-d % Mortality: 0%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER 3
 D.O. meter/probe: 21 DC
 Cond./Salinity meter/probe: 2 IC2
 pH meter/probe: 1 IP2

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	16.0	/	16.0
D.O. (mg/L)	10.0	/	9.7
pH	7.9	/	7.9
Cond. (µS/cm)	3350	/	3340
Salinity (ppt)	1.7	/	1.7

Concentration (% v/v)	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
Ctrl				10	10	10	10	15.5	15.0	15.0	15.0	15.0	9.9	9.4	9.4	9.8	8.5	7.1	7.3	7.2	7.2	7.3	44	49	
100				10	10	10	9	16.0	15.0	15.0	15.0	15.0	9.7	9.4	9.5	9.6	8.6	7.9	8.1	8.1	8.1	8.2	3340	3100	
Initials																									

Sample Description/Comments: Translucent, colourless liquid, no odour, no particulates

Fish Description at 96 h all surviving fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: white precipitate on tank bottom at 96h. No ppt on fish at 96h

Reviewed by: [initials] Date Reviewed: Aug 23, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Aug 10 117 @ 1535h

Work Order No.: 170781

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-SKCI-Q-03072017-N
Sample Date: Aug 8 117
Date Received: Aug 8 117
Sample Volume: 2x10 L
Other: /

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 072717a
Source: Sun Valley Trout Farms
No. Fish/Volume (L): 10 x 12 L
Loading Density (g/L): 0.22
Mean Length ± SD (mm): 34 ± 3
Mean Weight ± SD (g): 0.27 ± 0.08

Range: 29 - 38
Range: 0.17 - 0.43

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn81
Stock Solution ID: 16 Zn O2
Date Initiated: Aug 18 117
96-h LC50 (95% CL): 142.1 (106.1 - 200.2) mg/L Zn

Reference Toxicant Mean and Historical Range: 81.4 (39.4 - 168.2) mg/L Zn
Reference Toxicant CV (%): 44

Test Results: 10% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: AH-SC1-Q-03072017-N
 W.O. #: 170781
 RBT Batch #: 072717a Sun Valley
 Date Collected/Time: Aug 8/17 @ 0950h
 Date Setup/Time: Aug 10/17 @ 1535h
 CER #: 3
 Sample Setup By: RC/YM

Number Fish/Volume: 10 / 12L
 7-d % Mortality: 0%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CEA 3
 D.O. meter/probe: 2 1 p2
 Cond./Salinity meter/probe: 2 1CP2
 pH meter/probe: 1 1 p2

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	16.0	/	16.0
D.O. (mg/L)	10.3	/	9.8
pH	8.1	/	8.2
Cond. (µS/cm)	2440	/	2430
Salinity (ppt)	1.3	/	1.3

Concentration (% v/v)	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
Ctrl				10	10	10	10	15.5	15.0	15.0	15.0	15.0	10.0	9.4	9.5	9.6	8.3	7.1	7.3	7.1	7.2	7.3	44	50	
100				10	10	10	9	16.0	15.0	15.0	15.0	15.0	9.8	9.8	9.6	9.7	8.5	8.2	8.3	8.3	8.3	8.3	2430	2370	
Initials				RC	EL	JS	RC	RC	RC	EL	JS	RC	RC	RC	EL	JS	RC	RC	RC	EL	JS	RC	RC	RC	

Sample Description/Comments: Transparent, colourless liquid, no odour, no particulates

Fish Description at 96 h all surviving All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: slight white precipitate on tank bottom at 96h. No precipitate on fish at 96h

Reviewed by: [Signature] Date Reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: FR-CL-Q-03072017-N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617 A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC54
Stock Solution ID: 17N901
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Aug 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-CLL-Q-03072017-N
 Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: EC

Thermometer: CER#5 DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	20.0	19.5	8.4	8.4	8.4	7.7	7.8	7.8	352	364
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	20.0	19.5	8.0	8.3	8.3	7.9	8.0	8.1	1483	1462
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	EL	Ym		Ym	EC	EL	MW	EL	EL	Ym	EL	EL	Ym	EL	Ym

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity*
Control (MHW)	100	70
Highest conc.	1290	230
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	8.0		
pH	7.9		
Cond (µS/cm)	1483		
Salinity (ppt)	0.7		

Comments: No precipitation at 48h Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no colour, no colour, some particles

Batch#: 072617 A B 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: FR-LMPL-Q-03012017-N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17N901
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results:

0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by:

EC

Date reviewed:

Aug 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-LMPL-0-03072017-N
 Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: EC

Thermometer: CER#5 DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	20.0	9.5	8.4	8.3	8.4	7.7	7.8	7.8	352	361
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	20.0	9.5	8.5	8.4	8.3	8.2	8.2	8.3	500	504
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		EL	YML	YML	EC	EL	YML	EL	EL	YML	EL	EL	YML	EL	YML

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	100	70
Highest conc.	238	222
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	8.5		
pH	8.2		
Cond (µS/cm)	500		
Salinity (ppt)	0.2		

Comments: No precipitation at 48h Mortality: Heartbeat checked under microscope not required

Sample Description: clear, no colour, no colour, some particulates

Batch#: 072617 A B 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: FR_SPL-Q-03072017-N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 2x20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617 A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17Na01
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample, tested at 20°C

Reviewed by: [Signature]

Date reviewed: Aug 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FR-SPL-Q-03 07 2017 N
 Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: EC

Thermometer: CER#5 DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	22.0	22.0	19.5	8.4	8.4	8.3	7.7	7.8	7.8	352	363
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	22.0	19.5	8.0	8.3	8.3	7.1	7.8	7.1	1304	1233
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	EL	UM		UM	EC	EL	UM	EL	EL	UM	EL	EL	UM	EL	UM

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	100	70
Highest conc.	950	420
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	8.0		
pH	7.1		
Cond (µS/cm)	1304		
Salinity (ppt)	0.6		

Comments: sight precipitation at 48h on beaker bottom Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no colour, no odour, some particulates

Batch#: 072617 B 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1650h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: FR-SPI-Q-03072017-N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617CFD
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 18
Mortality (%) in previous 7 d: 10
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17N901
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results:

0% mortality at 48h in the 100% (v/v) undiluted sample, tested at 11°C

Reviewed by: [Signature]

Date reviewed: Aug. 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: FRSP1-Q-03072017-N
 Work Order No.: 170780

Start Date/Time: Aug 1, 2017 @ 1650h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YM

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	11.0	11.5	11.0	10.3	10.6	10.5	7.7	7.6	7.8	352	362
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	11.0	11.5	11.0	9.1	10.5	10.4	7.1	7.8	8.1	1306	1217
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YM	YM	YM	YM	YM	YM	YM	YM	YM	YM	YM	YM	YM	YM

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Control (MHW)	96	68
Highest conc.	1000	490
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	11.0		
DO (mg/L)	9.1		
pH	7.1		
Cond (µS/cm)	1306		
Salinity (ppt)	0.7		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not moved

Sample Description: clear, no colour, no odour, some particulates

Batch#: 072617C4D 7-d previous # young/brood: 18 Previous 7-d Mortality (%): 10 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug. 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: GHCCI-Q-03072017N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617 A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC54
Stock Solution ID: 17N901
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results:

67% mortality at 48h in the 100% (v/v) undiluted sample, tested at 20°C

Reviewed by:

[Signature]

Date reviewed:

Aug 29, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-CC1-Q-03072017-1
 Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: EC

Thermometer: CERBS DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	No. Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	20.0	19.5	8.4	8.4	8.3	7.7	7.8	7.8	352	361
	B	10	10	0											
	C	10	10	0											
	D	10	10	0											
100	A	10	1	1	20.0	20.0	19.5	8.4	8.2	7.7	7.6	7.8	3500	3370	
	B	10	4	4											
	C	10	5	5											
	D	10													
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		EL	NM	YM	EC	EL	NM	EL	EL	NM	EL	EL	NM	EL	YM

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	100	70
Highest conc.	2300	450
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	7.0		
pH	7.7		
Cond (µS/cm)	3500		
Salinity (ppt)	1.8		

Organisms & beaker bottom covered in precipitate

Comments: white precipitation at 48h on organisms & beaker bottom Mortality: Heartbeat checked under microscope YES

Sample Description: clear, no colour, no odour, some particulates

Batch#: 072617 B 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1645h
Test Species: Daphnia magna
Set up by: CML

Sample Information:

Sample ID: GH-CC1-Q-03072017-N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617 C+D
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 10
Mortality (%) in previous 7 d: 10
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17N901
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 13% mortality at 48h in the 100% (v/v) undiluted sample, tested at 10°C

Reviewed by: [Signature]

Date reviewed: Aug 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-CC1-D-03072017-N
 Work Order No.: 170780

Start Date/Time: Aug 7, 2017 @ 1645h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	10.5	10.0	10.0	9.9	12.7	10.4	7.7	7.6	7.7	351	361
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	9	9	10.5	10.0	10.0	10.4	12.8	10.5	7.8	7.9	7.8	3490	3480
	B	10	8	8											
	C	10	9	9											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	96	63
Highest conc.	2380	710
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	10.5		
DO (mg/L)	10.4		
pH	7.8		
Cond (µS/cm)	3490		
Salinity (ppt)	1.8		

Comments: slight white precipitate at 48h on organisms + beaker bottom Mortality: Heartbeat checked under microscope yes

Sample Description: clear, no colour, no odour, slight particulates

Batch#: 072617 C+D 7-d previous # young/brood: 18 Previous 7-d Mortality (%): 10 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug 27, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: GHSC1-a-03072017N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 2x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617 A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17N901
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample, tested at 20°C

Reviewed by: [Signature]

Date reviewed: Aug 27, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-SCI-Q-03072017-N
 Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1430h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: EC

Thermometer: CERBS DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	20.0	19.5	8.4	8.3	8.3	7.7	7.8	7.8	352	364
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	20.0	19.5	9.5	8.4	8.3	7.8	8.0	8.1	2520	2480
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	EL	YML	YML	EL	EL	YML	EL	EL	YML	EL	EL	YML	EL	EL	YML

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	100	70
Highest conc.	1820	370
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	9.1		
pH	7.8		
Cond (µS/cm)	2520		
Salinity (ppt)	1.3		

Comments: slight precipitation at 48h on heater bottom Mortality: Heartbeat checked under microscope not record

Sample Description: clear, no colour, no odour, some particulates

Batch#: 072617 A+B 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 9, 2017 @ 1650h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH-SCI-Q-03072017-N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617 C+D
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 18
Mortality (%) in previous 7 d: 10
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17N901
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 10% mortality at 48h in the 100% (v/v) undiluted sample, tested at 11°C

Reviewed by: [Signature]

Date reviewed: Aug 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-SCI-2-03072017-N
 Work Order No.: 170780

Start Date/Time: Aug 8/17 @ 1650h
 No. Organisms/volume: 10/200ml
 Test Organism: D.magna
 Set up by: YU

Thermometer: temp-5 DO meter: DO-2/3 pH meter: pH-1/3 Cond./Salinity: C-2/3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	11.0	11.5	11.0	10.3	10.7	10.8	7.7	7.6	7.8	352	374
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	11.0	11.5	11.0	10.5	10.7	10.7	7.9	8.0	8.1	2530	2570
	B	10	8	1											
	C	10	8	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YU	YU	YU	YU	YU	YU	YU	YU	YU	YU	YU	YU	YU	YU

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	96	68
Highest conc.	1790	390
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	11.0		
DO (mg/L)	10.5		
pH	7.8		
Cond (µS/cm)	2530		
Salinity (ppt)	1.3		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope yes

Sample Description: clear, no colour, no odour, slight particulates

Batch#: 072617C&D 7-d previous # young/brood: 18 Previous 7-d Mortality (%): 10 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170780

Start Date/Time: August 16, 2017 @ 1430h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: GH_CCI-Q-03072017W
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 27
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17Na01
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results:

The 48h LC50 is estimated to be 89.1% (v/v) with 95% confidence limits between 66.1 to 100% (v/v)

Reviewed by:

[Signature]

Date reviewed:

Aug 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-CC1-0-03072017-LN
 Work Order No.: 170730

Start Date/Time: August 16, 2017 @ 1430h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: Yuu

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.5	19.5	8.6	8.2	8.3	7.8	7.7	8.1	353	362
	B												7.9		
	C														
	D														
6.25	A	10	10	0	19.5	19.5	19.5	8.7	8.3	8.2	7.8	7.8	7.9	654	663
	B														
	C														
	D														
12.5	A	10	10	0	19.5	19.5	19.5	8.6	8.2	8.3	7.7	7.8	8.1	906	916
	B														
	C														
	D														
25	A	10	10	0	19.5	19.5	19.5	8.6	8.3	8.2	7.7	7.9	8.2	1363	1371
	B														
	C														
	D														
50	A	10	10	0	19.5	19.5	19.5	8.7	8.2	8.2	7.6	8.0	8.2	1958	1959
	B														
	C														
	D														
100	A	8	4	4	19.5	19.5	19.5	8.6	8.2	8.1	7.5	8.0	8.0	3400	3300
	B														
	C														
	D														
Technician Initials		Yuu Yuu		Yuu	Yuu	Yuu	Yuu	Yuu	Yuu	Yuu	Yuu	Yuu	Yuu	Yuu	Yuu

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity*
Control (MHW)	98	70
Highest conc.	2200	460
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.6		
pH	7.5		
Cond (µS/cm)	3400		
Salinity (ppt)	1.8		

Comments: precipitate on beaker bottom & oxygen bodies at 48 h in (100) Mortality: Heartbeat checked under microscope yes

Sample Description: clear, no colour, no odour, no particulates

Batch#: 07261713 7-d previous # young/brood: 27 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Aug 23 2017

CETIS Analytical Report

Report Date: 22 Aug-17 16:50 (p 1 of 2)
 Test Code: 170780 | 14-0334-9182

Daphnia magna 48-h Acute Survival Test

Nautilus Environmental

Analysis ID: 19-7521-0700	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.8.7
Analyzed: 22 Aug-17 16:50	Analysis: Trimmed Spearman-Kärber	Official Results: Yes
Batch ID: 01-9961-7642	Test Type: Survival (48h)	Analyst: Yvonne Lam
Start Date: 16 Aug-17 14:30	Protocol: EC/EPS 1/RM/14	Diluent: Mod-Hard Synthetic Water
Ending Date: 18 Aug-17 14:30	Species: Daphnia magna	Brine:
Duration: 48h	Source: In-House Culture	Age:
Sample ID: 03-6932-3252	Code: 16036CF4	Client: Teck Coal
Sample Date: 08 Aug-17 09:50	Material: Effluent	Project:
Receive Date: 09 Aug-17 07:45	Source: Teck Coal (TECK COAL)	
Sample Age: 8d 5h (17.1 °C)	Station: GH_CC1_Q_03072017_N	

Trimmed Spearman-Kärber Estimates

Threshold Option	Threshold	Trim	Mu	Sigma	EC50	95% LCL	95% UCL
Control Threshold	0	40.00%	1.95	0.06477	89.09	66.11	120.1

48h Survival Rate Summary

C-%	Control Type	Count	Calculated Variate(A/B)								
			Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Negative Control	1	1	1	1	0	0	0.0%	0.0%	10	10
6.25		1	1	1	1	0	0	0.0%	0.0%	10	10
12.5		1	1	1	1	0	0	0.0%	0.0%	10	10
25		1	1	1	1	0	0	0.0%	0.0%	10	10
50		1	1	1	1	0	0	0.0%	0.0%	10	10
100		1	0.4	0.4	0.4	0	0	0.0%	60.0%	4	10

48h Survival Rate Detail

C-%	Control Type	Rep 1
0	Negative Control	1
6.25		1
12.5		1
25		1
50		1
100		0.4

48h Survival Rate Binomials

C-%	Control Type	Rep 1
0	Negative Control	10/10
6.25		10/10
12.5		10/10
25		10/10
50		10/10
100		4/10

Analyst: MM QA: Aug 23/17

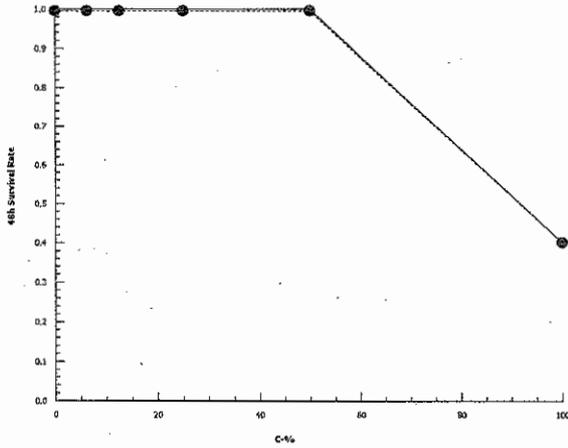
Daphnia magna 48-h Acute Survival Test

Nautilus Environmental

Analysis ID: 19-7521-0700 Endpoint: 48h Survival Rate
Analyzed: 22 Aug-17 16:50 Analysis: Trimmed Spearman-Kärber

CETIS Version: CETISv1.8.7
Official Results: Yes

Graphics



Client: Teck

W.O.#: 170780

Hardness and Alkalinity Datasheet

Sample ID	Subsample Date	Date Measured	Alkalinity				Hardness			
			Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/LCaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	Technician
FR_CCL-Q-03 072017_N	Aug 9/17	Aug 9/17	50	11.8	12.1	230	100	12.9	1290	J5
FR_SPL-Q-03 072017_N (20°C)			100	4.4	4.6	420	100	9.5	950	J5
FR_LMPI-Q-03 072017_N			50	11.3	11.5	222	50	11.9	238	J5
GH_CCL-Q-03 072017_N (20°C)			100	4.7	4.9	450	50	11.5	2300	J5
GH_SCL-Q-03 072017_N (20°C)			100	3.9	4.1	370	100	18.2	1820	J5
FR_SPL-Q-0307 2017_N @ 11°C			100	5.1	5.3	490	100	10.0	1000	J5
GH_CCL-0307 2017_N @ 10°C			100	7.4	7.7	710	50	11.9	2380 1790	J5
GH_SCL-Q-03 072017_N @ 11°C			100	4.1	4.3	390	100	17.5 ^{SS} 17.9	950 ^{SS} 1790	J5
MHW (20°C)			50	3.6	3.7	70	50	5.0	100	YKL
MHW (11°C)			↓	3.5	3.6	68	↓	4.8	96	↓
MHW (10°C)			↓	3.5	3.6	68	↓	4.8	96	↓

Notes: ① Diluted to 100 mL w/ DI water.

Reviewed by: 

Date Reviewed: Aug 23, 2017

APPENDIX C – Chain-of-custody form

COC ID: 20170808-1357		TURNAROUND TIME:			RUSH:		
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO	
Facility Name / Job#	Fording River Operation			Lab Name	Nautilus Environmental		Report Format / Distribution
Project Manager	Neil MacDonald			Lab Contact	Email 1: Lee.Wilms@teck.com		Excel PDF EDD
Email	Neil.MacDonald@teck.com			Email	Email 2: Neil.MacDonald@teck.com		x x x
Address	PO Box 100			Address	8664 Commerce Court		Email 3: teckcoal@equisonline.com
City	Elkford	Province	BC	City	Burnaby	Province	BC
Postal Code	V0B 1H0	Country	Canada	Postal Code	V5A 4N7	Country	Canada
Phone Number	1-250-865-5204			Phone Number	604-420-8773		

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS REQUESTED												
								48 hr Daphnia Single Conc. Pass/Fail	96 Hr Rainbow Trout Single Conc. Pass/Fail	28 Day H. azteca Pass/Fail	72 Hr. P. Subcapitatae PF	70 DUBIA PF	48 hr Daphnia Single Conc. Pass/Fail @ 10.9 degrees	48 hr Daphnia Single Conc. Pass/Fail @ 11.4 degrees	48 hr Daphnia Single Conc. Pass/Fail @ 10 degrees	320 FHM PF conducted in Calgary	Temp (C)			
FR_CCI_Q_03072017_N	FR_CCI	WS		2017/08/08	10:30	G	1	1	2											19.4
FR_LMPI_Q_03072017_N	FR_LMP1	WS		2017/08/08	11:10	G	1	1	2											19.6
FR_SPI_Q_03072017_N	FR_SPI	WS		2017/08/08	11:40	G	2	1	2					1.						18.1
GH_CCI_Q_03072017_N	GH_CCI	WS		2017/08/08	09:50	G	2	1	2							1.				17.1
GH_SCI_Q_03072017_N	GH_SCI	WS		2017/08/08	10:34	G	2	1	2						1.					18.8
FR_FRCP1_QR_17072017_N	FR_FRCP1	WS		2017/08/08	11:46	G	1											x		19.9
FR_UFR1_QR_17072017_N	FR_UFR1	WS		2017/08/08	09:14	G	1											x		17.7

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	REINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
	Bryan Oger	Aug 8/17	Nautilus - Burnaby Jaymee Buchanan	Aug 09/17 @ 07:45

NB OF BOTTLES RETURNED/DESCRIPTION	Regular (default) X	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend - Contact ALS	Sampler's Name	Mobile #
					Bryan Oger	250 425 3629
					Sampler's Signature	Date/Time
						Aug 8/17

① Confirmed w/ client, testing not needed.

② Received 2x 20L of FR UFR1 → forwarded 1x 20L to Calgary overnight.
 Received 4x 20L of FR FRCP1 → forwarded 3x 20L to Calgary overnight.

END OF REPORT



Acute Toxicity Test Results

Sample collected August 8, 2017

Final Report

August 23, 2017

Submitted to: **Teck Coal / Greenhills Operations**
Elkford, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_PC1_WS_2017-08-08_N	08-Aug-17 at 0928h	09-Aug-17 at 0745h	10-Aug-17 at 1535h	09-Aug-17 at 1430h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_PC1_WS_2017-08-08_N	18.3°C	900	238

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_PC1_WS_2017-08-08_N	0	3

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_PC1_WS_2017-08-08_N	Rainbow trout	None	None
GH_PC1_WS_2017-08-08_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	142.1 (106.1 – 200.2) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	81.4 (39.4 – 168.2 µg/L Zn	4.1 (3.3 – 5.0) g/L NaCl
Reference toxicant CV	44%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: August 18, 2017; ² Test Date: August 9, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Aug 10 117 @ 1535h

Work Order No.: 170782

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-PCI-WS-2017-08-08-N
Sample Date: Aug 8 117
Date Received: Aug 9 117
Sample Volume: 1 X 20 L
Other: /

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 072717a
Source: Sun Valley Trout Farms
No. Fish/Volume (L): 10 X 12 L
Loading Density (g/L): 0.28
Mean Length ± SD (mm): 34 ± 3 Range: 30 - 38
Mean Weight ± SD (g): 0.34 ± 0.09 Range: 0.16 - 0.47

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn81
Stock Solution ID: 16Zn02
Date Initiated: Aug 18 117
96-h LC50 (95% CL): 142.1 (106.1 - 200.2) mg/L Zn
Reference Toxicant Mean and Historical Range: 81.4 (39.4 - 168.2) mg/L Zn
Reference Toxicant CV (%): 44

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Aug 22, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: GH-PC1-WS-2017-08-08-N
 W.O. #: 170782
 RBT Batch #: 072917a Sun Valley
 Date Collected/Time: Aug 8/17 @ 0928h
 Date Setup/Time: Aug 10/17 @ 1535h
 CER #: 3
 Sample Setup By: PC/MML

Number Fish/Volume: 10 / 12L
 7-d % Mortality: 0%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cea 3
 D.O. meter/probe: 2 1 D2
 Cond./Salinity meter/probe: 2 1: p2
 pH meter/probe: 1 1 p2

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	16.0	/	16.0
D.O. (mg/L)	10.2	/	9.8
pH	8.0	/	8.1
Cond. (µS/cm)	1067	/	1068
Salinity (ppt)	0.5	/	0.5

Concentration	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	(% v/v)	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0
Ctrl				10	10	10	10	15.5	15.0	15.0	15.0	15.0	10.0	9.7	9.5	9.6	8.3	7.1	7.0	7.1	7.0	7.3	44	48
100				10	10	10	10	16.0	15.0	15.0	15.0	15.0	9.8	9.7	9.4	9.6	8.5	8.1	8.2	8.3	8.3	8.4	1068	1126
Initials				PC	EL	JS	PC	PC	PC	EL	JS	PC	PC	PC	EL	JS	PC	PC	PC	EL	JS	PC	PC	PC

Sample Description/Comments: transparent, colourless liquid, no odour, no particulates

Fish Description at 96 h All fish appear^{ng} to be normal Number of Stressed Fish at 96 h 0

Other Observations: No precipitate on tank bottom @ 96h. No precipitate on fish @ 96h

Reviewed by: [Signature]

Date Reviewed: Aug 22, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170183

Start Date/Time: August 9, 2017 @ 1430h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: GH-PCI-WS-2017-08-08-N
Sample Date: August 8, 2017
Date Received: August 9, 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 072617A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17N901
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 3% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Aug 22, 2017

**Freshwater Acute
48 Hour Toxicity Test Data Sheet**

Client: Teck
 Sample ID: GH-PLI-WS-2017-08-08-N
 Work Order No.: 170783

Start Date/Time: August 9, 2017 @ 1430h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: EC

Thermometer: CERBS DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (9. v/v)	Number of Live Organisms Rep	No. Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	20.0	19.5	8.4	8.3	8.2	7.7	7.8	7.8	352	364
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	20.0	19.5	8.6	8.3	8.4	8.0	8.2	8.2	1082	1083
	B	10	10	0											
	C	10	9	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		EL	MM	MM	EC	EC	MM	EL	EL	MM	EL	EL	MM	EL	MM

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	100	70
Highest conc.	900	238
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	8.6		
pH	8.0		
Cond (µS/cm)	1082		
Salinity (ppt)	0.5		

Comments: no precipitation at 48h Mortality: Heartbeat checked under microscope yes
 Sample Description: clear, no colour, no odour, some particulates
 Batch#: 072617 A+B 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8
 Reviewed by: [Signature] Date reviewed: Aug 22, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected October 3, 2017

Final Report

October 17, 2017

Submitted to: **Teck Coal / Greenhills Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_LC1_WS_2017-10-02_N	03-Oct-17 at 1105h	05-Oct-17 at 1100h	05-Oct-17 at 1720h	05-Oct-17 at 1540h
GH_TC2_WS_2017-10-02_N	03-Oct-17 at 1415h	05-Oct-17 at 1100h	05-Oct-17 at 1720h	05-Oct-17 at 1540h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_LC1_WS_2017-10-02_N	10.8°C	1510	250
GH_TC2_WS_2017-10-02_N	10.5°C	1430	196

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_LC1_WS_2017-10-02_N	0	0
GH_TC2_WS_2017-10-02_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_LC1_WS_2017-10-02_N	Rainbow trout	None	None
GH_LC1_WS_2017-10-02_N	<i>Daphnia magna</i>	None	None
GH_TC2_WS_2017-10-02_N	Rainbow trout	None	None
GH_TC2_WS_2017-10-02_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	114.9 (94.0 – 140.4) µg/L Zn ¹	5.2 (4.2 – 6.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	94.7 (46.7 – 192.0) µg/L Zn	4.1 (3.4 – 4.9) g/L NaCl
Reference toxicant CV	42%	10%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	Yes (see below)
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: October 2, 2017; ² Test Date: September 21, 2017, CL = Confidence Limits, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

The *D. magna* reference toxicant LC50 was outside of 2 SD but within the acceptable 3 SD historical range.



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Oct. 5 / 17 @ 1720h

Work Order No.: 171109

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-LCI-WS-2017-10-02-N
Sample Date: Oct. 3 / 17
Date Received: Oct. 5 / 17
Sample Volume: 2 L x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 091517
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 34 ± 4 Range: 26 - 39
Mean Weight ± SD (g): 0.27 ± 0.08 Range: 0.11 - 0.42

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ189
Stock Solution ID: 172104
Date Initiated: October 2, 2017
96-h LC50 (95% CL): 114.9 (94.0 - 140.4) µg/L Zn
Reference Toxicant Mean and Historical Range: 94.7 (46.7 - 192.0) µg/L Zn
Reference Toxicant CV (%): 42

Test Results: 0% mortality of 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature] Date reviewed: Oct. 16, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Greenhills Operation
 Sample I.D.: GH-LC1-WS-2017-10-02-N
 W.O. #: 171109
 RBT Batch #: 091517
 Date Collected/Time: 03 Oct 17 @ 1105 h
 Date Setup/Time: 05 Oct 17 @ 1710 h
 CER #: #2
 Sample Setup By: RC

Number Fish/Volume: 10 / 10L
 7-d % Mortality: 0.9%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cer #2
 D.O. meter/probe: 2 / D2
 Cond./Salinity meter/probe: 2 / cp2
 pH meter/probe: 5 / p5

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	15.0	/	15.0
D.O. (mg/L)	9.9	/	9.3
pH	8.2	/	8.3
Cond. (µS/cm)	2130	/	2130
Salinity (ppt)	1.1	/	1.1

Concentration	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	(% v/v)	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Ctrl				10	10	10	10	15.0	15.0	15.0	15.0	15.0	9.6	9.5	9.6	9.8	9.7	6.9	6.8	6.9	6.9	6.9	30	32	
100%				10	10	10	10	15.0	15.0	15.0	15.0	15.0	9.3	9.5	9.7	9.8	9.7	8.3	8.0	8.0	8.2	8.3	2130	2090	
Initials				RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	

Sample Description/Comments: clear, ^{light yellow} colorless liquid, no odour, no particulates

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 7

Other Observations: no precipitates at 96h

Reviewed by: [Signature] Date Reviewed: Oct 16, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Oct. 3 / 17 @ 17⁰⁰ 2017

Work Order No.: 171109

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-TC2-WS-2017-10-02-N
Sample Date: Oct. 3 / 17
Date Received: Oct. 5 / 17
Sample Volume: 2L x 20L
Other:

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 091517
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 34 ± 4 Range: 27 - 39
Mean Weight ± SD (g): 0.27 ± 0.11 Range: 0.11 - 0.44

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ189
Stock Solution ID: 17Z104
Date Initiated: October 2, 2017
96-h LC50 (95% CL): 114.9 (94.0 - 140.4) µg/L Zn
Reference Toxicant Mean and Historical Range: 94.7 (46.7 - 192.0) µg/L Zn
Reference Toxicant CV (%): 42

Test Results: 0% mortality of 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature] Date reviewed: Oct. 16, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Tack Greenhills Operation
 Sample I.D.: GH-TC2-WLS-2017-10-02-N
 W.O. #: 171109
 RBT Batch #: 091517
 Date Collected/Time: 03 Oct 17 @ 1415 h
 Date Setup/Time: 05 Oct 17 @ 1720 h
 CER #: 2
 Sample Setup By: RC

Number Fish/Volume: 10 / 10L
 7-d % Mortality: 0.0%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Gr 2
 D.O. meter/probe: 2 / DL
 Cond./Salinity meter/probe: 2 / CP2
 pH meter/probe: S / pS

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	15.5	/	15.5
D.O. (mg/L)	10.5	/	9.5
pH	8.3	/	8.4
Cond. (µS/cm)	1914	/	1914
Salinity (ppt)	1.0	/	1.0

Concentration (% v/v)	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
Ch1				10	10	10	10	15.0	15.0	15.0	15.0	15.0	7.6	7.6	7.7	7.8	7.7	6.9	6.9	6.9	6.9	6.9	30	32	
100%				10	10	10	10	15.5	15.0	15.0	15.0	15.0	9.5	7.6	7.7	7.9	7.8	8.4	8.0	8.2	8.1	8.2	1914	2010	
Initials				RC	EMM	EMM	EL	RC	RC	EMM	EMM	EL	RC	RC	EMM	EMM	EL	RC	RC	EMM	EMM	EL	RC	EL	

Sample Description/Comments: Clear, light yellow liquid, no odour, no particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: no precipitate at 96h

Reviewed by: [Signature] Date Reviewed: Oct 16, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171108

Start Date/Time: Oct. 5/17 @ 1540h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: GH_LCI_WS_2017-10-02-N
Sample Date: Oct. 3/17
Date Received: Oct. 5/17
Sample Volume: ~ 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 091317C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC56
Stock Solution ID: 17Na02
Date Initiated: September 21, 2017
48-h LC50 (95% CL): 5.2 (4.2-6.4) g/L NaCl (with acceptable 3SD of historical mean)
Reference Toxicant Mean and Historical Range: 4.1 (3.4-4.9) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 0% mortality at 48h in the 100% (wb) unfiltered sample.

Reviewed by: [Signature]

Date reviewed: Oct. 16, 2017

**Freshwater Acute
48 Hour Toxicity Test Data Sheet**

Client: GH-LET^{ow} TECK
 Sample ID: GH-LCL-WS-2017-10-02-0
 Work Order No.: 171108

Start Date/Time: 05 Oct 2017 @ 1540h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: CW

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)				
		24	48	0	24	48	0	24	48	0	24	48	0	48			
Control	A	10	10	0	19.5	19.5	20.0	8.8	8.2	8.1	7.5	7.7	7.9	348	352		
	B	10	10	0													
	C	10	10	0													
	D																
100	A	10	10	0	18.0	19.5	20.0	8.5	8.3	8.2	8.2	8.3	8.1	2170	2170		
	B	10	10	0													
	C	10	10	0													
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
Technician Initials		MM MM		MM MM		CW		MM MM		CW		MM MM		CW		MM MM	

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity*
Control (MHW)	98	~ 74.68
Highest conc.	1510	250
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0	/	/
DO (mg/L)	8.5	/	/
pH	8.2	/	/
Cond (µS/cm)	2170	/	/
Salinity (ppt)	1.1	/	/

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not read
 Sample Description: light yellow clear, colourless liquid, no odour, no particulates
 Batch#: 0913170 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10
 Reviewed by: [Signature] Date reviewed: Oct-16, 2017

Daphnia magna Summary Sheet

Client: Teek
Work Order No.: 171108

Start Date/Time: Oct. 5 11 17 @ 1540h
Test Species: Daphnia magna
Set up by: SW

Sample Information:

Sample ID: GH-TC2-WS-2017-10-02-N
Sample Date: Oct. 3 17
Date Received: Oct. 5 17
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 091317C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTCS6
Stock Solution ID: 17Na02
Date Initiated: September 21, 2017
48-h LC50 (95% CL): 5.2 (4.2-6.4) g/L NaCl (w/in acceptable 3SD of historical mean)
Reference Toxicant Mean and Historical Range: 4.1 (3.4-4.9) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature] Date reviewed: Oct. 16, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: 05 Oct 2017 @ 1540h
 Sample ID: GM-TC2-WS-2017-10-02-N CER #: 5
 Work Order No.: 171108 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: CW

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
control	A	10	10	0	19.5	19.5	100	8.8	8.2	10	7.5	7.7	18	348	352
	B	10	10	0									19		
	C	10	10	0											
	D														
100	A	10	10	0	18.0	19.5	100	8.9	8.4	8.5	8.2	8.2	8.1	1952	1960
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		<u>mm/mm</u>		<u>EMW</u>	<u>CW</u>	<u>mm/mm</u>	<u>CW</u>	<u>mm/mm</u>	<u>mm/mm</u>	<u>mm/mm</u>	<u>mm/mm</u>	<u>mm/mm</u>	<u>mm/mm</u>	<u>mm/mm</u>	<u>mm/mm</u>

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity*
Control (MHW)	98	68 74 <u>mm</u>
Highest conc.	1430	196
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		
DO (mg/L)	8.9		
pH	8.2		
Cond (µS/cm)	1952		
Salinity (ppt)	1.0		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not req'd.

Sample Description: clear, ~~colourless~~ ^{light yellow} liquid, no odour, no particulates

Batch#: 091317C 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: mm Date reviewed: Dec 16, 2017

APPENDIX C – Chain-of-custody form

COC ID: GH_OCT_Q_TOX_1-3868650055-100317-072938 TURNAROUND TIME: RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job#	Greenhills Operation			Lab Name	Nautilus Environmental - BC			Report Format / Distribution	Excel	PDF	EDD	
Project Manager	Jeremy Enns			Lab Contact				Email 1:	Jeremy.Enns@teck.com	X	X	X
Email	Jeremy.Enns@teck.com			Email	BCinfo@nautilusenvironmental.ca			Email 2:	Leigh.Stickney@teck.com	X	X	X
Address	P.O. BOX 5000			Address	8664 Commerce Court			Email 3:	teckcoal@equisonline.com			X
City	Elkford	Province	BC	City	Burnaby	Province	BC	PO number				
Postal Code	V0B1H0	Country	Canada	Postal Code	V5A 4N7	Country	Canada					
Phone Number	250-865-3341			Phone Number	604-420-8773							

SAMPLE DETAILS								ANALYSIS REQUESTED					Filtered - F: Field; L: Lab; FL: Field & Lab; N: None
Sample ID	Sample Location (sys_loc_code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# Of Cont.	NAUT_72hr_Subcap_P/F	NAUT_7d_C-Dubia_P/F	NAUT_28d_H-Azteca_P/F	NAUT_48hr_DM_P/F	NAUT_96hr_RT_P/F	Temp °C
① GH_LC1_WS_2017-10-02_N	GH_LC1	WS		2017/10/03	11:05	G	2 x 20L				1	1	10.8
② GH_TC2_WS_2017-10-02_N	GH_TC2	WS		2017/10/03	14:15	G	2 x 20L				1	1	10.5

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
Sample desc: ①, ② - clear, light yellow, no odour, no particulates	J. Enns	3-Oct-17/15:00	Nautilus - Burnaby NY - Naoki Yamamoto	Oct 05/17 @ 11:00

SERVICE REQUEST (rush - subject to availability)			
Regular (default) X	Sampler's Name	J. Enns	Mobile #
Priority (2-3 business days) - 50% surcharge	Sampler's Signature		250-425-1170
Emergency (1 Business Day) - 100% surcharge	Date/Time		
For Emergency <1 Day, ASAP or Weekend - Contact ALS			

END OF REPORT



Acute Toxicity Test Results

Samples collected October 4, 2017

Final Report

October 19, 2017

Submitted to: **Teck Coal / Greenhills Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_GH1_WS_2017-10-02_N	04-Oct-17 at 1252h	06-Oct-17 at 1030h	06-Oct-17 at 1530h	06-Oct-17 at 1700h
GH_TC1_WS_2017-10-02_N	04-Oct-17 at 1138h	06-Oct-17 at 1030h	06-Oct-17 at 1530h	06-Oct-17 at 1700h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_GH1_WS_2017-10-02_N	11.5°C	1200	216
GH_TC1_WS_2017-10-02_N	10.2°C	1230	192

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_GH1_WS_2017-10-02_N	0	0
GH_TC1_WS_2017-10-02_N	0	0

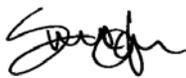
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_GH1_WS_2017-10-02_N	Rainbow trout	None	None
GH_GH1_WS_2017-10-02_N	<i>Daphnia magna</i>	None	None
GH_TC1_WS_2017-10-02_N	Rainbow trout	None	None
GH_TC1_WS_2017-10-02_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	114.9 (94.0 – 140.4) µg/L Zn ¹	4.5 (3.8 – 5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	94.7 (46.7 – 192.0) µg/L Zn	4.1 (3.3 – 5.1) g/L NaCl
Reference toxicant CV	42%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: October 2, 2017; ² Test Date: October 11, 2017, CL = Confidence Limits, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Oct. 6/17 @ 1530h

Work Order No.: 171122

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-GH1-WS-2017-10-02-N
Sample Date: Oct 4/17
Date Received: Oct 6/17
Sample Volume: 2L x 20L
Other:

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 091517
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.28
Mean Length ± SD (mm): 35 ± 2 Range: 31 - 38
Mean Weight ± SD (g): 0.28 ± 0.05 Range: 0.21 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ189
Stock Solution ID: 17Z104
Date Initiated: October 2, 2017
96-h LC50 (95% CL): 114.9 (94.0 - 140.4) µg/L Zn

Reference Toxicant Mean and Historical Range: 94.7 (46.7 - 192.0) µg/L Zn
Reference Toxicant CV (%): 42

Test Results: 0% mortality of 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Oct. 18, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Oct. 6/17 @ 1530h

Work Order No.: 171122

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-TCL-WS-2017-10-02-N
Sample Date: Oct. 4/17
Date Received: Oct. 6/17
Sample Volume: 2 L x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 091517
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 34 ± 3
Mean Weight ± SD (g): 0.27 ± 0.09

Range: 31 - 40
Range: 0.20 - 0.50

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ189
Stock Solution ID: 17Zn04
Date Initiated: October 2, 2017
96-h LC50 (95% CL): 114.9 (94.0 - 140.4) µg/L Zn

Reference Toxicant Mean and Historical Range: 94.7 (46.7 - 192.0) µg/L Zn
Reference Toxicant CV (%): 42

Test Results: 0% mortality of 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Oct. 18, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Greenhills Operation
 Sample I.D.: GH-TEL-MS-2017-10-02-N
 W.O. #: 171122
 RBT Batch #: 091517
 Date Collected/Time: 04 Oct 17 @ 1138h
 Date Setup/Time: 06 Oct 17 @ 1530h
 CER #: 2
 Sample Setup By: JX

Number Fish/Volume: 10 / 10L
 7-d % Mortality: 0.9%
 Total Pre-aeration Time (mins): 30 mins
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cr 2
 D.O. meter/probe: 2 / D2
 Cond./Salinity meter/probe: 2 / CP2
 pH meter/probe: S / PS

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.0	/	10.0
pH	8.2	/	8.2
Cond. (µS/cm)	1905	/	1907
Salinity (ppt)	1.0	/	1.0

Concentration (% v/v)	# Survivors						Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)			
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
Ctrl				10	10	10	10	15.5	15.0	15.0	15.0	15.0	9.1	9.6	9.8	9.8	9.4	7.0	6.9	6.9	6.9	6.9	30	40	
100%				10	10	10	10	14.0	15.0	15.0	15.0	15.0	10.0	9.8	9.9	9.9	9.3	8.2	8.1	8.2	8.3	8.3	1907	1933	
Initials				FMM	FMM	ER	RL	FMM	FMM	ER	RL	FMM	FMM	ER	RL	FMM	FMM	ER	RL	FMM	FMM	ER	RL	FMM	RL

Sample Description/Comments: clear colorless, no odour, no particulates

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: no precipitate at 96h

Reviewed by: [Signature] Date Reviewed: Oct. 18, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171121

Start Date/Time: October 6, 2017 @ 17:00h
Test Species: Daphnia magna
Set up by: YUL / JAB

Sample Information:

Sample ID: GH_GH1_WS_201710-02-N
Sample Date: Oct. 4, 2017
Date Received: Oct 6, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 092017B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 11

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC57
Stock Solution ID: 17NaCl
Date Initiated: October 11, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3 - 5.1) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: Oct. 18, 2017

**Freshwater Acute
48 Hour Toxicity Test Data Sheet**

Client: Teek
 Sample ID: GLGH1-WS-2017-10-02-N
 Work Order No.: 171121

Start Date/Time: October 6, 2017 @ 1700h
 CER #: S
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YML/SAB

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.5	19.5	8.8	8.6	8.4	8.0	8.0	8.0	354	349
	B	10	10	0											
	C	10	10	0											
	D			0											
100	A	10	10	0	18.5	18.5	18.5	8.7	8.8	8.6	8.3	8.5	1870	1789	
	B	10	10	0											
	C	10	10	0											
	D			0											
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML			YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO3)	
Control (MHW)	98	68
Highest conc.	1200	216
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		
DO (mg/L)	8.7		
pH	8.3		
Cond (µS/cm)	1870		
Salinity (ppt)	0.9		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear no colour, no odour, no particulates

Batch#: 092017B 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 11

Reviewed by: YML Date reviewed: Oct. 18, 2017

Daphnia magna Summary Sheet

Client: TRCK
Work Order No.: 171121

Start Date/Time: October 6, 2017 @ 1700h
Test Species: Daphnia magna
Set up by: YWL

Sample Information:

Sample ID: GH_TCL_WS_2017-10-02_N
Sample Date: Oct. 4 17
Date Received: Oct. 6 17
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 092017B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 11

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC57
Stock Solution ID: 17NaCl
Date Initiated: October 11, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3 - 5.1) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the (100% C_{ul}) undiluted sample

Reviewed by: [Signature]

Date reviewed: Oct 18, 2017

**Freshwater Acute
48 Hour Toxicity Test Data Sheet**

Client: Teek Start Date/Time: October 6, 2017 @ 1700h
 Sample ID: GH-TCL-WS 2017-10-02-N CER #: 5
 Work Order No.: 171121 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: VM

Thermometer: CER 05 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

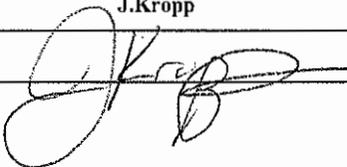
Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.0	19.5	8.8	8.6	8.4	8.0	8.0	8.4	1939	1889
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	19.0	19.5	8.0	8.1	8.4	8.2	8.1	8.4	1939	1889
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		VM	K	K	VM	VM	K	VM	VM	K	VM	VM	K	VM	K

	Hardness*	Alkalinity*
Concentration:	*(mg/L as CaCO ₃)	
Control (MHW)	98	68
Highest conc.	1230	192
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.0		
pH	8.2		
Cond (µS/cm)	1939		
Salinity (ppt)	1.0		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not req. id.
 Sample Description: clear, no colour, no odour, no particulates
 Batch#: 092017B 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 11
 Reviewed by: VM Date reviewed: Oct. 15, 2017

APPENDIX C – Chain-of-custody form

COC ID:		GH_OCT_Q_TOX_1-3868650055-100317-072938				TURNAROUND TIME:			RUSH:													
PROJECT/CLIENT INFO						LABORATORY				OTHER INFO												
Facility Name / Job#		Greenhills Operation				Lab Name		Nautilus Environmental - BC		Report Format / Distribution		Excel	PDF	EDD								
Project Manager		Jeremy Enns				Lab Contact		Krista Peary		Email 1:		Jeremy.Enns@teck.com	X	X	X							
Email		Jeremy.Enns@teck.com				Email		BCinfo@nautilusenvironmental.ca		Email 2:		Leigh.Stickney@teck.com	X	X	X							
Address		P.O. BOX 5000				Address		8664 Commerce Court		Email 3:		teckcoal@equisonline.com			X							
City		Elkford		Province	BC	City		Burnaby	Province	BC	PO number											
Postal Code		V0B1H0		Country	Canada	Postal Code		V5A 4N7	Country	Canada												
Phone Number		250-865-3341				Phone Number		604-420-8773														
SAMPLE DETAILS						ANALYSIS REQUESTED																
Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# Of Cont.	ANALYSIS	PREP	FILE												
GH_GHI_WS_2017-10-02_N	GH_GHI	WS		2017/10/04	12:52	G	2	NAUT_72hr_Subcap_P/F														
GH_TCI_WS_2017-10-02_N	GH_TCI	WS		2017/10/04	11:38	G	2	NAUT_7d_C-Dubia_P/F														
								NAUT_28d_H-Azteca_P/F														
								NAUT_48hr_DM_P/F														
								NAUT_96hr_RT_P/F														
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS			RELINQUISHED BY/AFFILIATION			DATE/TIME		ACCEPTED BY/AFFILIATION			DATE/TIME											
Sample desc - (1) (2) clear, no colour, no odour, no particulates			J.Kropp					Nautilus - Burnaby			Oct 06/17 @ 10:30											
								NY - New Yamamoto														
SERVICE REQUEST (rush - subject to availability)																						
Regular (default) X			Sampler's Name			J.Kropp			Mobile #		2504230826											
Priority (2-3 business days) - 50% surcharge			Sampler's Signature						Date/Time													
Emergency (1 Business Day) - 100% surcharge																						
For Emergency <1 Day, ASAP or Weekend - Contact ALS																						

①
②

END OF REPORT



Acute Toxicity Test Results

Samples collected November 1, 2017

Final Report

November 15, 2017

Submitted to: **Teck Coal / Fording River Operation**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_CC1_MON_2017-11-06_N	01-Nov-17 at 1252h	03-Nov-17 at 1100h	03-Nov-17 at 1740h	03-Nov-17 at 1435h, 1545h, 1605h
GH_PC1_MON_2017-11-06_N	01-Nov-17 at 1201h	03-Nov-17 at 1100h	03-Nov-17 at 1740h	03-Nov-17 at 1545h
GH_SC1_MON_2017-11-06_N	01-Nov-17 at 1528h	03-Nov-17 at 1100h	03-Nov-17 at 1740h	03-Nov-17 at 1425h, 1545h / 06-Nov-17 at 1450h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)		Alkalinity (mg/L CaCO ₃)	
		10°C	20°C	10°C	20°C
		GH_CC1_MON_2017-11-06_N	6.3°C	6800	6600
GH_PC1_MON_2017-11-06_N	6.3°C	n/a	800	n/a	208
GH_SC1_MON_2017-11-06_N	6.3°C	3500	3300/3500	350	364/360

n/a = not applicable

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test – also tested at 10°C as requested by the client, which was initiated concurrently with the standard test exposure of 20°C
- *Daphnia magna* 48-h LC50 test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i>	
		10°C	20°C
GH_CC1_MON_2017-11-06_N	0	0	100
GH_PC1_MON_2017-11-06_N	10	n/a	0
GH_SC1_MON_2017-11-06_N	0	0	93

n/a = not applicable

Sample ID	LC50 (% v/v) [95% CL]
	<i>Daphnia magna</i>
GH_CC1_MON_2017-11-06_N	77.1 [67.2 – 88.4]
GH_SC1_MON_2017-11-06_N	> 100

CL = Confidence limits

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_CC1_MON_2017-11-06_N	Rainbow trout	Precipitate observed on the bottom of test vessel	None
GH_CC1_MON_2017-11-06_N	<i>Daphnia magna</i> - 20°C	Precipitate observed on the bottom of test vessel	Precipitate observed on carapace
GH_CC1_MON_2017-11-06_N	<i>Daphnia magna</i> - 10°C	Precipitate observed on the bottom of test vessel	None
GH_PC1_MON_2017-11-06_N	Rainbow trout	None	None
GH_PC1_MON_2017-11-06_N	<i>Daphnia magna</i>	None	None
GH_SC1_MON_2017-11-06_N	Rainbow trout	Precipitate observed on the bottom of test vessel	None
GH_SC1_MON_2017-11-06_N	<i>Daphnia magna</i> - 20°C	Precipitate observed on the bottom of test vessel	None
GH_SC1_MON_2017-11-06_N	<i>Daphnia magna</i> - 10°C	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	100.1 (72.0 – 131.2) µg/L Zn ¹	4.8 (3.7 – 6.2) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	104.1 (56.8 – 190.8) µg/L Zn	4.2 (3.4 – 5.1) g/L NaCl
Reference toxicant CV	35%	10%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None for standard screening tests ³
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: November 3, 2017; ² Test Date: November 1, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

³ Additional screening test is normally conducted at 10±2°C as part of the project study to compare survival data from two exposure temperatures



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* LC50 test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	Five concentrations, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Statistical software	CETIS Version 1.8.7
Test endpoint	Survival (48-hour LC50)
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: November 3, 2017 @ 1740h

Work Order No.: 171308

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH_CCI_MON_2017-11-06-N
Sample Date: November 1, 2017
Date Received: November 3, 2017
Sample Volume: 2 x 20L
Other: ✓

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 13
Alkalinity (mg/L CaCO₃): 910

Test Organism Information:

Batch No.: 1018176
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 35 ± 3
Mean Weight ± SD (g): 0.31 ± 0.07

Range: 29 - 40
Range: 0.17 - 0.43

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ195
Stock Solution ID: 17Z104
Date Initiated: November 3, 2017
96-h LC50 (95% CL): 100.1 (72.0 - 131.2) µg/L Zn

Reference Toxicant Mean and Historical Range: 104.1 (56.8 - 190.8) µg/L Zn
Reference Toxicant CV (%): 35

Test Results: 0% mortality at 96h Zn the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Nov. 10, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Fording River Operation
 Sample I.D.: GH-CR1-MON-2017-11-06-N
 W.O. #: 171308
 RBT Batch #: 1018176
 Date Collected/Time: 01 Nov 17 @ 1252 h
 Date Setup/Time: 03 Nov 17 @ 1740 h
 CER #: 8
 Sample Setup By: RL

Number Fish/Volume: 10 / 10L
 7-d % Mortality: 0.5%
 Total Pre-aeration Time (mins): 120
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cel 8
 D.O. meter/probe: 2 / D2
 Cond./Salinity meter/probe: 2 / CP2
 pH meter/probe: 2 / PL

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.7	/	10.4 ^{PL5}
pH	8.2	/	8.2
Cond. (µS/cm)	3460	/	3470
Salinity (ppt)	1.8	/	1.8

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Ctrl				10	10	10	10	15.0	15.0	15.0	15.0	15.0	10.0	9.6	9.7	9.6	9.5	7.4	7.1	7.3	7.2	7.4	37	36
100%				10	10	10	10	14.0	15.0	15.0	15.0	15.0	10.5	9.7	9.6	9.6	9.6	8.2	8.5	8.4	8.3	8.4	3470	3170
Initials				RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL

Sample Description/Comments: Clear, colourless liquid, no odour, no particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: White precipitate formed at bottom of tanks at 96h

Reviewed by: [Signature] Date Reviewed: Nov. 10, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: November 3, 2017 @ 1740h

Work Order No.: 171308

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-PCI-MON-2017-11-06-N
Sample Date: November 1, 2017
Date Received: November 3, 2017
Sample Volume: 1 x 20L
Other: ✓

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 13
Alkalinity (mg/L CaCO₃): 910

Test Organism Information:

Batch No.: 1018176
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.29
Mean Length ± SD (mm): 34 ± 1 Range: 33 - 36
Mean Weight ± SD (g): 0.29 ± 0.04 Range: 0.22 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ195
Stock Solution ID: 17Z104
Date Initiated: November 3, 2017
96-h LC50 (95% CL): 100.1 (72.0 - 131.2) µg/L Zn
Reference Toxicant Mean and Historical Range: 104.1 (56.8 - 190.8) µg/L Zn
Reference Toxicant CV (%): 35

Test Results: 10% mortality at 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Nov-10, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Pording River Operation
 Sample I.D.: GH-PC1-MDN-2017-11-06-N
 W.O. #: 171308 ^{as} GH-2017-11-06-N
 RBT Batch #: 1018176
 Date Collected/Time: 01 Nov 17 @ 1201 h
 Date Setup/Time: 03 Nov 17 @ 1740 h
 CER #: 8
 Sample Setup By: pc

Number Fish/Volume: 10 / 10 L
 7-d % Mortality: 0.57
 Total Pre-aeration Time (mins): 120
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cel 8
 D.O. meter/probe: 2 1 02
 Cond./Salinity meter/probe: 2 1 02
 pH meter/probe: 2 1 02

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.7	/	10.5 10.5
pH	8.6	/	8.6
Cond. (µS/cm)	1073 1053	/	1049
Salinity (ppt)	0.5	/	0.5

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
GH1				10	10	10	10	15.0	15.0	15.0	15.0	15.0	10.0	9.7	9.6	9.6	9.7	7.4	7.2	7.3	7.2	7.4	37	46
100%				10	9	9	9	14.0	15.0	15.0	15.0	15.0	10.5	9.8	9.7	9.6	9.9	8.6	8.7	8.6	8.6	8.7	1050	1098
																				8.6				
Initials				A	A	pc	pc	pc	A	A	pc	pc	pc	A	A	pc	pc	pc	A	A	pc	pc	pc	pc

Sample Description/Comments: Clear, colourless liquid, no odour, no particulates

Fish Description at 96 h All surviving fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: no precipitate at 96h

Reviewed by: [Signature] Date Reviewed: Nov 10, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: November 3, 2017 @ 1740h

Work Order No.: 171308

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH SCI_MON_2017-11-06-N
Sample Date: November 1, 2017
Date Received: November 3, 2017
Sample Volume: 2 x 20L
Other: ✓

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 13
Alkalinity (mg/L CaCO₃): 9.10

Test Organism Information:

Batch No.: 1018176
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 36 ± 2 Range: 32 - 37
Mean Weight ± SD (g): 0.31 ± 0.04 Range: 0.22 - 0.36

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ195
Stock Solution ID: 17Z104
Date Initiated: November 3, 2017
96-h LC50 (95% CL): 100.1 (72.0 - 131.2) µg/L Zn

Reference Toxicant Mean and Historical Range: 104.1 (56.8 - 190.8) µg/L Zn
Reference Toxicant CV (%): 35

Test Results: 0% mortality at 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Nov. 10, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Fording River Operation
 Sample I.D.: GH-SC1-MON-2017-11-06-N
 W.O. #: 171308
 RBT Batch #: 1018176
 Date Collected/Time: 01 Nov 17 @ 1528
 Date Setup/Time: 03 Nov 17 @ 1740
 CER #: 8
 Sample Setup By: RL

Number Fish/Volume: 10 / 10L
 7-d % Mortality: 0.5%
 Total Pre-aeration Time (mins): 120
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cel 8
 D.O. meter/probe: 2 1 PL
 Cond./Salinity meter/probe: 2 1 CPL
 pH meter/probe: 2 1 PL

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.9	/	10.6
pH	8.2	/	8.3
Cond. (µS/cm)	2930	/	2940
Salinity (ppt)	1.5	/	1.5

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Ctrl				10	10	10	10	15.0	15.0	15.0	15.0	15.0	10.0	9.7	9.6	9.6	9.7	7.4	7.2	7.3	7.2	7.4	37	47
100%				10	10	10	10	14.0	15.0	15.0	15.0	15.0	10.6	9.6	9.5	9.6	9.6	8.3	8.3	8.4	8.5	8.5	2940	2990
Initials				A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Sample Description/Comments: Clear, colorless liquid, no odour, no particulates

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: White precipitate formed at bottom of tank at 96h

Reviewed by: *RL*

Date Reviewed: Nov. 10, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171309

Start Date/Time: November 3, 2017 @ 1545h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: GH-CC1-MON-2017-11-06-N
Sample Date: November 1, 2017
Date Received: November 3, 2017
Sample Volume: 2 X 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 101117C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 15
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC58
Stock Solution ID: 17Na05
Date Initiated: November 1, 2017
48-h LC50 (95% CL): 4.8 (3.7-6.2) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.4-5.1) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 100% mortality at 48h in the 100% (v/v) undiluted sample, tested at 20°C

Reviewed by: [Signature]

Date reviewed: Nov. 10, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck GHO
 Sample ID: GH-CC1-MON-2017-11-06-N
 Work Order No.: 171309

Start Date/Time: 03 NOV 2017 @ 1545h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: OW

Thermometer: CERAS pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	18.0	19.0	19.0	8.7	8.7	8.5	8.0	8.1	8.1	352	361
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10 ⁰	0 ⁰	0	21.0	19.0	19.0	8.6	8.6	8.6	8.0	8.1	8.2	3490	3395
	B	10 ⁰	0 ⁰	0											
	C	10 ⁰	0 ⁰	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	A	A	OW	A	OW	A	OW	A	OW	A	OW	A	OW

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	96	72
Highest conc.	8600	552
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	21.0		
DO (mg/L)	8.6		
pH	8.0		
Cond (µS/cm)	3490		
Salinity (ppt)	1.8		

Comments: _____ Mortality: Heartbeat checked under microscope yes
 Sample Description: D. magna on bottom of beaker
covered in precipitate at 48h, beaker bottom covered in precipitate at 48h
 Batch#: 10117C 7-d previous # young/brood: 15 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8
 Reviewed by: OW Date reviewed: Nov 10, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171311

Start Date/Time: November 3, 2017 @ 1435h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: GHCCI-MON-2017-11-06-N
Sample Date: November 1, 2017
Date Received: November 3, 2017
Sample Volume: 2 X 20L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 101817A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC58
Stock Solution ID: 17Na05
Date Initiated: November 1, 2017
48-h LC50 (95% CL): 4.8 (3.7-6.2) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.4-5.1) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample, tested at 10°C

Reviewed by: 

Date reviewed: Nov-10, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

@ 10°C

Client: Teck GHO
 Sample ID: GH-CO-MON-2017-11-06-N
 Work Order No.: 171311

Start Date/Time: 03 Nov 2017 @ 1435h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: CW

Thermometer: CER15 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	24		48		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		0	24	48	0		24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	11.5	11.0	10.5	9.5	9.6	9.6	8.1	8.0	8.1	350	351		
	B	10	10	0					9.6	9.6							
	C	10	10	0													
	D									9.9	9.9						
100%	A	10	10 ^D	0	10.5	11.0	10.5	10.8	9.9	9.9	8.1	8.2	8.0	3500	3420		
	B	10	10 ^D	0						9.7							
	C	10	10 ^D	0													
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
Technician Initials		A	A	A	CW	A	A	CW	A	A	CW	A	A	CW	A		

Concentration	Hardness* (mg/L as CaCo3)	Alkalinity* (mg/L as CaCo3)
Control (MHW)	94	72
Highest conc.	6800	534
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	10.5	/	/
DO (mg/L)	10.8	/	/
pH	8.1	/	/
Cond (µS/cm)	3500	/	/
Salinity (ppt)	1.8	/	/

Comments: _____ Mortality: Heartbeat checked under microscope NO
 Sample Description: 1 pot on bottom of beakers at 48h ^{sample obs.} clear, no colour, no odour, no particulates
 Batch#: 101817A 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8
 Reviewed by: [Signature] Date reviewed: Nov. 10, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 17132910

Start Date/Time: November 3, 2017 @ 1605h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: GH(CI-MON-2017-11-06-N)
Sample Date: November 1, 2017
Date Received: November 3, 2017
Sample Volume: 2 X 20L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 101117C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 15
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC58
Stock Solution ID: 17NA05
Date Initiated: November 1, 2017
48-h LC50 (95% CL): 4.8 (3.7-6.2) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.4-5.1) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: The 48h LC50 is estimated to be 77.1% with 95% confidence limits b/w 67.2 to 88.4 % CVW

Reviewed by: [Signature]

Date reviewed: Nov 10, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck GHO
 Sample ID: GH-CC1-MON-2017-11-06-N
 Work Order No.: 171310

Start Date/Time: 03NOV2017@1605h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: CW

Thermometer: CER45 pH meter/probe: 313 DO meter/probe: 313 Cond./Salinity meter/probe: 313

Concentration (% v/v)	Number of Live Organisms Rep	No. Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
control	A	10	10	0	18.5	19.0	19.0	8.7	8.6	8.4	7.9	8.0	8.0	352	361
	B														
	C														
	D														
6-25	A	10	10	0	18.5	19.0	19.0	8.6	8.7	8.5	8.1	8.1	8.1	644	660
	B														
	C														
	D														
12.5	A	10	10	0	19.0	19.0	19.0	8.6	8.6	8.4	8.1	8.1	8.1	821	831
	B														
	C														
	D														
25	A	10	10	0	19.0	19.0	19.0	8.7	8.6	8.4	8.2	8.1	8.2	1280	1298
	B														
	C														
	D														
50	A	10	10	0	19.0	19.0	19.0	8.9	8.6	8.4	8.1	8.2	8.2	1999	1962
	B														
	C														
	D														
100	A	10	2 ⁰	0	21.5	19.0	19.0	8.7	8.7	8.4	8.0	8.2	8.3	3500	3400
	B														
	C														
	D														
Technician Initials					CW	A	CW	A	CW	A	CW	A	CW	A	

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	96	72
Highest conc.	6600	552
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	21.5		
DO (mg/L)	8.7		
pH	8.0		
Cond (µS/cm)	3500		
Salinity (ppt)	1.8		

Comments: clear, no colour, no odour, no particulates Mortality: Heartbeat checked under microscope yes

Sample Description: ① dark solids on bottom of becker ② ppt on bottom of becker at 48h covered in precipitate at 48h

Batch#: 101117C 7-d previous # young/brood: 15 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: NOV-10, 2017

CETIS Analytical Report

Report Date: 10 Nov-17 11:16 (p 1 of 2)
 Test Code: 171310 | 21-2498-0331

Daphnia magna 48-h Acute Survival Test

Nautilus Environmental

Analysis ID: 14-1697-0113	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.8.7
Analyzed: 10 Nov-17 11:16	Analysis: Trimmed Spearman-Kärber	Official Results: Yes
Batch ID: 12-1333-1842	Test Type: Survival (48h)	Analyst: Yvonne Lam
Start Date: 03 Nov-17 16:05	Protocol: EC/EPS 1/RM/13	Diluent: Mod-Hard Synthetic Water
Ending Date: 05 Nov-17 16:00	Species: Daphnia magna	Brine:
Duration: 48h	Source: In-House Culture	Age:
Sample ID: 01-3118-1157	Code: 7D1AA65	Client: Teck Coal
Sample Date: 01 Nov-17 12:52	Material: Effluent	Project:
Receive Date: 03 Nov-17 11:00	Source: Teck Coal (TECK COAL)	
Sample Age: 51h (6.3 °C)	Station: GH_CC1_MON_2017-11-06_N	

Trimmed Spearman-Kärber Estimates

Threshold Option	Threshold	Trim	Mu	Sigma	EC50	95% LCL	95% UCL
Control Threshold	0	20.00%	1.887	0.02975	77.11	67.24	88.43

48h Survival Rate Summary

Calculated Variate(A/B)

C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Negative Control	1	1	1	1	0	0	0.0%	0.0%	10	10
6.25		1	1	1	1	0	0	0.0%	0.0%	10	10
12.5		1	1	1	1	0	0	0.0%	0.0%	10	10
25		1	1	1	1	0	0	0.0%	0.0%	10	10
50		1	1	1	1	0	0	0.0%	0.0%	10	10
100		1	0.2	0.2	0.2	0	0	0.0%	80.0%	2	10

48h Survival Rate Detail

C-%	Control Type	Rep 1
0	Negative Control	1
6.25		1
12.5		1
25		1
50		1
100		0.2

48h Survival Rate Binomials

C-%	Control Type	Rep 1
0	Negative Control	10/10
6.25		10/10
12.5		10/10
25		10/10
50		10/10
100		2/10

CETIS Analytical Report

Report Date: 10 Nov-17 11:16 (p 2 of 2)
Test Code: 171310 | 21-2498-0331

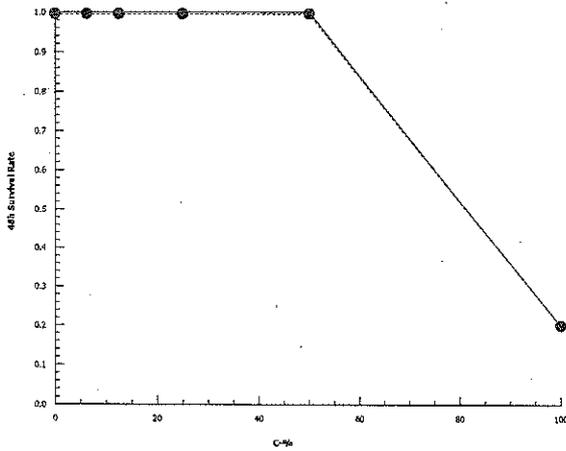
Daphnia magna 48-h Acute Survival Test

Nautilus Environmental

Analysis ID: 14-1697-0113 Endpoint: 48h Survival Rate
Analyzed: 10 Nov-17 11:16 Analysis: Trimmed Spearman-Kärber

CETIS Version: CETISv1.8.7
Official Results: Yes

Graphics



000-469-187-1

CETIS™ v1.8.7.16

Analyst: YMC QA: _____

YMC
NOV 10/17

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171309

Start Date/Time: November 3, 2017 @ 15454
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: GH-PCI-MON-2017-11-06-N
Sample Date: November 1, 2017
Date Received: November 3, 2017
Sample Volume: 1 X 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 10117C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 15
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS8
Stock Solution ID: 17Na05
Date Initiated: November 1, 2017
48-h LC50 (95% CL): 4.8 (3.7-6.2) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.4-5.1) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: 

Date reviewed: Nov 10, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck GHD
 Sample ID: GH-PCI-MON-2017-11-06-N
 Work Order No.: 171309

Start Date/Time: 03 Nov 2017 @ 1545
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: CV

Thermometer: CER45 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	24		48		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48	48	0		24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	18.0	19.0	19.0	8.7	8.8	8.5	8.0	8.0	8.0	352	362		
	B	10	10	0													
	C	10	10	0													
	D																
100%	A	10 ^D	10 ^D	0	21.5	19.0	19.0	8.8	8.8	8.6	8.4	8.6	8.5	1086	1102		
	B	10 ^D	10 ^D	0													
	C	10 ^D	10 ^D	0													
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
Technician Initials		A	A	A	CV	A	A	CV	A	A	CV	A	A	CV	A		

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity*
Control (MHW)	96	72
Highest conc.	800	208
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	21.5		
DO (mg/L)	8.8		
pH	8.4		
Cond (µS/cm)	1086		
Salinity (ppt)	0.5		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope yes

Sample Description: 10 organisms on surface ^{sample} clear, no colour, no odour, no particles

Batch#: 10117C 7-d previous # young/brood: 15 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: CV Date reviewed: Nov. 10, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171309

Start Date/Time: November 3, 2017 @ 1545h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: GH-SEL-MON-2017-11-06-N
Sample Date: November 1, 2017
Date Received: November 3, 2017
Sample Volume: 2X 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 101117C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 15
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS8
Stock Solution ID: 17Na05
Date Initiated: November 1, 2017
48-h LC50 (95% CL): 4.8 (3.7-6.2) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.4-5.1) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 93% mortality at 48h in the 100% (v/v) undiluted sample, tested at 20°C

Reviewed by: 

Date reviewed: Nov. 10, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Ato
 Sample ID: GH-SCI-MON-2017-11-06-N
 Work Order No.: 171309

Start Date/Time: 03 Nov 2017 @ 1545h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: rw

Thermometer: CERHS pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	18.0	19.0	19.0	8.7	8.8	8.6	8.0	8.0	8.1	352	362
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	0	0	21.5	19.0	19.0	8.8	8.8	8.7	8.0	8.1	8.2	2930	2890
	B	10	1	0											
	C	10	1	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	A	A	rw	A	A	rw	A	A	rw	A	A	rw	A

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	96	72
Highest conc.	3500	360
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	21.5		
DO (mg/L)	8.8		
pH	8.0		
Cond (µS/cm)	2930		
Salinity (ppt)	1.5		

Comments: slight precipitate at edge on beaker bottom Mortality: Heartbeat checked under microscope yes

Sample Description: clear, no colour, no odour, no particulates

Batch#: 10117C 7-d previous # young/brood: 15 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Nov 10, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171311

Start Date/Time: November 3, 2017 @ 1425h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: 6H-SCI-MON-2017-11-06-N
Sample Date: November 1, 2017
Date Received: November 3, 2017
Sample Volume: 2 X 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 101817A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC58
Stock Solution ID: 17Na05
Date Initiated: November 1, 2017
48-h LC50 (95% CL): 4.8 (3.7-6.2) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.4-5.1) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample, tested at 10°C

Reviewed by: 

Date reviewed: Nov. 10, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TECK GHD
 Sample ID: GH-SCI-MON-2017-11-06-N
 Work Order No.: 171311

Start Date/Time: 03 NOV 2017 @ 1425 h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: CW

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	11.5	11.0	10.5	9.5	9.6	9.2	8.1	8.0	8.1	350	361
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10	0	10.0	11.0	12.5	10.8	10.9	9.9	8.1	8.1	8.2	2940	2960
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	A	A	CW	A	A	CW	A	A	CW	A	A	CW	A

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	96	72
Highest conc.	3500	350
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	10.0		
DO (mg/L)	10.8		
pH	8.1		
Cond (µS/cm)	2940		
Salinity (ppt)	1.5		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope no

Sample Description: clear, no colour, no odour, no particulates

Batch#: 101817A 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: CW Date reviewed: Nov-10, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171310

Start Date/Time: November 3⁶, 2017 @ 1450h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: GH-SCI-MON-2017-11-06-N
Sample Date: November 1, 2017
Date Received: November 3, 2017
Sample Volume: 2X 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 101817C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS8
Stock Solution ID: 17Na05
Date Initiated: November 1, 2017
48-h LC50 (95% CL): 4.8 (3.7-6.2) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.4-5.1) g/L NaCl

Reference Toxicant CV (%): 10

Test Results: The 48h LC50 is estimated to be >100% (v/v)

Reviewed by: [Signature]

Date reviewed: Nov 10, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: GH-SCI-MDN-2017-11-06-N
 Work Order No.: 171310

Start Date/Time: 06 NOV 2017 @ 1450h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: OW

Thermometer: CER#5 pH meter/probe: 313 DO meter/probe: 313 Cond./Salinity meter/probe: 313

Concentration (1. v/v)	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
control	A	10	10	0	19.0	19.0	19.0	8.8	8.7	8.5	7.9	7.9	7.5	350	350
	B														
	C														
	D														
6-25	A	10	10	0	19.0	19.0	19.0	8.8	8.8	8.4	8.0	8.1	7.8	570	582
	B														
	C														
	D														
12.5	A	10	10	0	19.0	19.0	19.0	8.8	8.8	8.5	8.1	8.2	7.9	784	8782
	B														
	C														
	D														
25	A	10	10	0	19.0	19.0	19.0	8.8	8.8	8.5	8.2	8.3	8.1	1138	1132
	B														
	C														
	D														
50	A	10	10	0	19.0	19.0	19.0	8.9	8.8	8.5	8.2	8.4	8.2	1753	1740
	B														
	C														
	D														
100	A	10	10	20	18.0	19.0	19.0	9.1	8.8	8.5	8.0	8.3	8.0	2930	2860
	B														
	C														
	D														
Technician Initials		OW	OW	OW	CW	OW	CW	CW	CW	CW	CW	CW	CW	CW	CW

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	96	72
Highest conc.	3300	364
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0	/	/
DO (mg/L)	9.1	/	/
pH	8.0 w 1	/	/
Cond (µS/cm)	2930	/	/
Salinity (ppt)	1.5	/	/

Comments: ⊙ Daphnia floating on surface + hunched bottom
Some ppt formed on surface, at 48h Mortality: Heartbeat checked under microscope Not reg'd

Sample Description: Clear, no colour, no odour, no particulates

Batch#: 101817C 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: NOV 10, 2017

Client: Teck - GH0

W.O.#: 171309/171310/171311

Hardness and Alkalinity Datasheet

	Alkalinity						Hardness				
	Sample ID	Subsample Date	Sample Date Measured	Volume of Sample (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/L CaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	Technician
sci	GH-PCI MON	Nov 3/17	Nov 3/17	50	10.7	11.0	208	10 (1)	8.0	800	AJP
	2017-11-06-N										
	@ 20°C										
sci	GH-SCL MON	Nov 3/17	Nov 3/17	50	18.3	18.6	360	1 (1)	3.5	3500	
	2017-11-06-N										
	@ 20°C										
sci	GH-CCI MON	Nov 3/17	Nov 3/17	50	28.8	28.4	552	1 (1)	6.6	6600	
	2017-11-06-N										
	@ 20°C										
	MHW @ 20°C	Nov 3/17	Nov 3/17	50	3.7	3.8	72	50	4.8	96	MML
	MHW @ 20°C	Nov 6/17	Nov 6/17	50	3.7	3.8	72	AJP 50	4.8	96	MML
sci	GH-SCL MON	Nov 3/17	Nov 3/17	50	17.9	18.3	350	50 (1)	3.5	3500	AJP
	2017-11-06-N										
	@ 10°C										
sci	GH-CCI MON	Nov 3/17	Nov 3/17	50	27.1	27.5	534	50 (1)	6.8	6800	
	2017-11-06-N										
	@ 10°C										
	MHW @ 10°C	Nov 3/17	Nov 3/17	50	3.7	3.8	72	50	4.7	94	MML
sci	GH-SCL MON	Nov 6/17	Nov 6/17	50	18.5	18.8	364	10	3.3	3300	AJP
	2017-11-06-N										

Notes: (1) Diluted up to 100ml with DI water
 (2) Diluted up to 100ml with DI water

Reviewed by: 

Date Reviewed: Nov 10, 2017

APPENDIX C – Chain-of-custody form

COC ID: 20171101-1541

TURNAROUND TIME:

RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO			
Facility Name / Job# Fording River Operation				Lab Name Nautilus Environmental - BC				Report Format / Distribution			
Project Manager Neil MacDonald				Lab Contact				Email 1:	Excel	PDF	EDD
Email Neil.MacDonald@leck.com				Email BCinfo@nautilusenvironmental.ca				Email 2:	X	X	X
Address PO Box 100				Address 8664 Commerce Court				Email 3:	X	X	X
City Elkford Province BC				City Burnaby Province BC				Email 4:	X	X	X
Postal Code V0B 1H0 Country Canada				Postal Code V5A 4N7 Country Canada				Email 5:	X	X	X
Phone Number 1-250-865-5204				Phone Number 604-420-8773				PO number			

SAMPLE DETAILS							ANALYSIS REQUESTED											
Sample ID	Sample Location (sys_loc_code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	48 hr LC50 for Daphnia m.	48 hr Single Concentration -Daphnia m.	48 hr Single Concentration -Daphnia m. @ 10 oC	96hr Single Concentration - R.Trout	Filter	Filter	Filter	Filter	Filter	Filter	
GH_CC1_MON_2017-11-06_N	GH_CC1	WS		2017/11/01	12:52	G	2x20L	1	1	1	1							Temp oc
GH_PC1_MON_2017-11-06_N	GH_PC1	WS		2017/11/01	12:01	G	1x20L		1		1							6.3
GH_SC1_MON_2017-11-06_N	GH_SC1	WS		2017/11/01	15:28	G	2x20L	1	1	1	1							6.3
								171310	171309	171311	171308							

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	BEQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
All metals samples must be shipped to ALS Burnaby for analysis	Byran Ogden/Jason Gravelle	11/1	Nautilus - Burnaby	NOV 03/17 @ 11:00
			NY - Nari Yamamoto	

SERVICE REQUEST (rush - subject to availability)	Sampler's Name	Mobile #
Regular (default) X	Byran Ogden/Jason Gravelle	250 425 3629
Priority (2-3 business days) - 50% surcharge	Sampler's Signature	Date/Time
Emergency (1 Business Day) - 100% surcharge		Nov 1, 2017
For Emergency <1 Day, ASAP or Weekend - Contact ALS		

sample dose - ① ② ③ clear, no colour, no odour, no particulates.

END OF REPORT



Acute Toxicity Test Results

Sample collected November 7, 2017

Final Report

November 27, 2017

Submitted to: **Teck Coal / Greenhills Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_GH2_WS_2017-11-06_NP	07-Nov-17 at 1249h	09-Nov-17 at 1305h	09-Nov-17 at 1635h	09-Nov-17 at 1445h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_GH2_WS_2017-11-06_NP	4.7°C	1070	220

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_GH2_WS_2017-11-06_NP	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_GH2_WS_2017-11-06_NP	Rainbow trout	None	None
GH_GH2_WS_2017-11-06_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	81.8 (64.3 – 107.3) µg/L Zn ¹	4.8 (3.7 – 6.2) g/L NaCl ¹
Reference toxicant historical mean (2 SD range)	105.5 (58.6 – 189.9) µg/L Zn	4.2 (3.4 – 5.1) g/L NaCl
Reference toxicant CV	34%	10%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: November 9, 2017; ² Test Date: November 1, 2017, CL = Confidence Limits, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Greenhills Operation

Start Date/Time: 09 Nov 2017 @ 1635h

Work Order No.: 171352

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-GH2-WS-2017-11-06-NP

Sample Date: 07 Nov 2017

Date Received: 09 Nov 2017

Sample Volume: 2x20L

Other: —

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water

Hardness (mg/L CaCO₃): 10

Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 101917

Source: Agua Farms

No. Fish/Volume (L): 10/10L

Loading Density (g/L): 0.34

Mean Length ± SD (mm): 32 ± 1

Range: 29 - 33

Mean Weight ± SD (g): 0.34 ± 0.06

Range: 0.28 - 0.45

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn96

Stock Solution ID: 17Zn04

Date Initiated: November 9, 2017

96-h LC50 (95% CL): 81.8 (64.3 - 107.3) µg/L Zn

Reference Toxicant Mean and Historical Range: 105.5 (58.6 - 189.9) µg/L Zn

Reference Toxicant CV (%): 34

Test Results: 100% survival at 96h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Nov 17, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Greenhills Operation
 Sample I.D.: GH-GH2-WS-2017-11-06-NP
 W.O. #: 171352
 RBT Batch #: 101917
 Date Collected/Time: 07 Nov 17 @ 1249h
 Date Setup/Time: 09 Nov 17 @ 1635h
 CER #: 3
 Sample Setup By: RL

Number Fish/Volume: 10 / 10L
 7-d % Mortality: 0.21
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cer3
 D.O. meter/probe: 2 / D2
 Cond./Salinity meter/probe: 2 / CP2
 pH meter/probe: 5 / PS

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	16.0	/	16.0
D.O. (mg/L)	8.5	/	9.6
pH	8.5	/	8.6
Cond. (µS/cm)	1745	/	1741
Salinity (ppt)	0.9	/	0.9

Concentration (% v/v)	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)		
	1	2	4	24	48	72	96	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	96
Ctrl				10	10	10	10	16.0	15.0	15.0	15.0	15.0	10.2	9.4	9.5	9.7	9.8	7.2	7.2	7.1	7.0	7.1	1741	1833	40	
100%				10	10	10	10	16.0	15.0	15.0	15.0	15.0	9.6	9.3	9.6	9.2	9.8	8.6	8.7	8.7	8.7	8.6	1741	1833		

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171351

Start Date/Time: 09 Nov 2017 @ 14:45h
Test Species: Daphnia magna
Set up by: TYL

Sample Information:

Sample ID: GH-6H2-WS-2017-11-06-NP
Sample Date: 07 Nov 2017
Date Received: 09 Nov 2017
Sample Volume: 2x20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 101817 B / 101817 C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 10
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTCS8
Stock Solution ID: 17Na05
Date Initiated: November 1, 2017
48-h LC50 (95% CL): 4.8 (3.7-6.2) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.4-5.1) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Nov. 17, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TECK
 Sample ID: GHLGHZ-WS-2017-11-06-NP
 Work Order No.: 17135

Start Date/Time: November 9, 2017 @ 1445h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	19.0	19.0	20.0	8.6	8.7	8.6	7.7	7.5	7.9	348	360
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10 ⁰	0	19.0	19.0	20.0	9.2	8.4	8.6	8.3	8.3	24	1730	1728
	B	10	10 ⁰	0											
	C	10	10 ⁰	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		CW	A	A	YML	CW	A	YML	CW	A	YML	CW	A	YML	A

1718

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	100	78
Highest conc.	1070	220
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		18.0
DO (mg/L)	10.0	(10 min aeration)	9.2
pH	8.2		8.3
Cond (µS/cm)	1729		1730
Salinity (ppt)	0.8		0.9

Comments: no precipitate at 48h
10 organisms on surface Mortality: Heartbeat checked under microscope NO

Sample Description: clear, colourless liquid, no odour, no particulates.

Batch#: 101817/BAC 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 10 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Nov. 17, 2017

Version 1.5; Issued July 19, 2017

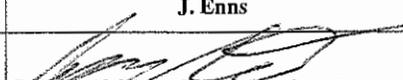
APPENDIX C – Chain-of-custody form

COC ID:	GH_OCT_Q_TOX_GH2	TURNAROUND TIME:		RUSH:	
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PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job#	Greenhills Operation			Lab Name	Nautilus Environmental - BC			Report Format / Distribution	Excel	PDF	EDD	
Project Manager	Jeremy Enns			Lab Contact				Email 1:	Jeremy.Enns@teck.com	X	X	X
Email	Jeremy.Enns@teck.com			Email	BCinfo@nautilusenvironmental.ca			Email 2:	Leigh.Stickney@teck.com	X	X	X
Address	P.O. BOX 5000			Address	8664 Commerce Court			Email 3:	teckcoal@equisonline.com			X
City	Elkford	Province	BC	City	Burnaby	Province	BC	PO number				
Postal Code	VOB1H0	Country	Canada	Postal Code	V5A 4N7	Country	Canada					
Phone Number	250-865-3341			Phone Number	604-420-8773							

SAMPLE DETAILS								ANALYSIS REQUESTED																
Sample ID	Sample Location (sys_loc_code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# Of Cont.	NAUT_72hr_Subcap_P/F	NAUT_7d_C-Dubia_P/F	NAUT_28d_H-Azteca_P/F	NAUT_48hr_DM_P/F	NAUT_96hr_RT_P/F												
GH_GH2_WS_2017-11-06_NP	GH_GH2	WS		7-Nov-17	12:49	G	2																	Temp °C
							X 20L																	4.7

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
	J. Enns		Nautilus - Burnaby	NOV 09/17 @ 13:05
			NY - Nari Yamamoto	

SERVICE REQUEST (rush - subject to availability)					
Regular (default)	X	Sampler's Name	J. Enns	Mobile #	250-425-1170
Priority (2-3 business days) - 50% surcharge		Sampler's Signature		Date/Time	
Emergency (1 Business Day) - 100% surcharge					
For Emergency <1 Day, ASAP or Weekend - Contact ALS					

END OF REPORT



Acute Toxicity Test Results

Sample collected November 28, 2017

Final Report

December 13, 2017

Submitted to: **Teck Coal / Greenhills Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_WADE_WS_2017-11-06_N	28-Nov-17 at 1130h	30-Nov-17 at 1105h	30-Nov-17 at 1715h	30-Nov-17 at 1420h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_WADE_WS_2017-11-06_N	7.3°C	350	250

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_WADE_WS_2017-11-06_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_WADE_WS_2017-11-06_N	Rainbow trout	None	None
GH_WADE_WS_2017-11-06_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	66.4 (50.9 – 82.0) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	103.9 (56.5 – 190.9) µg/L Zn	4.2 (3.5 – 5.2) g/L NaCl
Reference toxicant CV	36%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: November 30, 2017; ² Test date: November 27, 2017; LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: TECK Greenhills Operation Start Date/Time: 30⁰⁰ Nov 17 @ 17:15 h
Work Order No.: 171465 Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-WADE-WS-2017-11-06-N
Sample Date: 28 Nov 17
Date Received: 30 Nov 17
Sample Volume: 4 x 10L
Other: —

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 10
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 111617
Source: Agua Farms
No. Fish/Volume (L): 10 / 10L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 34 ± 1 Range: 32 - 35
Mean Weight ± SD (g): 0.26 ± 0.02 Range: 0.22 - 0.30

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 100
Stock Solution ID: 17Zn05
Date Initiated: November 30, 2017
96-h LC50 (95% CL): 66.4 (50.9 - 82.0) µg/L Zn

Reference Toxicant Mean and Historical Range: 103.9 (56.5 - 190.9) µg/L Zn
Reference Toxicant CV (%): 36

Test Results: ~~100%~~^{96h} mortality at ~~96h~~^{96h} in the 100% (v/v) undiluted ^{96h} sample.

Reviewed by: [Signature] Date reviewed: Dec 11, 2017

Daphnia magna Summary Sheet

Client: Teck - GHO
Work Order No.: 171464

Start Date/Time: 30 NOV 2017 @ 1420h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: AH-WADE-WS-2017-11-06-N
Sample Date: 28 NOV 2017
Date Received: 30 NOV 2017
Sample Volume: 4 x 10L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 111517 B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC 60
Stock Solution ID: 17 NR 05
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5 - 5.2) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Dec 11, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TECK - GH0
 Sample ID: GH-WADE - WS-2017-11-06 - N
 Work Order No.: 171464

Start Date/Time: 30 Nov 2017 @ 1420h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: CW

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	19.0	19	9.0	8.6	8.4	97.8	7.9	78	349	350
	B	10	10	0			20								
	C	10	10	0											
	D														
100%	A	10	10	0	18.0	19.0	20	9.3	8.5	8.5	8.3	8.4	8.75	558	554
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	CW				CW	CW		CW	CW		CW	CW		CW	

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	96	76
Highest conc.	350	250
Hardness adjusted	—	—

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		18.0
DO (mg/L)	9.8	(16 min aeration)	9.3
pH	8.2		8.3
Cond (µS/cm)	558		558
Salinity (ppt)	0.3		0.3

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not noted
 Sample Description: clean light yellow, odourless liquid, no particulates.
 Batch#: 111517B 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8
 Reviewed by: [Signature] Date reviewed: Dec 11, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected December 12, 2017

Final Report

December 21, 2017

Submitted to: **Teck Coal / Greenhills Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
GH_WC1_WS_2017-12-04_N	12-Dec-17 at 1440h	14-Dec-17 at 1130h	14-Dec-17 at 1420h	14-Dec-17 at 1530h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
GH_WC1_WS_2017-12-04_N	7.3°C	1270	260

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
GH_WC1_WS_2017-12-04_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
GH_WC1_WS_2017-12-04_N	Rainbow trout	Slight precipitate	None
GH_WC1_WS_2017-12-04_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	93.8 (67.6 – 125.0) µg/L Zn ¹	3.9 (2.8 – 5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	100.7 (53.45 – 189.7) µg/L Zn	4.2 (3.5 – 5.2) g/L NaCl
Reference toxicant CV	37%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: December 8, 2017; ² Test date: December 11, 2017; LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Jeslin Wijaya, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Greenhills Operation Start Date/Time: 14 Dec 2017 @ 1420h

Work Order No.: 171549

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: GH-WC1-WS-2017-12-04-N
Sample Date: 12 Dec 2017
Date Received: 14 Dec 2017
Sample Volume: 4x10L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 10

Test Organism Information:

Batch No.: 112117
Source: Vancouver Island Trout Hatchery
No. Fish/Volume (L): 10/12 L
Loading Density (g/L): 0.35
Mean Length ± SD (mm): 36 ± 3 Range: 32 - 42
Mean Weight ± SD (g): 0.42 ± 0.10 Range: 0.29 - 0.57

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn101
Stock Solution ID: 17Zn05
Date Initiated: 08 Dec 17
96-h LC50 (95% CL): 93.8 (67.6 - 125.0) µg/L
Reference Toxicant Mean and Historical Range: 100.7 (53.45 - 189.7) µg/L
Reference Toxicant CV (%): 37%

Test Results: 100%^{cv} 0% mortality at 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Dec 20, 2017

Daphnia magna Summary Sheet

Client: Teck - Greenhills Operation
Work Order No.: 171548

Start Date/Time: 14 Dec 2017 @ 1530h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: GH-WC1-WS-2017-12-04-N
Sample Date: 12 Dec 2017
Date Received: 14 Dec 2017
Sample Volume: 4 x 10L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 112217 A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 35
Mortality (%) in previous 7 d: 20
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC61
Stock Solution ID: 17NA05
Date Initiated: December 11, 2017
48-h LC50 (95% CL): 3.9 (2.8-5.5) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5-5.2) g/L NaCl

Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: CW

Date reviewed: Dec 20, 2017

**Freshwater Acute
48 Hour Toxicity Test Data Sheet**

Client: Teck - Greenhills Operation
 Sample ID: GH - WCL WS - 2017 - 12 - 04 - N
 Work Order No.: 171548

Start Date/Time: 14 Dec 2017 @ 1530h
 CER #: 5^{cm}
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: CW

Thermometer: CERA5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (%)(v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.0	19.0	19.5	8.6	8.8	8.3	7.3	7.2	7.4	352	355
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10	0	22.0	19.0	19.5	8.6	8.6	8.4	8.2	8.2	8.3	1786	1746
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		CW	mm	mm	CW	mm	mm	CW	mm	mm	CW	mm	mm	CW	mm

	Hardness*	Alkalinity*
	*(mg/L as CaCo3)	
Concentration		
Control (MHW)	96	64
Highest conc.	1270	260
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	22.0		
DO (mg/L)	8.6		
pH	8.2		
Cond (µS/cm)	1786		
Salinity (ppt)	0.9		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not req cd

Sample Description: Clear, colourless liquid, no odour, no particulates.

Batch#: 112217A 7-d previous # young/brood: 35 Previous 7-d Mortality (%): 20 Day of 1st Brood: 9

Reviewed by: CW Date reviewed: Dec 20, 2017

Client: Teck - Greenhills Operation

W.O.#: 171548

Hardness and Alkalinity Datasheet

Sample ID	Alkalinity						Hardness			Technician
	Subsample Date	Date Measured	Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/L CaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	
BH-WC1-WS- 2017-12-04-N	14Dec17	14Dec17	① 10	2.8	3.0	260	① 10	12.7	1270	CW
MHW	14Dec17	14Dec17	50	3.3	3.4	64	50	4.8	96	CW

Notes: ① Diluted up to 100ml w/ DI water

Reviewed by:  Date Reviewed: Dec-20, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT

Line Creek Operations (LCO) COAs



Acute Toxicity Test Results

Samples collected January 16, 2017

Final Report

January 31, 2017

Submitted to: **Teck Coal / Line Creek Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates				Receipt temp.
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	
LC_LCDSSLCC_WS_2017-01-16_N	16-Jan-17 at 1207h	18-Jan-17 at 1050h	19-Jan-17 at 0930h	19-Jan-17 at 1235h	8.3°C
LC_LC5_WS_2017-01-16_N	16-Jan-17 at 1125h	18-Jan-17 at 1050h	19-Jan-17 at 0930h	19-Jan-17 at 1235h	7.9°C

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
LC_LCDSSLCC_WS_2017-01-16_N	0	0
LC_LC5_WS_2017-01-16_N	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	50.0 (36.9 – 67.7) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	53.0 (19.7 – 142.5) µg/L Zn	4.1 (3.1 – 5.5) g/L NaCl
Reference toxicant CV	64%	15%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: January 17, 2017; ² Test date: January 10, 2017



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal (LCO)

Start Date/Time: Jan 19 / 17 @ 0930h

Work Order No.: 170033

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LCDSSLCC^{-WS}2017-01-17-⁶EW
Sample Date: Jan 16 / 17
Date Received: Jan 18 / 17
Sample Volume: 2 x 20 L
Other: /

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 010417
Source: Aqua Farms
No. Fish/Volume (L): 10 / 12L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): ~~29 ± 3~~ 30 ± 2
Mean Weight ± SD (g): ~~0.32 ± 0.02~~ 0.31 ± 0.02

Range: ~~21 - 30~~ 27 - 31
Range: 0.27 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn60
Stock Solution ID: 16Zn02
Date Initiated: Jan 17 / 17
96-h LC50 (95% CL): 50.0 (36.9 - 67.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 53.0 (19.7 - 142.5) µg/L Zn
Reference Toxicant CV (%): 64

Test Results: 100% survival at 96 hours in the undiluted 100% (v/v) sample. 0% mortality at 96h in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Jan. 30, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal (LCO)

Start Date/Time: Jan 19 / 17 @ 0930h

Work Order No.: 170033

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LC5-2017-01-11^{WS}-N
Sample Date: Jan 16 / 17
Date Received: Jan 18 / 17
Sample Volume: 2 x 20 L
Other: /

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 010417
Source: Aqua Farm
No. Fish/Volume (L): 10 / 12L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 29 ± 1
Mean Weight ± SD (g): 0.32 ± 0.02

Range: 26 - 30
Range: 0.27 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn60
Stock Solution ID: 16Zn02
Date Initiated: Jan 17 / 17
96-h LC50 (95% CL): 50.0 (36.9 - 67.7) ug/L Zn

Reference Toxicant Mean and Historical Range: 53.0 (19.7 - 142.5) ug/L Zn
Reference Toxicant CV (%): 64

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Jan-27, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170034

Start Date/Time: January 19, 2017 @ 12:35h
Test Species: Daphnia magna
Set up by: EC / AWD

Sample Information:

Sample ID: LC-LCDSSLCC-WS-2017-01-16-N
Sample Date: January 16, 2017
Date Received: January 18, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 122916A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 22
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC44
Stock Solution ID: 16Na02
Date Initiated: January 10, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.1 - 5.5) g/L NaCl
Reference Toxicant CV (%): 15

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: Jan. 27, 2017

**Freshwater Acute
48 Hour Toxicity Test Data Sheet**

Client: Tede Start Date/Time: Jan 19/17 @ 1235h
 Sample ID: LC-LCDS LCC-WS-2017-01-16 No. Organisms/volume: 10/200mL
 Work Order No.: 170034 Test Organism: D.magna
 Set up by: EC/AED

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	24		48		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48	48	0		24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	19.0	19.0	19.0	9.2	8.7	8.7	7.7	7.9	8.0	358	368		
	B	10	10	0													
	C	10	10	0													
	D																
100	A	100	100	0	20.0	19.0	19.0	9.1	9.0	8.6	7.9	8.0	21	945	948		
	B	100	100	0													
	C	100	100	0													
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
Technician Initials		A	A	A	EC	A	A	EL	A	A	EL	A	A	EL	A		

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	98	72
Highest conc.	560	202
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	9.1		
pH	7.9		
Cond (µS/cm)	945		
Salinity (ppt)	0.5		

Comments: _____ Mortality: Heartbeat checked under microscope N
 Sample Description: ① daphnids on surface clear, no colour, no colour, no particulates
 Batch#: 122916 A 7-d previous # young/brood: 22 Previous 7-d Mortality (%): φ Day of 1st Brood: 2
 Reviewed by: [Signature] Date reviewed: Jan 27, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170034

Start Date/Time: January 19, 2017 @ 1235h
Test Species: Daphnia magna
Set up by: EC / AWD

Sample Information:

Sample ID: LC-LCS-WS-2017-01-16-N
Sample Date: January 16, 2017
Date Received: January 18, 2017
Sample Volume: 2 x 20L
4m

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 122716A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 22
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC44
Stock Solution ID: 16Na02
Date Initiated: January 10, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.1-5.5) g/L NaCl
Reference Toxicant CV (%): 15

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Jan 27, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: Jan 19/17 01235h
 Sample ID: LC-LCS-WS-2017-0H6-N No. Organisms/volume: 10/200mL
 Work Order No.: 170034 Test Organism: D.magna
 Set up by: EC/ADD

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	24		48		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48	48	0	24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	19.0	19.0	19.0	9.2	8.7	8.6	7.7	7.8	8.0	358	360	
	B	10	10	0												
	C	10	10	0												
	D															
100	A	10	10	0	20.0	19.0	19.0	9.0	8.8	8.7	7.9	8.0	8.1	776	767	
	B	10	10	0												
	C	10	10	0												
	D															
	A															
	B															
	C															
	D															
	A															
	B															
	C															
	D															
Technician Initials	A	A	A	EC	A	A	EL	A	A	EL	A	A	EL	A		

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCo3)	
Control (MHW)	98	72
Highest conc.	470	192
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	9.0		
pH	7.9		
Cond (µS/cm)	776		
Salinity (ppt)	0.4		

Comments: _____ Mortality: Heartbeat checked under microscope ND

Sample Description: clear, no colour, no colour, no particulates.

Batch#: 122916 A 7-d previous # young/brood: 22 Previous 7-d Mortality (%): φ Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Jan 27, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected March 20, 2017

Final Report

March 28, 2017

Submitted to: **Teck Coal / Line Creek Operation**
Sparwood, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
LC_LCDSSLCC_WS_2017-03-20_N	20-Mar-17 at 1506h	22-Mar-17 at 1120h	23-Mar-17 at 1130h	22-Mar-17 at 1510h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_LCDSSLCC_WS_2017-03-20_N	7.0°C	500	214

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
LC_LCDSSLCC_WS_2017-03-20_N	0	0

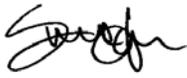
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_LCDSSLCC_WS_2017-03-20_N	Rainbow trout	None	None
LC_LCDSSLCC_WS_2017-03-20_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	96.2 (71.6 – 130.0) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	57.4 (22.5 – 146.7) µg/L Zn	4.2 (3.2 – 5.4) g/L NaCl
Reference toxicant CV	60%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: March 17, 2017; ² Test Date: March 15, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Mar 23 117 @ 1130h

Work Order No.: 170234

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LPSS-LCC-WS-2017-03-20-1
Sample Date: Mar 20 117
Date Received: Mar 22 117
Sample Volume: 2 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 030117
Source: Spring Valley
No. Fish/Volume (L): 10/110L
Loading Density (g/L): 0.33
Mean Length ± SD (mm): 70 ± 2
Mean Weight ± SD (g): 0.33 ± 0.07

Range: 27 - 343
Range: 0.27 - 0.47

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn66
Stock Solution ID: 16Zn02
Date Initiated: Mar 17 117
96-h LC50 (95% CL): 96.2 (71.6-130.0) µg/L Zn

Reference Toxicant Mean and Historical Range: 57.4 (22.5-146.7) µg/L Zn
Reference Toxicant CV (%): 60.57%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: March 27, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: LC-LCDSSLCC-WS-2017-03-20-N
 W.O. #: 170234
 RBT Batch #: 030117
 Date Collected/Time: Mar 20/17 @ 1506h
 Date Setup/Time: Mar 23/17 @ 1130h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0.2
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: LER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.1	/	10.1
pH	8.1	/	8.1
Cond. (µS/cm)	862	/	859
Salinity (ppt)	0.4	/	0.4

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
CT1				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.8	9.9	9.7	9.7	6.8	6.8	6.8	6.9	6.9	26	33
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.9	9.8	9.8	9.8	8.1	8.1	8.2	8.3	8.5	859	857
Initials				AS	AS	AS	EC	EC	AS	AS	N	EC	EC	AS	AS	AS	EC	EC	AS	AS	AS	EC	EC	EC

Sample Description/Comments: Clear, Colorless, No odour, No particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: no precipitation at 96h

Reviewed by: [Signature] Date Reviewed: March 27, 2017

Daphnia magna Summary Sheet

Client: Teck (LEO)
Work Order No.: 170235

Start Date/Time: March 22, 2017 @ 15:10h
Test Species: Daphnia magna
Set up by: VMC

Sample Information:

Sample ID: LL-LCDSSLCK_WS_2017-03-22-N
Sample Date: March 20, 2017
Date Received: March 22, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 030317A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 24
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: March 27, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: March 22, 2017 @ 1510h
 Sample ID: LC-LC05SLCC-WS-2017-03-22-N No. Organisms/volume: 10/200mL
 Work Order No.: 170235 Test Organism: D. magna
 Set up by: YMC

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (<i>cb v/v</i>)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	18.5	19.0	19.0	8.6	8.5	8.4	7.5	7.8	7.6	354	361
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	19.0	9.1	8.5	8.2	7.9	8.2	8.2	855	846
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCo3)	
Control (MHW)	100	74
Highest conc.	500	214
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		19.0
DO (mg/L)	9.9	(5 min aeration)	9.1
pH	7.9		7.9
Cond (µS/cm)	854		855
Salinity (ppt)	0.4		0.4

Comments: no precipitation at 48h Mortality: Heartbeat checked under microscope ^{not} req'd

Sample Description: clear, no colour, no odour, no particulates

Batch#: 030317A 7-d previous # young/brood: 24 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: March 27, 2017

APPENDIX C – Chain-of-custody form

Teck

COC ID:		TURNAROUND TIME:				RUSH:					
PROJECT/CLIENT INFO				LABORATORY				OTHER INFO			
Facility Name / Job# Line Creek Operation				Lab Name Nautilus Environmental		Report Format / Distribution			Excel	PDF	EDD
Project Manager Jay Jones				Lab Contact Krysta Peary		Email 1: jay.jones@teck.com			X	X	X
Email jay.jones@teck.com				Email Krysta@NautilusEnvironmental.ca		Email 2:			X	X	X
Address Box 2003				Address 8664 commerce Court		Email 3: teckcoale@equisonline.com					
15km North Hwy 43											
City Sparwood		Province BC	City Burnaby	Province BC	PO number	729115					
Postal Code V0B 2G0		Country Canada	Postal Code V5A 4N7	Country Canada							
Phone Number 250-425-6111		Phone Number 604-420-8773									
SAMPLE DETAILS						ANALYSIS REQUESTED					
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	NAUT_48Hr_DM_Single_Concentration_Toxicity Test 28°C	Temp °C	
LC_LCDSSLCC_WS_2017-03-20_N	LC_LCDSSLCC	WS	N	2017/03/20	15:06	G	2	X	X	7.0	2x20L
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS			RELINQUISHED BY/AFFILIATION			DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
			T Phillips/ NUPQU			March 20, 2017		Nautilus Burnaby NY - Nari Yamamoto		Mar 22/17 @ 11:20	
NB OF BOTTLES RETURNED/DESCRIPTION											
Regular (default) <input checked="" type="checkbox"/>			Sampler's Name			Tyler Phillips		Mobile #		(250) 919-0965	
Priority (2-3 business days) - 50% surcharge			Sampler's Signature					Date/Time		March 20, 2017	
Emergency (1 Business Day) - 100% surcharge											
For Emergency <1 Day, ASAP or Weekend - Contact ALS											

① Jay Jones requested 6 day Rush via email w.r.

END OF REPORT



Acute Toxicity Test Results

Samples collected March 21, 2017

Final Report

April 5, 2017

Submitted to: **Teck Coal / Line Creek Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
LC_LC7_Q_WS_2017-02-01_N	21-Mar-17 at 1506h	23-Mar-17 at 1200h	24-Mar-17 at 1130h	23-Mar-17 at 1500h
LC_LC9_Q_WS_2017-02-01_N	21-Mar-17 at 1506h	23-Mar-17 at 1200h	24-Mar-17 at 1130h	23-Mar-17 at 1500h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_LC7_Q_WS_2017-02-01_N	5.5°C	300	246
LC_LC9_Q_WS_2017-02-01_N	5.5°C	280	88

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
LC_LC7_Q_WS_2017-02-01_N	0	0
LC_LC9_Q_WS_2017-02-01_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_LC7_Q_WS_2017-02-01_N	Rainbow trout	None	None
LC_LC7_Q_WS_2017-02-01_N	<i>Daphnia magna</i>	Precipitate observed on the bottom of test vessel	None
LC_LC9_Q_WS_2017-02-01_N	Rainbow trout	None	None
LC_LC9_Q_WS_2017-02-01_N	<i>Daphnia magna</i>	Precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	96.2 (71.6 – 130.0) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	57.4 (22.5 – 146.7) µg/L Zn	4.2 (3.2 – 5.4) g/L NaCl
Reference toxicant CV	60%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: March 17, 2017; ² Test Date: March 15, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal (LCO)

Start Date/Time: Mar 24 / 17 @ 1130h

Work Order No.: 170241

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LC7-Q-WS-2017-02-01-N
Sample Date: Mar 21 / 17
Date Received: Mar 23 / 17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 030117
Source: Spring Valley
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.32
Mean Length ± SD (mm): 29 ± 2
Mean Weight ± SD (g): 0.32 ± 0.26

Range: 26 - 32
Range: 0.24 - 0.41

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn66
Stock Solution ID: 16Zn02
Date Initiated: Mar 17 / 17
96-h LC50 (95% CL): 96.2 (71.6 - 130.0) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.4 (22.5 - 146.7) mg/L Zn
Reference Toxicant CV (%): 60.57%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 4, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Tecol Coal (LCO)
 Sample I.D.: LC-LC7-Q-WS-2017-02-01-N
 W.O. #: 170241
 RBT Batch #: 030117
 Date Collected/Time: Mar 21/17 @ 1506h
 Date Setup/Time: Mar 24/17 @ 1130h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.1	/	10.2
pH	7.8	/	7.8
Cond. (µS/cm)	487	/	485
Salinity (ppt)	0.2	/	0.2

Concentration (% v/v)	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
0.1				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.8	9.7	9.7	9.8	6.8	6.8	6.9	6.9	6.8	26	31	
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.2	9.8	9.7	9.8	9.7	7.8	7.8	8.1	8.0	8.4	8.4	485	497
Initials				AS	AS	EL	EL	EC	AS	AS	EL	EL	EL	AS	AS	EL	EL	EL	AS	AS	EL	EL	EC	EC	

Sample Description/Comments: Dark Brown, turbid, Odourless, Some particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: No precipitation @ 96 hrs

Reviewed by: [Signature] Date Reviewed: April 4, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal (LCO)

Start Date/Time: Mar 24 /17 @ 1130h

Work Order No.: 170241

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LC9.0-WS-2017-02-06N
Sample Date: Mar 21 /17
Date Received: Mar 23 /17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 030117
Source: Spring Valley
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 44 ± 0.32
Mean Length ± SD (mm): 30 ± 1
Mean Weight ± SD (g): 0.32 ± 0.03

Range: 28 - 32
Range: 0.27 - 0.77

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn66
Stock Solution ID: 16Zn02
Date Initiated: Mar 17/17
96-h LC50 (95% CL): 96.2 (71.6-130.0) µg/L Zn

Reference Toxicant Mean and Historical Range: 57.4 (22.5-146.7) µg/L Zn
Reference Toxicant CV (%): 60.57%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 4, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170242

Start Date/Time: March 23, 2017 @ 1500h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: LC-LC7-Q-WS-2017-02-01-N
Sample Date: March 21, 2017
Date Received: March 23, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 030917B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 18
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC47
Stock Solution ID: 16N902
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: April 4, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: W-CT-Q-WS-2017-02-01-N
 Work Order No.: 170242

Start Date/Time: March 23, 2017 @ 1500h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.0	19.5	19.5	8.5	8.3	8.6	7.5	7.6	7.8	353	371
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	19.5	19.5	9.0	8.4	8.6	7.6	7.8	482	495	
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	A	M	YML	YML	A	YML	YML	A	YML	YML	A	YML	A

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	74
Highest conc.	300	246
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		20.0
DO (mg/L)	10.2	(Swin)	9.0
pH	7.5	(aeration)	7.6
Cond (µS/cm)	480		482
Salinity (ppt)	0.2		0.2

Comments: Some precipitation at 48h on beaker bottom Mortality: Heartbeat checked under microscope 00

Sample Description: dark brown, turbid, no odor, some particulates

Batch#: 03091713 7-d previous # young/brood: 18 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 4, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170242

Start Date/Time: March 23, 2017 @ 15:00h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: LC-LC9-Q-WS-2017-02-0LN
Sample Date: March 21, 2017
Date Received: March 23, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 030917B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 18
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: April 4, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: LC-LCA-QWS-2017-02-01-N
 Work Order No.: 170242

Start Date/Time: March 23, 2017 @ 1500h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.0	19.5	19.6	8.5	8.4	8.5	7.5	7.6	7.9	533	569
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.5	19.5	19.6	9.1	8.4	8.6	7.6	7.4	7.8	536	551
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	A	A	YML	YML	A	YML	YML	A	YML	YML	A	YML	A

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	100	74
Highest conc.	280	88
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.5		20.5
DO (mg/L)	9.7	(3 min aeration)	9.1
pH	7.5		7.6
Cond (µS/cm)	535		536
Salinity (ppt)	0.3		0.3

Comments: Some precipitation at 48h on beaker bottom Mortality: Heartbeat checked under microscope NO

Sample Description: dark brown, turbid, no odour, no particulates

Batch#: 030917B 7-d previous # young/brood: 18 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: YML Date reviewed: April 4, 2017

APPENDIX C – Chain-of-custody form

Teck

COC ID:		TURNAROUND TIME:		RUSH:				
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO		
Facility Name / Job#		Lab Name		Report Format / Distribution		Excel	PDF	EDD
Project Manager		Lab Contact		Email 1:		X	X	X
Email		Email		Email 2:		X	X	X
Address		Address		Email 3:				X
15km North Hwy 43		8664 commerce Court		teckcoal@equisonline.com				
City	Sparwood	Province	BC	City	Burnaby	Province	BC	PO number
Postal Code	VOB 2G0	Country	Canada	Postal Code	V5A 4N7	Country	Canada	228475
Phone Number	250-425-6111	Phone Number	604-420-8773					

SAMPLE DETAILS								ANALYSIS REQUESTED													
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96Hr_RT_Single_Co centration_Toxicity Test	NAUT_48Hr_DM_Single_Concentrat ion_Toxicity Test 20°C												
1 LC_IC7_Q_WS_2017-02-01_N	LC_IC7	WS	N	2017/03/21	15:06	G	3	X	X												Temp °C
2 LC_IC9_Q_WS_2017-02-01_N	LC_IC9	WS	N	2017/03/21	15:06	G	3	X	X												5.5
																					5.5

1x20L + 2x1L
↓

W# 170241
170242

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
	T Phillips/ NUPQU	March 21, 2017	Nautilus Burnaby NY-Nain Yamamoto	Mar 23/17 @ 12:00

NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name	Sampler's Signature	Mobile #	Date/Time
Regular (default)	X	Tyler Phillips		(250) 919-0965	March 21, 2017
Priority (2-3 business days) - 50% surcharge					
Emergency (1 Business Day) - 100% surcharge					
For Emergency <1 Day, ASAP or Weekend - Contact ALS					

1 Dark Brown, turbid, Odourless, Some particulates.

2 Dark Brown, turbid, Odourless, No particulates.

END OF REPORT



Acute Toxicity Test Results

Sample collected March 27, 2017

Final Report

April 4, 2017

Submitted to: **Teck Coal / Line Creek Operation**
Sparwood, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
LC_LC7_WS_2017-03-27_N	27-Mar-17 at 1355h	29-Mar-17 at 1015h	30-Mar-17 at 1300h	29-Mar-17 at 1350h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_LC7_WS_2017-03-27_N	7.5°C	290	256

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
LC_LC7_WS_2017-03-27_N	0	0

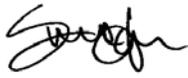
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_LC7_WS_2017-03-27_N	Rainbow trout	None	None
LC_LC7_WS_2017-03-27_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	66.2 (49.2 – 89.1) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	60.7 (24.2 – 152.0) µg/L Zn	4.2 (3.2 – 5.4) g/L NaCl
Reference toxicant CV	58%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: March 29, 2017; ² Test Date: March 15, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teik Coal

Start Date/Time: Mar 30 /17 @ 1300h

Work Order No.: 170256

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LC7-WS-2017-03-27-N
Sample Date: Mar 27 /17
Date Received: Mar 29 /17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 031517
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.34
Mean Length ± SD (mm): 31 ± 1
Mean Weight ± SD (g): 0.34 ± 0.05

Range: 29 - 32
Range: 0.23 - 0.42

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn67
Stock Solution ID: EL X617Zn02
Date Initiated: Mar 29/17
96-h LC50 (95% CL): 66.2 (49.2 - 89.1) µg/L

Reference Toxicant Mean and Historical Range: 60.7 (24.2 - 152.0) µg/L
Reference Toxicant CV (%): 58

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: 

Date reviewed: April 3, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170257

Start Date/Time: March 29, 2017 @ 1350h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: LC-LK7-WS-2017-03-27N
Sample Date: March 27, 2017
Date Received: March 29, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 13
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: April 3, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: LC-LC7-W3 2017-03-27-N
 Work Order No.: 170251

Start Date/Time: March 29 2017 @ 1350h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMc

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.0	19.0	19.5	8.5	8.4	8.4	7.5	7.5	7.6	345	354
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.5	19.0	19.5	9.0	8.3	8.4	7.8	7.7	8.2	532	533
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YMc	YMc	YMc	YMc	YMc	YMc	YMc	YMc	YMc	YMc	YMc	YMc	YMc	YMc

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	76
Highest conc.	290	256
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.5		20.5
DO (mg/L)	9.8	(5 min)	9.80
pH	7.8	(aeration)	7.8
Cond (µS/cm)	531		532
Salinity (ppt)	0.3		0.3

Comments: no precipitation at 48h Mortality: Heartbeat checked under microscope ^{not} _{req'd}

Sample Description: grey, slightly turbid, no odor, some particulates

Batch#: 031517A 7-d previous # young/brood: 18 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 3, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected April 4, 2017

Final Report

April 18, 2017

Submitted to: **Teck Coal / Line Creek Operations**
Sparwood, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
LC_LC7_Q_WS_2017-05-01_N	04-Apr-17 at 1519h	06-Apr-17 at 1220h	07-Apr-17 at 1500h	06-Apr-17 at 1515h
LC_LC9_Q_WS_2017-05-01_N	04-Apr-17 at 1426h	06-Apr-17 at 1220h	07-Apr-17 at 1500h	06-Apr-17 at 1515h
LC_SPDC_Q_WS_2017-05-01_N	04-Apr-17 at 1138h	06-Apr-17 at 1220h	07-Apr-17 at 1500h	06-Apr-17 at 1515h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_LC7_Q_WS_2017-05-01_N	6.3°C	430	268
LC_LC9_Q_WS_2017-05-01_N	6.3°C	440	90
LC_SPDC_Q_WS_2017-05-01_N	6.3°C	128	120

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
LC_LC7_Q_WS_2017-05-01_N	0	0
LC_LC9_Q_WS_2017-05-01_N	0	0
LC_SPDC_Q_WS_2017-05-01_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_LC7_Q_WS_2017-05-01_N	Rainbow trout	None	None
LC_LC7_Q_WS_2017-05-01_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
LC_LC9_Q_WS_2017-05-01_N	Rainbow trout	None	None
LC_LC9_Q_WS_2017-05-01_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
LC_SPDC_Q_WS_2017-05-01_N	Rainbow trout	None	None
LC_SPDC_Q_WS_2017-05-01_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	40.5 (30.6 – 53.7) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	59.3 (24.6 – 142.8) µg/L Zn	4.2 (3.3 – 5.4) g/L NaCl
Reference toxicant CV	55%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: April 6, 2017; ² Test Date: April 5, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Apr 7 117 @ 1500h

Work Order No.: 170292

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LC7-Q-WL-2017-05-01-N
Sample Date: Apr 4 / 17
Date Received: Apr 6 / 17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 032317
Source: Aqua Farms
No. Fish/Volume (L): 10/10 L
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.31 ± 0.03

Range: 27 - 32
Range: 0.26 - 0.35
0.26

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 68
Stock Solution ID: 17Zn02
Date Initiated: Apr 6 / 17
96-h LC50 (95% CL): 40.5 (30.6 - 53.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.3 (24.6 - 142.8) µg/L Zn
Reference Toxicant CV (%): 55%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: 

Date reviewed: April 17, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: LC-LC7-Q-WS-2017-05-01-N
 W.O. #: 170292
 RBT Batch #: 032319
 Date Collected/Time: Apr 4/17 @ 1519h
 Date Setup/Time: Apr 7/17 @ 1500h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0.8
 Total Pre-aeration Time (mins): 90
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: LER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.9	/	10.7
pH	8.0	/	8.0
Cond. (µS/cm)	559	/	559
Salinity (ppt)	0.3	/	0.3

Concentration	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	(% v/v)	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Ctrl				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.8	9.7	9.7	9.7	6.9	7.0	7.0	7.0	7.0	29	32	
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.9	9.8	9.7	9.8	8.0	8.1	8.2	8.1	8.1	559	562	
Initials				A	A	EL	EL	EC	A	A	EL	EL	EL	A	A	EL	EL	EL	A	A	EL	EL	EL	EL	EL

Sample Description/Comments: Clear, colorless, No odor, some particulates.

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: No precipitation @ 96 hrs.

Reviewed by: [Signature] Date Reviewed: April 17, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Apr 7 117 @ 1500h

Work Order No.: 170292

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LC9-Q-WS-2017-05-01-N
Sample Date: Apr 4 117
Date Received: Apr 6 117
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 037317
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 29 ± 2
Mean Weight ± SD (g): 0.31 ± 0.02

Range: 27 - 32
Range: 0.29 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 68
Stock Solution ID: 17Zn02
Date Initiated: Apr 6 117
96-h LC50 (95% CL): 40.5 (30.6 - 53.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.3 (24.6 - 142.8) µg/L Zn
Reference Toxicant CV (%): 55%

Test Results: 0% mortality at 96 hours in the undiluted 100% (w/v) sample.

Reviewed by: [Signature]

Date reviewed: April 17, 2017

Rainbow Trout Summary Sheet

Client: Tock Coal

Start Date/Time: Apr 7 17 @ 1500h

Work Order No.: 170292

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-SFDLQ-WS-2017-05-01-N
Sample Date: Apr 4 17
Date Received: Apr 6 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 032317
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10L
Loading Density (g/L): 0.32
Mean Length ± SD (mm): 29 ± 1
Mean Weight ± SD (g): 0.32 ± 0.02

Range: 27 - 31
Range: 0.27 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 68
Stock Solution ID: 17Zn02
Date Initiated: Apr 6 17
96-h LC50 (95% CL): 40.5 (30.6 - 53.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.3 (24.6 - 142.8) µg/L Zn
Reference Toxicant CV (%): 55%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 17, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170293

Start Date/Time: April 6, 2017 @ 1515h
Test Species: Daphnia magna
Set up by: YMC

Sample Information:

Sample ID: LC-L17-Q-WS-2017-05-04N
Sample Date: April 4, 2017
Date Received: April 6, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 24
Mortality (%) in previous 7 d: 10
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC48
Stock Solution ID: 17Na01
Date Initiated: April 5, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: April 17, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: LC-LC7-0-WS-2017-05-01-N
 Work Order No.: 170293

Start Date/Time: April 6, 2017 @ 15:15h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMC

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.5	19.0	19.5	8.5	8.4	8.6	7.9	7.8	7.7	347	357
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	19.5	9.1	8.1	8.5	8.0	8.2	8.1	555	550
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YMC	AS	AS	YMC	YMC	AS	YMC	YMC	AS	YMC	YMC	AS	YMC	AS

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	76
Highest conc.	430	208
Hardness adjusted	←	

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		/
DO (mg/L)	9.1		
pH	8.0		
Cond (µS/cm)	555		
Salinity (ppt)	0.3		

Comments: some precipitate at 48h on beaker bottom Mortality: Heartbeat checked under microscope no

Sample Description: clear, no colour, no odour, some particulates

Batch#: 031517B 7-d previous # young/brood: 24 Previous 7-d Mortality (%): 10 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 17, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170293

Start Date/Time: April 6, 2017 @ 1515h
Test Species: Daphnia magna
Set up by: VIC

Sample Information:

Sample ID: LC-LC9-QWS-2017-05-04
Sample Date: April 4, 2017
Date Received: April 6, 2017
Sample Volume: 2 x 1 L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 24
Mortality (%) in previous 7 d: 10
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC48
Stock Solution ID: 17NaCl
Date Initiated: April 5, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: April 17, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: LC-109-0 WS-2017-05-01-N
 Work Order No.: 170293

Start Date/Time: April 6, 2017 @ 15:15h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: Temp-S DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.5	19.2	19.5	8.5	8.4	8.6	7.9	7.8	7.7	347	357
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	19.0	19.5	8.9	8.2	8.6	7.7	7.8	7.9	677	688
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	AS	AS	YML	YML	AS	YML	YML	AS	YML	YML	AS	YML	AS

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	76
Highest conc.	440	90
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.9		
pH	7.7		
Cond (µS/cm)	677		
Salinity (ppt)	0.3		

Comments: Some precipitate at 48h on beaker bottom Mortality: Heartbeat checked under microscope no

Sample Description: clear, no colour, no odour, slight particulates

Batch#: 031517B 7-d previous # young/brood: 24 Previous 7-d Mortality (%): 10 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 17, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170293

Start Date/Time: April 6, 2017 @ 1515h
Test Species: Daphnia magna
Set up by: YMC

Sample Information:

Sample ID: LC-SPDC-Q-WS-2017-05-04N
Sample Date: April 4, 2017
Date Received: April 6, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 24
Mortality (%) in previous 7 d: 10
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC48
Stock Solution ID: 17Na01
Date Initiated: April 5, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: April 17, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: LC-SPDC Q-WS-2017-05-01-N
 Work Order No.: 170293

Start Date/Time: April 6, 2017 @ 15:15h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: VML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.0	19.5	8.5	8.4	8.6	7.9	7.8	7.7	347	358
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	19.5	9.1	8.4	8.7	8.0	8.1	8.1	247	254
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		VML	AS	AS	VML	VML	AS	VML	VML	AS	VML	VML	AS	VML	AS

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	100	76
Highest conc.	128	120
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	9.1		
pH	8.0		
Cond (µS/cm)	247		
Salinity (ppt)	0.1		

Comments: NO precipitate at 48h Mortality: Heartbeat checked under microscope NO

Sample Description: clear, no colour, no odour, some particulates

Batch#: 031517B 7-d previous # young/brood: 24 Previous 7-d Mortality (%): 10 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 17, 2017

Client: Teck

W.O.#: 170293

Hardness and Alkalinity Datasheet

Sample ID	Alkalinity						Hardness			Technician
	Subsample Date	Date Measured	Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/LCaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	
LC-LC7-Q-WS- 2017-05-0LN	Apr 6/17	Apr 6/17	50	13.6	13.8	268	10 [Ⓢ]	4.3	430	Yue
LC-LC9-Q-WS- 2017-05-0LN	Apr 6/17	Apr 6/17	50	4.7	4.9	90	10 [Ⓢ]	4.4	440	Yue
LC-SPDC-Q-WS- 2017-05-0LN	Apr 6/17	Apr 6/17	50	6.2	6.4	120	50	6.4	128	Yue
MHW	Apr 6/17	Apr 6/17	50	3.9	4.0	76	50	5.0	100	Yue

Notes: [Ⓢ] Diluted to 100 mL w/ DI water.

Reviewed by: 

Date Reviewed: April 13, 2017

APPENDIX C – Chain-of-custody form

Teck

COC ID:		TURNAROUND TIME:				RUSH:									
PROJECT/CLIENT INFO								LABORATORY				OTHER INFO			
Facility Name / Job#		Line Creek Operation				Lab Name		Nautilus Environmental		Report Format / Distribution			Excel	PDF	EDD
Project Manager		Jay Jones				Lab Contact		Krysta Peary		Email 1:			X	X	X
Email		jay.jones@teck.com				Email		Krysta@NautilusEnvironmental.ca		Email 2:			X	X	X
Address		Box 2003				Address		8664 commerce Court		Email 3:			X	X	X
City		Sparwood		Province	BC	City		Burnaby		Province	BC	PO number		4267/5	
Postal Code		V0B 2G0		Country	Canada	Postal Code		V5A 4N7		Country	Canada				
Phone Number		250-425-6111				Phone Number		604-420-8773							
SAMPLE DETAILS								ANALYSIS REQUESTED							
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	NAUT_48Hr_DM_Single_Concentration_Toxicity Test 20°C	Other Parameters (e.g., pH, TSS, etc.)					
1 LC_LC7_Q_WS_2017-05-01_N	LC_LC7	WS	N	2017/04/4	15:19	G	3	X	X						
2 LC_LC9_Q_WS_2017-05-01_N	LC_LC9	WS	N	2017/04/4	14:26	G	3	X	X						
3 LC_SPDC_Q_WS_2017-05-01_N	LC_SPDC	WS	N	2017/04/4	11:38	G	3	X	X						
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS								RELINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
								T Phillips/ NUPQU		April 4, 2017		Nautilus - Burnaby		Apr 06/17 @ 12:20	
												NY - Nari Yamamoto			
NO. OF BOTTLES RETURNED/DESCRIPTION															
Regular (default) X								Sampler's Name		Tyler Phillips		Mobile #		(250) 919-0965	
Priority (2-3 business days) - 50% surcharge								Sampler's Signature				Date/Time		April 4, 2017	
Emergency (1 Business Day) - 100% surcharge															
For Emergency <1 Day, ASAP or Weekend - Contact ALS															

- 1
- 2
- 3

use #
170292
170293

Temp °C
6.3
1K20L + 2x1L
↓

- 1 Clear, Colorless, No odor; Some particulates
- 2 Clear, Colorless, some particulates, odorless
- 3 Clear, Colorless, No odor; Some particulates

END OF REPORT



Acute Toxicity Test Results

Samples collected May 6 & 7, 2017

Final Report

May 24, 2017

Submitted to: **Teck Coal / Line Creek Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
LC_LC7_WS_2017-05-06_N	06-May-17 at 1124h	10-May-17 at 1045h	11-May-17 at 0845h	11-May-17 at 1000h
LC_SPDC_WS_2017-05-07_N	07-May-17 at 1210h	10-May-17 at 1045h	12-May-17 at 0900h	11-May-17 at 1410h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_LC7_WS_2017-05-06_N	9.5/12.5°C	172	156
LC_SPDC_WS_2017-05-07_N	9.5/12.5°C	112	82

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
LC_LC7_WS_2017-05-06_N	0	0
LC_SPDC_WS_2017-05-07_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_LC7_WS_2017-05-06_N	Rainbow trout	None	None
LC_LC7_WS_2017-05-06_N	<i>Daphnia magna</i>	Precipitate observed on the bottom of test vessel	None
LC_SPDC_WS_2017-05-07_N	Rainbow trout	None	None
LC_SPDC_WS_2017-05-07_N	<i>Daphnia magna</i>	Precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	81.0 (61.1 – 107.4) µg/L Zn ¹ / 86.3 (64.8 – 115.3) µg/L Zn ²	4.5 (3.8 – 5.4) g/L NaCl ³
Reference toxicant historical mean (2 SD range)	55.0 (26.1 – 115.9) µg/L Zn	4.1 (3.2 – 5.3) g/L NaCl
Reference toxicant CV	45%	13%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: May 2, 2017; ² Test date: May 12, 2017; ³ Test Date: May 17, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: May 11 / 17 @ 0845h

Work Order No.: 170450

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC.LC7-WS 2017-05-06-N
Sample Date: May 6 / 17
Date Received: May 10 / 17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 041817
Source: Aquaria Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.32
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.32 ± 0.06

Range: 27-33
Range: 0.26-0.41

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn70
Stock Solution ID: 17 ZnO2
Date Initiated: May 2 / 17
96-h LC50 (95% CL): 81.0 (61.1-107.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.0 (26.1-115.9) mg/L Zn
Reference Toxicant CV (%): EC 5545

Test Results: EC 100 of mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: May 22, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: LC-LC7-NS-2017-05-06-N
 W.O. #: 170450
 RBT Batch #: 041817
 Date Collected/Time: May 6/17 @ 1124
 Date Setup/Time: May 11/17 @ 0845h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 08
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	9.7	/	9.8
pH	7.6	/	7.7
Cond. (µS/cm)	362	/	362
Salinity (ppt)	0.2	/	0.2

Concentration	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	(% v/v)	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
10				10	10	10	10	14.0	15.0	15.0	14.5	14.5	10.2	9.8	9.5	9.8	8.8	7.0	7.0	7.0	7.1	7.1	36	39	
100				10	10	10	10	14.0	15.0	15.0	14.5	14.5	9.9	9.9	9.5	9.9	9.7	7.7	7.8	8.1	7.2	7.2	362	368	
Initials				EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	

Sample Description/Comments: light brown, slightly turbid, some particulates, odorless

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: No precipitates present @ 96 hrs.

Reviewed by: [Signature] Date Reviewed: May 22, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: May 12 / 17 ^{in 0900h} ~~(2017-05-12)~~

Work Order No.: 170450

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-2 SPOL-WS-2017-05-07-W
Sample Date: May 7 / 17
Date Received: May 10 / 17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 042417
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.33
Mean Length ± SD (mm): 29 ± 3
Mean Weight ± SD (g): 0.33 ± 0.10

Range: 26 - 34
Range: 0.25 - 0.56
0.25

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 71
Stock Solution ID: 17Zn02
Date Initiated: May 12/17
96-h LC50 (95% CL): 886.3 (64.8 - 115.3) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.0 (26.1 - 115.9) mg/L Zn
Reference Toxicant CV (%): 85.45

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: May 22, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170451

Start Date/Time: May 11, 2017 @ 1000h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: LC-LC7-WS-2017-05-06-N
Sample Date: MAY 6, 2017
Date Received: MAY 10, 2017
Sample Volume: 2X1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 042617A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 13
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC50
Stock Solution ID: 17Na01
Date Initiated: May 17, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.2 - 5.3) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: May 22, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Coal
 Sample ID: LC-LC7-WS-2017-05-06-N
 Work Order No.: 170451

Start Date/Time: May 11/17 @ 1000h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: EL

Thermometer: Temp-5 DO meter: DO 2/3 pH meter: pH 1/3 Cond./Salinity: C-2/3

Concentration (Y.V/V)	Number of Live Organisms Rep	No. Organisms		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	20.0	19.0	20.0	8.9	8.7	8.5	7.7	7.7	7.8	357	354
	B	10	10	0											
	C	10	10	0											
	D														
EL 6.25 100	A	10	10	0	20.0	19.0	20.0	9.0	8.7	8.5	7.9	8.0	8.1	366	375
	B	10	10	0											
	C	10	10	0											
	D														
EL 12.5	A														
	B														
	C														
	D														
EL 25	A														
	B														
	C														
	D														
EL 50	A														
	B														
	C														
	D														
EL 100	A														
	B														
	C														
	D														
Technician Initials	EL	AW	AW	EL	EL	AW	EL	EL	AW	EL	EL	AW	EL	AW	AW

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity*
Control (MHW)	100	76
Highest conc.	172	156
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	9.0		
pH	7.9		
Cond (µS/cm)	366		
Salinity (ppt)	0.2		

Comments: precipitation @ 48-h on beaker Mortality: Heartbeat checked under microscope ND

Sample Description: light brown, slightly turbid, w odour, some particulates

Batch#: 042617A 7-d previous # young/brood: 10 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: EL Date reviewed: May 22, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170451

Start Date/Time: May 11, 2017 @ 14:06h
Test Species: Daphnia magna
Set up by: EC

Sample Information:

Sample ID: CC-SPDC-WS-2017-05-07-N
Sample Date: MAY 7, 2017
Date Received: MAY 10, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 444
042617 041917A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC50
Stock Solution ID: 17NaCl
Date Initiated: MAY 17, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.2 - 5.3) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: MAY 22, 2017

**Freshwater Acute
48 Hour Toxicity Test Data Sheet**

Client: Teck Coal
 Sample ID: LC-SPDC-WS-2017-05-07-N
 Work Order No.: 170451

Start Date/Time: May 11/17 @ 1410h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: EL

Thermometer: Temp-5 DO meter: DO 2/3 pH meter: pH 1/3 Cond./Salinity: C-2/3

Concentration	Number of Live Organisms	No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)			
			Rep	24	48	0	24	48	0	24	48	0	48		
(XUVU) Control	A	10	10	0	19.0	19.0	20.0	8.9	8.7	8.5	7.7	7.6	7.7	357	362
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	20.0	9.1	8.9	8.6	7.7	7.8	197	218	
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	EL	AW	AW	EL	EL	AW	EL	EL	AW	EL	EL	AW	EL	AW	

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	100	76
Highest conc.	112	82
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	9.1		
pH	7.7		
Cond (µS/cm)	197		
Salinity (ppt)	0.1		

Comments: precipitate @ 48-h on beaker bottom Mortality: Heartbeat checked under microscope no

Sample Description: brown, turbid, no odor, some particulates

Batch#: 0426787 041917AHS 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 22, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected July 7, 2017

Final Report

July 24, 2017

Submitted to: **Teck Coal / Line Creek Operation**
Sparwood, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
LC_LC7_Q_WS_2017-08-02_N	07-Jul-17 at 1255h	10-Jul-17 at 1020h	10-Jul-17 at 1500h	11-Jul-17 at 1000h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_LC7_Q_WS_2017-08-02_N	23.0°C	210	144

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
LC_LC7_Q_WS_2017-08-02_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_LC7_Q_WS_2017-08-02_N	Rainbow trout	None	None
LC_LC7_Q_WS_2017-08-02_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	104.1 (77.4 – 141.2) µg/L Zn ¹	4.5 (3.8 – 5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	62.1 (32.1 – 120.0) µg/L Zn	4.1 (3.3 – 5.0) g/L NaCl
Reference toxicant CV	39%	10%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: June 30, 2017; ² Test Date: July 19, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

Eric Cheung

Report By:
Eric Cheung, B.Sc.
Laboratory Biologist

Edmund Canaria

Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: July 10 / 17 @ 1500h

Work Order No.: 170673

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LC7-Q-WS-2017-08-02-N
Sample Date: July 7 / 17
Date Received: July 10 / 17
Sample Volume: 2 x 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: 061317
Source: Aqua Farms
No. Fish/Volume (L): 10/12L
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 32 ± 2
Mean Weight ± SD (g): 0.38 ± 0.09

Range: 29 - 34
Range: 0.27 - 0.56

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn76
Stock Solution ID: 17Zn02
Date Initiated: June 30/17
96-h LC50 (95% CL): 104.1 (77.4 - 141.2) mg/L Zn

Reference Toxicant Mean and Historical Range: 62.1 (32.1 - 120.0) mg/L Zn
Reference Toxicant CV (%): 39%

Test Results: 0% mortality at 96 hours in the undiluted 100% (w/v) sample.

Reviewed by: [Signature]

Date reviewed: July 24, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170672

Start Date/Time: July 11, 2017 @ 1000h
Test Species: Daphnia magna
Set up by: YL

Sample Information:

Sample ID: LC-LC7.2-WS-2017-08-02-N
Sample Date: July 7/17
Date Received: July 10/17
Sample Volume: 2x1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 062117B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTCS3
Stock Solution ID: 17Na01
Date Initiated: July 19/17
48-h LC50 (95% CL): 4.5 (3.8-5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 0% mortality at 48 hours in the undiluted 100% (v/v)
sample.

Reviewed by: [Signature] Date reviewed: July 24, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: July 11, 2017 @ 1000h
 Sample ID: LC-107-2-WS-2017-08-02-N No. Organisms/volume: 10/200mL
 Work Order No.: 170672 Test Organism: D. magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	20.0	19.5	19.5	8.7	8.6	8.5	7.6	7.7	7.7	354	365
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	19.5	19.5	9.0	8.6	8.4	8.1	8.1	8.1	285	292
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Concentration		
Control (MHW)	92	210-74
Highest conc.	210	144
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	9.0		
pH	8.1		
Cond (µS/cm)	285		
Salinity (ppt)	0.1		

Comments: No precipitates @ 48 hours Mortality: Heartbeat checked under microscope not needed
 Sample Description: Clear, Colorless, No particulates, odorless
 Batch#: 0621173 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10
 Reviewed by: [Signature] Date reviewed: July 24, 2017

APPENDIX C – Chain-of-custody form

Teck

Page 1 of 1

COC ID:	20170708-0831			TURNAROUND TIME:				RUSH:				
PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job#	Line Creek Operation			Lab Name	Nautilus Environmental			Report Format / Distribution	Excel	PDF	EDD	
Project Manager	Jay Jones			Lab Contact	Krysta Pearcy			Email 1:	Jay.Jones@teck.com	X	X	X
Email	jay.jones@teck.com			Email	Krysta@NautilusEnvironmental.ca			Email 2:	Chris.Elurton@teck.com	X	X	X
Address	Box 2003			Address	8664 commerce Court			Email 3:	teckcoal@equisonline.com			X
	15km North Hwy 43											
City	Sparwood	Province	BC	City	Burnaby	Province	BC	PO number	196472			
Postal Code	V0B 2G0		Country	Canada	Postal Code	V5A 4N7		Country	Canada			
Phone Number	250-425-6111			Phone Number	604-420-8773							

SAMPLE DETAILS								ANALYSIS REQUESTED					Filtered - F: Field, L: Lab, FT: Field & Lab, N: None	
Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS
LC_LC7_Q_WS_2017-08-02_N	LC_LC7	WS	N	2017/07/07	12:55	G	3	NAUT_48Hr_DM_100%	NAUT_96Hr_RT_100%					Temp °C
								17 06 72	17 06 73					23.0
								17 06 72	17 06 73					
								17 06 72	17 06 73					
								17 06 72	17 06 73					
								17 06 72	17 06 73					
								17 06 72	17 06 73					
								17 06 72	17 06 73					
								17 06 72	17 06 73					
								17 06 72	17 06 73					

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
	6-Jul-17		Nautilus - Burnaby Jaymie Buchanan JB	July 10/17 10:20
SERVICE REQUEST (rush - subject to availability)				
Regular (default) <input checked="" type="checkbox"/>	Sampler's Name	Mobile #		
Priority (2-3 business days) - 50% surcharge	Sampler's Signature	Date/Time	July 6, 2017	
Emergency (1 Business Day) - 100% surcharge				
For Emergency <1 Day, ASAP or Weekend - Contact ALS				

Clear, colorless, No particulates, odorless.

END OF REPORT



Acute Toxicity Test Results

Samples collected July 14, 2017

Final Report

August 17, 2017

Submitted to: **Teck Coal Ltd. WLC AWTF**
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_LC3_SP22_20170604 / 1617-1260-03	14-July-17 at 1900h	15-July-17 at 1315h	18-July-17 at 1450h	15-July-17 at 1530h	15-July-17 at 1530h	10°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_LC3_SP22_20170604	10°C	551	187

TEST TYPES

- Rainbow trout 96-h LC50 test
- *Daphnia magna* 48-h LC50, EC50 test
- *Daphnia magna* 48-h LC50, EC50 test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	LC50/EC50 (% v/v) [95% CL]				
	Rainbow trout	<i>Daphnia magna</i> 10°C		<i>Daphnia magna</i> 20°C	
	LC50	LC50	EC50	LC50	EC50
LC_LC3_SP22_20170604	>100 [NA]	>100 [NA]	>100 [NA]	>100 [NA]	>100 [NA]

CL = Confidence Limit, LC = Lethal Concentration, EC= Effect Concentration

Precipitate observations

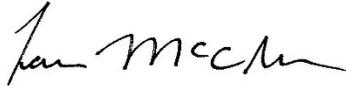
Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_LC3_SP22_20170604	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed on surface of the 20°C test	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.9-3.6) g/L KCl ¹	4.9 (4.6-5.2) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.2-3.7) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	9%	6%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, July 14, 2017; ² Test Date July 11, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	Five concentrations, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	96-hour LC50
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	Five concentrations, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	48-h LC50
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	Five concentrations, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	48-h LC50
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRD

Client TECLIMU

Reference 1617-1260-03

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	
0	2017/07/18	1450 *	JW	1	HS	Initial pH: <u>7.7</u>
1	2017/07/19	0900	EP	-	JW	Initial EC (µS/cm): <u>111</u>
2	2017/07/20	0845	EP	-	JW	Initial DO (mg/L): <u>8.9</u>
3	2017/07/21	0900	CL	-	HS	Initial Temp (°C): <u>19.3</u>
4	2017/07/20	0800	CL/HS	1	HS	Salinity (ppt): <u>2</u>
						Nets used: yes / <u>no</u>

Note: *, time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100%

8.6

Test Chemistry and Biology

Conc.	CTL	<u>6</u>	<u>12</u>	<u>25</u>	<u>50</u>	<u>100</u>		
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pH (units) (range: 5.5-8.5)

Day 0	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>		
Day 4	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>		

EC (µS/cm)

Day 0	<u>489</u>	<u>535</u>	<u>586</u>	<u>675</u>	<u>847</u>	<u>1115</u>		
Day 4	<u>490</u>	<u>540</u>	<u>590</u>	<u>680</u>	<u>850</u>	<u>1180</u>		

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.3</u>	<u>8.5</u>	<u>8.5</u>	<u>8.5</u>	<u>8.6</u>	<u>8.6</u>		
Day 4	<u>8.4</u>	<u>8.5</u>	<u>8.6</u>	<u>8.6</u>	<u>8.6</u>	<u>8.7</u>		

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>16.0</u>	<u>15.2</u>	<u>15.0</u>	<u>15.0</u>	<u>15.1</u>	<u>15.2</u>		
Day 4	<u>15.2</u>	<u>15.2</u>	<u>15.1</u>	<u>15.2</u>	<u>15.1</u>	<u>15.2</u>		

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>		
Day 1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>		
Day 2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>		
Day 3	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>		
Day 4	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>		

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control

Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.7</u>	<u>0.2</u>	Loading Density (g/L): <u>0.14</u>	Batch: <u>20170630TR</u>
2	<u>2.8</u>	<u>0.3</u>		Source: <u>SAM LIVINGSTON</u>
3	<u>2.9</u>	<u>0.3</u>	Mean Length (cm): <u>2.9</u>	Days Held: <u>18</u>
4	<u>3.0</u>	<u>0.3</u>		Percent stock mortality (7 days prior to test, must be ≤2%): <u>0</u>
5	<u>2.9</u>	<u>0.3</u>	Length Range (cm): <u>2.7-3.0</u>	
6	<u>2.7</u>	<u>0.2</u>	Mean Weight (g): <u>0.3</u>	
7	<u>2.9</u>	<u>0.3</u>	Weight Range (g): <u>0.2-0.3</u>	
8	<u>3.0</u>	<u>0.3</u>		
9	<u>3.0</u>	<u>0.3</u>		
10	<u>2.9</u>	<u>0.3</u>		

Comments: 24 hr

Method DAD at 20 deg

Client TEC164

Reference 1617-1260-03

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/15	1530	HS	3	SS	7.2	1111	8.9	19.3	2
1	2017/07/16	1230	JW	-	CR					
2	2017/07/17	1030	JW/NM	3	FP					

Lab Code	CTL	6	12	25	50	100

day pH (units) (range: 6.0-8.5)

0	8.0	8.0	8.0	7.9	7.8	7.7
2	7.7	7.7	7.8	7.9	8.0	8.1

EC (uS/cm)

0	328	392	451	560	747	1062
2	337	405	476	573	771	1106

DO (mg/L) (40-100% saturation at test temp.)

0	7.2	7.7	7.7	7.8	7.8	7.8
2	7.8	7.7	7.7	7.9	7.8	7.8

Temperature (°C) (range: 17.5-22.5 °C)

0	20.1	20.2	20.2	20.3	20.1	20.2
2	19.8	19.8	19.7	19.7	19.7	19.7

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C5</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0</u>
QA (previous month)	Days to first brood (≤12 days) <u>8</u>	Average number of young produced (≥15 young) <u>31</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>98</u>	Is aeration required (<40% or >100%)? Yes or <input checked="" type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110um screen prior to testing Yes or <input checked="" type="radio"/> No
	Hardness (mg CaCO3/L) of 100%: <u>551</u>	Is hardness adjustment required (<25 mg CaCO3/L)? Yes or <input checked="" type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>9 07/12</u>	Weekly water hardness (mg/L) <u>81</u>
Comments:	<p>24 HOUR UPDATES</p> <p>no ppt at 0 hrs</p> <p>Some surface ppt at 96 hrs</p>	

Method DAD at 10 deg

Client TEC164

Reference 1617-1260-03

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/15	1530	HS	3	SS	7.7	1111	8.9	19.3	45-55/2
1	2017/07/16	1250	JW	-	Ca					
2	2017/07/17	1050	JW/MM	3	FP					

Lab Code	CTL	6	12	25	50	100

day pH (units) (range: 6.0-8.5)

0	8.0	8.0	7.8	7.7	7.6	7.6			
2	7.5	7.5	7.7	7.7	7.8	8.0			

EC (uS/cm)

0	342	358	440	534	716	1114			
2	338	403	454	570	762	1124			

DO (mg/L) (40-100% saturation at test temp.)

0	9.5	9.5	9.6	9.7	9.7	9.8			
2	9.5	9.5	9.5	9.5	9.5	9.6			

Temperature (°C) (range: 17.5-22.5 °C)

0	10.3	10.1	10.1	10.3	10.7	10.7			
2	10.9	10.7	10.4	10.4	10.3	10.5			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C4</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0</u>
QA (previous month)	Days to first brood (≤12 days) <u>8</u>	Average number of young produced (≥15 young) <u>37</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>98</u>	Is aeration required (<40% or >100%)? Yes or No <input checked="" type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110um screen prior to testing Yes or No <input checked="" type="radio"/> No
	Hardness (mg CaCO3/L) of 100%: <u>551</u>	Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No <input checked="" type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>G 07/12</u>	Weekly water hardness (mg/L) <u>81</u>
Comments:	<u>24 HOUR UPDATES</u>	
	<u>no ppt at 0 hrs</u> <u>no ppt at 96 hrs</u>	

APPENDIX C – Chain-of-custody form

Teck

COC ID: **20170714-AcuteToxicity** TURNAROUND TIME: **EMERGENCY** RUSH: EMERGENCY

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job#	WLC AWTF			Lab Name	Nautilus Environmental			Report Delivery Formats				
Project Manager	Thomas Davidson			Lab Contact	Jacklyn Pool			Email 1:	thomas.davidson@teck.com	Excel	PDF	EDD
Email	Thomas.Davidson@teck.com			Email	Jacklyn@NautilusEnvironmental.ca			Email 2:	teckcoal@equisonline.com	X	X	X
Address	15 Km North HWY 43			Address	#4, 6125 - 12 Street SE			Email 3:	teckw/clab@epcor.com	X	X	X
City	Sparwood	Province	BC	City	Calgary	Province	AB	Email 4:	Mary.Halke@teck.com	X	X	X
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada	Email 5:	colin.lynch@teck.com	X	X	X
Phone Number	250.603.9417			Phone Number	+1.403.253.7121			Email 6:	michael.moore@teck.com	X	X	X

SAMPLE DETAILS								ANALYSIS REQUESTED							
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	PH	PRESERV.	ANALYSIS	EXTRA	Notes	Excel	PDF	EDD
161A-1260								N	N	N	N				
WL_LCI_SP02_20170604	WL_LCI_SP02	WS	N	14-Jul-17	19:00	G	6	X	X	X					
WL_BFWB_OUT_20170714	WL_BFWB_OUT_SP21	WS	N	14-Jul-17	19:00	G	6	X	X	X					
LC_LC3_SP22_20170604	LC_LC3_SP22	WS	N	14-Jul-17	19:00	G	6	X	X	X					
WL_LCI_SP01_20170604	WL_LCI_SP01	WS	N	14-Jul-17	19:00	G	6	X	X	X					

LC50 Testing Requested - CO

*CO
2017/07/15
1315
No S/I
Hot shot service
good condition
100C*

*-01
-02
-03
-04*

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name	Mobile #
Regular (default)		<i>Tim McKenna</i>	
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge <input checked="" type="checkbox"/>			
For Emergency <1 Day, ASAP or Weekend - Contact ALS			
	Sampler's Signature	Date/Time	<i>July 15/17 06:30</i>

END OF REPORT



Acute Toxicity Test Results

Sample collected July 26, 2017

Final Report

September 14, 2017

Submitted to: **Teck Resources Ltd.** LCO
Sparwood, B.C.

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_LC3_20170726_N / 1617-1334	26-July-17 at 0900h	26-July-17 at 1430h	31-July-17 at 1305h	30-July-17 at 1520h	30-July-17 at 1520h	7°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_LC3_20170726_N	7°C	515	198

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_LC3_20170726_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_LC3_20170726_N	0	0

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	4.6 (4.0-5.1) g/L NaCl
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-5.9) g/L NaCl
Reference toxicant CV	5.7%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

Test Date July 25, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tanya Aubin, B.Sc.
Laboratory Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method PASC@10%

 Client TEC164

 Reference 1617-1334
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	7.8
0	2017/07/30	1520	JW	3	SS	Initial EC (µS/cm):	1063
1	2017/07/31	1020	JW/AP	-	17K	Initial DO (mg/L):	8.5
2	2017/08/01	0955	EP	3	JW	Initial Temp (°C):	19.0
						Salinity (ppt):	0

Lab Code	CTA	CTB	CTL	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.9	7.9	7.9	7.7	7.8	7.8
2	7.7	7.8	7.8	8.0	8.1	8.1
	7.6	7.6	7.6			

day	EC (uS/cm)					
0	309	308	309	1055	1059	1063
2	318	318	324	1091	1099	1106
	315	320	324			

day	DO (mg/L) (40-100% saturation at test temp.)					
0	9.4	9.4	9.4	9.4	9.5	9.5
2	9.7	9.7	9.8	9.6	9.6	9.7
	9.4	9.3	9.4			

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	10.6	10.6	10.6	10.7	10.7	10.6
2	21.3	21.0	21.7	10.6	10.4	10.2
	11.1	11.2	11.2			

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

 Young jar EL

Jar(s) mortality 7 days prior to test (must be ≤25%)

14%
QA (previous month)

 Days to first brood (≤12 days) 8

 Average number of young produced (≥15 young) 20.4

 Were test treatments randomized on test tray? Yes / No

Sample

 DO % of sample prior to aeration: 100%

Is aeration required (<40% or >100%)?

 Yes or No

 Duration of aeration (37.5 +/- 12.5 mL/min/L): -

Filtered with 110µm screen prior to testing

 Yes or No

 Hardness (mg CaCO₃/L) of 100%: 515

 Is hardness adjustment required (<25 mg CaCO₃/L)?

 Yes or No

 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -
Dilution Water

 Pail label / preparation date H: 07126

 Weekly water hardness (mg/L) 89
Comments:

Method DAS @ 20°C

Client TELIMU

Reference 1617-1334

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/30	1520	JW	3	SS	7.8	1053	8.5	19.0	
1	2017/07/31	1045	AP/SW	-	17M					
2	2017/08/01	1000	ED	3	JW					

Lab Code	CUA	CUB	CUU	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.9	7.9	7.9	7.7	7.7	7.7			
2	7.7	7.6	7.6	8.2	8.2	8.2			

EC (uS/cm)

0	300	306	305	1005	1058	1073			
2	315	320	324	1010	1068	1077			

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	7.7	7.7	7.7			
2	7.7	7.7	7.8	7.8	7.8	7.8			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.4	20.4	20.3	21.0	20.9	20.9			
2	20.1	20.2	20.2	20.9	20.9	20.6			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar E3 Jar(s) mortality 7 days prior to test (must be ≤25%) 71.

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 20.4
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 515 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date H:07/26 Weekly water hardness (mg/L) 89

Comments:

REPORTED TO Nautilus Environmental (Calgary)
#4, 6125 12th Street SE
Calgary, AB T2H 2K1

TEL (403) 253-7121
FAX (403) 252-9363

ATTENTION Claudio Quinteros

WORK ORDER 7072455

PO NUMBER

RECEIVED / TEMP 2017-07-28 12:30 / 23°C

PROJECT Bioassay

REPORTED 2017-08-09

PROJECT INFO

COC NUMBER no #

General Comments:

CARO Analytical Services employs methods which are conducted according to procedures accepted by appropriate regulatory agencies, and/or are conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts, except where otherwise agreed to by the client.

The results in this report apply to the samples analyzed in accordance with the Chain of Custody or Sample Requisition document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.



Authorized By:

Eilish St.Clair, B.Sc., C.I.T.
Client Service Representative

If you have any questions or concerns, please contact me at estclair@caro.ca

Locations:

#110 4011 Viking Way
Richmond, BC V6V 2K9
Tel: 604-279-1499

#102 3677 Highway 97N
Kelowna, BC V1X 5C3
Tel: 250-765-9646

17225 109 Avenue
Edmonton, AB T5S 1H7
Tel: 780-489-9100

www.caro.ca

REPORTED TO PROJECT Nautilus Environmental (Calgary)
Bioassay

WORK ORDER REPORTED 7072455
2017-08-09

Analysis Description	Method Reference	Technique	Location
Trout Mortality in Water	EPS 1/RM/13 A	Rainbow Trout Acute Lethality: Single-concentration	Edmonton

Method Reference Descriptions:

EPS Environment Canada Biological Test Methods

Glossary of Terms:

MRL Method Reporting Limit
 < Less than the Reported Detection Limit (RDL) - the RDL may be higher than the MRL due to various factors such as dilutions, limited sample volume, high moisture, or interferences
 % Mortality Percent mortality

Work Order: 7072455

Client: Nautilus
Project: Sublet
Attention: Claudio Quinteros

1. SAMPLE INFORMATION

Sample Origin: Nautilus
Calgary, AB
Sample Type: Effluent
Sample Description: 1617-1334
Sampling Date and Time: July 26, 2017 @ - hrs
Sampling Method: Grab
Sampled by: -

2. TEST INFORMATION

Laboratory Name / Location: CARO Analytical Services (Edmonton)
Laboratory Address: 17225 109 Avenue NW
Edmonton, AB T5S 1H7

Test Organism: *Oncorhynchus mykiss*
Test Description: Acute, 96-hour, static, Single-concentration (Mortality)
Lab Test Method ID: CE-TM-027
Reference Method: Biological Test method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout, 2000. Environment Canada, EPS 1/RM/13, 2nd Ed. , (including May 2007 ammendments)

Analyst Name: Justine Foster
Start of Test Date: July 31, 2017
Holding/Dilution Water: Dechlorinated City of Edmonton tap water, acclimated to test conditions

Test Container Description: 25 L, Disposable polyethylene liner
Test Solution Volume: 20 L
Test Solution Depth: 33 cm
Number of Test Organisms/Container: 10 (1 organism per 2 L)
Aeration of test solutions: 6.5 ± 1 mL/min per L
pH Adjustment: The sample was not pH adjusted
Lighting: Full spectrum fluorescent lights; 100-500 lux at surface
Photoperiod: 16 h light : 8 h dark
Deviations from Reference Method: None

REPORTED TO PROJECT Nautilus Environmental (Calgary)
Bioassay

WORK ORDER REPORTED 7072455
2017-08-09

Analyte	Result / Recovery	MRL / Limits	Units	Prepared	Analyzed	Notes
---------	-------------------	--------------	-------	----------	----------	-------

Sample ID: 1617-1334 (7072455-01) [Water] Sampled: 2017-07-26 00:00

Aquatic Bioassay Parameters

Mortality, 96 h Trout	0	% Mortality		2017-07-31	2017-08-04	TOX
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Sample / Analysis Qualifiers:

TOX Please refer to the Appendix for the full Toxicity Report

Work Order: 7072455

6. TEST DATA

Sample Concentration (% V/V)	100	0
------------------------------	-----	---

0 hours Time: 1:05 PM

Temperature (°C)	14.8	14.8
pH	7.60	7.52
Conductivity @ 25°C (µmhos/cm):	1040	361
Dissolved Oxygen (mg/L):	9.34	8.79

24 hours Time: 11:25 AM

Stressed (Qty)	0	0
Mortality (Qty)	0	0
Temperature (°C)	14.3	14.4
pH	7.86	7.57
Conductivity @ 25°C (µmhos/cm):	1034	359
Dissolved Oxygen (mg/L):	9.03	8.79

48 hours Time: 2:35 PM

Stressed (Qty)	0	0
Mortality (Qty)	0	0
Temperature (°C)	14.9	14.8
pH	8.06	7.78
Conductivity @ 25°C (µmhos/cm):	1036	363
Dissolved Oxygen (mg/L):	9.28	9.20

72 hours Time: 1:20 PM

Stressed (Qty)	0	0
Mortality (Qty)	0	0
Temperature (°C)	14.8	14.9
pH	8.12	7.80
Conductivity @ 25°C (µmhos/cm):	1037	365
Dissolved Oxygen (mg/L):	9.18	9.14

96 hours Time: 11:50 AM

Stressed (Qty)	0	0
Mortality (Qty)	0	0
Temperature (°C)	14.7	14.7
pH	8.09	7.80
Conductivity @ 25°C (µmhos/cm):	1041	368
Dissolved Oxygen (mg/L):	9.13	9.09

Work Order: 7072455

3. RECEIPT CONDITION

Container Description: 20 L HDPE carboy Qty: 1 Volume (L): 20
 Receipt Date and Time: July 28, 2017 @ 12:30 hrs
 Transit Irregularities: None
 Observations: Colour: Clear/None
 Odour: Mild
 Turbidity: None
 Settleable Solids: Low
 Measured Parameters: Temperature: 15.3 °C
 pH: 7.55
 Conductivity: 1038 µmhos/cm
 Dissolved Oxygen: 9.33 mg/L

4. PRE-AERATION

Duration at 6.5 ± 1 mL/min per L: 30 min

Sample Test Concentration (V/V):	<u>100%</u>	<u>0%</u>	
Before Pre-Aeration	Dissolved Oxygen: <u>9.37</u>	<u>8.50</u>	mg/L
	Air Saturation: <u>97</u>	<u>89</u>	%
After Pre-Aeration	Dissolved Oxygen: <u>9.40</u>	<u>8.74</u>	mg/L
	Air Saturation: <u>98</u>	<u>91</u>	%

5. TEST ORGANISM DATA

Lot Number: 170622
 Weekly Mortality Preceding Test: 0.17 (<2) %
 Sample Size: 10
 Loading Density: 0.33 g/L

Fish #	Wet Weight (g)	Fork Length (cm)
1	0.70	4.5
2	0.68	4.4
3	0.65	4.5
4	0.99	5.0
5	0.62	4.3
6	0.87	5.0
7	0.50	4.0
8	0.44	3.9
9	0.68	4.6
10	0.47	4.0
Average	0.66	4.4
StDev	0.17	0.4

Work Order: 7072455

7. SUBLETHAL BIOLOGICAL EFFECTS

Sample Conc (%)	Time(s) Observed (h)	Effect(s) Observed
		None

8. OBSERVATIONS / COMMENTS

None

9. RESULTS

Mortality (%) 0
 LC50 (%) >100

10. REFERENCE TOXICANT DATA

Toxicant: Phenol
 Test Starting Date: July 6, 2017
 96-hour LC₅₀ (mg/L) 8.39
 95% Lower Confidence Interval v/v (%): 6.88
 95% Upper Confidence Interval v/v (%): 9.18
 Method of Calculation: Linear Regression
 Confirmed by Graph: Yes
 Historic Geometric Mean LC₅₀ (mg/L) 9.95
 95% Lower Confidence Interval v/v (%): 8.00
 95% Upper Confidence Interval v/v (%): 12.38

APPENDIX C – Chain-of-custody form

Teck

COC ID: **20170726-AcuteToxicity** TURNAROUND TIME: **Emergency (1 Business Day) - 100% surcharge** RUSH: **yes**

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job#	LCO			Lab Name	Nautilus Environmental			Report Delivery Formats				
Project Manager	Thomas Davidson			Lab Contact	Jacklyn Pool			Email 1:	thomas.davidson@teck.com	X	X	X
Email	Thomas.Davidson@teck.com			Email	Jacklyn@NautilusEnvironmental.ca			Email 2:	teckcoal@equisonline.com			X
Address	15 Km North HWY 43			Address	#4, 6125 - 12 Street SE			Email 3:	teckwlab@epcor.com	X	X	X
City	Sparwood	Province	BC	City	Calgary	Province	AB	Email 4:	Marty.Hafke@teck.com	X	X	X
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada	Email 5:	colin.lynch@teck.com			X
Phone Number	250.603.9417			Phone Number	+1.403.253.7121			Email 6:	michael.moore@teck.com	X	X	X
								Email 7:	jocelyn.traverse@teck.com	X	X	X

SAMPLE DETAILS								ANALYSIS REQUESTED									
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	EXTRA	PBL	PRESERV.				
LC_LC3_20170726_N <i>1617-1334</i>	LC_LC3	WS	N	26-Jul-17	9:00	G	8	X	X	X	X	N	N				

*RW HOT SHOT
2017/07/26
@ 1430
4x 20 L CARBOYS
4x 1 L BOTTLES
NO S/I
GOOD CONDITION
TO
ERIC J.*

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION	Regular (default)	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend - Contact ALS	Sampler's Name	Sampler's Signature	Mobile #	Date/Time
			X		Relda Akkerman			July 26, 2017

END OF REPORT



Acute Toxicity Test Results

Samples collected August 12, 2017

Final Report

September 12, 2017

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_LC3_20170812_N / 1617-1464-03	12-Aug-17 at 1700h	13-Aug-17 at 0820h	14-Aug-17 at 1445h	14-Aug-17 at 1525h	14-Aug-17 at 1535h	10°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_LC3_20170812_N	10°C	512	187

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_LC3_20170812_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_LC3_20170812_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_LC3_20170812_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.8 (2.2-3.2) g/L KCl ¹	5.3 (5.0-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.3-3.7) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	8.3%	5.7%
Organism health history	Acceptable	Acceptable
Protocol deviations	See below	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, August 14, 2017; ² Test Date August 15, 2017

LC = Lethal Concentration; CL = Confidence Limit

The mean weight of the test fish was less than 0.3 g.



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In-house culture
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR5 Client TEC164 Reference 1617-1464-03

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/08/14	1445*	EP/LB	1	LC	Initial pH: <u>7.5</u> Initial EC (µS/cm): <u>1930</u>
1	2017/08/15	0815	SS	-	HS	Initial DO (mg/L): <u>6.2</u>
2	2017/08/16	0910	SS	-	HS	Initial Temp (°C): <u>21.6</u>
3	2017/08/17	0900	AP	-	HS	Salinity (ppt): <u>2</u>
4	2017/08/18	0900	EP	1	HS	Nets used: yes / <u>no</u>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100%: 8.8

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.5</u>	<u>7.8</u>					
Day 4	<u>8.3</u>	<u>8.3</u>					

EC (µS/cm)

Day 0	<u>420</u>	<u>1057</u>					
Day 4	<u>472</u>	<u>1006</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.0</u>	<u>8.8</u>					
Day 4	<u>8.9</u>	<u>8.8</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.3</u>	<u>15.1</u>					
Day 4	<u>14.6</u>	<u>14.2</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control

Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	<u>20170713TR</u>
1	<u>2.5</u>	<u>0.1</u>	Source	<u>In House</u>
2	<u>2.7</u>	<u>0.2</u>	Days Held	<u>30</u>
3	<u>2.5</u>	<u>0.1</u>	Percent stock mortality (7 days prior to test, must be ≤ 2%)	<u>0.1</u>
4	<u>2.6</u>	<u>0.2</u>	Test Volume (L)	<u>20L</u>
5	<u>2.3</u>	<u>0.1</u>		
6	<u>2.6</u>	<u>0.2</u>		
7	<u>2.5</u>	<u>0.2</u>		
8	<u>2.5</u>	<u>0.2</u>		
9	<u>2.5</u>	<u>0.2</u>		
10	<u>2.6</u>	<u>0.2</u>		
Loading Density (g/L):			<u>0.085</u>	
Mean Length (cm):			<u>2.5</u>	
Length Range (cm):			<u>2.3-2.7</u>	
Mean Weight (g):			<u>0.2</u>	
Weight Range (g):			<u>0.1-0.2</u>	
Comments :				

Method DAS @ 10 deg Client TEC164 Reference 1464
1617-463-03 RW

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information		
0	2017/08/14	1525	JW/AP	3	LC	Initial pH:		7.6
1	2017/08/15	0930	LC	-	HS	Initial EC (µS/cm):		1112
2	2017/08/16	0930	EP/MM	3	TM	Initial DO (mg/L):		6.9
						Initial Temp (°C):		20.7
						Salinity (ppt):		1

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C			

day pH (units) (range: 6.0-8.5)

0	7.9	7.9	7.9	7.7	7.7	7.7			
2	7.7	7.7	7.7	8.1	8.1	8.1			

EC (µS/cm)

0	317	326	336	1087	1092	1090			
2	314	319	333	1062	1075	1100			

DO (mg/L) (40-100% saturation at test temp.)

0	9.7	9.7	9.7	9.7	9.8	9.8			
2	9.5	9.5	9.5	9.6	9.6	9.6			

Temperature (°C) (range: 17.5-22.5 °C)

0	10.9	10.8	10.8	10.3	10.3	10.3			
2	11.4	11.3	11.3	11.4	11.4	11.4			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>D2</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>7</u>	Average number of young produced (≥15 young) <u>19.0</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>100%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>512</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>H:08111</u>	Weekly water hardness (mg/L) <u>92</u>
Comments:	24 Hour Updates <u>no ppt at 0 hrs</u> <u>no ppt at 48 hrs</u>	

Method DAS 20 deg

Client TEC164

Reference 1617-1464-03

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	<u>2017/08/14</u>	<u>1535</u>	<u>JW/AP</u>	<u>3</u>	<u>LC</u>	<u>7.6</u>	<u>1112</u>	<u>6.9</u>	<u>20.7</u>	<u>1</u>
1	<u>2017/08/15</u>	<u>0940</u>	<u>LC</u>	<u>-</u>	<u>HS</u>					
2	<u>2017/08/16</u>	<u>0945</u>	<u>FP/NM</u>	<u>3</u>	<u>TR</u>					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>8.1</u>	<u>8.1</u>	<u>8.1</u>			
2	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>8.2</u>	<u>8.2</u>	<u>8.2</u>			

EC (uS/cm)

0	<u>305</u>	<u>324</u>	<u>327</u>	<u>1054</u>	<u>1064</u>	<u>1065</u>			
2	<u>324</u>	<u>328</u>	<u>335</u>	<u>1061</u>	<u>1073</u>	<u>1075</u>			

DO (mg/L) (40-100% saturation at test temp.)

0	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>8.0</u>	<u>8.0</u>	<u>8.1</u>			
2	<u>7.7</u>	<u>7.7</u>	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>8.0</u>			

Temperature (°C) (range: 17.5-22.5 °C)

0	<u>20.5</u>	<u>20.5</u>	<u>20.5</u>	<u>20.9</u>	<u>20.8</u>	<u>20.6</u>			
2	<u>20.5</u>	<u>20.5</u>	<u>20.5</u>	<u>19.7</u>	<u>19.6</u>	<u>19.7</u>			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10 (IF)</u>	<u>10</u>			
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D2, D3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 19.0
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 112% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 512 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date H:0811 Weekly water hardness (mg/L) 92

Comments:
 In glass jars at 0 hrs no ppt
 24 hour updates at 48 hrs no ppt

APPENDIX C – Chain-of-custody form

Teck

COC ID: **20170812-AcuteToxicity** TURNAROUND TIME: **EMERGENCY** RUSH: EMERGENCY

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job# WLC AWTF				Lab Name Nautilus Environmental				Report Delivery Formats				
Project Manager Thomas Davidson				Lab Contact Jacklyn Pool				Email 1:	thomas.davidson@teck.com	X	X	X
Email Thomas.Davidson@teck.com				Email Jacklyn@NautilusEnvironmental.ca				Email 2:	teckcoal@equisonline.com	X	X	X
Address 15 Km North HWY 43				Address #4, 6125 - 12 Street SE				Email 3:	teckwclab@epcor.com	X	X	X
City Sparwood Province BC				City Calgary Province AB				Email 4:	Marty.Hatke@teck.com	X	X	X
Postal Code V0B 2G0 Country Canada				Postal Code T2H 2K1 Country Canada				Email 5:	colin.lynch@teck.com	X	X	X
Phone Number 250.603.9417				Phone Number +1.403.253.7121				Email 6:	jay.jones@teck.com	X	X	X
								Email 7:	chris.blurton@teck.com	X	X	X
								Email 8:	michael.moore@teck.com	X	X	X

SAMPLE DETAILS								ANALYSIS REQUESTED								
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS
								NAUT_96Hr_RT_Single Concentration_Toxicity Test	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C	EXTRA					
WL_WLCI_SP01_20170812_N	WL_WLCI_SP01	WS	N	12-Aug-17	17:00	G	11	X	X	X	X					
WL_BFWB_OUT_SP21_20170812_N	WL_BFWB_OUT_SP21	WS	N	12-Aug-17	17:00	G	11	X	X	X	X					
LC_LC3_20170812_N	LC_LC3	WS	N	12-Aug-17	17:00	G	11	X	X	X	X					

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION	Regular (default)	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge X	For Emergency <1 Day, ASAP or Weekend - Contact ALS	Sampler's Name	Mobile #	Date/Time
					Tim McKenna	250-425-6175	August 12, 2017

1617-1464-01
1617-1464-02
1617-1464-03

LC 20170813
0820 10.1°C
10x20L canbony
16x 500mL bottles
RW Hotshot service/trc.
Good cond. Nos/I

END OF REPORT



Acute Toxicity Test Results

Samples collected August 15, 2017

Final Report

August 24, 2017

Submitted to: **Teck Coal / Line Creek Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
LC_HSP_WM_2017-08-14_N	15-Aug-17 at 1450h	17-Aug-17 at 1058h	18-Aug-17 at 1355h	17-Aug-17 at 1530h
LC_LC5_WS_2017-08-14_N	15-Aug-17 at 0723h	17-Aug-17 at 1058h	18-Aug-17 at 1355h	17-Aug-17 at 1530h
LC_LCDSSLCC_WS_2017-08-14_N	15-Aug-17 at 1100h	17-Aug-17 at 1058h	18-Aug-17 at 1355h	17-Aug-17 at 1530h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_HSP_WM_2017-08-14_N	19.6°C	224	138
LC_LC5_WS_2017-08-14_N	17.3°C	370	180
LC_LCDSSLCC_WS_2017-08-14_N	17.4°C	510	200

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
LC_HSP_WM_2017-08-14_N	0	0
LC_LC5_WS_2017-08-14_N	0	0
LC_LCDSSLCC_WS_2017-08-14_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_HSP_WM_2017-08-14_N	Rainbow trout	None	None
LC_HSP_WM_2017-08-14_N	<i>Daphnia magna</i>	None	None
LC_LC5_WS_2017-08-14_N	Rainbow trout	None	None
LC_LC5_WS_2017-08-14_N	<i>Daphnia magna</i>	None	None
LC_LCDSSLCC_WS_2017-08-14_N	Rainbow trout	None	None
LC_LCDSSLCC_WS_2017-08-14_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	142.1 (106.1 – 200.2) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	81.4 (39.4 – 168.2) µg/L Zn	4.1 (3.3 – 5.0) g/L NaCl
Reference toxicant CV	44%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: August 18, 2017; ² Test Date: August 9, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Aug 18 17 @ 1355 h

Work Order No.: 170829

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: CC-HSP-WM-2017-08-14-N
Sample Date: Aug 15 17
Date Received: Aug 17 17
Sample Volume: 1 x 20 L
Other: /

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 072717a
Source: Sun Valley Trout Farms
No. Fish/Volume (L): 10 x 12 L
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 34 ± 3
Mean Weight ± SD (g): 0.32 ± 0.08

Range: 30 - 38
Range: 0.20 - 0.42

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn81
Stock Solution ID: 16 Zn 02
Date Initiated: Aug 18 17
96-h LC50 (95% CL): 142.1 (106.1 - 200.2) mg/L Zn

Reference Toxicant Mean and Historical Range: 81.4 (39.4 - 168.2) mg/L Zn
Reference Toxicant CV (%): 44

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: LC-HSP-WM-2017-08-14-N
 W.O. #: 170829
 RBT Batch #: 071717a
 Date Collected/Time: 15 Aug 17 @ 1450 h
 Date Setup/Time: 18 Aug 17 @ 1355 h
 CER #: 3
 Sample Setup By: RL

Number Fish/Volume: 10 / 12L
 7-d % Mortality: 0.7
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	16.0	/	15.5
D.O. (mg/L)	8.6	/	9.0
pH	8.2	/	8.2
Cond. (µS/cm)	447	/	448
Salinity (ppt)	0.2	/	0.2

Thermometer: cer 3
 D.O. meter/probe: 2 / 02
 Cond./Salinity meter/probe: 2 / cp2
 pH meter/probe: 2 / p2

Concentration	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	(% v/v)	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Ctrl				10	10	10	10	15.0	15.5	15.0	15.0	15.0	9.1	9.6	9.8	9.2	9.4	7.4	7.3	7.3	7.4	7.4	45	49	
100%				10	10	10	10	15.0	15.5	15.0	15.0	15.0	9.0	9.6	9.9	9.4	9.5	8.2	8.3	8.3	8.1	8.2	448	452	
Initials				JW	EL	RL	RL	RL	JW	EL	RL	RL	RL	JW	EL	RL	RL	RL	JW	EL	RL	RL	RL	RL	

Sample Description/Comments: Transparent, colourless liquid, no odour, no particulates

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: No precipitates @ 96 hrs.

Reviewed by: [Signature]

Date Reviewed: Aug 23, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Aug 18 / 17 @ 1355h

Work Order No.: 170829

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LCS-WS-2017-08-14-N
Sample Date: Aug 15 / 17
Date Received: Aug 17 / 17
Sample Volume: 1 x 20 L
Other: /

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 072717a
Source: Sun Valley Trout Farms
No. Fish/Volume (L): 10 x 12 L
Loading Density (g/L): 0.25
Mean Length ± SD (mm): 34 ± 3
Mean Weight ± SD (g): 0.30 ± 0.08

Range: 30 - 38
Range: 0.18 - 0.42

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn81
Stock Solution ID: 16 ZnO2
Date Initiated: Aug 18 / 17
96-h LC50 (95% CL): 142.1 (106.1 - 200.2) µg/L Zn

Reference Toxicant Mean and Historical Range: 81.4 (39.4 - 168.2) µg/L Zn
Reference Toxicant CV (%): 44

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Aug 23, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: LC-LCS-WS-2017-08-14-N
 W.O. #: 170829
 RBT Batch #: 072717a
 Date Collected/Time: 15 Aug 17 @ 0723 h
 Date Setup/Time: 18 Aug 17 @ 1355 h
 CER #: 3
 Sample Setup By: RL

Number Fish/Volume: 10 / 12L
 7-d % Mortality: 0.7
 Total Pre-aeration Time (mins): 36
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cel 3
 D.O. meter/probe: 2 1 p2
 Cond./Salinity meter/probe: 2 1 cp2
 pH meter/probe: 2 1 p2

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	16.0	/	15.5
D.O. (mg/L)	8.8	/	9.1
pH	8.3	/	8.4
Cond. (µS/cm)	~ 447 700	/	702
Salinity (ppt)	~ 0.3	/	0.3

Concentration	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	(% v/v)	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Ctrl				10	10	10	10	15.0	15.5	15.0	15.0	15.0	9.0	9.6	9.9	9.5	9.5	7.3	7.3	7.3	7.4	7.4	45	52	
100%				10	10	10	10	15.0	15.5	15.0	15.0	15.0	9.1	9.6	9.9	9.5	9.5	8.4	8.4	8.4	8.3	8.3	702	705	
Initials				JW	EL	RL	RL	RL	JW	EL	RL	RL	RL	JW	EL	RL	RL	RL	JW	EL	RL	RL	RL	RL	

Sample Description/Comments: Transparent, colourless liquid, no^{ice} odour, no particulates

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: No precipitates @ 96 hrs.

Reviewed by: [Signature]

Date Reviewed: Aug 23, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Aug 18 17 @ 1355 h

Work Order No.: 170829

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LC055LCC-WS-2017-08-14-N
Sample Date: Aug 15 17
Date Received: Aug 17 17
Sample Volume: 1 X 20 L
Other: /

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 072717a
Source: Sun Valley Trout Farms
No. Fish/Volume (L): 10 X 12 L
Loading Density (g/L): 0.30
Mean Length ± SD (mm): 36 ± 3
Mean Weight ± SD (g): 0.36 ± 0.11

Range: 31 - 40
Range: 0.21 - 0.53

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn81
Stock Solution ID: 16Zn02
Date Initiated: Aug 18 17
96-h LC50 (95% CL): 142.1 (106.1 - 200.2) mg/L Zn

Reference Toxicant Mean and Historical Range: 81.4 (39.4 - 168.2) mg/L Zn
Reference Toxicant CV (%): 44

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170830

Start Date/Time: August 17, 2017 @ 1530h
Test Species: Daphnia magna
Set up by: YULI AND

Sample Information:

Sample ID: LC-HSP-WM-2017-08-14-N
Sample Date: August 15, 2017
Date Received: August 17, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 080217C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 10
Days to first brood: 7

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC54
Stock Solution ID: 17NaCl
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Aug 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: LC-HSP-WM-2017-08-14-N
 Work Order No.: 170830

Start Date/Time: August 17, 2017 @ 1530h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YML / AMD

Thermometer: CERAS pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	22.0	19.5	20.0	8.9	8.2	8.8	7.7	7.6	7.9	358	365
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	19.5	20.0	8.9	8.3	8.6	8.0	8.1	8.2	454	461
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	AMD		YML	YML	AMD	YML	YML	AMD	YML	YML	AMD	YML	AMD

	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Concentration		
Control (MHW)	98	70
Highest conc.	224	138
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.9		
pH	8.0		
Cond (µS/cm)	454		
Salinity (ppt)	0.2		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope No
 Sample Description: clear, no colour, no odour, no particulates
 Batch#: 280217C 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 10 Day of 1st Brood: 7
 Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170830

Start Date/Time: August 17, 2017 @ 1530h
Test Species: Daphnia magna
Set up by: YULI AND

Sample Information:

Sample ID: LC15-WS-2017-0814-N
Sample Date: August 15, 2017
Date Received: August 17, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 080217C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 10
Days to first brood: 7

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC54
Stock Solution ID: 17NaCl
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Aug 23, 2017

**Freshwater Acute
48 Hour Toxicity Test Data Sheet**

Client: Teck
 Sample ID: LC-LES-WS-2017-08-14-N
 Work Order No.: 170830

Start Date/Time: August 17, 2017 @ 1530h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YML / AWD

Thermometer: CERAS pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	22.0	19.5	20.0	6.9	8.4	5.7	7.7	7.6	7.9	358	364
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	19.5	20.0	6.8	8.3	5.8	8.0	8.1	8.2	708	716
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	A	A	YML	YML	A	YML	YML	A	YML	YML	A	YML	A

	Hardness*	Alkalinity*
	*(mg/L as CaCO3)	
Concentration		
Control (MHW)	98	70
Highest conc.	370	180
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	6.8		
pH	8.0		
Cond (µS/cm)	708		
Salinity (ppt)	0.3		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope NO
 Sample Description: clear, no colour, no odour, no particulates
 Batch#: 080217C 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 10 Day of 1st Brood: 7
 Reviewed by: [Signature] Date reviewed: Aug 23, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170830

Start Date/Time: August 17, 2017 @ 1530h
Test Species: Daphnia magna
Set up by: YUL / AWD

Sample Information:

Sample ID: LC-LCDS3LCC-WS-2017-08-14-0
Sample Date: August 15, 2017
Date Received: August 17, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 080217C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 10
Days to first brood: 7

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC54
Stock Solution ID: 17NA01
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Aug 23, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: LC-LCD-35LCC-WS-2017-08-14-N
 Work Order No.: 170830

Start Date/Time: August 17, 2017 @ 1530h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML / AWD

Thermometer: CERAS pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	19.5	20.0	8.9	8.3	8.8	7.7	7.6	7.9	358	372
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	19.5	20.0	8.8	8.4	8.8	8.1	8.2	8.2	830	836
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	YML	A		A	YML	YML	A	YML	YML	A	YML	YML	A	YML	A

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	98	70
Highest conc.	310	200
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.8		
pH	8.1		
Cond (µS/cm)	830		
Salinity (ppt)	0.4		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope NO

Sample Description: clear, no colour, no odour, no particulates

Batch#: 080217C 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 10 Day of 1st Brood: 7

Reviewed by: [Signature] Date reviewed: Aug. 23, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected September 5, 2017

Final Report

September 14, 2017

Submitted to: **Teck Coal / Line Creek Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
LC_HSP_WM_2017-09-04_N	05-Sep-17 at 1550h	08-Sep-17 at 1055h	08-Sep-17 at 1545h	08-Sep-17 at 1300h
LC_LC5_WS_2017-09-04_N	05-Sep-17 at 1057h	08-Sep-17 at 1055h	08-Sep-17 at 1545h	08-Sep-17 at 1300h
LC_LCDSSLCC_WS_2017-09-04_N	05-Sep-17 at 1251h	08-Sep-17 at 1055h	08-Sep-17 at 1545h	08-Sep-17 at 1300h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_HSP_WM_2017-09-04_N	19°C	320	146
LC_LC5_WS_2017-09-04_N	19°C	500	180
LC_LCDSSLCC_WS_2017-09-04_N	19°C	530	198

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
LC_HSP_WM_2017-09-04_N	0	0
LC_LC5_WS_2017-09-04_N	0	0
LC_LCDSSLCC_WS_2017-09-04_N	0	3

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_HSP_WM_2017-09-04_N	Rainbow trout	None	None
LC_HSP_WM_2017-09-04_N	<i>Daphnia magna</i>	None	None
LC_LC5_WS_2017-09-04_N	Rainbow trout	None	None
LC_LC5_WS_2017-09-04_N	<i>Daphnia magna</i>	None	None
LC_LCDSSLCC_WS_2017-09-04_N	Rainbow trout	None	None
LC_LCDSSLCC_WS_2017-09-04_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	132.0 (115.7 – 150.5) µg/L Zn ¹	4.2 (3.4 – 5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	91.9 (44.4 – 190.6) µg/L Zn	4.0 (3.4 – 4.9) g/L NaCl
Reference toxicant CV	44%	10%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: September 1, 2017; ² Test Date: August 30, 2017, CL = Confidence Limits, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: September 8, 2017 @ 1545h

Work Order No.: 170945

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC_HSP_WM-2017-09-04-N
Sample Date: September 5, 2017
Date Received: September 8, 2017
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 12

Test Organism Information:

Batch No.: 081517A
Source: Aqua Farms
No. Fish/Volume (L): 10 / 12 L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 34 ± 2
Mean Weight ± SD (g): 0.31 ± 0.06

Range: 31 - 37
Range: 0.21 - 0.40

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ185
Stock Solution ID: 172104
Date Initiated: September 1, 2017
96-h LC50 (95% CL): 132.0 (115.7 - 150.5) µg/L Zn

Reference Toxicant Mean and Historical Range: 91.9 (44.4 - 190.6) µg/L Zn
Reference Toxicant CV (%): 44

Test Results: 0% mortality at 96h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: Sept. 14, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: September 8, 2017 @ 1545h

Work Order No.: 170945

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LCS-WS-2017-09-04-N
Sample Date: September 5, 2017
Date Received: September 8, 2017
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 12

Test Organism Information:

Batch No.: 081517A
Source: Aqua Farms
No. Fish/Volume (L): 10/12L
Loading Density (g/L): 0.24
Mean Length ± SD (mm): 34 ± 2
Mean Weight ± SD (g): 0.29 ± 0.04

Range: 31 - 36
Range: 0.24 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ185
Stock Solution ID: 17Z104
Date Initiated: September 1, 2017
96-h LC50 (95% CL): 132.0 (115.7 - 150.5) µg/L Zn

Reference Toxicant Mean and Historical Range: 91.9 (44.4 - 190.6) µg/L Zn
Reference Toxicant CV (%): 44

Test Results: 0% mortality at 96h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: Sept. 14 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Toek - Line Creek Operation
 Sample I.D.: LC-LC5-WS-2017-09-04-N
 W.O. #: 170945
 RBT Batch #: 081517a
 Date Collected/Time: 05 Sep 17 @ 1057h
 Date Setup/Time: 08 Sep 17 @ 1545h
 CER #: 2-2-3
 Sample Setup By: PC

Number Fish/Volume: 10 / 12L
 7-d % Mortality: 0.3%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	15.5	/	15.5
D.O. (mg/L)	9.1	/	9.5
pH	8.0	/	8.0
Cond. (µS/cm)	718	/	718
Salinity (ppt)	0.3	/	0.3

Thermometer: Cer 3
 D.O. meter/probe: 2 1 b2
 Cond./Salinity meter/probe: 2 1 cp2
 pH meter/probe: 2 1 p2

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Ctrl				10	10	10	10	15.5	15.0	15.0	15.0	15.0	9.6	9.5	9.7	9.9	9.3	7.0	6.4	7.1	6.9	7.0	38	41
100%				10	10	10	10	15.5	15.0	15.0	15.0	15.0	9.5	9.5	9.7	9.9	9.6	8.0	8.6	8.4	8.3	8.2	718	719
Initials				JW	MM	RC	RC	JK	JW	MM	RC	RC	JK	JW	MM	RC	RC	JK	JW	MM	RC	RC	JK	RC

Sample Description/Comments: Clear, colourless liquid, no odour, no particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: no precipitate at 96h

Reviewed by: [Signature] Date Reviewed: Sept. 14, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: September 8, 2017 @ 1545h

Work Order No.: 170945

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LC05SLCC-WS-2017-09-04-N
Sample Date: September 5, 2017
Date Received: September 8, 2017
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 12

Test Organism Information:

Batch No.: 081517a
Source: Aqua Farms
No. Fish/Volume (L): 10 / 12 L
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 35 ± 1
Mean Weight ± SD (g): 0.32 ± 0.03

Range: 34 - 38
Range: 0.28 - 0.38

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ185
Stock Solution ID: 172104
Date Initiated: September 1, 2017
96-h LC50 (95% CL): 132.0 (115.7 - 150.5) µg/L Zn

Reference Toxicant Mean and Historical Range: 91.9 (44.4 - 190.6) µg/L Zn
Reference Toxicant CV (%): 44

Test Results: 0% mortality at 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Sept. 14, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck - Line Creek Operation
Sample I.D.: LC-LC055L0G-WS-2017-09-04-N
W.O. #: 170945
RBT Batch #: 081517a
Date Collected/Time: 05 Sep 17 @ 1251 h
Date Setup/Time: 08 Sep 17 @ 1545 h
CER #: 2 3
Sample Setup By: RL

Number Fish/Volume: 10 / 12 L
7-d % Mortality: 0.3%
Total Pre-aeration Time (mins): 30
Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cer 2 3
D.O. meter/probe: 2 1 D2
Cond./Salinity meter/probe: 2 1 cp2
pH meter/probe: 2 1 pl

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	15.5	/	15.5
D.O. (mg/L)	9.1	/	9.3
pH	7.9	/	7.9
Cond. (µS/cm)	865	/	865
Salinity (ppt)	0.4	/	0.4

Concentration (% v/v)	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
CH ₁				10	10	10	10	16.0	15.0	15.0	15.0	15.0	9.6	9.5	9.7	9.9	9.5	7.0	6.4	6.9	7.0	7.0	38	42	
100%				10	10	10	10	15.5	15.0	15.0	15.0	15.0	9.3	9.5	9.8	9.8	9.6	7.9	8.0	8.5	8.5	8.4	865	856	
Initials				JW	ML	RL	RL	JW	ML	RL	RL	JW	ML	RL	RL	JW	ML	RL	RL	JW	ML	RL	RL	JW	ML

Sample Description/Comments: Clear, colourless liquid, no odour, no particulates

Fish Description at 96 h: All fish appear normal **Number of Stressed Fish at 96 h:** 0

Other Observations: no precipitate at 96h

Reviewed by: [Signature] **Date Reviewed:** Sept. 14, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170946

Start Date/Time: Sep 8/17 @ 1300h
Test Species: Daphnia magna
Set up by: YLC

Sample Information:

Sample ID: LC-HSP-WM-2017-09-04-N
Sample Date: 8/5/17
Date Received: 8/17
Sample Volume: 2x1L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 082317^B K-10
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC55
Stock Solution ID: 17Na01
Date Initiated: August 30, 2017
48-h LC50 (95% CL): 4.2 (3.4 - 5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.0 (3.4 - 4.9) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 0% mortality at 48 hours in the undiluted 100% (v/v) sample

Reviewed by: [Signature]

Date reviewed: Sept. 14, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: W-HSP-2017-09-09-N
 Work Order No.: 170946

Start Date/Time: September 8, 2017 @ 1300h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMC

Thermometer: CERTS pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.5	20.0	8.3	8.2	8.3	8.0	7.8	8.0	345	347
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	19.5	20.0	9.1	8.3	8.2	7.7	8.1	8.3	486	488
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		JW	YMC	YMC	YMC	JW	YMC	YMC	JW	YMC	YMC	JW	YMC	YMC	YMC

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	96	66
Highest conc.	320	146
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	9.1		
pH	7.7		
Cond (µS/cm)	486		
Salinity (ppt)	0.2		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not required

Sample Description: clear, no odour, no sediment, no particulates

Batch#: 082317045 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 14, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170946

Start Date/Time: See RIA c 1306
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: LC-LCS-WS-2017-09-04-N
Sample Date: Sept 5 17
Date Received: Sept 8 17
Sample Volume: 3x10L 2x1L
u/w

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 882317B+D
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 6
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC55
Stock Solution ID: 17Na01
Date Initiated: August 30, 2017
48-h LC50 (95% CL): 4.2 (3.4 - 5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.0 (3.4 - 4.9) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 0% mortality at 48 hours in the undiluted 100 L(v/v) sample

Reviewed by: [Signature]

Date reviewed: Sept 14, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: LC LOS - WS - 2017-09-09 - N
 Work Order No.: 170946

Start Date/Time: September 8, 2017 1300h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMC

Thermometer: CERTS pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration <i>(% v/v)</i>	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.3	19.5	20.0	8.3	8.7	8.1	8.0	7.8	8.0	345	349
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	19.5	20.0	9.1	8.5	8.2	7.8	8.3	8.5	719	744
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		JW	YMC	YMC	YMC	JW	YMC	YMC	JW	YMC	YMC	JW	YMC	YMC	YMC

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	96	66
Highest conc.	500	180
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	9.1		
pH	7.8		
Cond (µS/cm)	719		
Salinity (ppt)	0.3		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not required

Sample Description: clear, no colour, no odour, no particulates

Batch#: 08231704D 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: Sept 14, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170946

Start Date/Time: Sep 8/17 @ 3:00h
Test Species: Daphnia magna
Set up by: YVL

Sample Information:

Sample ID: UCCOSSLCC_WS_2017-09-04_N
Sample Date: SEP 5/17
Date Received: SEP 8/17
Sample Volume: 3700 2X 1L
m

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 0823A+B+D
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC55
Stock Solution ID: 17Na01
Date Initiated: August 30, 2017
48-h LC50 (95% CL): 4.2 (3.4 - 5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.0 (3.4 - 4.9) g/L NaCl
Reference Toxicant CV (%): 10

Test Results:

0% mortality ⁿ 3% mortality of 48h in the 100% (0.0)
undisturbed sample

Reviewed by:

[Signature]

Date reviewed:

September
April 14, 2017
[Signature]

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: LC-LCDSSLC-WS-2017-09-04-N
 Work Order No.: 170946

Start Date/Time: September 8, 2017 13:00h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YML

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.3	19.5	20.0	8.3	8.2	8.1	8.0	7.8	8.0	345	353
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	19.5	20.0	8.9	8.4	8.3	7.8	8.2	8.3	862	870
	B	10	9	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		JW	YML	YML	YML	JW	YML	YML	JW	YML	YML	JW	YML	YML	YML

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	96	66
Highest conc.	530	198
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	8.9		
pH	7.8		
Cond (µS/cm)	862		
Salinity (ppt)	0.4		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope yes
 Sample Description: clear, no colour, no odour, no particulates
 Batch#: 082317B4D 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9
 Reviewed by: [Signature] Date reviewed: September 14, 2017

APPENDIX C – Chain-of-custody form

Teck

COC ID: HSP_DW_20170905 TURNAROUND TIME: 2-3 day RUSH: Yes

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job#	Line Creek Operation			Lab Name	Nautilus Environmental			Report Format / Distribution	Excel	PDF	EDD	
Project Manager	Jay Jones			Lab Contact	Krysta Pearcey			Email 1:	Jay.Jones@teck.com	X	X	X
Email	jay.jones@teck.com			Email	Krysta@NautilusEnvironmental.ca			Email 2:	chris.blurton@teck.com	X	X	X
Address	Box 2003			Address	8664 commerce Court			Email 3:	teckcoa@equisonline.com	X	X	X
	15km North Hwy 43											
City	Sparwood	Province	BC	City	Burnaby	Province	BC	PO number	496272			
Postal Code	V0B 2G0	Country	Canada	Postal Code	V5A 4N7	Country	Canada					
Phone Number	250-425-6111			Phone Number	604-420-8773							

SAMPLE DETAILS								ANALYSIS REQUESTED								
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# Of Cont.	NAUT_96Hr_RT_Single_Concentration Toxicity Test	NAUT_48Hr_DM_Single_Concentration Toxicity Test 20°C							
LC_HSP_WM_2017-09-04_N	LC_HSP	WM	N	2017/09/05	15:50	G	3	X	X							
LC_LCS_WS_2017-09-04_N	LC_LCS	WS	N	2017/09/05	10:57	G	3	X	X							
LC_LCDSSLCC_WS_2017-09-04_N	LC_LCDSSLCC	WS	N	2017/09/05	12:51	G	3	X	X							

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
① clear, no colour, no odour no particulates	T Phillips	September 6, 2017	Andy Ip / EMMA MAW Nautilus Environmental	Sept 08/17 @ 1055
NB OF BOTTLES RETURNED/DESCRIPTION				
Regular (default)				
Priority (2-3 business days) - 50% surcharge X	Sampler's Name	Tyler Phillips	Mobile #	(250) 919-0965

END OF REPORT



Acute Toxicity Test Results

Samples collected September 21, 2017

Final Report

October 19, 2017

Submitted to: **Teck Coal Ltd.** LCO
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates				Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C, 20°C and Antiscalant test initiation	
LC_LC3_WS_2017- 09-21_N / 1718-0187	21-Sep-17 at 1900h	22-Sep-17 at 1130h	22-Sep-17 at 1345h	22-Sep-17 at 1630h	7°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_LC3_WS_2017-09-21_N	13.1°C	498	179

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)
- *Daphnia magna* 48-h single concentration screening test (antiscalant added)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample			
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C	<i>Daphnia magna</i> Antiscalant
LC_LC3_WS_2017-09-21_N	100	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)		
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C	<i>Daphnia magna</i> Antiscalant
LC_LC3_WS_2017-09-21_N	0	0	0

Precipitate observations

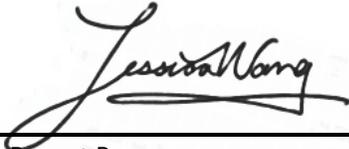
Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_LC3_WS_2017- 09-21_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.9 (2.4-3.3) g/L KCl ¹	5.9 (5.4-6.4) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.3-3.8) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	8.4%	6.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date September 1, 2017; ² Test date September 11, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS

Client TEC164

Reference 1718-0187

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/09/22	1345 *	ca	1	H3
1	2017/09/23	1245	SS	-	JW
2	2017/09/24	1045	ca	-	LC
3	2017/09/25	0800	ca	-	JW
4	2017/09/26	0845	CB	1	FW

Sample Information

Initial pH:	<u>7.5</u>
Initial EC (µS/cm):	<u>1254</u>
Initial DO (mg/L):	<u>10.1</u>
Initial Temp (°C):	<u>13.1</u>
Salinity (ppt):	<u>4</u>
Nets used: yes / no	<u>no</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no

Preaeration time	0.5 hours	1 hour	1.5 hours	2 hours
DO(mg/L) of 100%	<u>9.0</u>	<u>9.0</u>	<u>9.0</u>	<u>9.0</u>

Test Chemistry and Biology

Conc.	CTL	<u>100</u>					
-------	-----	------------	--	--	--	--	--

7.9 pH (units) (range: 5.5-8.5)

Day 0	<u>7.6</u>	<u>7.7</u>					
Day 4	<u>8.1</u>	<u>8.2</u>					

EC (uS/cm)

Day 0	<u>400</u>	<u>1334</u>					
Day 4	<u>402</u>	<u>1196</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.7</u>	<u>9.0</u>					
Day 4	<u>8.6</u>	<u>8.9</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.6</u>	<u>14.1</u>					
Day 4	<u>15.2</u>	<u>14.8</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.8</u>	<u>0.3</u>	Loading Density (g/L):	<u>0.16</u>
2	<u>3.1</u>	<u>0.4</u>		Source
3	<u>3.0</u>	<u>0.3</u>	Mean Length (cm):	
4	<u>3.0</u>	<u>0.3</u>		Length Range (cm):
5	<u>3.0</u>	<u>0.3</u>	Mean Weight (g):	
6	<u>3.0</u>	<u>0.3</u>		Weight Range (g):
7	<u>3.0</u>	<u>0.4</u>	Percent stock mortality (7 days prior to test, must be ≤2%)	
8	<u>2.8</u>	<u>0.3</u>		Test Volume (L)
9	<u>2.7</u>	<u>0.3</u>		
10	<u>2.4</u>	<u>0.2</u>		

Comments :

*2017 new updates

Method DAS @ 10°C

Client TEC 164

Reference 1718-0187

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/22	1637/630	AP/EP/MS/EP	3	HS	7.5	1254	10.1	13.1	4
1	2017/09/23	1100	JWISS	-	JW					
2	2017/09/24	1255	LC	3	AP					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.7	7.7	7.7	7.7	7.8	7.8
2	7.9	7.9	7.9	8.2	8.2	8.2

	EC (µS/cm)					
0	362	359	365	1220	1215	1217
2	415	384	375	1178	1204	1235

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.4	9.5	9.5	9.5	9.6	9.6
2	9.6	9.6	9.6	9.7	9.7	9.7

	Temperature (°C) (range: 17.5-22.5 °C)					
0	10.7	10.8	10.5	10.8	10.7	10.7
2	11.3	11.1	11.1	11.2	11.1	11.2

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10(I, D)	10(I, D)	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar 07 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 24
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 98 Is aeration required (<40% or >100%)? No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing? No
 Hardness (mg CaCO₃/L) of 100%: 498 Is hardness adjustment required (<25 mg CaCO₃/L)? No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date X 09/18 Weekly water hardness (mg/L) 96

Comments: Observations: at 0 hrs: no ppt
 at 48 hrs: no ppt

Method DAS

Client TEC 164

Reference 1718-0187

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/22	1630	AP/EP/HS	3	HS	7.5	1454	10.1	18.1	N
1	2017/09/23	1100	JWKS	-	JW					
2	2017/09/24	1245	LC	3	AP					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.5	7.5	7.5	7.7	7.7	7.7
2	7.8	7.8	7.8	8.1	8.1	8.1

day	EC (µS/cm)					
0	344	350	360	1107	1169	1169
2	343	358	363	1107	1169	1169

day	DO (mg/L) (40-100% saturation at test temp.)					
0	8.0	8.0	8.0	8.1	8.1	8.1
2	7.7	7.8	7.8	7.8	8.0	8.0

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	19.5	19.5	19.4	19.0	19.1	19.1
2	20.4	20.4	20.5	20.5	20.5	20.5

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>E2</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>8</u>	Average number of young produced (≥15 young) <u>40.0</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>98%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>498</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>X-09/18</u>	Weekly water hardness (mg/L) <u>96</u>
Comments:	Observations: at 0 hrs: <u>no ppt</u> at 48 hrs: <u>no ppt</u>	

Method DAS -AS

Client TEC 164

Reference 1718-0187

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/09/22	1600	AP/EP/ETHS	3	HS	7.5
1	2017/09/23	1100	JWISS	-	JW	Initial EC (µS/cm): 1254
2	2017/09/24	1245	LC	3	AP	Initial DO (mg/L): 10.1
						Initial Temp (°C): 13.1
						Salinity (ppt): 4

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.6	7.6	7.7	7.8	7.8	7.8			
2	7.8	7.9	7.8	8.1	8.3	8.4			

EC (uS/cm)

0	344	358	360	1199	1210	1211			
2	380	366	378	1177	1211	1227			

DO (mg/L) (40-100% saturation at test temp.)

0	8.0	8.0	8.0	8.1	8.1	8.1			
2	8.0	8.0	8.0	8.1	8.1	8.1			

Temperature (°C) (range: 17.5-22.5 °C)

0	19.5	19.5	19.5	19.1	19.0	19.0			
2	20.1	20.3	20.1	20.4	20.3	20.4			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10(I10)	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>22</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0</u>
QA (previous month)	Days to first brood (≤12 days) <u>8</u>	Average number of young produced (≥15 young) <u>40-0</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>98</u>	Is aeration required (<40% or >100%)? Yes or <input checked="" type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110um screen prior to testing Yes or <input checked="" type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>498</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? Yes or <input checked="" type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>X 09/18</u>	Weekly water hardness (mg/L) <u>96</u>
Comments:	Observations: at 0 hrs: <u>no rot</u> at 48 hrs: <u>no ppt</u>	

APPENDIX C – Chain-of-custody form

Teck

COC ID: **20170921-AcuteToxicity** TURNAROUND TIME: **EMERGENCY** RUSH: EMERGENCY

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO					
Facility Name / Job#	Line Creek Operation			Lab Name	Nautilus Environmental			Report Delivery Formats		Excel	PDF	EDD	
Project Manager	Chris Blurton			Lab Contact	Jacklyn Pool			Email 1:	Chris.Blurton@teck.com	X	X	X	
Email	Chris.Blurton@teck.com			Email	Jacklyn@NautilusEnvironmental.ca			Email 2:	Drake.Tymstra@teck.com	X	X	X	
Address	Box 2003			Address	#4, 6125 - 12 Street SE			Email 3:	Jay.Jones@teck.com	X	X	X	
	15 Km North HWY 43							Email 4:	Marty.Hafke@teck.com	X	X	X	
City	Sparwood	Province	BC	City	Calgary	Province	AB	Email 5:	Jocelyn.Traverse@teck.com	X	X	X	
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada	Email 6:	teckcoal@equisonline.com	X	X	X	
Phone Number	250-425-3196			Phone Number	+1.403.253.7121			Email 7:					VPO 00473572

SAMPLE DETAILS								ANALYSIS REQUESTED					Filtered - F: Field, L: Lab, FL: Field & Lab, N: None					
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS	PRESERV.	PH.								
LC_LC3_WS_2017-09-21_N	LC_LC3	WS	N	21-Sep-17	19:00	G	4	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	N	N	N	N						
								NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	N	N	N	N						
								NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	N	N	N	N						
								NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C Antiscalant	N	N	N	N						

1718-0167

CA
2017/09/22
1130
No SIF
Hot Shot
3x16, 1x20
good condition
7°C

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name	Mobile #
Regular (default)		Tim McKenna	250-865-3220
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge	X		
For Emergency <1 Day, ASAP or Weekend - Contact ALS			
	Sampler's Signature	Date/Time	September 21, 2017

END OF REPORT



Acute Toxicity Test Results

Samples collected September 25, 2017

Final Report

October 19, 2017

Submitted to: **Teck Coal Ltd.** LCO
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates				Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C, 20°C and antiscalant test initiation	
LC_LC3_WS_2017 -09-25_N / 1718-0207	25-Sep-17 at 0900h	26-Sep-17 at 0930h	27-Sep-17 at 1445h	29-Sep-17 at 1510h	7.0°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_LC3_WS_2017-09-25_N	16.2°C	469	207

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)
- *Daphnia magna* 48-h single concentration screening test (with antiscalant)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample			
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C	<i>Daphnia magna</i> Antiscalant
LC_LC3_WS_2017-09-25_N	100	100	97	90

Sample ID	Percent Immobility in 100 (% v/v)		
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C	<i>Daphnia magna</i> Antiscalant
LC_LC3_WS_2017-09-25_N	0	3	33

Precipitate observations

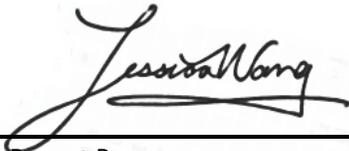
Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_LC3_WS_2017-09-25_N	Rainbow Trout	None	None
	<i>Daphnia magna</i>	Precipitate observed on the bottom of test vessel in 20°C test	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.9 (2.4-3.3) g/L KCl ¹	4.4 (4.3-4.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.3-3.8) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	8.4%	6.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date September 1, 2017; ² Test date October 10, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS @ 10 deg

Client TEC164

Reference 1718-0207

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017109129	1510	SSIEP	3	H3	7.6	1220	9.4	16.2	0
1	2017109130	141848	SSIEP	-	LC 2017109131					
2	20171101401 1/2	1215	LCIAP	3	LC					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	7.5	7.5	7.5	7.9	7.9	8.0			
2	7.7	7.0	7.7	8.0	8.1	8.1			

EC (µS/cm)

0	340	344	343	1215	1212	1235			
2	360	355	364	1196	1211	1249			

DO (mg/L) (40-100% saturation at test temp.)

0	9.6	9.6	9.6	9.7	9.7	9.6			
2	8.8	8.8	8.9	9.0	9.0	9.0			

Temperature (°C) (range: 17.5-22.5 °C)

0	10.9	10.8	10.8	10.5	10.4	10.4			
2	11.2	11.3	11.4	11.3	11.2	11.3			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	
Young jar <u>03</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0</u>
QA (previous month)	
Days to first brood (≤12 days) <u>10</u>	
Average number of young produced (≥15 young) <u>26.3</u>	
Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	
DO % of sample prior to aeration: <u>99.1</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
Hardness (mg CaCO3/L) of 100%: <u>469</u>	Is hardness adjustment required (<25 mg CaCO3/L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) <u>-</u>	
Dilution Water	
Pail label / preparation date <u>E:09135</u>	Weekly water hardness (mg/L) <u>93</u>
Comments:	
24 Hour Updates	at 0hrs: <u>no ppt</u>
In glass jars	at 48hrs: <u>no ppt</u>

Method DAS @ 20 deg

Client TEC164

Reference 1718-0207

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	2017109129	1510	SSIEP	3	HS	Initial pH:	7.6
1	2017109130	141845	SSIEP	-	LC 20171091	Initial EC (µS/cm):	1220
2	2017110101	1220	LCIAP	3	LC	Initial DO (mg/L):	9.4
						Initial Temp (°C):	16.2
						Salinity (ppt):	0

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day 7.7 pH (units) (range: 6.0-8.5)

0	7.8	7.6	7.6	7.8	7.9	7.9			
2	7.6	7.6	7.7	8.0	8.1	8.1			

EC (µS/cm)

0	363	356	352	1276	1290	1290			
2	370	360	360	1227	1209	1298			

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	7.9	8.0	8.0			
2	7.7	7.7	7.7	7.8	7.8	7.8			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.1	20.0	20.0	19.9	19.8	19.8			
2	20.2	20.3	20.4	19.24	20.2	20.2			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	9	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 26.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 99% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 469 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date E:09125 Weekly water hardness (mg/L) 93

Comments:
 24 Hour Updates at 0hrs: no ppt
 In glass jars at 48hrs: white ppt on surface

Method DAS Anti-Scalant

 Client TEC164

 Reference 1718-0207
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information
0	2017/09/29	1510	SSIEP	3	HS	Initial pH: <u>7.6</u>
1	2017/09/30	14545	SSIEP	-	LC 2017/10/01	Initial EC (µS/cm): <u>1220</u>
2	2017/10/01	1220	LCIAP	3	LC	Initial DO (mg/L): <u>9.4</u>
						Initial Temp (°C): <u>16.2</u>
						Salinity (ppt): <u>0</u>

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	<u>7.8</u>	<u>7.7</u>	<u>7.7</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>			
2	<u>7.7</u>	<u>7.7</u>	<u>7.8</u>	<u>8.2</u>	<u>8.3</u>	<u>8.3</u>			

EC (µS/cm)

0	<u>376</u>	<u>358</u>	<u>354</u>	<u>1282</u>	<u>1309</u>	<u>1306</u>			
2	<u>359</u>	<u>358</u>	<u>363</u>	<u>1271</u>	<u>1297</u>	<u>1294</u>			

DO (mg/L) (40-100% saturation at test temp.)

0	<u>7.9</u>	<u>8.0</u>	<u>8.0</u>	<u>7.9</u>	<u>7.9</u>	<u>8.0</u>			
2	<u>7.8</u>	<u>7.7</u>	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>			

Temperature (°C) (range: 17.5-22.5 °C)

0	<u>19.8</u>	<u>19.9</u>	<u>20.0</u>	<u>19.9</u>	<u>19.9</u>	<u>20.0</u>			
2	<u>19.9</u>	<u>20.0</u>	<u>20.0</u>	<u>20.1</u>	<u>20.1</u>	<u>20.2</u>			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>8(4I)</u>	<u>9(3B)</u>	<u>10</u>			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>DS</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0</u>
QA (previous month)	Days to first brood (≤12 days) <u>8</u>	Average number of young produced (≥15 young) <u>14.3</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>99.1</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>469</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>E! 09125</u>	Weekly water hardness (mg/L) <u>93</u>
Comments:	24 Hour Updates In glass jars	at 0hrs: <u>no ppt.</u> at 48hrs: <u>no ppt</u>

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected October 2, 2017

Final Report

October 17, 2017

Submitted to: **Teck Coal / Line Creek Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
LC_LC5_WS_2017-10-02_N	02-Oct-17 at 1515h	03-Oct-17 at 1220h	04-Oct-17 at 1350h	03-Oct-17 at 1715h
LC_LCDSSLCC_WS_2017-10-02_N	02-Oct-17 at 0943h	03-Oct-17 at 1220h	04-Oct-17 at 1320h	03-Oct-17 at 1645h
LC_SPDC_Q_WS_2017-10-02_N	02-Oct-17 at 1201h	03-Oct-17 at 1220h	04-Oct-17 at 1320h	03-Oct-17 at 1710h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_LC5_WS_2017-10-02_N	8.5/7.0°C	146	182
LC_LCDSSLCC_WS_2017-10-02_N	6.6/7.2°C	136	206
LC_SPDC_Q_WS_2017-10-02_N	9.1/7.0°C	132	152

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
LC_LC5_WS_2017-10-02_N	10	0
LC_LCDSSLCC_WS_2017-10-02_N	0	0
LC_SPDC_Q_WS_2017-10-02_N	0	0

Precipitate observations

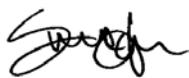
Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_LC5_WS_2017-10-02_N	Rainbow trout	None	None
LC_LC5_WS_2017-10-02_N	<i>Daphnia magna</i>	None	None
LC_LCDSSLCC_WS_2017-10-02_N	Rainbow trout	None	None
LC_LCDSSLCC_WS_2017-10-02_N	<i>Daphnia magna</i>	None	None
LC_SPDC_Q_WS_2017-10-02_N	Rainbow trout	None	None
LC_SPDC_Q_WS_2017-10-02_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	114.9 (94.0 – 140.4) µg/L Zn ¹	5.2 (4.2 – 6.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	94.7 (46.7 – 192.0) µg/L Zn	4.1 (3.4 – 4.9) g/L NaCl
Reference toxicant CV	42%	10%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	Yes (see below)
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: October 2, 2017; ² Test Date: September 21, 2017, CL = Confidence Limits, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

The *D. magna* reference toxicant LC50 was outside of 2 SD but within the acceptable 3 SD historical range.



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Oct. 4 / 17 @ 1350h

Work Order No.: 171084

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC_LCS_WS-2017-10-02A
Sample Date: Oct. 2 / 17
Date Received: Oct. 3 / 17
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 091517
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10
Loading Density (g/L): 0.32
Mean Length ± SD (mm): 34 ± 2 Range: 31 - 36
Mean Weight ± SD (g): 0.32 ± 0.05 Range: 0.28 - 0.44

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ189
Stock Solution ID: 17Z104
Date Initiated: October 2, 2017
96-h LC50 (95% CL): 114.9 (94.0 - 140.4) µg/L Zn
Reference Toxicant Mean and Historical Range: 94.7 (46.7 - 192.0) µg/L Zn
Reference Toxicant CV (%): 42

Test Results: 10% mortality at 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Oct-16, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Oct. 4 / 17 @ 1320h

Work Order No.: 171084

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LCDSSLCC-WS-2017-10-02-N

Sample Date: Oct. 2 / 17

Date Received: Oct. 3 / 17

Sample Volume: 1 x 20L

Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water

Hardness (mg/L CaCO₃): 12

Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 091517

Source: Aqua Farms

No. Fish/Volume (L): 10 / 10

Loading Density (g/L): 0.34

Mean Length ± SD (mm): 35 ± 2

Mean Weight ± SD (g): 0.34 ± 0.04

Range: 32 - 38

Range: 0.30 - 0.43

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ189

Stock Solution ID: 17Z104

Date Initiated: October 2, 2017

96-h LC50 (95% CL): 114.9 (94.0 - 140.4) µg/L Zn

Reference Toxicant Mean and Historical Range: 94.7 (46.7 - 192.0) µg/L Zn

Reference Toxicant CV (%): 42

Test Results: 0% mortality of 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Oct-16, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Line Creek Operation
 Sample I.D.: LC-LCDSSLCC-WS-2017-10-02-N
 W.O. #: 171084
 RBT Batch #: 091517
 Date Collected/Time: 02 Oct 17 @ 0943h
 Date Setup/Time: 04 Oct 17 @ 1320h
 CER #: 2
 Sample Setup By: RC

Number Fish/Volume: 10 / 10L
 7-d % Mortality: 0.9%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cer 2
 D.O. meter/probe: 2 / D2
 Cond./Salinity meter/probe: 2 / cp2
 pH meter/probe: 5 / p5

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	15.0	/	14.5
D.O. (mg/L)	10.2	/	10.0
pH	8.0	/	8.0
Cond. (µS/cm)	887	/	886
Salinity (ppt)	0.4	/	0.4

Concentration	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
(% v/v)				10	10	10	10	14.5	15.0	15.0	15.0	15.0	9.6	9.3	9.5	9.6	9.8	6.9	6.9	6.9	6.9	6.9	33	32	
100%				10	10	10	10	14.5	15.0	15.0	15.0	15.0	10.0	9.4	9.5	9.6	9.8	8.0	8.3	8.1	8.0	8.3	886	899	
Initials				RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	

Sample Description/Comments: Clear, colorless liquid, no odour, no particulates

Fish Description at 96 h OK Number of Stressed Fish at 96 h 0

Other Observations: all fish appear normal
no precipitate at 96h

Reviewed by: [Signature] Date Reviewed: Oct. 16, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Oct. 4 / 17 @ 1320h

Work Order No.: 171084

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-SPDC-Q-WS-2017-10-02
Sample Date: Oct. 2 / 17
Date Received: Oct. 3 / 17
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 091517
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10
Loading Density (g/L): 0.35
Mean Length ± SD (mm): 34 ± 2
Mean Weight ± SD (g): 0.35 ± 0.04

Range: 31 - 38
Range: 0.30 - 0.42

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ189
Stock Solution ID: 17Z104
Date Initiated: October 2, 2017
96-h LC50 (95% CL): 114.9 (94.0 - 140.4) µg/L Zn

Reference Toxicant Mean and Historical Range: 94.7 (46.7 - 192.0) µg/L Zn
Reference Toxicant CV (%): 42

Test Results: 0% mortality of 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Oct. 16, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Line Creek Operation
 Sample I.D.: IC-SPDC-Q-WS-2017-10-02-N
 W.O. #: 171084
 RBT Batch #: 091517
 Date Collected/Time: 02 Oct 17 @ 1201
 Date Setup/Time: 04 Oct 17 @ 1320
 CER #: 2
 Sample Setup By: RC

Number Fish/Volume: 10 / 10L
 7-d % Mortality: 0.97
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cer 2
 D.O. meter/probe: 2 / D2
 Cond./Salinity meter/probe: 2 / cp2
 pH meter/probe: 5 / p5

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	15.0	/	14.5
D.O. (mg/L)	10.2	/	10.6
pH	8.0	/	8.0
Cond. (µS/cm)	398	/	399
Salinity (ppt)	0.2	/	0.2

Concentration (% v/v)	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
Ctrl				10	10	10	10	14.5	15.0	15.0	15.0	15.0	9.6	9.2	9.5	9.6	9.8	6.9	6.9	6.9	6.9	6.9	33	32	
100%				10	10	10	10	14.5	15.0	15.0	15.0	15.0	10.0	9.3	9.4	9.5	9.8	8.0	8.0	8.0	8.1	8.2	399	413	
Initials				RC	RC	EMM	EMM	RC	RC	RC	EMM	EMM	RC	RC	RC	EMM	EMM	RC	RC	RC	EMM	EMM	RC	EMM	

Sample Description/Comments: Clear, light yellow liquid, no odour, no particulates

Fish Description at 96 h all fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: no precipitate at 96h

Reviewed by: [Signature] Date Reviewed: Oct. 16, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171085

Start Date/Time: 03 Oct 2017 @ 17:15 h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: LC-LC5-WS-2017-10-02-N
Sample Date: 02 Oct 2017
Date Received: 03 Oct 2017
Sample Volume: 1 x 20L 2 x 1L
in

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 091317 C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 15
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC56
Stock Solution ID: 17Na02
Date Initiated: September 21, 2017
48-h LC50 (95% CL): 5.2 (4.2-6.4) g/L NaCl (w/in acceptable 3SD of historical mean)
Reference Toxicant Mean and Historical Range: 4.1 (3.4-4.9) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 100% survival in ^{sw} at 48h in the 100% (v/v) undiluted sample.
0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by:  Date reviewed: Oct. 16, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: AL¹ Teck
 Sample ID: LC-LC5-WS-2017-10-02 N
 Work Order No.: 171085

Start Date/Time: 03 Oct 17 @ 17:15h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: CW

Thermometer: CERUS pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.5	19.5	19.5	8.4	8.3	8.2	7.6	7.8	7.8	350	359
	B	10	10	0											
	C	10	10	0											
	D		10 ⁰												
100	A	10	10	0	18.0	19.5	19.5	9.9	8.5	8.1	8.4	8.3	8.3	733	754
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	CW	CW	CW	CW	CW	CW	CW	CW	CW	CW	CW	CW	CW	CW	CW

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Control (MHW)	98	68
Highest conc.	146	182
Hardness adjusted	—	—

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		18.0
DO (mg/L)	10.7	30 min aeration	9.9
pH	8.3		8.4
Cond (µS/cm)	739		733
Salinity (ppt)	0.4		0.4

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope Not req'd

Sample Description: Clear, colourless liquid, no odour, no particulates.

Batch#: 091317C 7-d previous # young/brood: 15 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: CW Date reviewed: Oct 16, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171085

Start Date/Time: 03 Oct 2017 @ 1645h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: LC-LCDSSLCC-WS-2017-10-02
Sample Date: 02 Oct 2017
Date Received: 03 Oct 2017
Sample Volume: 1x20L 2x1L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 091317C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 15
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTCS6
Stock Solution ID: 17Na02
Date Initiated: September 21, 2017
48-h LC50 (95% CL): 5.2 (4.2-6.4) g/L NaCl (w/in acceptable 3SD of historical mean)
Reference Toxicant Mean and Historical Range: 4.1 (3.4-4.9) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 100% survival at 48h in the 100% (v/v) undiluted sample.
0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: CW

Date reviewed: Oct-16, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: ALS Teck Start Date/Time: 03 Oct 17 @ 1645h
 Sample ID: EC-LCDSS LCC WS-2017 CER #: 5
 Work Order No.: 171085 10-02-N No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: CW

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.5	19.5	8.4	8.3	7.9	7.6	7.8	7.6	350	358
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	18.0	19.5	19.5	9.8	8.4	8.3	8.1	8.2	8.3	889	893
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	CW	CW		CW	CW	CW	CW	CW	CW	CW	CW	CW	CW	CW	CW

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	98	68
Highest conc.	136	202 206
Hardness adjusted	—	—

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0	/	/
DO (mg/L)	9.8	/	/
pH	8.1	/	/
Cond (µS/cm)	889	/	/
Salinity (ppt)	0.4	/	/

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope Not req'd
 Sample Description: colourless clear, colourless liquid, no odour, no particulates
 Batch#: 091317C 7-d previous # young/brood: 15 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10
 Reviewed by: CW Date reviewed: Oct-16, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171085

Start Date/Time: 03 Oct 2017 @ 1710h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: LC-SPDC-OWS-2017-10-02_N
Sample Date: 02 Oct 2017
Date Received: 03 Oct 2017
Sample Volume: ~~1x20L~~ 2x1L
4m

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 091317C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 15
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTCS6
Stock Solution ID: 17Na02
Date Initiated: September 21, 2017
48-h LC50 (95% CL): 5.2 (4.2-6.4) g/L NaCl (w/in acceptable 3SD of historical mean)
Reference Toxicant Mean and Historical Range: 4.1 (3.4-4.9) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 100% survival at 48h in the 100% (v/v) undiluted sample.
0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by:  Date reviewed: Oct 16, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: 447 ALS Teck Start Date/Time: 03 Oct 17 @ 1710^h
 Sample ID: LC-SPDC-Q-WS-2017-10-02-N CER #: 5
 Work Order No.: 171085 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: CW

Thermometer: CERBS pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	24		48		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48	24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10			0	19.5	19.5	19.5	8.4	8.2	8.1	7.6	7.8	7.7	350	361
	B	10	10			0											
	C	10	10			0											
	D																
100	A	10	10			0	16.0	19.5	19.5	8.4	8.4	8.2	8.1	8.1	7.8	399	340 ⁵
	B	10	10			0				9.3							
	C	10	10			0											
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
Technician Initials		CW	CW			CW	CW	CW	CW	CW	CW	CW	CW	CW	CW	CW	CW

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Control (MHW)	98	68
Highest conc.	132	152
Hardness adjusted	—	—

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		
DO (mg/L)	10.3 9.93		
pH	8.1		
Cond (µS/cm)	399		
Salinity (ppt)	0.2		

Comments: no precipitate at 40h Mortality: Heartbeat checked under microscope Not req'd
 Sample Description: light yellow CW
Clear, colourless liquid, no odour, no particulates
 Batch#: 091317C 7-d previous # young/brood: 15 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10
 Reviewed by: [Signature] Date reviewed: Oct-16, 2017

Client: Teck

W.O.#: 171085

Hardness and Alkalinity Datasheet

Sample ID	Alkalinity						Hardness			Technician
	Subsample Date	Date Measured	Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/L CaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	
LC-LC8SS-LCC- WS-2017-10-02-N	03 Oct 17	03 Oct 17	50	10.5	10.7	206	50	6.8	136	CW
LC-SPDC-Q- WS-2017-10-02-N	03 Oct 17	03 Oct 17	50	7.8	8.0	152	50	6.6	132	CW
LC-LC5-WS- 2017-10-02-N	03 Oct 17	03 Oct 17	50	7.8 9.2	10.5 9.3	182	50	7.3	146	CW
MHW	03 Oct 17	03 Oct 17	50	3.5	3.6	68	50	4.9	98	CW

Notes: _____

Reviewed by: 

Date Reviewed: Oct-16, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected October 2 & 3, 2017

Final Report

October 19, 2017

Submitted to: **Teck Coal / Line Creek Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
LC_HSP_WM_2017-10-02_N	02-Oct-17 at 1615h	05-Oct-17 at 1100h	05-Oct-17 at 1720h	06-Oct-17 at 1700h
LC_LC7_Q_WS_2017-10-02_N	03-Oct-17 at 1257h	05-Oct-17 at 1100h	05-Oct-17 at 1720h	06-Oct-17 at 1700h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_HSP_WM_2017-10-02_N	11.8°C	440	148
LC_LC7_Q_WS_2017-10-02_N	9.3°C	410	134

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
LC_HSP_WM_2017-10-02_N	0	0
LC_LC7_Q_WS_2017-10-02_N	10	0

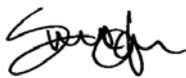
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_HSP_WM_2017-10-02_N	Rainbow trout	None	None
LC_HSP_WM_2017-10-02_N	<i>Daphnia magna</i>	None	None
LC_LC7_Q_WS_2017-10-02_N	Rainbow trout	None	None
LC_LC7_Q_WS_2017-10-02_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	114.9 (94.0 – 140.4) µg/L Zn ¹	4.5 (3.8 – 5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	94.7 (46.7 – 192.0) µg/L Zn	4.1 (3.3 – 5.1) g/L NaCl
Reference toxicant CV	42%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: October 2, 2017; ² Test Date: October 11, 2017, CL = Confidence Limits, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Oct. 5 / 17 @ 1720h

Work Order No.: 171114

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-HSP_WM_2017-10-02-N
Sample Date: Oct. 2/17
Date Received: Oct. 5/17
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 091517
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10
Loading Density (g/L): 0.30
Mean Length ± SD (mm): 35 ± 2 Range: 32 - 38
Mean Weight ± SD (g): 0.30 ± 0.06 Range: 0.20 - 0.38

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ189
Stock Solution ID: 17Z104
Date Initiated: October 2, 2017
96-h LC50 (95% CL): 114.9 (94.0 - 140.4) µg/L Zn
Reference Toxicant Mean and Historical Range: 94.7 (46.7 - 192.0) µg/L Zn
Reference Toxicant CV (%): 42

Test Results: 0% mortality of 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature] Date reviewed: Oct. 18, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teek Line Creek Operation
 Sample I.D.: LC-HSP-WM-2017-10-02-N
 W.O. #: 171114
 RBT Batch #: 091517
 Date Collected/Time: 02 Oct 17 @ 1615 h
 Date Setup/Time: 05 Oct 17 @ 1720 h
 CER #: 8
 Sample Setup By: RL

Number Fish/Volume: 10 / 10L
 7-d % Mortality: 0.9%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cer 8
 D.O. meter/probe: #21 D2
 Cond./Salinity meter/probe: 21 up2
 pH meter/probe: 51 p5

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	15.0	/	15.0
D.O. (mg/L)	9.6	/	9.5
pH	7.8	/	8.0
Cond. (µS/cm)	512	/	512
Salinity (ppt)	0.2	/	0.2

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
CH1				10	10	10	10	15.0	15.0	15.0	15.0	15.0	9.6	9.5	9.8	9.8	9.9	6.9	6.9	6.8	6.9	6.9	31	33
100%				10	10	10	10	15.0	15.0	15.0	15.0	15.0	9.5	9.5	9.8	9.8	9.9	8.0	8.0	8.1	8.2	8.2	512	529
Initials				RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL

Sample Description/Comments: Clear, colorless liquid, no odors, no particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: no precipitate at 96h

Reviewed by: RL Date Reviewed: Oct-18, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Oct. 5 / 17 @ 1720h

Work Order No.: 171114

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LC7-Q-WS-2017-10-02-W

Sample Date: Oct. 3 / 17

Date Received: Oct. 5 / 17

Sample Volume: 1 X 20L

Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water

Hardness (mg/L CaCO₃): 12

Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 091517

Source: Aqua Farms

No. Fish/Volume (L): 10 / 10

Loading Density (g/L): 0.27

Mean Length ± SD (mm): 34 ± 3

Mean Weight ± SD (g): 0.27 ± 0.07

Range: 28 - 37

Range: 0.13 - 0.36

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ189

Stock Solution ID: 17Z104

Date Initiated: October 2, 2017

96-h LC50 (95% CL): 114.9 (94.0 - 140.4) µg/L Zn

Reference Toxicant Mean and Historical Range: 94.7 (46.7 - 192.0) µg/L Zn

Reference Toxicant CV (%): 42

Test Results: 10% mortality at 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Oct. 18, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teek Line Creek Operation
 Sample I.D.: LC-LC7-Q-WS-2017-10-02-N
 W.O. #: 171114
 RBT Batch #: 091517
 Date Collected/Time: 03 Oct 17 @ 1257h
 Date Setup/Time: 05 Oct 17 @ 1720h
 CER #: 8
 Sample Setup By: AL

Number Fish/Volume: 10 / 10L
 7-d % Mortality: 0.9%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cer 8
 D.O. meter/probe: 2 / D2
 Cond./Salinity meter/probe: 2 / CP2
 pH meter/probe: 5 / PS

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	15.0	/	15.0
D.O. (mg/L)	10.2	/	9.8
pH	8.1	/	8.2
Cond. (µS/cm)	359	/	353
Salinity (ppt)	0.2	/	0.2

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Ch1				10	10	10	10	15.0	15.0	15.0	15.0	15.0	9.6	9.6	9.7	9.8	9.7	6.9	6.9	6.9	6.9	6.9	32	34
100%				10	10	9	9	15.0	15.0	15.0	15.0	15.0	9.8	9.5	9.6	9.7	9.7	8.2	7.9	7.9	8.1	8.2	353	364
Initials				AL	AL	AL	AL	AL	AL	AL	AL	AL	AL	AL	AL	AL	AL	AL	AL	AL	AL	AL	AL	AL

Sample Description/Comments: Clear, colorless liquid, no odour, no particulates

Fish Description at 96 h: All remaining fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: No precipitate at 96h

Reviewed by: [Signature] Date Reviewed: Oct-18, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 17113

Start Date/Time: October 6, 2017 @ 17:00h
Test Species: Daphnia magna
Set up by: MUL/JAB

Sample Information:

Sample ID: LC-HSP-WM-2017-10-02-N
Sample Date: Oct. 21/17
Date Received: Oct. 5/17
Sample Volume: 2 x 1 L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 092017B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 11

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC57
Stock Solution ID: 17NA01
Date Initiated: October 11, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3 - 5.1) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Oct. 15, 2017

**Freshwater Acute
48 Hour Toxicity Test Data Sheet**

Client: Teek Start Date/Time: October 6, 2017 @ 1700h
 Sample ID: LC-HSP-WM-2017-10-02-N CER #: 5
 Work Order No.: 17113 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YML/SAB

Thermometer: CEPAS pH meter/probe: 3, 3 DO meter/probe: 3, 3 Cond./Salinity meter/probe: 3, 3

Concentration (% v/v)	Number of Live Organisms Rep	24		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.0	19.5	8.8	8.6	8.5	8.0	8.0	8.0	354	348
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	20.0	20.0	19.5	7.5	7.3	8.4	7.8	7.9	8.4	524	572
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	W	W	YML	YML	W	YML	YML	W	YML	YML	W	YML	W

	Hardness*	Alkalinity*	Temp (°C)	Initial WQ	Adjustment	Adjusted WQ
Concentration	*(mg/L as CaCO3)		20.0			
Control (MHW)	98	68	DO (mg/L)			
Highest conc.	440	148	pH			
Hardness adjusted			Cond (µS/cm)			
			Salinity (ppt)			

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not required
 Sample Description: clear no colour, no odour, no particulates
 Batch#: 092017B 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 11
 Reviewed by: [Signature] Date reviewed: Oct. 18, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 17113

Start Date/Time: October 6, 2017 @ 1700h
Test Species: Daphnia magna
Set up by: YML/JAB

Sample Information:

Sample ID: LC-L07-Q-WS-2017-10-02-N
Sample Date: Oct. 3/17
Date Received: Oct. 5/17
Sample Volume: 2 x 1 L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 092017B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 11

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC57
Stock Solution ID: 17Na01
Date Initiated: October 11, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3 - 5.1) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature] Date reviewed: Oct. 18, 2017

**Freshwater Acute
48 Hour Toxicity Test Data Sheet**

Client: Teek Start Date/Time: October 6, 2017 @ 1700h
 Sample ID: LCU9-a-WS-2017-10-0247 CER #: 5
 Work Order No.: 171113 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: MM/JAB

Thermometer: certus pH meter/probe: 3, 3 DO meter/probe: 3, 3 Cond./Salinity meter/probe: 3, 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	20.0	19.5	8.8	8.6	8.5	8.0	8.0	8.0	354	348
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	20.0	19.5	8.1	8.2	8.5	8.1	8.0	8.0	359	346
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		MM	JAB		MM	JAB		MM	JAB		MM	JAB		MM	JAB

Concentration	Hardness*	Alkalinity*
Control (MHW)	98	68
Highest conc.	410	134
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.1		
pH	8.1		
Cond (µS/cm)	359		
Salinity (ppt)	0.2		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not req'd
 Sample Description: clear, no colour, no odour, no particulates
 Batch#: 092017B 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 11
 Reviewed by: MM Date reviewed: OCT. 18, 2017

Version 1.9; Issued July 19, 2017

APPENDIX C – Chain-of-custody form

Teck

COC ID: _____ TURNAROUND TIME: _____ RUSH: _____

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO			
Facility Name / Job# Line Creek Operation				Lab Name Nautilus Environmental				Report Format / Distribution			
Project Manager Chris Blurton				Lab Contact Krysta Pearcy				Email 1: jay.jones@teck.com			
Email Chris.Blurton@teck.com				Email Krysta@NautilusEnvironmental.ca				Email 2: Chris.Blurton@teck.com			
Address Box 2003				Address 8664 commerce Court				Email 3: teckcoal@equisonline.com			
15km North Hwy 43											
City Sparwood		Province BC		City Burnaby		Province BC		PO number 190473			
Postal Code V0B 2G0		Country Canada		Postal Code V5A 4N7		Country Canada					
Phone Number 250-425-3196				Phone Number 604-420-8773							

SAMPLE DETAILS								ANALYSIS REQUESTED									
Sample ID	Sample Location	Field Matrix	Hazardous Material (Y/N)	Date	Time (24hr)	G=Grab C=Com p	# Of Cont.	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	
① LC_HSP_WM_2017-10-02_N	LC_HSP	WS	N	2017/10/02	16:15	G	3	NAUT_96HR_RT_Single Concentration_Toxicity Test	X	X							11.8
② LC_LC7_Q_WS_2017-10-02_N	LC_LC7	WS	N	2017/10/03	12:57	G	3	NAUT_48HR_DM_Single_Concentr ation_Toxicity Test 20°C	X	X							9.3

Temp °C

1x20L + 2x1L
1x20L + 2x1L

wo# 171114
171113

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
Sample desc: ①, ② - clear, no colour, no odour, no particulates	T Phillips/ D Tymstra	October 3, 2017	Nautilus - Burnaby NY - Nain Yamamoto	Oct 05/17 @ 11:00
NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Tyler Phillips/ Drake Tymstra	Mobile #	(250) 919-0965
Regular (default) X				
Priority (2-3 business days) - 50% surcharge				

END OF REPORT



Acute Toxicity Test Results

Samples collected November 27 & 28, 2017

Final Report

December 12, 2017

Submitted to: **Teck Coal / Line Creek Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
LC_HSP_WS_2017-11-28_N	28-Nov-17 at 0855h	30-Nov-17 at 1300h	01-Dec-17 at 1300h	30-Nov-17 at 1630h
LC_LC5_WS_2017-11-28_N	28-Nov-17 at 0837h	30-Nov-17 at 1300h	01-Dec-17 at 1300h	30-Nov-17 at 1640h
LC_LCDSSLCC_WS_2017-11-28_N	28-Nov-17 at 1030h	30-Nov-17 at 1300h	01-Dec-17 at 1300h	01-Dec-17 at 1730h
LC_SPDC_WS_2017-11-27_N	27-Nov-17 at 1120h	30-Nov-17 at 1300h	01-Dec-17 at 1300h	30-Nov-17 at 1630h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_HSP_WS_2017-11-28_N	7.2 / 8.3°C	370	174
LC_LC5_WS_2017-11-28_N	7.2 / 8.3°C	530	176
LC_LCDSSLCC_WS_2017-11-28_N	7.2 / 8.3°C	540	180
LC_SPDC_WS_2017-11-27_N	7.2 / 8.3°C	300	128

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
LC_HSP_WS_2017-11-28_N	0	0
LC_LC5_WS_2017-11-28_N	0	0
LC_LCDSSLCC_WS_2017-11-28_N	0	0
LC_SPDC_WS_2017-11-27_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_HSP_WS_2017-11-28_N	Rainbow trout	Precipitate observed on the bottom of test vessel	None
LC_HSP_WS_2017-11-28_N	<i>Daphnia magna</i>	None	None
LC_LC5_WS_2017-11-28_N	Rainbow trout	None	None
LC_LC5_WS_2017-11-28_N	<i>Daphnia magna</i>	None	None
LC_LCDSSLCC_WS_2017-11-28_N	Rainbow trout	None	None
LC_LCDSSLCC_WS_2017-11-28_N	<i>Daphnia magna</i>	None	None
LC_SPDC_WS_2017-11-27_N	Rainbow trout	None	None
LC_SPDC_WS_2017-11-27_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	66.4 (50.9 – 82.0) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	103.9 (56.5 – 190.9) µg/L Zn	4.2 (3.5 – 5.2) g/L NaCl
Reference toxicant CV	36%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: November 30, 2017; ² Test date: November 27, 2017; LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: December 1, 2017 @ 1300h

Work Order No.: 171468

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-HSP-WS-2017-11-28-N
Sample Date: November 28, 2017
Date Received: November 30, 2017
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 10
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 111617
Source: Agua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 33 ± 1
Mean Weight ± SD (g): 0.26 ± 0.03

Range: 31 - 35
Range: 0.21 - 0.31

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn100
Stock Solution ID: 177105
Date Initiated: November 30, 2017
96-h LC50 (95% CL): 06.4 (50.9 - 82.0) µg/L Zn

Reference Toxicant Mean and Historical Range: 103.9 (56.5 - 192.9) µg/L Zn
Reference Toxicant CV (%): 36

Test Results: 0% mortality of 96h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Dec 11, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Line Creek Operation
 Sample I.D.: LC-HSP-WS-2017-11-28-N
 W.O. #: 171468
 RBT Batch #: 111617
 Date Collected/Time: 28 Nov 17 @ 0855h
 Date Setup/Time: 01 Dec 17 @ 1300h
 CER #: 2
 Sample Setup By: VKL

Number Fish/Volume: 10/10L
 7-d % Mortality: 1.5%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cer 2
 D.O. meter/probe: 2 / D2
 Cond./Salinity meter/probe: 2 / CL2
 pH meter/probe: S / PS

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	9.8	/	9.5
pH	8.2	/	8.0
Cond. (µS/cm)	699	/	698
Salinity (ppt)	0.3	/	0.3

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Chl				10	10	10	10	14.0	15.0	15.0	15.0	15.0	10.1	9.9	9.7	9.4	9.5	6.9	7.1	7.2	7.3	8.3	74	39
100				10	10	10	10	14.0	15.0	15.0	15.0	15.0	9.5	9.8	9.8	9.4	9.4	8.0	8.5	8.5	8.8	8.6	698	648
Initials																								

Sample Description/Comments: clear, no colour, no odour, no particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: At 96h, white precipitate formed at bottom of 100% tank

Reviewed by: [Signature] Date Reviewed: Dec 11, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: December 1, 2017 @ 1300h

Work Order No.: 171468

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LL-LCS-WS-2017-11-28-N
Sample Date: November 28, 2017
Date Received: November 30, 2017
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 10
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 111617
Source: Agua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 33 ± 1
Mean Weight ± SD (g): 0.27 ± 0.04

Range: 32 - 35
Range: 0.21 - 0.33

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn100
Stock Solution ID: 177105
Date Initiated: November 30, 2017
96-h LC50 (95% CL): 06.4 (50.9 - 82.0) µg/L Zn

Reference Toxicant Mean and Historical Range: 103.9 (56.5 - 192.9) µg/L Zn
Reference Toxicant CV (%): 36

Test Results: 0% mortality of 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Dec 11, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Fish Line Creek Operation
 Sample I.D.: LC-UCS-WS-2017-11-28-N
 W.O. #: 171468
 RBT Batch #: 11617
 Date Collected/Time: 28 Nov 17 @ 0837 h
 Date Setup/Time: 01 Dec 17 @ 1300h
 CER #: 2
 Sample Setup By: YML

Number Fish/Volume: 10/10L
 7-d % Mortality: 1.5%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Dec 2
 D.O. meter/probe: 2 / D2
 Cond./Salinity meter/probe: 2 / CP2
 pH meter/probe: 5 / PS

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	9.8	/	9.5
pH	8.1	/	8.2
Cond. (µS/cm)	776	/	776
Salinity (ppt)	0.4	/	0.4

Concentration (% v/v)	# Survivors						Temperature (°C)						Dissolved Oxygen (mg/L)						pH						Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96		
CH1				10	10	10	10	14.0	15.0	15.0	15.0	15.0	10.1	9.9	9.8	9.5	9.5	6.9	7.1	7.1	7.4	7.3	34	46		
100				10	10	10	10	14.0	15.0	15.0	15.0	15.0	9.5	9.8	9.8	9.4	9.5	8.2	8.4	8.5	8.7	8.7	776	775		
Initials				A	A	RL	RL	YML	A	A	RL	RL	YML	A	A	RL	RL	YML	A	A	RL	RL	YML	RL		

Sample Description/Comments: clear, no colour, no odour, no particulates

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: no precipitate at 96h

Reviewed by: YML

Date Reviewed: Dec 11, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: December 1, 2017 @ 1300h

Work Order No.: 171468

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LCDSSLCC-WS-2017-11-28-N
Sample Date: November 28, 2017
Date Received: November 30, 2017
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 10
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 111617
Source: Agua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 33 ± 2
Mean Weight ± SD (g): 0.27 ± 0.04

Range: 31 - 36
Range: 0.23 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn100
Stock Solution ID: 172105
Date Initiated: November 30, 2017
96-h LC50 (95% CL): 06.4 (50.9 - 82.0) µg/L Zn

Reference Toxicant Mean and Historical Range: 103.9 (56.5 - 192.9) µg/L Zn
Reference Toxicant CV (%): 36

Test Results: 0% mortality at 96h in the 100% (w) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Dec 11, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Line Creek Operation
 Sample I.D.: LC-LCDSSICL - WS-2017-11-28-N
 W.O. #: 171468
 RBT Batch #: 111617
 Date Collected/Time: 28 Nov 17 (A) 1030 h
 Date Setup/Time: 01 Dec 17 @ 1300h
 CER #: 2
 Sample Setup By: YML

Number Fish/Volume: 10 / 10L
 7-d % Mortality: 15%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: 612
 D.O. meter/probe: 2 / D2
 Cond./Salinity meter/probe: 2 / CP2
 pH meter/probe: S / PS

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	9.4	/	9.6
pH	7.4	/	7.4
Cond. (µS/cm)	882	/	881
Salinity (ppt)	0.4	/	0.4

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
CH1				10	10	10	10	14.0	15.0	15.0	15.0	15.0	10.1	9.9	9.7	9.3	9.5	6.9	7.1	7.2	7.3	7.3	34	39
100				10	10	10	10	14.0	15.0	15.0	15.0	15.0	9.6	9.8	9.7	9.4	9.5	8.4	8.5	8.4	8.6	8.6	881	885
Initials				A	A	A	A	YML	A	A	A	A	YML	A	A	A	A	YML	A	A	A	A	YML	A

Sample Description/Comments: clear, no colour, no odour, no particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: no precipitate at 96h

Reviewed by: [Signature]

Date Reviewed: Dec-11, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: December 1, 2017 @ Booth

Work Order No.: 171468

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: 2L-SPDC-WS-2017-11-27-N
Sample Date: November 28, 2017
Date Received: November 30, 2017
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T.(°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 10
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 111617
Source: Agua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 33 ± 1 Range: 31 - 35
Mean Weight ± SD (g): 0.26 ± 0.03 Range: 0.21 - 0.31

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn100
Stock Solution ID: 17Zn05
Date Initiated: November 30, 2017
96-h LC50 (95% CL): 66.4 (50.9 - 82.0) µg/L Zn
Reference Toxicant Mean and Historical Range: 103.9 (56.5 - 192.9) µg/L Zn
Reference Toxicant CV (%): 36

Test Results: 0% mortality of 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Dec 11, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Line Creek Operation
Sample I.D.: LC-SPDC-WIS-2017-11-23-N
W.O. #: 171468
RBT Batch #: 111617
Date Collected/Time: 27 Nov 17 @ 1120h
Date Setup/Time: 01 Dec 17 @ 1300h
CER #: 2
Sample Setup By: YWC

Number Fish/Volume: 10 / 10L
7-d % Mortality: 2.5%
Total Pre-aeration Time (mins): 30
Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Str 2
D.O. meter/probe: 2 / D2
Cond./Salinity meter/probe: 2 / CP2
pH meter/probe: S / PS

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	9.3	/	9.4
pH	8.1	/	8.3
Cond. (µS/cm)	396	/	395
Salinity (ppt)	0.2	/	0.2

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)						
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96					
0%				10	10	10	10	14.2	15.0	15.0	15.0	15.0	10.1	9.9	9.8	9.4	9.5	8.5	8.5	8.5	8.5	8.5	6.9	7.1	7.1	7.4	7.3	7.4	40
100				10	10	10	10	14.2	15.0	15.0	15.0	15.0	9.4	9.8	9.9	9.5	9.6	8.3	8.5	8.4	8.3	8.6	8.3	8.5	8.4	8.3	8.6	395	398

Daphnia magna Summary Sheet

Client: Teck-LCO
Work Order No.: 171469

Start Date/Time: 30 Nov 2017 @ 1630h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: LC_HSP_WS-2017-11-28_N
Sample Date: 28 Nov 2017
Date Received: 30 Nov 2017
Sample Volume: 2x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 111517 B+C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC 60
Stock Solution ID: 17 Na 05
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5 - 5.2) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Dec-11, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck - LCO
 Sample ID: LC-HSP-WS-2017-11-28-N
 Work Order No.: 171469

Start Date/Time: 30 Nov 2017 @ 1630h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: CW

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	19.0	20.0	9.0	8.6	8.4	7.8	8.0	7.8	349	350
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10	0	18.0	19.0	20.0	9.3	8.5	8.2	7.6	8.2	8.2	709	698
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		CW			CW	CW		CW	CW		CW	CW		CW	

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	370	174
Highest conc.	370	174
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		
DO (mg/L)	9.3		
pH	7.6		
Cond (µS/cm)	709		
Salinity (ppt)	0.3		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not noted

Sample Description: Clear, colourless, odourless liquid, no particulates.

Batch#: 115178+C 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Dec 11, 2017

Version 1.9; Issued July 19, 2017

Nautlius Environmental Company Inc.

Daphnia magna Summary Sheet

Client: Teck-LCO
Work Order No.: 171469

Start Date/Time: 30 Nov 2017 @ 1640 h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: LC-LC5-WS-2017-11-28-N
Sample Date: 28~~30~~ Nov 2017
Date Received: 30 Nov 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 111517 B+C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC 60
Stock Solution ID: 17 Na 05
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5 - 5.2) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Dec. 11, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: LC-LCS-WS-2017-11-28-N
 Work Order No.: 171469

Start Date/Time: 30 Nov 2017 @ 16:30^{cw} 40h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: CW

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	19.0	20.0	9.0	8.6	8.2	7.8	8.0	7.8	349	353
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10	0	18.5	19.0	20.0	9.6	8.7	8.5	8.1	8.3	8.2	782	777
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	CW	A	A	A	CW	CW	A	CW	CW	A	CW	CW	A	CW	A

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	96	76
Highest conc.	530	176
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		18.5
DO (mg/L)	10.7	(30 min aeration)	9.6
pH	8.1		8.1
Cond (µS/cm)	782		782
Salinity (ppt)	0.4		0.4

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not required

Sample Description: clear, colourless, odourless liquid, no particulates.

Batch#: 11/5178+C 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Dec-11, 2017

Daphnia magna Summary Sheet

Client: Teck - LCO
Work Order No.: 171469

Start Date/Time: 01 Dec 2017 @ 1730h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: LC-LCDSSLCC-WS-2017-11-18-N
Sample Date: 28 Nov 2017
Date Received: 30 Nov 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 110817A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 29
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC 60
Stock Solution ID: 17 Na 05
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5 - 5.2) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Dec-11, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck-LCO
 Sample ID: LC-LGDSSLCC-WS-2017-11-28-N
 Work Order No.: 171469

Start Date/Time: 01 Dec 2017 @ 1730h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: CW

Thermometer: CER45 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	24		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.0	20.0	20.0	8.8	8.4	8.6	7.7	7.7	7.9	349	353
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10	0	19.5	20.0	20.0	8.0	8.3	8.5	8.2	8.3	8.2	879	886
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		UM	A	A	CW	YMA	A	CW	YMA	A	CW	YMA	A	CW	A

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	96	76
Highest conc.	540	180
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.0		
pH	8.2		
Cond (µS/cm)	879		
Salinity (ppt)	0.19	0.9	

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope no
 Sample Description: Clear, colourless liquid, no odour, no particulates.
 Batch#: 110817A 7-d previous # young/brood: 29 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9
 Reviewed by: CW Date reviewed: Dec. 11, 2017

Daphnia magna Summary Sheet

Client: Teck - LCO
Work Order No.: 171469

Start Date/Time: 30 NOV 2017 @ 1630h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: LC-SPDC-WS-2017-11-27-N
Sample Date: 27 NOV 2017
Date Received: 30 NOV 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 111517 A + B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC 60
Stock Solution ID: 17NA05
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5 - 5.2) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality in the 100% (v/v) undiluted sample
^{at 48h}
^

Reviewed by: [Signature] Date reviewed: Dec-11, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: LC-SPDC-WS-2017-11-27-NP
 Work Order No.: 171469

Start Date/Time: 30 Nov 2017 @ 1630h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: CW

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	19.0	20.0	9.0	8.6	8.5	7.8	8.0	7.8	349	352
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10	0	18.5	19.0	20.0	9.1	8.5	8.2	8.0	8.0	8.2	400	404
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	CW	A	A		CW	CW	A	CW	CW	A	CW	CW	A	CW	A

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	96	76
Highest conc.	300	128
Hardness adjusted.	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5	/	/
DO (mg/L)	9.1	/	/
pH	8.0	/	/
Cond (µS/cm)	400	/	/
Salinity (ppt)	0.2	/	/

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not req'd
 Sample Description: Clear, ^{pale yellow-brown} colourless, odourless liquid, no particulates.
 Batch#: 111517B+C 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8
 Reviewed by: [Signature] Date reviewed: Dec-11, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected December 4, 2017

Final Report

December 19, 2017

Submitted to: **Teck Coal / Line Creek Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
LC_HSP_WS_2017-12-04_N	04-Dec-17 at 0940h	07-Dec-17 at 1030h	08-Dec-17 at 1510h	07-Dec-17 at 1730h
LC_LC5_WS_2017-12-04_N	04-Dec-17 at 0651h	07-Dec-17 at 1030h	08-Dec-17 at 1510h	07-Dec-17 at 1730h
LC_LCDSSLCC_WS_2017-12-04_N	04-Dec-17 at 1230h	07-Dec-17 at 1030h	08-Dec-17 at 1510h	07-Dec-17 at 1730h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_HSP_WS_2017-12-04_N	8.8 / 8.8°C	500	180
LC_LC5_WS_2017-12-04_N	7.4 / 8.8°C	660	180
LC_LCDSSLCC_WS_2017-12-04_N	7.4 / 8.8°C	680	190

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
LC_HSP_WS_2017-12-04_N	0	0
LC_LC5_WS_2017-12-04_N	0	0
LC_LCDSSLCC_WS_2017-12-04_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_HSP_WS_2017-12-04_N	Rainbow trout	Precipitate observed on the bottom of test vessel	None
LC_HSP_WS_2017-12-04_N	<i>Daphnia magna</i>	None	None
LC_LC5_WS_2017-12-04_N	Rainbow trout	None	None
LC_LC5_WS_2017-12-04_N	<i>Daphnia magna</i>	None	None
LC_LCDSSLCC_WS_2017-12-04_N	Rainbow trout	None	None
LC_LCDSSLCC_WS_2017-12-04_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	66.4 (50.9 – 82.0) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	103.9 (56.5 – 190.9) µg/L Zn	4.2 (3.5 – 5.2) g/L NaCl
Reference toxicant CV	36%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: November 30, 2017; ² Test date: November 27, 2017; LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Line Creek Operation Start Date/Time: 08 Dec 17 @ 15:10h

Work Order No.: 171506 Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-HSP-WS-2017-12-04-N
Sample Date: 04 Dec 17
Date Received: 07 Dec 17
Sample Volume: 1x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 10
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 111617
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.33
Mean Length ± SD (mm): 37 ± 1 Range: 34 - 39
Mean Weight ± SD (g): 0.33 ± 0.05 Range: 0.25 - 0.42

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn100
Stock Solution ID: 17Zn05
Date Initiated: November 30, 2017
96-h LC50 (95% CL): 66.4 (50.9 - 82.0) mg/L Zn

Reference Toxicant Mean and Historical Range: 103.9 (56.5 - 190.9) mg/L Zn
Reference Toxicant CV (%): 36

Test Results: 0% mortality at 96h in the 100%-(v/v) undiluted sample.

Reviewed by: [Signature] Date reviewed: Dec. 18, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Line Creek Operation
 Sample I.D. LC-HSP-WS-2017-12-04-N
 W.O. # 171506
 RBT Batch #: 111617
 Date Collected/Time: 04 Dec 17 @ 0940 h
 Date Setup/Time: 08 Dec 17 @ 1510 h
 CER #: 3
 Sample Setup By: RC

Number Fish/Volume: 10/10L
 7-d % Mortality: 0%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CE3
 D.O. meter/probe: 2 1 D2
 Cond./Salinity meter/probe: 2 1 CP2
 pH meter/probe: 5 1 PS

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	~ 8.0 9.9	/	9.9
pH	8.0	/	7.8
Cond. (µS/cm)	736	/	736
Salinity (ppt)	0.4	/	0.4

Concentration (% v/v)	# Survivors						Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)		
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Ctrl				10	10	10	10	14.0	15.0	15.0	15.6	15.0	9.9	9.9	9.8	9.7	9.8	7.3	6.9	7.0	7.3	7.3	35	41
100				10	10	10	10	14.0	15.0	15.0	15.0	15.0	9.9	9.8	9.9	9.6	9.7	7.8	8.1	8.2	8.3	8.3	736	724
Initials				A	A	M	M	RC	A	A	M	M	RC	A	A	M	M	RC	A	A	M	M	RC	RC

Sample Description/Comments: Clear, ^{colorless} light yellow liquid, no odour, no particulates

Fish Description at 96 h all fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: @ 96h, white precipitate formed of bottom of 100L tank

Reviewed by: RC

Date Reviewed: Dec. 18, 2017

Rainbow Trout Summary Sheet

Client: Teck Line Creek Operation Start Date/Time: 08 Dec 17 @ 15:10h
Work Order No.: 171506 Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-LC5_WS-2017-12-04_N
Sample Date: 04 Dec 17
Date Received: 07 Dec 17
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 10
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 111617
Source: Agua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.34
Mean Length ± SD (mm): 37 ± 4 Range: 29 - 42
Mean Weight ± SD (g): 0.34 ± 0.10 Range: 0.18 - 0.50

Zinc Reference Toxicant Results:

Reference Toxicant ID: RT Zn 100
Stock Solution ID: 17 Zn 05
Date Initiated: November 30, 2017
96-h LC50 (95% CL): 66.4 (50.9 - 82.0) mg/L Zn
Reference Toxicant Mean and Historical Range: 103.9 (56.5 - 190.9) mg/L Zn
Reference Toxicant CV (%): 36

Test Results: 0% mortality at 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature] Date reviewed: Dec-18, 2017

Rainbow Trout Summary Sheet

Client: Teck Line Creek Operation Start Date/Time: 08 Dec 17 @ 15:10 N

Work Order No.: 171506 Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: LC-100590WS-2017-12-04 N
Sample Date: 04 Dec 17
Date Received: 07 Dec 17
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 10
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 111617
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.32
Mean Length ± SD (mm): 36 ± 2 Range: 34 - 40
Mean Weight ± SD (g): 0.32 ± 0.05 Range: 0.26 - 0.42

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 100
Stock Solution ID: 17Zn05
Date Initiated: November 30, 2017
96-h LC50 (95% CL): 66.4 (50.9 - 82.0) mg/L Zn

Reference Toxicant Mean and Historical Range: 103.9 (56.5 - 190.9) mg/L Zn
Reference Toxicant CV (%): 36

Test Results: 0% mortality at 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature] Date reviewed: Dec. 18, 2017

Daphnia magna Summary Sheet

Client: Teck - LCO
Work Order No.: 171507

Start Date/Time: 07 Dec 2017 @ 1730h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: LC-HSP-WS-2017-12-04-N
Sample Date: 04 Dec 2017
Date Received: 07 Dec 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 112217 A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 15
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC 60
Stock Solution ID: 17 NQ 05
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5 - 5.2) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Dec. 18, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck - LCO
 Sample ID: LC - HSP - WS - 2017 - 12 - 04 - N
 Work Order No.: 171507

Start Date/Time: 07 Dec 2017 @ 1730h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: CW

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (%)(v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.0	19.0	19.0	8.7	8.7	8.8	7.6	7.8	7.9	348	355
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10	0	18.0	19.0	19.0	9.0	8.6	8.8	7.6	8.0	8.1	738	742
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials	CW	A	A		CW	CW	A	CW	CW	A	CW	CW	A	CW	A

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	96	66
Highest conc.	500	180
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		
DO (mg/L)	9.0		
pH	7.6		
Cond (µS/cm)	738		
Salinity (ppt)	0.4		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope no

Sample Description: clear, no colour, no odour, no particles

Batch#: 112217A 7-d previous # young/brood: 15 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: Dec-18, 2017

Daphnia magna Summary Sheet

Client: Teck-LCO
Work Order No.: 171507

Start Date/Time: 07 Dec 2017 @ 1730h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: LC-LC5-WS-2017-12-04-N
Sample Date: 04 Dec 2017
Date Received: 07 Dec 2017
Sample Volume: 2 x ~~1L~~ 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 112217 A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 15
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC 60
Stock Solution ID: 17 Na 05
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5 - 5.2) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Dec 18, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck - LCO
 Sample ID: LC-LC5 - WS - 2017-12-04 - N
 Work Order No.: 171507

Start Date/Time: 07 Dec 2017 @ 1730h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: CW

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (%)(v/v)	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	18.0	18.0	20.0	8.7	8.7	8.8	7.6	7.8	29	348	354
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10	0	18.0	19.0	20.0	9.4	8.9	8.8	8.3	8.4	25	802	800
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		CW	A		CW	CW	A	CW	CW	A	CW	CW	A	CW	A

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Control (MHW)	96	66
Highest conc.	660	180
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		
DO (mg/L)	9.4		
pH	8.3		
Cond (µS/cm)	802		
Salinity (ppt)	0.4		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope NO
 Sample Description: clear no colour, no odour, no particulates
 Batch#: 112217A 7-d previous # young/brood: 15 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9
 Reviewed by: CW Date reviewed: Dec 15, 2017

Daphnia magna Summary Sheet

Client: Teck - LCO
Work Order No.: 171507

Start Date/Time: 07 Dec 2017 @ 1730h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: LC-LCDSSLCC-WS-2017-12-04-N
Sample Date: 04 Dec 2017
Date Received: 07 Dec 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 112217 A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 15
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC 60
Stock Solution ID: 17 Na 05
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5 - 5.2) g/L NaCl

Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Dec-18, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck - LCO
 Sample ID: LC - LCDSS2CC - WS - 2017 - 12 - 04 - N
 Work Order No.: 171507

Start Date/Time: 07 Dec 2017 @ 1730h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: CW

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (%)(v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.0	19.0	19.0	8.7	8.7	8.8	7.6	7.8	7.8	348	359
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10	0	18.0	19.0	19.0	9.4	8.7	8.9	8.1	8.4	8.5	938	946
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		CW	A	A	CW	CW	A	CW	CW	A	CW	CW	A	CW	A

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	96	66
Highest conc.	680	190
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		
DO (mg/L)	9.4		
pH	8.1		
Cond (µS/cm)	938		
Salinity (ppt)	0.5		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope NO

Sample Description: clear, no colour, no odour, no particulates

Batch#: 112217A 7-d previous # young/brood: 15 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: Dec - 18, 2017

Version 1.9: Issued July 19, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT

West Line Creek Active Water Treatment Facility (WLC AWTF) COAs



Acute Toxicity Test Results

Sample collected January 3, 2017

Final Report – Revision 1

February 22, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation 10°C	<i>Daphnia magna</i> test initiation 20°C	
LC_WTF_IN_20170103 _NP/ 1617-0544-01	3-Jan-16 at 0800h	4-Jan-16 at 0900h	6-Jan-17 at 1500h	04-Jan-16 at 1430	04-Jan-16 at 1445	4°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170103_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170103_NP	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	43 (32-58) µg/L Zn ¹	4.8 (4.5-5.0) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	55 (20-153) µg/L Zn	5.0 (4.3-5.8) g/L NaCl
Reference toxicant CV	66%	5.1%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, January 5, 2017; ² Test Date, January 9, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Natalie McDermott, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Spring Valley
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquariums
Test volume	12 L (depending on size of fish)
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Municipal dechlorinated water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Zinc (Zn)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	385 mL glass jars
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	385 mL glass jars
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS@20

Client TECLLOY

Reference 1627-2544-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/01/04	1445	WINNI	3	EP	7.9	1325	10.4	12.9	0
1	2017/01/05	0830	EP	-	NM					
2	2017/01/06	1100	EP	3	CA					

Lab Code	<u>07A</u>	<u>07B</u>	<u>07C</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>				
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day pH (units) (range: 6.0-8.5)

0	7.6	7.7	7.6	7.9	7.9	7.9			
2									

EC (uS/cm)

0	337	370	341	1654	1732	1763			
2	340	350	342	1689	1686	1704			

DO (mg/L) (40-100% saturation at test temp.)

0	8.1	8.1	8.1	8.2	8.2	8.2			
2	7.8	7.6	7.6	7.9	7.8	7.8			

Temperature (°C) (range: 17.5-22.5 °C)

0	18.8	18.8	18.8	20.1	20.1	20.1			
2	20.1	20.3	20.4	20.0	20.2	20.3			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar 02 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 21.5
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 121 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20min Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 734 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) _____

Dilution Water
 Pail label / preparation date G:12/30 Weekly water hardness (mg/L) 88

Comments:
glass jars, 24hr updates

Method DAS @ 10

Client TELCOY

Reference 167 0544-01

Test Log

Sample Information

Day	Ill Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/01/04	1430	MMNM	3	EP	7.9	1325	10.4	12.9	0
1	2017/01/05	0830	EP	-	MM					
2	2017/01/06	1100	EP	3	CE					

Lab Code	<u>CLIA</u>	<u>CLB</u>	<u>CLC</u>	<u>CLD</u>	<u>CLE</u>	<u>CLF</u>	<u>CLG</u>	<u>CLH</u>	<u>CLI</u>	<u>CLJ</u>
----------	-------------	------------	------------	------------	------------	------------	------------	------------	------------	------------

day	pH (units) (range: 6.0-8.5)					
0	7.6	7.6	7.6	7.7	7.8	7.8
2	7.7	7.7	7.6	8.1	8.0	8.0

day	EC (µS/cm)					
0	323	339	341	1816	1896	1903
2	343	354	355	1920	1927 1919	1919

day	DO (mg/L) (40-100% saturation at test temp.)					
0	8.1	8.1	8.1	9.4	9.4	9.4
2	9.2	9.2	9.3	9.1	9.0	9.1

day	Temperature (°C) (range: 17.5-22.5 °C) ^{DM 10 to 20°C}					
0	11.9	11.9	12.0	12.0	12.0	12.0
2	11.9	12.1	12.1	12.1	12.1	12.1

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar 04 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 8
Average number of young produced (≥15 young) 18.0
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 12T DM 96% Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
Hardness (mg CaCO₃/L) of 100%: 734 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) ✓

Dilution Water
Pail label / preparation date 6.12/30 Weekly water hardness (mg/L) 88

Comments:
glass jars, 24hr updates

Rainbow Trout Summary Sheet

Client: Nautilus Calgary

Start Date/Time: Jan 6 7 11 @ 1500h
EL

Work Order No.: 170006

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: 1617-0544-01
Sample Date: Jan 3 16
Date Received: Jan 6 16
Sample Volume: 1 x 20 L
Other: /

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 121316
Source: Spring Valley
No. Fish/Volume (L): 10/12
Loading Density (g/L): 0.29
Mean Length ± SD (mm): 30 ± 1
Mean Weight ± SD (g): 0.35 ± 0.05

Range: 28 - 33

Range: 0.28 - 0.486
µm

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn58
Stock Solution ID: 16Zn02
Date Initiated: Jan 5 17
96-h LC50 (95% CL): 43.2 (32.4-57.6) µg/L Zn

Reference Toxicant Mean and Historical Range: 55.3 (20.0 - 152.6) µg/L Zn
Reference Toxicant CV (%): 66%

Test Results: 100% survival at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: 

Date reviewed: Jan 11, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Nautilus Calgary
 Sample I.D. 1617-0584-01
 W.O. # 170006
 RBT Batch #: 121316
 Date Collected/Time: Jan 3 / 170 Not available
 Date Setup/Time: Jan 6 / 170 1500
 Sample Setup By: YLL

Number Fish/Volume: 10 / 12L
 7-d % Mortality: 1.7
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Yes

Thermometer: CER #2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Parameters	Undiluted Sample WQ	
	Initial WQ	Adjustment
Temp °C	14.0	14.0
D.O. (mg/L)	9.8	9.9
pH	8.0	8.2
Cond. (µS/cm)	1897	1883
Salinity (ppt)	1.0	1.0

Concentration	# Survivors						Temperature (°C)						Dissolved Oxygen (mg/L)						pH						Conductivity (µS/cm)				
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
(% v/v)																													
<u>Control</u>				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.2	9.8	9.5	9.9	9.9	6.8	6.7	7.0	7.1	6.8							
<u>100</u>				10	10	10	10	14.0	14.0	14.0	14.0	14.0	9.9	9.8	9.7	9.7	9.7	8.2	8.7	8.4	8.5	8.2							
Initials				A	A	A	A	YLL	A	A	A	A	YLL	A	A	A	A	YLL	A	A	A	A							

Sample Description/Comments: Clear, colorless, no particulates, No odor
 Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0
 Other Observations: _____
 Reviewed by: [Signature] Date Reviewed: Jan. 11, 2017

Rainbow trout (Oncorhynchus mykiss) Length and Weight Sheet

Client: Nautilus Calgary
 Sample ID: 16.7-0544-01
 W.O. #: 170006

Balance ID: Bal - 2
 Date Measured: Jan 10/16
 Batch #: 121816

	Length (mm)	Weight (g)
1	<u>33</u>	<u>0.46</u>
2	<u>32</u>	<u>0.32</u>
3	<u>31</u>	<u>0.33</u>
4	<u>30</u>	<u>0.34</u>
5	<u>30</u>	<u>0.39</u>
6	<u>31</u>	<u>0.37</u>
7	<u>30</u>	<u>0.28</u>
8	<u>29</u>	<u>0.29</u>
9	<u>28</u>	<u>0.33</u>
10	<u>31</u>	<u>0.39</u>

Total	<u>305</u>	<u>3.50</u>
Mean	<u>30</u>	<u>0.35</u>
Std. Dev.	<u>1</u>	<u>0.05</u>
Low	<u>28</u>	<u>0.28</u>
High	<u>33</u>	<u>0.46</u>

Loading Density (g/L) 0.29

Initials EL

Reviewed by: 

Date Reviewed: JAN 11, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected January 3, 2017

Final Report – Revision 1

February 22, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation 10°C	<i>Daphnia magna</i> test initiation 20°C	
WL_BFWB_OUT_SP21 _20170103_N/ 1617-0544-02	3-Jan-16 at 0900h	4-Jan-16 at 0900h	6-Jan-17 at 1500h	04-Jan-16 at 1430	04-Jan-16 at 1445	4°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170103_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170103_N	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	43 (32-58) µg/L Zn ¹	4.8 (4.5-5.0) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	55 (20-153) µg/L Zn	5.0 (4.3-5.8) g/L NaCl
Reference toxicant CV	66%	5.1%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, January 5, 2017; ² Test Date, January 9, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Natalie McDermott, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Spring Valley
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquariums
Test volume	12 L (depending on size of fish)
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Municipal dechlorinated water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Zinc (Zn)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	385 mL glass jars
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	385 mL glass jars
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS@20 Client TECLLOY Reference 1617-0544-02

Test Log						Sample Information	
Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	
0	<u>2017/01/04</u>	<u>MUS</u>	<u>ML/MN</u>	<u>3</u>	<u>ED</u>	<u>7.3</u>	<u>7.7</u>
1	<u>2017/01/05</u>	<u>0800</u>	<u>ED</u>	<u>3</u>	<u>ADM</u>	<u>1382</u>	
2	<u>2017/01/06</u>	<u>1100</u>	<u>ED</u>	<u>3</u>	<u>ED</u>	<u>10.4</u>	
Lab Code						Initial Temp (°C):	<u>11.9</u>
<u>CLA</u>	<u>CLB</u>	<u>CLC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>	Salinity (ppt):	<u>0</u>

day	pH (units) (range: 6.0-8.5)					
0	<u>7.5</u>	<u>7.5</u>	<u>7.6</u>	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>
2	<u>7.9</u>	<u>7.9</u>	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>8.0</u>

day	EC (uS/cm)					
0	<u>337</u>	<u>370</u>	<u>341</u>	<u>1786</u>	<u>1899</u>	<u>1923</u>
2	<u>356</u>	<u>349</u>	<u>346</u>	<u>1850</u>	<u>1850</u>	<u>1856</u>

day	DO (mg/L) (40-100% saturation at test temp.)					
0	<u>8.1</u>	<u>8.1</u>	<u>8.1</u>	<u>8.2</u>	<u>8.2</u>	<u>8.2</u>
2	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.8</u>	<u>7.8</u>

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	<u>18.8</u>	<u>18.8</u>	<u>18.0</u>	<u>18.2</u>	<u>18.2</u>	<u>18.2</u>
2	<u>19.9</u>	<u>19.8</u>	<u>19.9</u>	<u>20.1</u>	<u>20.1</u>	<u>19.9</u>

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar DZ Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 8
Average number of young produced (≥15 young) 18.0
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 123% Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20min Filtered with 110um screen prior to testing Yes or No
Hardness (mg CaCO3/L) of 100%: 943 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) ---

Dilution Water
Pail label / preparation date G:12130 Weekly water hardness (mg/L) 88

Comments:
glass jars, 24hr updates

Method DAS@10

Client TC164

Reference 1617-0544-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/01/04	1430	MLM	3	EP	7.7	382	1.4	11.9	0
1	2017/01/05	0830	EP	-	MLM					
2	2017/01/06	1100	EP	3	Ca					

Lab Code	<u>CTLA</u>	<u>CTLB</u>	<u>CTLC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>
----------	-------------	-------------	-------------	-------------	-------------	-------------

day	pH (units) (range: 6.0-8.5)					
0	7.8	7.8	7.8	7.5	7.5	7.5
2	7.8	7.8	7.7	7.9	8.0	7.9

day	EC (µS/cm)					
0	352	346	345	1862 ¹⁹⁶⁰	1920	1970
2	347	349	350	1858 ^{1870 EP}	1960	1967

day	DO (mg/L) (40-100% saturation at test temp.)					
0	8.8	8.6	8.6	9.4	9.4	9.4
2	9.2	9.2	9.3	8.9	9.0	9.1

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	12.0	12.0	12.0	12.1	12.1	12.1
2	12.0	11.8	11.7	12.3	12.0	11.8

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar 05 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)

Days to first brood (≤12 days) 8
Average number of young produced (≥15 young) 18
Were test treatments randomized on test tray? Yes No

Sample

DO % of sample prior to aeration: 123% 96% Is aeration required (<40% or >100%)? Yes No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110um screen prior to testing? Yes No
Hardness (mg CaCO₃/L) of 100%: 943 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L)

Dilution Water

Pail label / preparation date G:12130 Weekly water hardness (mg/L) 88

Comments:

glass jars, 24hr updates

Rainbow Trout Summary Sheet

Client: Nautilus Calgary
Work Order No.: 170006

Start Date/Time: Jan 6 7 11 @ 1500h
Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: 1617-0544-02
Sample Date: Jan 3 16
Date Received: Jan 6 16
Sample Volume: 1 x 20 L
Other: /

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 121316
Source: Spring Valley
No. Fish/Volume (L): 10/12
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 30 ± 1
Mean Weight ± SD (g): 0.36 ± 0.08

Range: 27 - 31
Range: 0.27 - 0.52

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn58
Stock Solution ID: 16Zn02
Date Initiated: Jan 5 17
96-h LC50 (95% CL): 43.2 (32.4-57.6) µg/L Zn

Reference Toxicant Mean and Historical Range: 55.3 (20.0 - 152.6) µg/L Zn
Reference Toxicant CV (%): 66 %

Test Results: 100% survival at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Jan. 11, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Nautilus Calgary
 Sample I.D. 1617-0544-012
 W.O. # 170006
 RBT Batch #: 121316
 Date Collected/Time: Jan 3 / 170 Not available
 Date Setup/Time: Jan 6 / 170 1500h
 Sample Setup By: YYL

Number Fish/Volume: 10 / 12 L
 7-d % Mortality: 17
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Yes

Thermometer: CER #2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Parameters	Undiluted Sample WQ	
	Initial WQ	Adjustment
Temp °C	14.0	14.0
D.O. (mg/L)	9.8	12.0
pH	7.8	8.1
Cond. (µS/cm)	1905	1900
Salinity (ppt)	1.0	1.0

Concentration	# Survivors						Temperature (°C)						Dissolved Oxygen (mg/L)						pH						Conductivity (µS/cm)		
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24		48	72
(% V/V)																											
<i>Control</i>				10	10	9	9	14.0	14.0	14.0	14.0	14.0	10.2	9.8	9.7	9.9	9.9	6.8	6.5	7.1	7.1	6.8	38	45			
<i>100</i>				10	10	10	10	14.0	14.0	14.0	14.0	14.0	9.8	9.8	9.8	9.7	9.7	8.1	8.6	8.4	8.6	8.2	1900	1837			
Initials				A	A	EL	EL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL

Sample Description/Comments: Clear, colorless, No particulates, No odour
 Fish Description at 96 h: All surviving fish appear normal Number of Stressed Fish at 96 h: 0
 Other Observations: _____
 Reviewed by: [Signature] Date Reviewed: Jan-11, 2017

Rainbow trout (*Oncorhynchus mykiss*) Length and Weight Sheet

Client: Nautilus Calgary
 Sample ID: 1617-2544-02
 W.O. #: 170026

Balance ID: Bal - 2
 Date Measured: Jan 10/16
 Batch #: 121316

	Length (mm)	Weight (g)
1	<u>30</u>	<u>0.43</u>
2	<u>30</u>	<u>0.52</u>
3	<u>31</u>	<u>0.38</u>
4	<u>31</u>	<u>0.28</u>
5	<u>28</u>	<u>0.27</u>
6	<u>31</u>	<u>0.31</u>
7	<u>29</u>	<u>0.30</u>
8	<u>29</u>	<u>0.34</u>
9	<u>27</u>	<u>0.43</u>
10	<u>T</u>	<u>EEJ.</u>

Total	<u>266</u>	<u>3.26</u>
Mean	<u>30</u>	<u>0.36</u>
Std. Dev.	<u>1</u>	<u>0.08</u>
Low	<u>27</u>	<u>0.27</u>
High	<u>31</u>	<u>0.52</u>

Loading Density (g/L) 0.27

Initials EE

Reviewed by: 

Date Reviewed: Jan. 11, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected January 9, 2017

Final Report – Revision 1

February 22, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170109_NP_NAUT/ 1617-0571-01	9-Jan-17 at 0800h	10-Jan- 17 at 0940h	11-Jan- 17 at 1150h	10-Jan- 17 at 1430h	10-Jan- 17 at 1415h	6.0°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170109_NP_NAUT	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170109_NP_NAUT	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.1 (2.7-3.6) g/L KCl ¹	4.8 (4.5-5.0) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.1 (2.3-4.3) g/L KCl	5.0 (4.3-5.8) g/L NaCl
Reference toxicant CV	10%	5.1%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, January 9, 2017; ² Test Date January 9, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Madison Lehti, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Limited Seafoods Ltd.
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass jars
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass jars
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

24 Hour Updates

Method TRS

Client TEC164

Reference 1617-0571-01

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:
0	2017/01/11	1:50 *	JN/NM	1	EP	8.0
1	2017/01/12	0802	EP	-	JN	Initial EC (µS/cm): 1768
2	2017/01/13	0915	JN	-	HS	Initial DO (mg/L): 8.8
3	2017/01/14	0855	LC	-	HS	Initial Temp (°C): 16.4
4	2017/01/15	0900	EP/M	1	M	Salinity (ppt): 2
						Nets used: yes / <u>no</u>

Note: * : time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L : yes/no

Preaeration time

0.5 hours	1 hour	1.5 hours	2 hours
8.9			

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	7.2	7.7				
Day 4	8.0	7.9				

EC (uS/cm)

Day 0	460	1872				
Day 4	466	1799				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.7	8.9				
Day 4	8.9	8.8				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	14.8	14.4				
Day 4	14.3	14.5				

Number Alive (In brackets number stressed)

Day 0	10	10				
Day 1	10	10				
Day 2	10	10				
Day 3	10	10				
Day 4	10	10				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	<u>20161223TR</u>
1	2.5	0.32	Source	<u>LSL</u>
2	2.4	0.3	Days Held	<u>19</u>
3	2.4	0.2	Percent stock mortality (7 days prior to test, must be ≤2%)	<u>0%</u>
4	2.8	0.3	Test Volume (L)	<u>20</u>
5	2.2	0.2	Mean Length (cm):	<u>2.5</u>
6	2.5	0.3	Length Range (cm):	<u>2.2-2.8</u>
7	2.3	0.2	Mean Weight (g):	<u>0.3</u>
8	2.5	0.3	Weight Range (g):	<u>0.2-0.3</u>
9	2.7	0.3	Loading Density (g/L):	<u>0.13</u>
10	2.6	0.3		
Comments :				

Method DAS

 Client TECIBU

 Reference 1617-0571-01 10°C
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/01/10	1430	JWINUM	3	JN	8.0	1768	8.8	16.4	2.
1	2017/01/11	0920	LC	-	JN					
2	2017/01/12	0845	HS	3	JN					

Lab Code	CTLA	CTLB	CTL	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.6	7.7	7.7	7.7	7.8	7.7			
2	7.7	7.7	7.7	8.0	8.1	8.1			

EC (uS/cm)

0	324	333	335	1820	1785	1801			
2	359	358	357	1825	1833	1868			

DO (mg/L) (40-100% saturation at test temp.)

0	9.4	9.4	9.4	9.6	9.6	9.6			
2	9.3	9.4	9.4	9.3	9.3	9.4			

Temperature (°C) (range: 17.5-22.5 °C)

0	11.6	11.6	11.6	10.9	10.9	10.8			
2	11.1	11.1	11.2	11.2	11.2	11.1			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

 Young jar D1, D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%
QA (previous month)

 Days to first brood (≤12 days) 8

 Average number of young produced (≥15 young) 16.8

 Were test treatments randomized on test tray? Yes / No

Sample

 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No

 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No

 Hardness (mg CaCO₃/L) of 100%: 889 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No

 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -
Dilution Water

 Pail label / preparation date E: 01/04 Weekly water hardness (mg/L) 87

 Comments: * in glass jars, 24 hr updates

Method DAS

 Client TEC164

 Reference 1617-0571-01 **20°C**
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information
0	2017/01/10	1415	JW/JDM	3	JN	Initial pH: <u>8.0</u>
1	2017/01/11	0925	LC	-	JN	Initial EC (µS/cm): <u>1768</u>
2	2017/01/12	0845	HS	3	JN	Initial DO (mg/L): <u>8.8</u>
						Initial Temp (°C): <u>16.4</u>
						Salinity (ppt): <u>2.</u>

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	<u>7.6</u>	<u>7.6</u>	<u>7.7</u>	<u>7.9</u>	<u>8.0</u>	<u>8.1</u>			
2	<u>7.7</u>	<u>7.8</u>	<u>7.8</u>	<u>8.2</u>	<u>8.2</u>	<u>8.2</u>			

EC (µS/cm)

0	<u>314</u>	<u>332</u>	<u>334</u>	<u>1658</u>	<u>1757</u>	<u>1783</u>			
2	<u>364</u>	<u>370</u>	<u>373</u>	<u>1829</u>	<u>1870</u>	<u>1889</u>			

DO (mg/L) (40-100% saturation at test temp.)

0	<u>8.0</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>8.0</u>	<u>8.1</u>			
2	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.8</u>			

Temperature (°C) (range: 17.5-22.5 °C)

0	<u>18.8</u>	<u>19.0</u>	<u>19.0</u>	<u>18.5</u>	<u>18.1</u>	<u>18.1</u>			
2	<u>19.0</u>	<u>19.1</u>	<u>19.2</u>	<u>19.1</u>	<u>19.1</u>	<u>19.0</u>			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C4</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>8</u>	Average number of young produced (≥15 young) <u>24.3</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>114%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>20 mins</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>889</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>E: 01/04</u>	Weekly water hardness (mg/L) <u>87</u>
Comments:	<u>* in glass jars, 24 hr updates</u>	

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170109-Acute Toxicity		TURNAROUND TIME:		LABORATORY		RUSH:	
PROJECT/CLIENT INFO				OTHER INFO			
Facility Name / Job#		M/C AWTF		Lab Name		Nanulst Environmental	
Project Manager		Thomas Davidson		Lab Contact		Jacklyn Poel	
Email		Thomas.Davidson@teck.com		Email		jacklyn@nanulstenvironmental.ca	
Address		15 Km North HWY 43		Address #4		6125 - 12 Street SE	
City		Sparwood		City		Calgary	
Postal Code		V0B 2G0		Postal Code		T2H 2K1	
Phone Number		250.603.9417		Phone Number		+1.403.253.7121	
Province		BC		Province		AB	
Country		Canada		Country		Canada	
SAMPLE DETAILS							
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab	# Of Cont.
WL_WTF_IN_20170109_NP_NA1T	WL_WTF_IN	WS	N	9-Jan-17	0800	G	3
WL_BFVB_OUT_SPT1_20170109_N_NA1T	WL_BFVB_OUT_SPT1	WS	N	9-Jan-17	0900	G	8
ANALYSIS REQUESTED							
				ANALYSIS	PRESERV.	FIL	
				NAUT_96Hr_RT_Single_Concentration_Toxicity Test	N	N	
				NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	N	N	
				NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	N	N	
				EXTRA	N	N	
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
NB OF BOTTLES RETURNED/DESCRIPTION							
Regular (default)				X		Sampler's Name	
Priority (2-3 business days) - 50% surcharge						Sampler's Signature	
Emergency (1 Business Day) - 100% surcharge						Date/Time	
For Emergency < 1 Day, ASAP or Weekend - Contact ALS						Mobile #	

Jacklyn Traverser
 Jorelyn Traverser

2017/01/10 940
 MO S/T

5x 50 L Carboys 1x 1L ac LC instead
 5x 1 L bottle (only)
 Good condition
 ML

Manulink

END OF REPORT



Acute Toxicity Test Results

Sample collected January 9, 2017

Final Report – Revision 1

February 22, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_20170109_N_ NAUT/ 1617-0571-02	9-Jan-17 at 0900h	10-Jan- 17 at 0940h	11-Jan- 17 at 1150h	10-Jan- 17 at 1430h	10-Jan- 17 at 1410h	6.0°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170109_N_NAUT	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170109_N_NAUT	53	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.1 (2.7-3.6) g/L KCl ¹	4.8 (4.5-5.0) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.1 (2.3-4.3) g/L KCl	5.0 (4.3-5.8) g/L NaCl
Reference toxicant CV	10%	5.1%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, January 9, 2017; ² Test Date January 9, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Madison Lehti, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Limited Seafoods Ltd.
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass jars
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass jars
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

24 Hour Updates

Method TRS

Client TEC164

Reference 1617-0571-02

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:
0	2017/01/11	1150	* JNINM	1	EP	7.8
1	2017/01/12	0800	SP	-	JN	Initial EC (µS/cm): 1761
2	2017/01/13	0920	JN	-	HS	Initial DO (mg/L): 9.0
3	2017/01/14	0855	LC	-	HS	Initial Temp (°C): 15.7
4	2017/01/15	1105	FRM	1	ML	Salinity (ppt): 2
						Nets used: yes / no <input checked="" type="radio"/>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.2</u>	<u>7.4</u>					
Day 4	<u>7.9</u>	<u>7.8</u>					

EC (uS/cm)

Day 0	<u>463</u>	<u>1868</u>					
Day 4	<u>480</u>	<u>1798</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.8</u>	<u>8.9</u>					
Day 4	<u>8.8</u>	<u>8.8</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.5</u>	<u>14.4</u>					
Day 4	<u>14.4</u>	<u>14.3</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	<u>20161223TR</u>
1	<u>2.6</u>	<u>0.3</u>	Source	<u>LSL</u>
2	<u>2.6</u>	<u>0.3</u>	Days Held	<u>19</u>
3	<u>2.6</u>	<u>0.3</u>	Percent stock mortality (7 days prior to test, must be ≤ 2%)	<u>0%</u>
4	<u>2.5</u>	<u>0.3</u>	Test Volume (L)	<u>20</u>
5	<u>2.5</u>	<u>0.3</u>		
6	<u>2.5</u>	<u>0.2</u>		
7	<u>2.7</u>	<u>0.3</u>		
8	<u>2.7</u>	<u>0.2</u>		
9	<u>2.2</u>	<u>0.2</u>		
10	<u>2.1</u>	<u>0.2</u>		
Loading Density (g/L): <u>0.13</u>				
Mean Length (cm): <u>2.5</u>				
Length Range (cm): <u>2.1-2.7</u>				
Mean Weight (g): <u>0.3</u>				
Weight Range (g): <u>0.2-0.3</u>				
Comments :				

Method DAS

Client TEC164

Reference 1617-0571-02 100°C

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review
0	2017/01/10	1430	JWINM	3	JN
1	2017/01/11	0925	LC	-	JN
2	2017/01/12	0845	HS	3	JN

Sample Information

Initial pH:	<u>7.8</u>
Initial EC (µS/cm):	<u>1761</u>
Initial DO (mg/L):	<u>9.0</u>
Initial Temp (°C):	<u>15.7</u>
Salinity (ppt):	<u>2</u>

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C
	<u>CTLA</u>	<u>CTLB</u>	<u>CTLC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>

day pH (units) (range: 6.0-8.5)

0	<u>7.6</u>	<u>7.6</u>	<u>7.7</u>	<u>7.5</u>	<u>7.5</u>	<u>7.5</u>
2	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>

EC (uS/cm)

0	<u>329</u>	<u>336</u>	<u>337</u>	<u>1821</u>	<u>1819</u>	<u>1894</u>
2	<u>343</u>	<u>355</u>	<u>361</u>	<u>1871</u>	<u>1854</u>	<u>1920</u>

DO (mg/L) (40-100% saturation at test temp.)

0	<u>9.4</u>	<u>9.4</u>	<u>9.4</u>	<u>9.6</u>	<u>9.6</u>	<u>9.6</u>
2	<u>9.4</u>	<u>9.3</u>	<u>9.4</u>	<u>9.3</u>	<u>9.3</u>	<u>9.3</u>

Temperature (°C) (range: 10 ± 2°C 17.5-22.5°C all)

0	<u>11.7</u>	<u>11.7</u>	<u>11.7</u>	<u>10.9</u>	<u>10.9</u>	<u>10.9</u>
2	<u>11.1</u>	<u>11.2</u>	<u>11.2</u>	<u>11.0</u>	<u>11.1</u>	<u>11.0</u>

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10 (7F)</u>	<u>10 (7F)</u>	<u>10 (9F)</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10 (7I, 3B)</u>	<u>10 (9I)</u>	<u>10</u>

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar D3 Jar(s) mortality 7 days prior to test (must be ≤25%) 7%

QA (previous month)
Days to first brood (≤12 days) 8
Average number of young produced (≥15 young) 16.8
Were test treatments randomized on test tray? Yes No

Sample
DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
Hardness (mg CaCO₃/L) of 100%: 934 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
Pail label / preparation date E: 01/04 Weekly water hardness (mg/L) 87

Comments: * in glass jars, 24 hr updates

Method DAS

Client TEC164

Reference 1617-0571-02 20°C

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/01/10	1410	JWINM	3	JN	7.8	1761	9.0	15.7	2
1	2017/01/11	0930	LC	-	JN					
2	2017/01/12	0845	HS	3	JN					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C			

day

	pH (units) (range: 6.0-8.5)									
0	7.8	7.8	7.8	8.0	8.0	8.0				
2	7.9	7.8	7.8	7.9	8.0	8.0				

	EC (µS/cm)									
0	326	333	333	1697	1765	1794				
2	351	353	355	1754	1779	1844				

	DO (mg/L) (40-100% saturation at test temp.)									
0	8.0	8.0	8.0	8.0	7.9	8.1				
2	7.8	7.7	7.7	7.7	7.7	7.7				

	Temperature (°C) (range: 17.5-22.5 °C)									
0	18.9	18.9	18.9	18.2	18.1	18.0				
2	19.1	19.3	19.4	19.5	19.6	19.6				

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)									
0	10	10	10	10	10	10				
1	10	10	10	10	10	10				
2	10	10	10	10	10	10				

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C4,C5 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 24.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 112% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: MM 934 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date E: 01/04 Weekly water hardness (mg/L) 87

Comments: * in glass jars, 24 hr updates

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected January 16, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170116_NP_NAUT/ 1617-0594-01	16-Jan-17 at 0800h	17-Jan-17 at 0900h	18-Jan-17 at 1015h	17-Jan-17 at 1345h	17-Jan-17 at 1255h	11°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170116_NP_NAUT	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170116_NP_NAUT	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.1 (2.7-3.6) g/L KCl ¹	4.8 (4.5-5.0) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.1 (2.3-4.3) g/L KCl	5.0 (4.3-5.8) g/L NaCl
Reference toxicant CV	10%	5.1%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, January 9, 2017; ² Test Date January 9, 2017

LC = Lethal Concentration; CL = Confidence Limit

Harjot Sandhu

Report By:
Harjot Sandhu, BSc
Biologist

M. Lehti

Reviewed By:
Madison Lehti, BSc
Biologist

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

10°C

Method DAS

Client TEC164

Reference 1617-0594-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	7.8
0	2017/10/17	1345	JWJN	3	HS	Initial EC (µS/cm):	1835
1	2017/10/18	1000	NM	-	JW	Initial DO (mg/L):	8.3
2	2017/10/19	0900	HS	3	NM	Initial Temp (°C):	19.3
						Salinity (ppt):	0

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.7	7.7	7.7	7.8	7.8	7.8			
2	7.6	7.6	7.6	7.9	7.9	7.9			

EC (uS/cm)

0	351	347	346	1952	1982	1999			
2	345	349	358	1945	2040	2090			

DO (mg/L) (40-100% saturation at test temp.)

0	9.5	9.4	9.4	9.5	9.4	9.4			
2	9.3	9.3	9.3	9.3	9.3	9.4			

Temperature (°C) (range: 17.5-22.5 °C)

0	11.1	11.1	11.2	11.0	11.1	10.9			
2	11.0	11.1	11.1	11.0	11.1	11.2			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10(B)			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 19.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 99% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 914 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date D: 01/11 Weekly water hardness (mg/L) 88

Comments: * in glass jars, 24 hr updates

Method DAS

 Client TECIB4

 Reference 1617-0594-01

20°

Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/01/17	1255	JNIJW	3	HS	7.8	1835	83	19.3	0
1	2017/01/18	0950	NM	-	HW					
2	2017/01/19	0900	HS	3	M					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.7	7.7	7.7	8.0	8.0	8.0
2	7.6	7.6	7.6	7.9	7.9	7.9

day	EC (µS/cm)					
0	339	343	341	1875	1896	1914
2	370	370	353	1901	1887	1901

day	DO (mg/L) (40-100% saturation at test temp.)					
0	7.9	7.9	7.9	8.0	8.0	8.0
2	7.8	7.8	7.8	7.6	7.7	7.7

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	19.6	19.5	19.5	19.0	19.0	18.9
2	20.0	20.0	20.1	19.9	19.9	19.9

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

 Young jar D2

Jar(s) mortality 7 days prior to test (must be ≤25%)

0%
QA (previous month)

 Days to first brood (≤12 days) 9

 Average number of young produced (≥15 young) 19.2

 Were test treatments randomized on test tray? Yes / No

Sample

 DO % of sample prior to aeration: 121%

Is aeration required (<40% or >100%)?

 Yes or No

 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min

Filtered with 110µm screen prior to testing

 Yes or No

 Hardness (mg CaCO₃/L) of 100%: 914

 Is hardness adjustment required (<25 mg CaCO₃/L)?

 Yes or No

 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) —
Dilution Water

 Pail label / preparation date D:01/11

Weekly water hardness (mg/L)

88

 Comments: * in glass jars, 24 hr updates

Method TR5 Client TEC164 Reference 1617-0594-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/01/18	1015*	NM	1	TW	Initial pH: <u>7.8</u> Initial EC (µS/cm): <u>1835</u>
1	2017/01/19	0830	IS	-	TW	Initial DO (mg/L): <u>8.3</u>
2	2017/01/20	0845	NM	-	HS	Initial Temp (°C): <u>19.3</u>
3	2017/01/21	0910	LC	-	HS	Salinity (ppt): <u>0</u>
4	2017/01/22	0930	EM	X	M	Nets used: yes / no <u>0</u>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no
 Preaeration time: 0.5 hours 0 1 hour 0 1.5 hours 0 2 hours 0
 DO(mg/L) of 100%: 9.3 8.9 0 0

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.4</u>	<u>7.8</u>				
Day 4	<u>8.0</u>	<u>7.9</u>				

EC (uS/cm)

Day 0	<u>453</u>	<u>1867</u>				
Day 4	<u>509</u>	<u>1908</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.9</u>	<u>8.9</u>				
Day 4	<u>8.4</u>	<u>8.8</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.3</u>	<u>14.0</u>				
Day 4	<u>14.1</u>	<u>14.2</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>2.0</u>	<u>0.3</u>	<u>20161223TR</u>	
2	<u>3.3</u>	<u>0.4</u>	<u>LSL</u>	
3	<u>3.3</u>	<u>0.4</u>		
4	<u>2.7</u>	<u>0.2</u>		
5	<u>2.7</u>	<u>0.3</u>		
6	<u>2.3</u>	<u>0.2</u>		
7	<u>2.8</u>	<u>0.3</u>		
8	<u>2.9</u>	<u>0.3</u>		
9	<u>3.2</u>	<u>0.4</u>		
10	<u>2.9</u>	<u>0.3</u>		
Loading Density (g/L): <u>0.16</u> <u>0.155</u>			Days Held	<u>26</u>
Mean Length (cm): <u>2.9</u>			Percent stock mortality	<u>0.26%</u>
Length Range (cm): <u>2.3-3.3</u>			(7 days prior to test, must be ≤ 2%)	
Mean Weight (g): <u>0.3</u>			Test Volume (L)	<u>20L</u>
Weight Range (g): <u>0.2-0.4</u>				
Comments: <u>24 HR updates Required</u>				

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170116-Acute Toxicity		TURNAROUND TIME: REGULAR		RUSH:							
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO					
Facility Name / Job# WLC AWTE		Lab Name Nautlius Environmental		Report Delivery Formats		Excel	PDF	EDD			
Project Manager Thomas Davidson		Lab Contact Jacklyn Poel		Email 1: thomas.davidson@teck.com		X	X	X			
Email Thomas.Davidson@teck.com		Email JacklynPoel@NautliusEnvironmental.ca		Email 2: teckcoal@equisonline.com		X	X	X			
Address 15 Km North HWY 43		Address #4, 6125 - 12 Street SE		Email 3: teckwclab@epcor.com		X	X	X			
City Sparwood		City Calgary		Email 4: Chris.Snow@teck.com		X	X	X			
Postal Code V0B 2G0		Postal Code T2H 2K1		Email 5: colin.lynych@teck.com		X	X	X			
Phone Number 250.603.9417		Phone Number +1.403.253.7121		PO 411634							
SAMPLE DETAILS											
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab	# OF C-Comp	Cont			
LC_WTE_IN_20170116_NP_NA1T	LC_WTE_IN	WS	N	16-Jan-17	0800	G	3				
WL_BVNB_OUT_SP21_20170116_N_NA1T	WL_BVNB_OUT_SP21	WS	N	16-Jan-17	0700	G	8				
ANALYSIS REQUESTED											
ANALYSIS	PRESERV.	FIL									
NAUT_96Hr_RT_Single Concentration Toxicity Test	N	N	X	X							
NAUT_48Hr_DM_Single Concentration Toxicity Test @ 10C	N	N	X	X							
NAUT_48Hr_DM_Single Concentration Toxicity Test @ 20C	N	N	X	X							
EXTRA	N	N	X	X							
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
NB OF BOTTLES RETURNED/DESCRIPTION											
Regular (default) X				Sampler's Name				Mobile #			
Priority (2-3 business days) - 50% surcharge				Brelyn Traverser				16-Jan-17			
Emergency (1 Business Day) - 100% surcharge				Sampler's Signature				Date/Time			
For Emergency < 1 Day, ASAP or Weekend - Contact ALS				Cecilia Traverser							

2017/01/17
 5 x 20 L Calgary's
 6 x 1 L bottle
 No 5/5 Wt samples
 110% Good
 Lenders
 MC

END OF REPORT



Acute Toxicity Test Results

Sample collected January 16, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_20170116_N_ NAUT/ 1617-0594-02	16-Jan-16 at 0900h	17-Jan-17 at 0900h	18-Jan-17 at 1015h	17-Jan-17 at 1345h	17-Jan-17 at 1255h	11°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170116_N_NAUT	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170116_N_NAUT	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.1 (2.7-3.6) g/L KCl ¹	4.8 (4.5-5.0) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.1 (2.3-4.3) g/L KCl	5.0 (4.3-5.8) g/L NaCl
Reference toxicant CV	10%	5.1%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, January 9, 2017; ² Test Date January 9, 2017

LC = Lethal Concentration; CL = Confidence Limit

Harjot Sandhu

Report By:
Harjot Sandhu, BSc
Biologist

M. Lehti

Reviewed By:
Madison Lehti, BSc
Biologist

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS

Client TEC164

Reference 1617-0594-02

10 °C

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	2017/01/17	1345	JWJIN	3	HS	Initial pH:	<u>7.7</u>
1	2017/01/18	1000	NM	-	TW	Initial EC (µS/cm):	<u>1863</u>
2	2017/01/19	0900	HS	3	ML	Initial DO (mg/L):	<u>8.9</u>
						Initial Temp (°C):	<u>18.2</u>
						Salinity (ppt):	<u>0</u>

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)					
0	<u>7.5</u>	<u>7.6</u>	<u>7.7</u>	<u>7.5</u>	<u>7.5</u>	<u>7.5</u>
2	<u>7.6</u>	<u>7.7</u>	<u>7.6</u>	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>

	EC (µS/cm)					
0	<u>352</u>	<u>344</u>	<u>347</u>	<u>1945</u>	<u>1964</u>	<u>1966</u>
2	<u>363</u>	<u>360</u>	<u>360</u>	<u>1944</u>	<u>2050</u>	<u>1995</u>

	DO (mg/L) (40-100% saturation at test temp.)					
0	<u>9.5</u>	<u>9.5</u>	<u>9.5</u>	<u>9.4</u>	<u>9.5</u>	<u>9.5</u>
2	<u>9.3</u>	<u>9.3</u>	<u>9.3</u>	<u>9.3</u>	<u>9.3</u>	<u>9.3</u>

	Temperature (°C) (range: 17.5-22.5 °C)					
0	<u>11.1</u>	<u>11.1</u>	<u>11.2</u>	<u>11.0</u>	<u>11.0</u>	<u>11.0</u>
2	<u>11.1</u>	<u>11.2</u>	<u>11.3</u>	<u>11.2</u>	<u>11.0</u>	<u>11.0</u>

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 01

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 19.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 98.1 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): — Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1033 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) —

Dilution Water
 Pail label / preparation date D: 01/11 Weekly water hardness (mg/L) 88

Comments: * in glass jars. 24 hr updates

Method DAS

Client TECIBU

Reference 1617-0594-02 20°C

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	2017/01/17	1255	JNLSW	3	HS	Initial pH:	<u>7.7</u>
1	2017/01/18	0955	NJM	-	TW	Initial EC (µS/cm):	<u>1863</u>
2	2017/01/19	0900	HS	3	ML	Initial DO (mg/L):	<u>8.9</u>
						Initial Temp (°C):	<u>18.2</u>
						Salinity (ppt):	<u>0</u>
Lab Code	<u>CLA</u>	<u>CLB</u>	<u>CLC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>	

day	pH (units) (range: 6.0-8.5)								
0	<u>7.6</u>	<u>7.7</u>	<u>7.7</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>			
2	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>			

	EC (µS/cm)								
0	<u>314</u>	<u>335</u>	<u>341</u>	<u>1870</u>	<u>1879</u>	<u>1892</u>			
2	<u>360</u>	<u>346</u>	<u>351</u>	<u>1830</u>	<u>1862</u>	<u>1869</u>			

	DO (mg/L) (40-100% saturation at test temp.)								
0	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>8.0</u>	<u>8.1</u>	<u>8.1</u>			
2	<u>7.5</u>	<u>7.5</u>	<u>7.5</u>	<u>7.6</u>	<u>7.7</u>	<u>7.7</u>			

	Temperature (°C) (range: 17.5-22.5 °C)								
0	<u>19.5</u>	<u>19.5</u>	<u>19.5</u>	<u>18.8</u>	<u>18.9</u>	<u>18.9</u>			
2	<u>20.0</u>	<u>20.1</u>	<u>19.9</u>	<u>20.1</u>	<u>20.1</u>	<u>20.0</u>			

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>			
1	<u>10 (IF)</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 19.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 122% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1033 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) —

Dilution Water
 Pail label / preparation date D: 01/11 Weekly water hardness (mg/L) 88

Comments: * in glass jars, 24 hr updates

Method TRS Client TEC164 Reference 16170594-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/01/18	1015 *	NM	1	HW
1	2017/01/19	0830	HS	-	TW
2	2017/01/20	0845	NM	-	HS
3	2017/01/21	0900	LC	-	HS
4	2017/01/22	0030	FA	1	NL

Sample Information

Initial pH: 7.7
 Initial EC (µS/cm): 1863
 Initial DO (mg/L): 8.9 **ML**
 Initial Temp (°C): 18.0 **18.2**
 Salinity (ppt): 0
 Nets used: yes / no 0

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no
 Preaeration time: 0.5 hours 0.5 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 9.2 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0 7.4 7.5
 Day 4 7.9 7.7

EC (µS/cm)

Day 0 456 1927
 Day 4 501 1914

DO (mg/L) (70-100% saturation at test temp.)

Day 0 8.9 8.9
 Day 4 8.8 8.8

Temperature (°C) (range: 13.5-16.5 °C)

Day 0 14.0 14.0
 Day 4 14.1 14.2

Number Alive (In brackets number stressed)

Day 0 10 10
 Day 1 10 10
 Day 2 10 10
 Day 3 10 10
 Day 4 10 10

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	2.5	0.3	Loading Density (g/L): <u>0.16 ML</u> Mean Length (cm): <u>2.8</u> Length Range (cm): <u>2.5-3.4</u> Mean Weight (g): <u>0.3</u> Weight Range (g): <u>0.2-0.4</u>	Batch <u>20161223TR</u>
2	2.8	0.3		Source <u>LSL</u>
3	2.8	0.3 ML		Days Held <u>26</u>
4	2.8	0.43		Percent stock mortality <u>0.26%</u> (7 days prior to test, must be ≤ 2%)
5	3.4	0.4		Test Volume (L) <u>20</u>
6	2.3	0.2		
7	2.6	0.3		
8	3.2	0.4		
9	2.7	0.3		
10	2.7	0.3		
Comments: <u>24 HR updates Required</u>				

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170116-Acute Toxicity		TURNAROUND TIME: REGULAR		RUSH:							
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO					
Facility Name / Job#: WLC AWTE		Lab Name: Nautilus Environmental		Report Delivery Formats: Excel PDF EDD							
Project Manager: Thomas Davidson		Lab Contact: Jacklyn Poel		Email 1: thomas.davidson@teck.com		X					
Email: Thomas.Davidson@teck.com		Email: jackypoe@nautilusenvironmental.ca		Email 2: teckcoal@equisonline.com		X					
Address: 15 Km North HWY 43		Address: #4, 6125 - 12 Street SE		Email 3: teckwclab@epcor.com		X					
City: Sparwood		City: Calgary		Email 4: Chris.Snow@teck.com		X					
Postal Code: V0B 2G0		Postal Code: T2H 2K1		Email 5: colin.lynych@teck.com		X					
Phone Number: 250.603.9417		Phone Number: +1.403.253.7121		PO 411634							
SAMPLE DETAILS											
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab	# OF C-Comp Cont	ANALYSIS REQUESTED	PRESERV.	FIL	
LC_WTE_IN_20170116_NP_NA1T	LC_WTE_IN	WS	N	16-Jan-17	0800	G	3	NAUT_96Hr_RT_Single Concentration Toxicity Test	N	N	
WL_BWVB_OUT_SP21_20170116_N_NA1T	WL_BWVB_OUT_SP21	WS	N	16-Jan-17	0700	G	8	NAUT_48Hr_DM_Single Concentration Toxicity Test @ 10C	N	N	
								NAUT_48Hr_DM_Single Concentration Toxicity Test @ 20C	N	N	
								EXTRA	N	N	
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
NB OF BOTTLES RETURNED/DESCRIPTION								Sampler's Name		Mobile #	
Regular (default) X Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency < 1 Day, ASAP or Weekend - Contact ALS								Brynn Traverser		16-Jan-17	
								Sampler's Signature		Date/Time	
								<i>Brynn Traverser</i>		2017/01/17	

2017/01/17
5 x 20 L Calgary's
6 x 1 L bottle
100% Good
100% Warranted
MC

END OF REPORT



Acute Toxicity Test Results

Sample collected January 23, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	Receipt temperature
	Collected	Received					
LC_WTF_IN_20170123_N P_NAUT/ 1617-0617-01	23-Jan-17 at 0800h	24-Jan-17 at 1230h		25-Jan-17 at 1025h	24-Jan-17 at 1350h	24-Jan-17 at 1420h	8.0°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170123_NP_NAUT	100	100	100

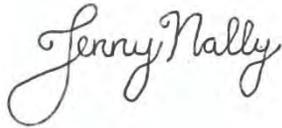
Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170123_NP_NAUT	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.1 (2.7-3.6) g/L KCl ¹	4.7 (4.2-5.1) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	3.1 (2.3-4.3) g/L KCl	5.0 (4.3-5.8) g/L NaCl
Reference toxicant CV	10%	5.0%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, January 9, 2017; ² January 23, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jenny Nally, MSc, BSc
Biologist



Reviewed By:
Madison Lehti, BSc
Biologist

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS

 Client TECIB4

 Reference 1617-0617-01 10°
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/01/24	1350	TW	3	JN	7.2	1830	8.2	17.5	0
1	2017/01/25	0730	TW	-	JN					
2	2017/01/26	1115	EA	3	ML					

Lab Code	CTLA	CTUB	CTC	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)					
0	7.5	7.4	7.4	7.4	7.4	7.4
2	7.8	7.8	7.8	7.9	7.0	8.0

	EC (µS/cm)					
0	335	351	351	1912	1901	1889
2	330	331	330	1720	1730	1728

DO (mg/L) (40-100% saturation at test temp.)

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.5	9.5	9.4	9.6	9.6	9.6
2	9.0	9.0	9.0	9.0	9.1	9.1

Temperature (°C) (range: 17.5-22.5 °C)

	Temperature (°C) (range: 17.5-22.5 °C)					
0	11.0	11.0	11.1	10.8	10.7	10.7
2	11.9	11.9	11.8	12.2	12.4	12.4

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

	Number Alive					
0	10	10	10	10	10	10
1	10	10	10	10 (IF)	10 (IF)	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C2</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>10</u>	Average number of young produced (≥15 young) <u>16.5</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>99%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>796</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>D: 01/18</u>	Weekly water hardness (mg/L) <u>91</u>
Comments:	<u>* in glass jars. 24 hr updates</u>	

Method DAS

Client TEC164

Reference 1617-0617-01 20°

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/01/24	1420	W/HL	3	JN	7.2	1820	8.2	17.5	0
1	2017/01/25	0740	TAW	-	JN					
2	2017/01/26	1115	JP	3	JL					

Lab Code	CTA	CTB	CTL	100A	100B	100C
	CTA	CTB	CTL	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.6	7.6	7.6	7.7	7.7	7.7
2	7.8	7.7	7.7	7.9	8.0	8.0

EC (µS/cm)

0	323	347	354	1829	1827	1814
2	330	349	355	1721	1728	1719

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.6	7.6	7.5	7.6	7.5
2	7.9	8.1	8.1	8.1	8.1	8.1

Temperature (°C) (range: 17.5-22.5 °C)

0	19.5	19.5	19.5	20.3	20.3	20.4
2	19.1	19.1	19.1	18.9	19.0	19.0

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar 05 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 16.5
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 122% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 30 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 796 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date D: 01/18 Weekly water hardness (mg/L) 91

Comments: * in glass jars, 24 hr update

Method TRS Client TEC 164 Reference 1617-0617-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/01/25	1025 *	TW	1	JN
1	2017/01/26	0830	NL	-	JN
2	2017/01/27	0900	TW	-	HS
3	2017/01/28	0900	LC	-	HS
4	2017/01/29	0930	NM/SH	1	JN

Sample Information

Initial pH: 7.2
 Initial EC (µS/cm): 1830
 Initial DO (mg/L): 8.2
 Initial Temp (°C): 17.5
 Salinity (ppt): 0
 Nets used: yes / (no)

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L (yes/no)
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.8

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0 7.4 7.6
 Day 4 8.0 8.0

EC (uS/cm)

Day 0 456 1747
 Day 4 475 1778

DO (mg/L) (70-100% saturation at test temp.)

Day 0 8.8 8.8
 Day 4 8.9 8.9

Temperature (°C) (range: 13.5-16.5 °C)

Day 0 14.7 14.5
 Day 4 14.5 14.5

Number Alive (In brackets number stressed)

Day 0 10 10
 Day 1 10 10
 Day 2 10 10
 Day 3 10 10
 Day 4 10 10

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>3.0</u>	<u>0.3</u>	Loading Density (g/L): <u>0.18</u> Mean Length (cm): <u>3.2</u> Length Range (cm): <u>2.8-3.6</u> Mean Weight (g): <u>0.4</u> Weight Range (g): <u>0.2-0.5</u>	Batch <u>20161223TR</u>
2	<u>3.0</u>	<u>0.3</u>		Source <u>LSH</u>
3	<u>3.5</u>	<u>0.5</u>		Days Held <u>33</u>
4	<u>3.2</u>	<u>0.4</u>		Percent stock mortality <u>0.14</u> (7 days prior to test, must be ≤2%)
5	<u>3.0</u>	<u>0.3</u>		Test Volume (L) <u>20</u>
6	<u>2.8</u>	<u>0.2</u>		
7	<u>3.2</u>	<u>0.4</u>		
8	<u>3.6</u>	<u>0.5</u>		
9	<u>3.6</u>	<u>0.5</u>		
10	<u>3.0</u>	<u>0.2</u>		
Comments: <u>*24 hr updates</u>				

APPENDIX C – Chain-of-custody form

COC ID: 20170123-AcuteToxicity		TURNAROUND TIME: REGULAR		RUSH:	
PROJECT/CLIENT INFO		LABORATORY		OTHER INFO	
Facility Name / Job#: WLC AWTF	Lab Name: Nautilus Environmental	Report Delivery Formats	Excel	PDF	EDD
Project Manager: Thomas Davidson	Lab Contact: Jacklyn Pool	Email 1: thomas.davidson@teck.com	X	X	X
Email: Thomas.Davidson@teck.com	Email: Jacklyn@NautilusEnvironmental.ca	Email 2: teckcoal@equisonline.com	X	X	X
Address: 15 Km North HWY 43	Address #4, 6125 - 12 Street SE	Email 3: teckwrlab@epcor.com	X	X	X
		Email 4: Chris.Stovich@teck.com	X	X	X
		Email 5: colin.lynech@teck.com	X	X	X
City: Sparwood	City: Calgary	Province: AB	Country: Canada	FO 411634	
Postal Code: V0B 2G0	Postal Code: T2H 2K1			Filtered - P, P66, L, Lab, PL, Field & Lab, N, Non	
Phone Number: 250.603.9417	Phone Number: +1.403.253.7121	ANALYSIS REQUESTED			

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# Of Cont.	ANALYSIS REQUESTED				DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
								NAUT_96hr_RT_Single Concentration_Toxicity Test	NAUT_48hr_DM_Single Concentration_Toxicity Test @ 10C	NAUT_48hr_DM_Single Concentration_Toxicity Test @ 20C	EXTRA			
LC_WTF_IN_20170123_NP_NAUT	LC_WTF_IN	WS	N	23-Jan-17	0800	G	3	X	X	X				
WL_BFWB_OUT_SP21_20170123_N_NAUT	WL_BFWB_OUT_SP21	WS	N	23-Jan-17	0900	G	8	X	X	X				

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS		RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
NB OF BOTTLES RETURNED/DESCRIPTION		Regular (default) X			
Priority (2-3 business days) - 50% surcharge					
Emergency (1 Business Day) - 100% surcharge					
For Emergency <1 Day, ASAP or Weekend - Contact ALS					
Sampler's Name: Jacelyn Traverse	Mobile #:				
Sampler's Signature: Jacelyn Traverse	Date/Time: 23-Jan-17				

do 17/01/2017 1730
 No S/I
 5 x 20 L Carboys
 6 x 1 L bottle
 Good Candhana
 Manufacture
 JOC
 MC

END OF REPORT



Acute Toxicity Test Results

Samples collected January 23, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	Receipt temperature
	Collected	Received					
WL_BFWB_OUT_SP21_20 170123_N_NAUT/ 1617-0617-02	23-Jan-17 at 0900h	24-Jan-17 at 1230h		25-Jan-17 at 1020h	24-Jan-17 at 1355h	24-Jan-17 at 1420h	8.0°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170123_N_NAUT	90	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170123_N_NAUT	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.1 (2.7-3.6) g/L KCl ¹	4.7 (4.2-5.1) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	3.1 (2.3-4.3) g/L KCl	5.0 (4.3-5.8) g/L NaCl
Reference toxicant CV	10%	5.0%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, January 9, 2017; ² January 23, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jenny Nally, MSc, BSc
Biologist



Reviewed By:
Madison Lehti, BSc
Biologist

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS

Client TEC164

Reference 1617-0617-02 10°

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/01/24	13:55	PW	3	JN	7.5	1776	8.7	15.2	0
1	2017/01/25	07:30	PW	-	JN					
2	2017/01/26	11:15	EP	3	ML					

Lab Code	CRF	CRB	CRG	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)					
0	7.5	7.5	7.5	7.3	7.2	7.3
2	7.7	7.7	7.7	8.0	8.0	8.0

	EC (µS/cm)					
0	327	349	350	1885	1932	1930
2	335	338	342	1888	1922	1921

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.5	9.5	9.4	9.6	9.7	9.6
2	9.0	9.0	9.0	9.1	9.1	9.1

	Temperature (°C) (range: 17.5-22.5 °C)					
0	11.3	11.3	11.4	10.8	10.7	10.8
2	12.0	11.9	11.9	12.0	12.1	12.2

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10 (1F)	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	
Young jar <u>D2</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>7%</u>
QA (previous month)	
Days to first brood (≤12 days)	<u>10</u>
Average number of young produced (≥15 young)	<u>16.5</u>
Were test treatments randomized on test tray?	<input checked="" type="radio"/> Yes / <input type="radio"/> No
Sample	
DO % of sample prior to aeration: <u>99%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
Hardness (mg CaCO ₃ /L) of 100%: <u>83g</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L)	<u>-</u>
Dilution Water	
Pail label / preparation date <u>D: 01/18</u>	Weekly water hardness (mg/L) <u>91</u>
Comments: * in glass jars, 24 hr updated	

Method DAS

Client TECIBY

Reference 1617-0617-02

20°

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/01/24	1420	TW/LC	3	JN	7.5	1776	8.7	15.2	0
1	2017/01/25	0740	TW	-	JN					
2	2017/01/26	1115	SP	3	ML					

Lab Code	C1A	C1B	C1C	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.6	7.6	7.6	7.6	7.7	7.7			
2	7.7	7.6	7.8	7.8	7.8	7.8			

EC (uS/cm)

	1841					
0	355	351	352	1755 LC	1871	1863
2	359	344	348	1748	1759	1757

DO (mg/L) (40-100% saturation at test temp.)

0	7.8	7.8	7.8	7.5	7.5	7.5			
2	7.8	7.8	7.8	7.7	7.7	7.7			

Temperature (°C) (range: 17.5-22.5 °C)

0	19.3	19.3	19.2	20.3	20.1	20.2			
2	19.5	19.5	19.4	19.5	19.5	19.5			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar 03 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 16.5
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 124% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 838 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) —

Dilution Water
 Pail label / preparation date D: 01/18 Weekly water hardness (mg/L) 91

Comments: * in glass jars. 20 hr update

Method TRS Client TECIBY Reference 1617-0617-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/01/25	1020 *	TW	1	JN
1	2017/01/26	0830	NL	-	JN
2	2017/01/27	0800	TW	-	HS
3	2017/01/28	0900	LC	-	HS
4	2017/01/29	0930	NM/SL	1	JN

Sample Information

Initial pH:	7.5
Initial EC (µS/cm):	1776
Initial DO (mg/L):	8.8
Initial Temp (°C):	15.2
Salinity (ppt):	
Nets used: yes	no

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L. yes/no
 Preaeration time: 0.5 hours 0 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.8

Test Chemistry and Biology

Conc.	CTL	100					
pH (units) (range: 5.5-8.5)							
Day 0	7.4	7.4					
Day 4	7.9	7.8					
EC (uS/cm)							
Day 0	454	1790					
Day 4	490	1776					
DO (mg/L) (70-100% saturation at test temp.)							
Day 0	8.8	8.8					
Day 4	8.9	9.0					
Temperature (°C) (range: 13.5-16.5 °C)							
Day 0	14.5	14.4					
Day 4	14.1	14.2					
Number Alive (In brackets number stressed)							
Day 0	10	10					
Day 1	10	9					
Day 2	10	9					
Day 3	10	9					
Day 4	10	9					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	3.4	0.4	20161223TR	
2	3.2	0.3		
3	3.4	0.4		
4	3.6	0.6		
5	3.0	0.3		
6	3.5	0.5		
7	3.5	0.5		
8	3.3	0.4		
9	3.4	0.4		
10	3.0	0.3		
			Loading Density (g/L):	0.205
			Mean Length (cm):	3.3
			Length Range (cm):	3.0-3.6
			Mean Weight (g):	0.4
			Weight Range (g):	0.3-0.6
			Source	LSL
			Days Held	33
			Percent stock mortality (7 days prior to test, must be ≤2%)	0.14
			Test Volume (L)	20
Comments: * 24 hr updates				

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected January 31, 2017

Final Report – Revision 1

February 24, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170131_N P_NAUT/ 1617-0636-01	31-Jan-17 at 0800h	01-Feb-17 at 0930h	02-Feb-17 at 1030h	01-Feb-17 at 1410h	01-Feb-17 at 1420h	5.0°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170131_NP_NAUT	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170131_NP_NAUT	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.6 (2.0-3.0) g/L KCl ¹	4.7 (4.2-5.1) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	3.1 (2.3-4.3) g/L KCl	5.0 (4.3-5.8) g/L NaCl
Reference toxicant CV	9.9%	5.0%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, January 24, 2017; ² January 23, 2017

LC = Lethal Concentration; CL = Confidence Limit

Jenny Nally

Report By:
Jenny Nally, MSc, BSc
Biologist

Harjot Sandhu

Reviewed By:
Harjot Sandhu, BSc
Biologist

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL Fish Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

20°C

Method DAS

Client TECIBU

Reference 1617-0636-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/02/01	1420	TW	3	LC	7.9
1	2017/02/02	0945	LC	-	HS	Initial EC (µS/cm): 1799
2	2017/02/03	0945	TWILL	3	HS	Initial DO (mg/L): 9.7
						Initial Temp (°C): 15.3
						Salinity (ppt): 0

Lab Code	CT1A	CT1B	CT1C	100A	100B	100C

day

pH (units) (range: 6.0-8.5)

0	7.8	7.8	7.7	8.0	8.1	8.0			
2	7.6	7.8	7.8	8.0	8.0	8.0			

EC (µS/cm)

0	287	311	313	1782	1808	1803			
2	325	322	328	1825	1823	1847			

DO (mg/L) (40-100% saturation at test temp.)

0	7.8	8.0	8.0	8.1	8.1	8.1			
2	7.9	7.9	7.9	7.9	8.0	7.9			

Temperature (°C) (range: 17.5-22.5 °C)

0	19.4	19.3	19.4	19.0	18.9	18.9			
2	19.7	19.7	19.7	19.5	19.5	19.4			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar CS Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 22.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 118% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 967 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G:01/27 Weekly water hardness (mg/L) 84

Comments: in glass jars, 24 hr updates

0°

Method DAS

Client TEC 164

Reference 1617-0636-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/02/01	1410	TW	3	LC	7.9	1799	9.7	15.3	0
1	2017/02/02	0940	LC	-	HS					
2	2017/02/03	0945	LC	3	HS					

Lab Code	CTA	CTB	CTC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.6	7.6	7.6	7.7	7.7	7.7			
2	7.4	7.5	7.5	8.0	8.0	8.0			

EC (uS/cm)

0	303	317	319	1886	1906	1903			
2	310	323	331	1911	1942	1931			

DO (mg/L) (40-100% saturation at test temp.)

0	9.4	9.4	9.5	9.5	9.5	9.5			
2	9.2	9.1	9.1	9.3	9.2	9.2			

Temperature (°C) (range: 17.5-22.5 °C)

0	11.0	10.9	10.9	10.8	10.8	10.8			
2	10.7	10.8	10.8	10.9	10.8	10.8			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar C4 Jar(s) mortality 7 days prior to test (must be ≤25%) 01.

QA (previous month)

Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 223
 Were test treatments randomized on test tray? Yes / No

Sample

DO % of sample prior to aeration: 99% Is aeration required (<40% or >100%)? Yes or **No**
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or **No**
 Hardness (mg CaCO3/L) of 100%: 967 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or **No**
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water

Pail label / preparation date G:01/27 Weekly water hardness (mg/L) 84

Comments: in glass jars, 24 hr updates

Method TRS Client TEC164 Reference 1617-0636-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/02/02	1030 *	TW	1	HS	Initial pH: <u>7.9</u>
1	2017/02/03	0910	LC	-	HS	Initial EC (µS/cm): <u>1799</u>
2	2017/02/04	0800 *	TW	-	HS	Initial DO (mg/L): <u>9.7</u>
3	2017/02/05	0930	EP	-	NM	Initial Temp (°C): <u>15.3</u>
4	2017/02/06	0945	SN	1	EP	Salinity (ppt): <u>0</u>
						Nets used: yes / <u>no</u>

0800 *

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 9.5 8.9

Test Chemistry and Biology

Conc.	CTL	<u>100</u>					
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pH (units) (range: 5.5-8.5)

Day 0	<u>7.5</u>	<u>7.9</u>					
Day 4	<u>8.0</u>	<u>8.0</u>					

EC (µS/cm)

Day 0	<u>499</u>	<u>1831</u>					
Day 4	<u>514</u>	<u>1819</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.8</u>	<u>8.9</u>					
Day 4	<u>8.7</u>	<u>8.8</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.5</u>	<u>14.2</u>					
Day 4	<u>14.8</u>	<u>14.5</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>3.3</u>	<u>0.3</u>	<u>20170110TR</u>	
2	<u>3.0</u>	<u>0.5</u>		
3	<u>3.0</u>	<u>0.3</u>	Source <u>SAM LIVINGSTON</u>	
4	<u>3.2</u>	<u>0.4</u>	Days Held <u>23</u>	
5	<u>3.2</u>	<u>0.3</u>	Percent stock mortality <u>0.15</u>	
6	<u>3.0</u>	<u>0.3</u>	(7 days prior to test, must be ≤2%)	
7	<u>3.0</u>	<u>0.3</u>	Test Volume (L) <u>20</u>	
8	<u>3.1</u>	<u>0.3</u>		
9	<u>3.0</u>	<u>0.3</u>		
10	<u>3.1</u>	<u>0.3</u>		
Loading Density (g/L): <u>0.16</u>				
Mean Length (cm): <u>3.1</u>				
Length Range (cm): <u>3.0-3.3</u>				
Mean Weight (g): <u>0.3</u>				
Weight Range (g): <u>0.3-0.4</u>				

Comments: * 24 hr updates

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected January 31, 2017

Final Report – Revision 1

February 24, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_20 170131_N_NAUT/ 1617-0636-02	31-Jan-17 at 0900h	01-Feb-17 at 0930h	02-Feb-17 at 1025h	01-Feb-17 at 1415h	01-Feb-17 at 1425h	5.0°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170131_N_NAUT	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170131_N_NAUT	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.6 (2.0-3.0) g/L KCl ¹	4.7 (4.2-5.1) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	3.1 (2.3-4.3) g/L KCl	5.0 (4.3-5.8) g/L NaCl
Reference toxicant CV	9.9%	5.0%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, January 24, 2017; ² January 23, 2017

LC = Lethal Concentration; CL = Confidence Limit

Jenny Nally

Report By:
Jenny Nally, MSc, BSc
Biologist

Harjot Sandhu

Reviewed By:
Harjot Sandhu, BSc
Biologist

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL Fish Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

20°C

Method DAS

Client TEC164

Reference 1617-0636-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/02/01	1425	TW	3	LC	7.7	1774	9.7	15.3	0
1	2017/02/02	0945	LC	-	HS					
2	2017/02/03	1000	JW/LL	3	HS					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day

pH (units) (range: 6.0-8.5)

0	7.7	7.7	7.7	7.9	7.9	8.0			
2	7.9	7.9	7.9	8.0	8.0	8.0			

EC (uS/cm)

0	299	312	318	1751 1721	1721	1761			
2	330	343	325	1760	1724	1726			

DO (mg/L) (40-100% saturation at test temp.)

0	8.0	8.0	8.0	8.1	8.1	8.1			
2	7.9	7.9	7.9	7.9	7.9	7.9			

Temperature (°C) (range: 17.5-22.5 °C)

0	19.4	19.3	19.2	19.0	19.0	18.9			
2	19.7	19.8	19.8	19.8	19.9	19.9			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1, C2 Jar(s) mortality 7 days prior to test (must be ≤25%) $\frac{0+13}{2} = 6.5\%$

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 22.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 114% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 849 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) —

Dilution Water
 Pail label / preparation date G:01/27 Weekly water hardness (mg/L) 84

Comments: in glass jars, 24 hr update

10°

Method JAS

Client TECIBU

Reference 1617-0636-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/02/01	1415	JW	3	LC	7.7	1774	9.7	15.3	0
1	2017/02/02	0940	LC	-	HS					
2	2017/02/03	0945	LC/JW	3	HS					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.7	7.8	7.8	7.5	7.5	7.5
2	7.6	7.5	7.5	7.8	7.9	7.9

day	EC (µS/cm)					
0	300	320	319	1771	1786	1783
2	334	332	328	1785	1779	1782

day	DO (mg/L) (40-100% saturation at test temp.)					
0	9.3	9.3	9.4	9.5	9.4	9.4
2	9.2	9.3	9.3	9.3	9.2	9.2

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	11.2	11.1	11.2	10.9	10.9	10.8
2	10.9	10.9	10.8	10.8	10.9	10.8

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)

Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 22.3
 Were test treatments randomized on test tray? Yes / No

Sample

DO % of sample prior to aeration: 99% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 849 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water

Pail label / preparation date G:01/27 Weekly water hardness (mg/L) 84

Comments: in glass jars, 24 hr updates

Method SRS Client TEC 164 Reference 1617-0636-02

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:
0	2017/02/02	1025 *	TM	1	HS	7.7
1	2017/02/03	0915	LC	-	HS	Initial EC (µS/cm): 1774
2	2017/02/04	0800	TW	-	HS	Initial DO (mg/L): 9.7
3	2017/02/05	0930	LP	-	NM	Initial Temp (°C): 15.3
4	2017/02/06	0940	JN	1	SP	Salinity (ppt): 0
						Nets used: yes / no <input checked="" type="radio"/>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L yes/no

Preaeration time	0.5 hours	1 hour	1.5 hours	2 hours
DO(mg/L) of 100%	9.4	8.9		

Test Chemistry and Biology

Conc.	CTL	100					
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pH (units) (range: 5.5-8.5)

Day 0	7.4	7.6					
Day 4	7.5	7.9					

EC (µS/cm)

Day 0	500	1721					
Day 4	515	1690					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.8	8.9					
Day 4	8.7	8.8					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	14.4	14.2					
Day 4	14.6	14.2					

Number Alive (In brackets number stressed)

Day 0	10	10					
Day 1	10	10					
Day 2	10	10					
Day 3	10	10					
Day 4	10	10					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	3.1	0.3	Loading Density (g/L): 0.18 Mean Length (cm): 3.2 Length Range (cm): 2.9-3.6 Mean Weight (g): 0.4 Weight Range (g): 0.2-0.6	Batch: 20170110TR
2	3.0	0.3		Source: SAM LIVINGSTON
3	2.9	0.2		Days Held: 23
4	3.0	0.3		Percent stock mortality: 0.15 (7 days prior to test, must be ≤2%)
5	3.2	0.5		Test Volume (L): 20
6	3.2	0.7		
7	3.2	0.7		
8	3.6	0.6		
9	3.0	0.3		
10	3.2	0.3		
Comments: * 24 hr updates				

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected February 7, 2017

Final Report – Revision 1

February 24, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, British Columbia

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170207_NP/ 1617-0649-01	07-Feb- 17 at 0800h	08-Feb- 17 at 1300h	9-Feb- 17 at 0930h	8-Feb- 17 at 1450h	8-Feb- 17 at 1430h	2.0°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170207_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170207_NP	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.6 (2.0-3.0) g/L KCl ¹	4.4 (3.4-4.9) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.1 (2.3-4.3) g/L KCl	5.0 (4.3-5.8) g/L NaCl
Reference toxicant CV	9.9%	5.0%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, January 24, 2017; ² Test Date February 6, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Evan Perdue, BSc
Biologist



Reviewed By:
Natalie McDermott, BSc
Biologist

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston Fish Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS @ 10°C

Client TEC164

Reference 1617-0649-01

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information
0	2017/02/08	1450	DM/EP	3	JN	Initial pH: <u>7.6</u>
1	2017/02/09	1215	LC	-	HS	Initial EC (µS/cm): <u>1800</u>
2	2017/02/10	1100	HS	3	JN	Initial DO (mg/L): <u>8.0</u>
						Initial Temp (°C): <u>11.6</u>
						Salinity (ppt): <u>0</u>
Lab Code	<u>CTLA</u>	<u>CTB</u>	<u>CTC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>

day	pH (units) (range: 6.0-8.5)					
0	<u>7.5</u>	<u>7.6</u>	<u>7.6</u>	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>
2	<u>7.8</u>	<u>7.8</u>	<u>7.7</u>	<u>8.1</u>	<u>8.1</u>	<u>8.1</u>

day	EC (uS/cm)					
0	<u>260</u>	<u>265</u>	<u>270</u>	<u>1621</u>	<u>1674</u>	<u>1687</u>
2	<u>333</u>	<u>290</u>	<u>279</u>	<u>1624</u>	<u>1693</u>	<u>1699</u>

day	DO (mg/L) (40-100% saturation at test temp.)					
0	<u>8.5</u>	<u>8.6</u>	<u>8.6</u>	<u>9.0</u>	<u>9.0</u>	<u>9.5</u>
2	<u>8.8</u>	<u>8.8</u>	<u>8.9</u>	<u>9.0</u>	<u>9.1</u>	<u>9.1</u>

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	<u>11.4</u>	<u>11.3</u>	<u>11.3</u>	<u>11.5</u>	<u>11.4</u>	<u>11.4</u>
2	<u>10.2</u>	<u>10.2</u>	<u>10.1</u>	<u>10.3</u>	<u>10.4</u>	<u>10.3</u>

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar CS Jar(s) mortality 7 days prior to test (must be ≤25%) 7%

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 36
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 99% Is aeration required (<40% or >100%)? Yes No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): — Filtered with 110um screen prior to testing Yes No
 Hardness (mg CaCO3/L) of 100%: 917 Is hardness adjustment required (<25 mg CaCO3/L)? Yes No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) —

Dilution Water
 Pail label / preparation date G 2017/02/03 Weekly water hardness (mg/L) 85

Comments:
Set at 10°C * NEEDS 24hr updates set in glass jars

Method DW FR DAS @ 20°

 Client TEC164

 Reference 1617-0649-01
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information		
0	2017/02/08	1430	DM/EP	3	JN	Initial pH:	7.6	
1	2017/02/09	1200	LC	-	HS	Initial EC (µS/cm):	1800	
2	2017/02/10	1100	HS	3	JN	Initial DO (mg/L):	8.0	
						Initial Temp (°C):	11.6	
						Salinity (ppt):	0	
Lab Code	CTCA	CTCB	CTCC	100A	100B	100C		

day	pH (units) (range: 6.0-8.5)								
0	7.6	7.7	7.8	7.9	7.9	7.9			
2	7.8	7.8	7.8	8.2	8.2	8.3			

day	EC (µS/cm)								
0	307	312	309	1636	1650	1657			
2	333	337	332	1661	1667	1394			

day	DO (mg/L) (40-100% saturation at test temp.)								
0	8.0	8.0	8.1	8.3	8.3	8.3			
2	7.7	7.7	7.7	7.8	7.7	7.7			

day	Temperature (°C) (range: 17.5-22.5 °C)								
0	18.3	18.3	18.2	17.8	17.8	17.7			
2	19.1	19.1	19.3	19.8	19.8	19.6			

Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)									
0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>CS</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>10</u>	Average number of young produced (≥15 young) <u>36</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>120%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>20 minutes</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>917</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>—</u>	
Dilution Water	Pail label / preparation date <u>6/2017/02/03</u>	Weekly water hardness (mg/L) <u>85</u>
Comments:	<u>Set at 20°C * Needs 24 hr. updates. Set in glass jars.</u>	

Method TRS

Client TECIBU

Reference 1617-0649-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/02/09	0930*	HS	1	JN
1	2017/02/10	0800	TW	-	CR
2	2017/02/11	0815	TW	-	HS
3	2017/02/12	0930	NM	-	JN
4	2017/02/13	0930	EP/HS	1	HS

Sample Information

Initial pH:	7.6
Initial EC (µS/cm):	1800
Initial DO (mg/L):	8.0
Initial Temp (°C):	11.6
Salinity (ppt):	0
Nets used: yes / no	no

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L yes / no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100%:

8.9			
-----	--	--	--

Test Chemistry and Biology

Conc.

CTL	100						
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pH (units) (range: 5.5-8.5)

Day 0	7.4	7.8					
Day 4	7.8	8.0					

EC (µS/cm)

Day 0	527	1735					
Day 4	520	1739					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.9	8.9					
Day 4	8.8	8.9					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	14.3	14.0					
Day 4	14.9	14.6					

Number Alive (In brackets number stressed)

Day 0	10	10					
Day 1	10	10					
Day 2	10	10					
Day 3	10	10					
Day 4	10	10					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	3.1	0.4	20170209 HS 20170110TR	Source <u>Scim Livingston</u>
2	3.0	0.3		
3	3.1	0.3		
4	3.3	0.5		
5	3.3	0.5		
6	3.0	0.3		
7	3.1	0.4		
8	3.2	0.4		
9	3.2	0.4		
10	3.1	0.3		
			Loading Density (g/L):	0.19
			Mean Length (cm):	3.1
			Length Range (cm):	3.0-3.3
			Mean Weight (g):	0.4
			Weight Range (g):	0.3-0.5
			Days Held	40
			Percent stock mortality (7 days prior to test, must be ≤2%)	0.20
			Test Volume (L)	20
Comments: * 24 hour updates				

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170207-Acute Toxicity		TURNAROUND TIME:		LABORATORY		REC'D LAB		RUSH:		OTHER INFO							
PROJECT/CLIENT INFO Facility Name / Job# WLC AMTF Project Manager Thomas Davidson Email Thomas.Davidson@teck.com Address 15 Km North HWY 43 City Sparwood Postal Code V0B 2G0 Phone Number 250.603.9417				Lab Name Nautibus Environmental Lab Contact Jacklyn Pool Email Jacklyn@NautibusEnvironmental.ca Address #4, 6125 - 12 Street SE City Calgary Postal Code T2H 2K1 Phone Number +1-403-253-7121				Report Delivery Formats Email 1 thomas.davidson@teck.com Email 2 teckcoalab@equisonline.com Email 3 teckwclab@epcor.com Email 4 Chris.Snowden@teck.com Email 5 colin.lynech@teck.com		Excel PDF EDD							
SAMPLE DETAILS																	
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab	# OF G-Comp Cont.	ANALYSIS REQUESTED									
LC_WTF_IN_20170207_NP	LC_WTF_IN	WS	N	7-Feb-17	0800	G	3	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	N	N	N						
WL_BFWB_OUT_SPT1_20170207_N	WL_BFWB_OUT_SPT1	WS	N	7-Feb-17	0900	G	8	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	N	N	N						
								NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	N	N	N						
								EXTRA	N	N	N						
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS																	
RELINQUISHED BY/AFFILIATION				DATE/TIME				ACCEPTED BY/AFFILIATION				DATE/TIME					
NB OF BOTTLES RETURNED/DESCRIPTION																	
Regular (default) X						Sampler's Name						Mobile #					
Priority (2-3 business days) - 50% surcharge						Sampler's Signature						Date/Time					
Emergency (1 Business Day) - 100% surcharge						Joelyn Traversse						7-FEB-17					
For Emergency < 1 Day, ASAP or Weekend - Contact ALS						Joelyn Traversse											

2017/02/08 BOD 5x30L cubox
 7x 6x 1L bott
 No Ste Murbalin Good Cendhe
 Joe MC

END OF REPORT



Acute Toxicity Test Results

Sample collected February 7, 2017

Final Report – Revision 1

February 24, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, British Columbia

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_20170207_N/ 1617-0649-02	07-Feb- 17 at 0900h	08-Feb- 17 at 1300h	9-Sept- 16 at 0930h	8-Feb- 17 at 1450h	8-Feb- 17 at 1440h	2.0°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170207_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170207_N	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.6 (2.0-3.0) g/L KCl ¹	4.4 (3.4-4.9) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.1 (2.3-4.3) g/L KCl	5.0 (4.3-5.8) g/L NaCl
Reference toxicant CV	9.9%	5.0%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, January 24, 2017; ² Test Date February 6, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Evan Perdue, BSc
Biologist



Reviewed By:
Natalie McDermott, BSc
Biologist

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston Fish Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS @ 20.0°C Client TEC164 Reference 1617-0649-02

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information
0	2017/02/08	1440	NM/EP	3	JN	Initial pH: <u>7.3</u>
1	2017/02/09	1215	LC	-	HS	Initial EC (µS/cm): <u>1866</u>
2	2017/02/10	1100	HS	3	JN	Initial DO (mg/L): <u>8.7</u>
						Initial Temp (°C): <u>14.5</u>
						Salinity (ppt): <u>0</u>

Lab Code	CTA	CTB	CTC	CTD	CTE	CTF
	<u>CTA</u>	<u>CTB</u>	<u>CTC</u>	<u>CTD</u>	<u>CTE</u>	<u>CTF</u>

day pH (units) (range: 6.0-8.5)

0	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>
2	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>7.9</u>	<u>8.0</u>	<u>8.0</u>

EC (uS/cm)

0	<u>310</u>	<u>312</u>	<u>308</u>	<u>1623</u>	<u>1663</u>	<u>1669</u>
2	<u>304</u>	<u>326</u>	<u>318</u>	<u>1602</u>	<u>1630</u>	<u>1662</u>

DO (mg/L) (40-100% saturation at test temp.)

0	<u>7.9</u>	<u>7.9</u>	<u>8.0</u>	<u>8.2</u>	<u>8.3</u>	<u>8.3</u>
2	<u>7.7</u>	<u>7.7</u>	<u>7.8</u>	<u>7.6</u>	<u>7.7</u>	<u>7.7</u>

Temperature (°C) (range: 17.5-22.5 °C)

0	<u>18.9</u>	<u>18.9</u>	<u>18.9</u>	<u>18.0</u>	<u>17.8</u>	<u>17.8</u>
2	<u>19.1</u>	<u>19.2</u>	<u>19.2</u>	<u>20.1</u>	<u>20.1</u>	<u>20.2</u>

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar C3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 10
Average number of young produced (≥15 young) 36
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 123% Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 minutes Filtered with 110µm screen prior to testing Yes or No
Hardness (mg CaCO₃/L) of 100%: 1010 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) —

Dilution Water
Pail label / preparation date G 2017/02/03 Weekly water hardness (mg/L) 85

Comments:
Set at 20°C * Needs 24 hr updates set in glass jars

Method DAS @ 10°C

Client TEC164

Reference 1617-0649-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/02/08	1450	NWJEP	3	JN	7.3	1866	8.7	11.5	0
1	2017/02/09	1210	LC	-	HS					
2	2017/02/10	1100	HS	3	JN					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.7	7.7	7.7	7.4	7.4	7.4
2	7.8	7.8	7.7	8.1	8.1	8.1

day	EC (uS/cm)					
0	269	271	272	1710	1710	1722
2	282	298	290	1675	1741	1742

day	DO (mg/L) (40-100% saturation at test temp.)					
0	8.5	8.6	8.7	9.5	9.6	9.6
2	9.0	9.0	9.1	9.0	9.0	9.1

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	11.4	11.4	11.3	11.4	11.4	11.4
2	10.1	10.1	10.3	10.3	10.2	10.3

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar CS Jar(s) mortality 7 days prior to test (must be ≤25%) 7/

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 36
 Were test treatments randomized on test tray? Yes No

Sample
 DO % of sample prior to aeration: 99% Is aeration required (<40% or >100%)? Yes No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes No
 Hardness (mg CaCO₃/L) of 100%: 1010 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G/2017/02/03 Weekly water hardness (mg/L) 85

Comments:
Set at 10°C * Needs 24 hr updates set in glass jars

Method TRS Client TEC164 Reference 1617-0649-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/02/09	0930*	HS	1	JN	Initial pH: <u>7.3</u>
1	2017/02/10	0750	TW	-	CS	Initial EC (µS/cm): <u>1866</u>
2	2017/02/11	0800	TW	-	HS	Initial DO (mg/L): <u>8.7</u>
3	2017/02/12	0930	NM	-	JN	Initial Temp (°C): <u>11.5</u>
4	2017/02/13	0930	FAHS	1	HS	Salinity (ppt): <u>0</u>
						Nets used: yes / <input checked="" type="checkbox"/> no

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L : yes/no
 Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100% 8.89
 HS

Test Chemistry and Biology

Conc. CTL 10

pH (units) (range: 5.5-8.5)

Day 0	<u>7.3</u>	<u>7.4</u>				
Day 4	<u>7.9</u>	<u>8.0</u>				

EC (uS/cm)

Day 0	<u>521</u>	<u>1609</u>				
Day 4	<u>532</u>	<u>1634</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.8</u>	<u>8.9</u>				
Day 4	<u>8.4</u>	<u>8.9</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.3</u>	<u>13.9</u>				
Day 4	<u>14.3</u>	<u>14.3</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>3.2</u>	<u>0.4</u>	<u>20170110TR</u>	
2	<u>3.0</u>	<u>0.3</u>	Source	<u>Sam Livingston</u>
3	<u>3.1</u>	<u>0.4</u>	Mean Length (cm):	<u>3.1</u>
4	<u>3.2</u>	<u>0.3</u>	Length Range (cm):	<u>2.9-3.2</u>
5	<u>3.2</u>	<u>0.4</u>	Mean Weight (g):	<u>0.3</u>
6	<u>2.9</u>	<u>0.2</u>	Weight Range (g):	<u>0.2-0.4</u>
7	<u>3.1</u>	<u>0.3</u>	Days Held	<u>40</u>
8	<u>3.0</u>	<u>0.3</u>	Percent stock mortality (7 days prior to test, must be ≤ 2%)	<u>0.20</u>
9	<u>3.0</u>	<u>0.3</u>	Test Volume (L)	<u>20</u>
10	<u>3.0</u>	<u>0.3</u>		
Comments: <u>* 24 hour updates</u>				

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170207-Acute Toxicity		TURNAROUND TIME:		LABORATORY		REGUL AB		RUSH:		OTHER INFO													
PROJECT/CLIENT INFO Facility Name / Job# WLC AMTF Project Manager Thomas Davidson Email Thomas.Davidson@teck.com Address 15 Km North HWY 43 City Sparwood Postal Code V0B 2G0 Phone Number 250.603.9417				Lab Name Nautibus Environmental Lab Contact Jacklyn Pool Email Jacklyn@NautibusEnvironmental.ca Address #4, 6125 - 12 Street SE City Calgary Postal Code T2H 2K1 Phone Number +1-403-253-7121				Report Delivery Formats Email 1 thomas.davidson@teck.com Email 2 teckcoalab@equisonline.com Email 3 teckwclab@epcor.com Email 4 Chris.Snowden@k.com Email 5 colin.lynech@teck.com		Excel PDF EDD													
SAMPLE DETAILS																							
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab	# OF	ANALYSIS REQUESTED															
LC_WTF_IN_20170207_NP	LC_WTF_IN	WS	N	7-Feb-17	0800	G	3	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	N	N	N	N											
WL_BFWB_OUT_SPT1_20170207_N	WL_BFWB_OUT_SPT1	WS	N	7-Feb-17	0900	G	8	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	N	N	N	N											
								NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	N	N	N	N											
								EXTRA	N	N	N	N											
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS																							
RELINQUISHED BY/AFFILIATION				DATE/TIME				ACCEPTED BY/AFFILIATION				DATE/TIME											
NB OF BOTTLES RETURNED/DESCRIPTION																							
Regular (default) X						Sampler's Name						Mobile #											
Priority (2-3 business days) - 50% surcharge						Sampler's Signature						Date/Time											
Emergency (1 Business Day) - 100% surcharge						Joelyn Travers						7-FEB-17											
For Emergency < 1 Day, ASAP or Weekend - Contact ALS						Joelyn Travers																	

2017/02/08 BOD 5x30L cubox
 7x 6x 1L bott
 No Stc Murbalin Good Cendhe
 Joe MC

END OF REPORT



Acute Toxicity Test Results

Sample collected February 14, 2017

Final Report – Revision 1

February 24, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, British Columbia

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170214_NP/ 1617-0675-01	14-Feb- 17 at 0800h	15-Feb- 17 at 0845h	16-Feb- 17 at 1030h	16-Feb- 17 at 1400h	16-Feb- 17 at 1400h	13°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (10°C)
- *Daphnia magna* 48-h single concentration screening test (20°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170214_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170214_NP	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.6 (3.2-3.9) g/L KCl ¹	4.9 (4.5-5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.6) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	6.1%	5.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date February 9, 2017; ²Test date February 22, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test (Calgary Lab).

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 4. Summary of test conditions: 48-h *Daphnia magna* survival test at 20°C.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method BAS@10°C

Client TEC164

Reference 1617-0675-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	7.9
0	2017/02/16	1400	HS/LC	3	JN	Initial EC (µS/cm):	1592
1	2017/02/17	0915	LC	-	HS	Initial DO (mg/L):	8.9
2	2017/02/18	1040	MW	3	HS	Initial Temp (°C):	18.2
						Salinity (ppt):	2

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C			
----------	------	------	------	------	------	------	--	--	--

day pH (units) (range: 6.0-8.5)

0	7.8	7.8	7.8	7.8	7.8	7.8			
2	7.6	7.6	7.6	8.0	8.0	8.0			

EC (uS/cm)

0	300	312	311	1699	1724	1727			
2	309	312	322	1696	1701	1698			

DO (mg/L) (40-100% saturation at test temp.)

0	9.6	9.6	9.6	9.4	9.4	9.5			
2	9.6	9.6	9.6	9.4	9.6	9.5			

Temperature (°C) (range: 17.5-22.5 °C)

0	18.2	18.2	18.1	18.1	18.1	18.0			
2	18.4	18.4	18.5	18.5	18.3	18.4			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>05</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>6</u>
QA (previous month)	Days to first brood (≤12 days) <u>10</u>	Average number of young produced (≥15 young) <u>25</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>96</u>	Is aeration required (<40% or >100%)? Yes or <input checked="" type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110um screen prior to testing Yes or <input checked="" type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>998</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? Yes or <input checked="" type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>E 02/10</u>	Weekly water hardness (mg/L) <u>84</u>
Comments:	<u>* 24 hour updates *</u>	

Method PAS @ 20c

 Client TEC164

 Reference 1617-0675-01
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	2017/02/16	1400	HS/LC	3	JN	Initial pH:	7.9
1	2017/02/17	0915	LC	-	HS	Initial EC (µS/cm):	1592
2	2017/02/18	1040	SW	3	HS	Initial DO (mg/L):	8.9
						Initial Temp (°C):	18.2
						Salinity (ppt):	2

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.8	7.8	7.8	7.8	7.8	7.8
2	7.5	7.6	7.6	7.9	8.0	8.0

day	EC (µS/cm)					
0	311	311	311	1580	1618	1623
2	318	315	316	1561	1577	1575

day	DO (mg/L) (40-100% saturation at test temp.)					
0	8.1	8.1	8.1	8.1	8.0	8.0
2	7.6	7.6	7.6	7.7	7.7	7.7

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	18.2	18.4	18.3	19.4	19.6	19.7
2	20.2	20.3	20.3	20.3	20.4	20.4

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C21C3</u>	Jar(s) mortality 7 days prior to test (must be ≤25%)	<u>0</u>
QA (previous month)	Days to first brood (≤12 days)	<u>9</u>	
	Average number of young produced (≥15 young)	<u>18</u>	
	Were test treatments randomized on test tray?	<input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration:	<u>99</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L):	<u>-</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%:	<u>998</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L)	<u>-</u>	
Dilution Water	Pail label / preparation date	<u>E 02/10</u>	Weekly water hardness (mg/L) <u>84</u>
Comments:	<u>* 24 hour updates *</u>		

Method TRS

Client STW STTECL67

Reference 1617-0675-01

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:
0	2017/02/16	1050 *	EP	1	HS	7.9
1	2017/02/17	0800	EP	-	HS	Initial EC (µS/cm): 1592
2	2017/02/18	0900	YU	-	HS	Initial DO (mg/L): 8.9
3	2017/02/19	0830	NTM/N	-	JN	Initial Temp (°C): 13.2
4	2017/02/20	1020	JN/IL	1	LC	Salinity (ppt): 2
						Nets used: yes / <input checked="" type="radio"/> no

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L : yes/ no

Preaeration time

0.5 hours	1 hour	1.5 hours	2 hours
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DO(mg/L) of 100%

8.9			
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Test Chemistry and Biology

Conc.

CTL	100					
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pH (units) (range: 5.5-8.5)

Day 0	7.5	7.7				
Day 4	7.9	7.8				

EC (uS/cm)

Day 0	480	1659				
Day 4	497	1601				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.8	8.9				
Day 4	8.9	8.9				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	14.5	14.4				
Day 4	13.9	14.1				

Number Alive (In brackets number stressed)

Day 0	10	10				
Day 1	10	10				
Day 2	10	10				
Day 3	10	9/10				
Day 4	10	10				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	3.0	0.3	20161023TR	Source <u>LSL</u>
2	3.3	0.4		Days Held <u>55</u>
3	3.3	0.4		Percent stock mortality <u>0</u>
4	3.3	0.4		(7 days prior to test, must be ≤2%)
5	3.0	0.3	Mean Length (cm): <u>3.2</u>	Test Volume (L) <u>20</u>
6	3.0	0.3	Length Range (cm): <u>3.0-3.4</u>	
7	3.3	0.4	Mean Weight (g): <u>0.4</u>	
8	3.3	0.4	Weight Range (g): <u>0.3-0.5</u>	
9	3.3	0.4		
10	3.4	0.5		
Comments: * 24 hr updates				

APPENDIX C – Chain-of-custody form

COC ID: **20170214-AcuteToxicity**

TURNAROUND TIME: **REGULAR**

RUSH:

PROJECT/CLIENT INFO

LABORATORY

OTHER INFO

Facility Name / Job# **WLC AWTF**
 Project Manager **Thomas Davidson**
 Email **Thomas.Davidson@teck.com**
 Address **15 Km North HWY 43**
 City **Sparwood** Province **BC**
 Postal Code **V0B 2G0** Country **Canada**
 Phone Number **250.603.9417**

Lab Name **Nautilus Environmental**
 Lab Contact **Jacklyn Pool**
 Email **Jacklyn@NautilusEnvironmental.ca**
 Address **#4, 6125 - 12 Street SE**
 City **Calgary** Province **AB**
 Postal Code **T2H 2K1** Country **Canada**
 Phone Number **+1.403.253.7121**

Report Delivery Formats
 Email 1: **thomas.davidson@teck.com** Excel PDF EDD
 Email 2: **teckcoal@equisonline.com**
 Email 3: **teckwclab@epcor.com**
 Email 4: **Chris.Stroich@teck.com**
 Email 5: **colin.lynch@teck.com**
 VPO 00473572

SAMPLE DETAILS

ANALYSIS REQUESTED

Filtered - F; Field, L; Lab, FL; Field & Lab, N; None

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# Of Cont.	ANALYSIS REQUESTED			
								NAUT_96Hr_RT_Single Concentration_Toxicity Test	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C	EXTRA
LC_WTF_IN_20170214_NP	LC_WTF_IN	WS	N	14-Feb-17	0800	G	3	X	X	X	
WL_BFWB_OUT_SP21_20170214_N	WL_BFWB_OUT_SP21	WS	N	14-Feb-17	0900	G	8	X	X	X	X

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS

RELINQUISHED BY/AFFILIATION

DATE/TIME

ACCEPTED BY/AFFILIATION

DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION

Regular (default)
 Priority (2-3 business days) - 50% surcharge
 Emergency (1 Business Day) - 100% surcharge
 For Emergency <1 Day, ASAP or Weekend - Contact ALS

Sampler's Name **Jocelyn Travers**
 Sampler's Signature **Jocelyn Travers**

Mobile #
 Date/Time **14-Feb-17**

*2017/02/15 840 13°C
 Manitoulin 1/3 S/I Good Conditions
 1 x 20 L canister
 6 x 1 L bottles MC*

END OF REPORT



Acute Toxicity Test Results

Sample collected February 14, 2017

Final Report – Revision 1

February 24, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, British Columbia

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_20170214_N/ 1617-0675-02	14-Feb- 17 at 0900h	15-Feb- 17 at 0845h	17-Feb- 17 at 1400h	15-Feb- 17 at 1440h	15-Feb- 17 at 1450h	13°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test (testing conducted at Burnaby Lab)
- *Daphnia magna* 48-h single concentration screening test (10°C)
- *Daphnia magna* 48-h single concentration screening test (20°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170214_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170214_N	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	47 (38-59) µg/L Zn ¹	4.9 (4.5-5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	56 (23-140) µg/L Zn	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	57%	5.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹Test date February 3, 2017, ³Test date February 22, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test (Calgary Lab).

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test (Burnaby Lab).

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Vancouver Island Trout Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	12 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Municipal dechlorinated water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Zinc (Zn)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 4. Summary of test conditions: 48-h *Daphnia magna* survival test at 20°C.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS

Client TEC164

Reference 1617-0675-02

10°C

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/02/15	1440	NM/KC	3	JN	7.7	1644	8.8	18.2	2
1	2017/02/16	0845	PW	-	HS					
2	2017/02/17	0915	LC	3	HS					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.8	7.7	7.6	7.4	7.4	7.4			
2	7.1	7.1	7.1	7.2	7.3	7.3			

EC (uS/cm)

0	307	308	309	1632	1676	1693			
2	299	318	323	1679	1741	1715			

DO (mg/L) (40-100% saturation at test temp.)

0	9.6	9.6	9.6	9.6	9.6	9.6			
2	8.6	8.7	8.7	8.8	8.9	9.0			

Temperature (°C) (range: 17.5-22.5 °C)

0	11.1	11.1	11.1	11.1	11.1	11.1			
2	11.3	11.4	11.2	11.4	11.4	11.1			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 27.1
 Were test treatments randomized on test tray? Yes No

Sample
 DO % of sample prior to aeration: 97% Is aeration required (<40% or >100%)? Yes No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): — Filtered with 110µm screen prior to testing Yes No
 Hardness (mg CaCO₃/L) of 100%: 1025 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) —

Dilution Water
 Pail label / preparation date E 2017/02/10 Weekly water hardness (mg/L) 54

Comments:
* Glass jars used for test vessels. * 24 hr updates needed *

Method DAS

 Client TEC164

 Reference 1617-0675-02
20°C
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information			
0	2017/02/15	1450	MM/LC	3	JN	Initial pH:	7.7		
1	2017/02/16	0840	TW	-	HS	Initial EC (µS/cm):	1644		
2	2017/02/17	0720	LC	3	HS	Initial DO (mg/L):	8.8		
						Initial Temp (°C):	18.2		
						Salinity (ppt):	2		
Lab Code	CTA	CTB	CTL	100A	100B	100C			

day	pH (units) (range: 6.0-8.5)								
0	7.8	7.7	7.7	7.7	7.7	7.8			
2	7.3	7.3	7.3	7.3	7.3	7.3			

	EC (µS/cm)								
0	279	302	304	1536	1624	1626			
2	297	307	309	1510	1586	1608			

	DO (mg/L) (40-100% saturation at test temp.)								
0	7.8	7.8	7.8	7.9	7.9	8.0			
2	7.1	7.8	7.7	7.3	7.4	7.6			

	Temperature (°C) (range: 17.5-22.5 °C)								
0	19.1	19.2	19.3	19.5	19.5	19.6			
2	19.6	19.9	20.0	19.6	19.8	19.9			

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C3105</u>	Jar(s) mortality 7 days prior to test (must be ≤25%)	<u>3.5%</u>
QA (previous month)	Days to first brood (≤12 days)	<u>9/10</u>	
	Average number of young produced (≥15 young)	<u>17.5/27.1</u>	
	Were test treatments randomized on test tray?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Sample	DO % of sample prior to aeration:	<u>114%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L):	<u>20 minutes</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%:	<u>1025</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L)	<u>-</u>	
Dilution Water	Pail label / preparation date	<u>E 2017/02/10</u>	Weekly water hardness (mg/L) <u>84</u>
Comments:	<u>* 61ass jars used for test vessels. * 24 hr updates needed *</u>		

Rainbow Trout Summary Sheet

Client: Nautilus Calgary

Start Date/Time: Feb 17/17 @ 1400h

Work Order No.: 170090

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: 1617-0675-02
Sample Date: Feb 14 / 17
Date Received: Feb 17 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 7
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 011917
Source: Vancouver Island Trout Hatchery
No. Fish/Volume (L): 10 / 12
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 28 ± 3 Range: 24 - 32
Mean Weight ± SD (g): 0.33 ± 0.09 Range: 0.22 - 0.48

Zinc Reference Toxicant Results:

Reference Toxicant ID: RIZn63
Stock Solution ID: 16 Zn 02
Date Initiated: Feb 3/17
96-h LC50 (95% CL): 46.6 (37.6 - 57.8) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.9 (22.6 - 138.4) mg/L Zn
Reference Toxicant CV (%): 57

Test Results: 100% survival at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: Feb. 24, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Nautilus Calgary
 Sample I.D. 1617-0675-07
 W.O. # 170090
 RBT Batch #: 011917b
 Date Collected/Time: Feb 14/17 @ Not available
 Date Setup/Time: Feb 17/17 @ 1400h
 Sample Setup By: EC

Number Fish/Volume: 10/12 L
 7-d % Mortality: 0.04
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Parameters	Undiluted Sample WQ	
	Initial WQ	Adjustment
Temp °C	14.0	14.0
D.O. (mg/L)	9.9	10.1
pH	7.9	8.0
Cond. (µS/cm)	1773	1773
Salinity (ppt)	0.9	0.9

Thermometer: CER# 2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Concentration	# Survivors						Temperature (°C)						Dissolved Oxygen (mg/L)						pH						Conductivity (µS/cm)				
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
(% v/v)																													
CTI				10	10	10	10	14.0	14.0	14.0	14.0	14.0	9.7	9.7	9.7	9.7	9.8	6.9	7.0	7.0	7.0	7.0	27	27	27	27	27	0	96
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	9.7	9.7	9.7	9.6	9.8	8.0	8.1	8.2	8.2	8.2	1773	1773	1773	1773	1732		
Initials																													

Sample Description/Comments: clear, colorless, no particulates, odorless
 Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: _____
 Reviewed by: [Signature] Date Reviewed: Feb. 24, 2017

Rainbow trout (*Oncorhynchus mykiss*) Length and Weight Sheet

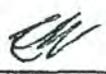
Client: Nautilus Calgary
 Sample ID: 1617-0675-02
 W.O. #: 170090

Balance ID: Bal - 2
 Date Measured: Feb 21/17
 Batch #: 0119176

	Length (mm)	Weight (g)
1	<u>31</u>	<u>0.30</u>
2	<u>32</u>	<u>0.44</u>
3	<u>27</u>	<u>0.25</u>
4	<u>28</u>	<u>0.22</u>
5	<u>29</u>	<u>0.27</u>
6	<u>27</u>	<u>0.27</u>
7	<u>24</u>	<u>0.48</u>
8	<u>32</u>	<u>0.41</u>
9	<u>24</u>	<u>0.25</u>
10	<u>31</u>	<u>0.40</u>
<hr/>		
Total	<u>285</u>	<u>3.29</u>
Mean	<u>28</u>	<u>0.33</u>
Std. Dev.	<u>3</u>	<u>0.09</u>
Low	<u>24</u>	<u>0.22</u>
High	<u>32</u>	<u>0.48</u>

Loading Density (g/L) 0.27

Initials EC

Reviewed by: 

Date Reviewed: Feb. 22, 2017

APPENDIX C – Chain-of-custody form

COC ID: 20170214-AcuteToxicity		TURNAROUND TIME: REGULAR		RUSH:				
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO		
Facility Name / Job#: WLC AWTF		Lab Name: Nautilus Environmental		Report Delivery Formats		Excel	PDF	EDD
Project Manager: Thomas Davidson		Lab Contact: Jacklyn Pool		Email 1:	thomas.davidson@teck.com	X	X	X
Email: Thomas.Davidson@teck.com		Email: Jacklyn@NautilusEnvironmental.ca		Email 2:	teckcoal@equisonline.com			
Address: 15 Km North HWY 43		Address: #4, 6125 - 12 Street SE		Email 3:	teckwclab@epcor.com	X	X	X
				Email 4:	Chris.Stroich@teck.com	X	X	X
City: Sparwood	Province: BC	City: Calgary	Province: AB	Email 5:	colin.lynch@teck.com			X
Postal Code: V0B 2G0	Country: Canada	Postal Code: T2H 2K1	Country: Canada					
Phone Number: 250.603.9417	Phone Number: +1.403.253.7121		VPO 00473572					

SAMPLE DETAILS								ANALYSIS REQUESTED										
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# Of Cont.	NAUT_96Hr_RT_Single Concentration_Toxicity Test	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C	EXTRA							
LC_WTF_IN_20170214_NP	LC_WTF_IN	WS	N	14-Feb-17	0800	G	3	X	X	X								
WL_BFWB_OUT_SP21_20170214_N	WL_BFWB_OUT_SP21	WS	N	14-Feb-17	0900	G	8	X	X	X	X							

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION	Regular (default)	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend - Contact ALS	Sampler's Name	Mobile #	Sampler's Signature	Date/Time
	X				Jocelyn Travers		Jocelyn Travers	14-Feb-17

2017/02/15 840 13°C
 Manitoulin 1/3 S/I Good Conditions
 1 x 20 L canby
 6 x 1 L bottle MC

END OF REPORT



Acute Toxicity Test Results

Sample collected February 21, 2017

Final Report – Revision 1

February 24, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	Receipt temperature
	Collected	Received					
LC_WTF_IN_20170221_N P/ 1617-0700-01	21-Feb-17 at 0800h	22-Feb-17 at 1440h	24-Feb-17 at 1300h	22-Feb-17 at 1530h	22-Feb-17 at 1500h	10°C	

TEST TYPES

- Rainbow trout 96-h single concentration screening test, testing completed in Burnaby, BC
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170221_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170221_NP	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	93 (75-116) µg/L Zn ¹	4.9 (4.5-5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	56 (22-138) µg/L Zn	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	58%	5.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, February 23, 2017; ² Test Date February 22, 2017

LC = Lethal Concentration; CL = Confidence Limit

Harjot Sandhu

Report By:
Harjot Sandhu, BSc
Biologist

Claudio Quinteros

Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Spring Valley
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	12 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Municipal dechlorinated water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Nautilus Calgary

Start Date/Time: Feb 24/17 @ 1300h

Work Order No.: 17013.1

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: 1617-0700-01
Sample Date: Feb 21 /17
Date Received: Feb 24 /17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 020717
Source: Spring Valley
No. Fish/Volume (L): 10/12
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 30 ± 1
Mean Weight ± SD (g): 0.31 ± 0.04

Range: 28 - 31
Range: 0.25 - 0.40

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn^b84
Stock Solution ID: 16Zn02
Date Initiated: Feb 23/17
96-h LC50 (95% CL): 93.3 (75.3 - 115.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 55.5 (22.3 - 138.0) µg/L Zn
Reference Toxicant CV (%): 58

Test Results: 100% survival at 96 hours in the undiluted 100% (v/v) sample

Reviewed by: [Signature]

Date reviewed: March 2, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Nautilus Calgary
 Sample I.D. 1613-0700-01
 W.O. # 170131
 RBT Batch #: 020717
 Date Collected/Time: Feb 21/17 @ 0800h
 Date Setup/Time: Feb 24/17 @ 1300h
 Sample Setup By: EC

Number Fish/Volume: 10/12 L
 7-d % Mortality: 0
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Parameters	Undiluted Sample WQ	
	Initial WQ	Adjustment
Temp °C	14.0	14.0
D.O. (mg/L)	10.5	10.3
pH	7.7	7.8
Cond. (µS/cm)	1800	1800
Salinity (ppt)	0.9	0.9

Thermometer: CER# 2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Concentration	# Survivors												Temperature (°C)						Dissolved Oxygen (mg/L)						pH						Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96			
(% v/v)																																
CFI				10	10	10	10	14.0	14.0	14.0	14.0	14.0	9.7	9.7	9.7	9.7	9.7	6.7	6.7	6.7	6.9	6.9	6.9	6.9	6.9	6.9	6.9	26	30			
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	9.7	9.7	9.7	9.7	9.7	7.8	7.8	7.8	8.2	8.3	8.3	8.3	8.3	8.3	8.3	1800	1776			
Initials				Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am	Am			

Sample Description/Comments: Clear, colorless, no particulates, odorless

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 2

Other Observations: _____

Reviewed by: [Signature] Date Reviewed: March 2, 2017

Rainbow trout (*Oncorhynchus mykiss*) Length and Weight Sheet

Client: Nautilus Calgary
 Sample ID: 1617-0700-01
 W.O. #: 170131

Balance ID: Bal - 2
 Date Measured: Feb 28 2017
 Batch #: 020717

	Length (mm)	Weight (g)
1	<u>31</u>	<u>0.40</u>
2	<u>30</u>	<u>0.35</u>
3	<u>31</u>	<u>0.31</u>
4	<u>31</u>	<u>0.32</u>
5	<u>31</u>	<u>0.32</u>
6	<u>31</u>	<u>0.33</u>
7	<u>29</u>	<u>0.25</u>
8	<u>28</u>	<u>0.27</u>
9	<u>29</u>	<u>0.26</u>
10	<u>31</u>	<u>0.32</u>

Total	<u>302</u>	<u>3.13</u>
Mean	<u>30</u>	<u>0.31</u>
Std. Dev.	<u>1</u>	<u>0.04</u>
Low	<u>28</u>	<u>0.25</u>
High	<u>31</u>	<u>0.40</u>

Loading Density (g/L) 0.26

Initials EL

Reviewed by: 

Date Reviewed: March 2, 2017

10°C

Method DAS 10°C

Client TECIB4

Reference 1617-700-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017102122	1530	EP	3	TW	7.6	1487	9.3	15.5	0
1	2017102123	1100	LC	-	HS					
2	2017102124	1050	TW	3	HS					

Lab Code	CTLA	CTRB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.4	7.6	7.5	7.5	7.6	7.6			
2	7.6	7.6	7.6	8.1	8.1	8.1			

1489 EP EC (uS/cm)

0	277	276	278	1547	1522	1547			
2	283	285	308	1572	1618	1606			

DO (mg/L) (40-100% saturation at test temp.)

0	8.9	9.0	9.0	9.1	9.0	9.0			
2	9.5	9.4	9.4	9.3	9.5	9.4			

Temperature (°C) (range: 17.5-22.5 °C)

0	11.4	11.3	11.3	11.2	11.2	11.1			
2	10.9	10.9	11.0	11.1	10.9	11.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10 (1F)	10 (2F)	10 (2F)			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 17.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 99.1 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 991 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date G-01/17 Weekly water hardness (mg/L) 80

Comments: * 1h glass jars, 24 hr updates

20°C

Method DAS 20°C

Client TEC164

Reference 1617-700-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/02/10	1500	EP	3	TW	7.6	1487	9.3	15.5	0
1	2017/02/12	1100	LC	-	HS					
2	2017/02/14	1040	TW	3	HS					

Lab Code	CTA	CTB	CTC	CTD	CTE	CTF	CTG	CTH	CTI	CTJ
	CTA	CTB	CTC	CTD	CTE	CTF	CTG	CTH	CTI	CTJ

day pH (units) (range: 6.0-8.5)

0	7.6	7.7	7.6	7.8	7.9	8.0				
2	7.9	7.8	7.8	8.3	8.3	8.3				

EC (uS/cm)

0	271	276	277	1429	1487	1514				
2	282	282	285	1490	1524	1537				

DO (mg/L) (40-100% saturation at test temp.)

0	8.0	8.0	8.0	8.0	8.0	8.0				
2	7.9	7.9	7.9	7.9	7.9	7.9				

Temperature (°C) (range: 17.5-22.5 °C)

0	18.2	18.4	18.4	18.2	17.9	17.8				
2	19.9	20.0	20.1	19.9	19.9	19.8				

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10				
1	10	10	10	10	10	10				
2	10	10	10	10	10	10				

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 7%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 18.7
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 120% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 991 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) —

Dilution Water
 Pail label / preparation date 05.01/17 Weekly water hardness (mg/L) 80

Comments: * in glass jars, 24 hr updates

APPENDIX C – Chain-of-custody form

Teck

COC ID:		20170221-AcuteToxicity		TURN/ROUND TIME:		LABORATORY		REGULAR		RUSH:		OTHER INFO					
PROJECT/CLIENT INFO Facility Name / Job# WLC AWTF Project Manager Thomas Davidson Email Thomas.Davidson@teck.com Address 15 Km North HWY 43 City Sparwood Postal Code V0B 2G0 Phone Number 250.603.9417				Lab Name Nautlius Environmental Lab Contact Jacklyn Pool Email jacklyn@NautliusEnvironmental.ca Address #4, 6125 - 12 Street SE City Calgary Postal Code T2H 2K1 Phone Number +1-403-253-7121				Province BC Country Canada		Province AB Country Canada		Report Delivery Formats Email 1: thomas.davidson@teck.com Email 2: teckcoal@equisonline.com Email 3: teckwclab@epcor.com Email 4: Chris.Sorenson@teck.com Email 5: colin.jynch@teck.com			Excel	PDF	EDD
SAMPLE DETAILS																	
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# OF Cont.	ANALYSIS REQUESTED			PRESEV.	FUL					
LC_WTF_IN_20170221_NP	LC_WTF_IN	WS	N	21-Feb-17	08:00	G	3	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	X	X	N	N					
WL_BFWB_OUT_SP21_20170221_N	WL_BFWB_OUT_SP21	WS	N	21-Feb-17	09:00	G	8	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	X	X	N	N					
								NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	X	X	N	N					
								EXTRA	X		N	N					
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS																	
REINQUISHED BY/APPLICATION																	
DATE/TIME																	
ACCEPTED BY/APPLICATION																	
DATE/TIME																	
NB OF BOTTLES RETURNED/DESCRIPTION																	
Regular (default) X				Sampler's Name				Mobile #									
Priority (2-3 business days) - 50% surcharge				Sampler's Signature				Date/Time									
Emergency (1 Business Day) - 100% surcharge				Jocelyn Traverser Jocelyn Traverser				21-Feb-17									
For Emergency <1 Day, ASAP or Weekend - Contact ALS																	

1617-0700-01
1617-0700-02

201702122 1440 NUL
 5X 20L Carboys
 6X 1L Containers
 100C
 No seals/initials
 maintain good condition

END OF REPORT



Acute Toxicity Test Results

Sample collected February 21, 2017

Final Report – Revision 1

February 24, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	Receipt temperature
	Collected	Received					
WL_BFWB_OUT_SP21_20 170221_N/ 1617-0700-02	21-Feb-17 at 0900h	22-Feb-17 at 1440h	24-Feb-17 at 1300h	22-Feb-17 at 1500h	22-Feb-17 at 1500h	10°C	

TEST TYPES

- Rainbow trout 96-h single concentration screening test, testing completed in Burnaby, BC
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170221_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170221_N	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	93 (75-116) µg/L Zn ¹	4.9 (4.5-5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	56 (22-138) µg/L Zn	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	58%	5.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, February 23, 2017; ² Test Date February 22, 2017

LC = Lethal Concentration; CL = Confidence Limit

Harjot Sandhu

Report By:
Harjot Sandhu, BSc
Biologist

Claudio Quinteros

Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Spring Valley
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	12 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Municipal dechlorinated water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

10°C

Method DAS 10°C

Client TEC164

Reference 1617-700-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/02/22	1500	EP	3	NTM	7.5	1529	9.4	13.8	0
1	2017/02/23	1105	LC	-	HS					
2	2017/02/24	1050	TW	3	HS					

Lab Code	C1A	C1B	C1C	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.5	7.7	7.7	7.4	7.4	7.5
2	7.7	7.7	7.7	8.1	8.0	8.0

day	EC (uS/cm)					
0	280	280	281	1440 ^{EP}	1529	1560
2	284	285	287	1562	1582	1591

day	DO (mg/L) (40-100% saturation at test temp.)					
0	9.1	9.0	9.1	9.2	9.2	9.1
2	9.4	9.5	9.4	9.4	9.4	9.4

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	11.2	11.3	11.2	11.0	11.0	11.0
2	10.9	10.8	10.8	10.8	10.9	10.9

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 7%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 18.7
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 99% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 998 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date 6-01/17 Weekly water hardness (mg/L) 80

Comments: * in glass jars, 24 hr updates

20°C

Method DAS 20°C

Client TELUBA

Reference 1617-700-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/02/22	1500	ZFD	3	NM	7.5	1529	9.4	13.8	0
1	2017/02/23	1110	ZC	-						
2	2017/02/24	1045	TW	3						

Lab Code	CTVA	CTLB	CTLC	100A	100B	100C

pH (units) (range: 6.0-8.5)

day	0	1	2	3	4	5
0	7.8	7.8	7.8	7.9	8.0	8.0
2	7.9	7.8	7.9	8.1	8.1	8.1

1478 EC (µS/cm)

day	0	1	2	3	4	5
0	278	279	279	1382	1525	1579
2	294	286	282	1456	1515	1515

DO (mg/L) (40-100% saturation at test temp.)

day	0	1	2	3	4	5
0	8.1	8.0	8.0	8.3	8.2	8.1
2	7.9	7.9	7.9	7.9	7.9	7.8

Temperature (°C) (range: 17.5-22.5 °C)

day	0	1	2	3	4	5
0	18.4	18.3	18.6	17.9	18.0	17.9
2	19.8	19.8	19.9	19.8	19.8	19.8

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

day	0	1	2	3	4	5
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 17.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 120% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 998 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) —

Dilution Water
 Pail label / preparation date C-01/17 Weekly water hardness (mg/L) 80

Comments:
 * in glass jars, 24 hr updates

Rainbow Trout Summary Sheet

Client: Nautilus Calgary

Start Date/Time: Feb 24/17 @ 1300h

Work Order No.: 170131

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: 1617-0700-02
Sample Date: Feb 21 /17
Date Received: Feb 24 /17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 020717
Source: Spring Valley
No. Fish/Volume (L): 10/12
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 30 ± 1
Mean Weight ± SD (g): 0.32 ± 0.04

Range: 28 - 33
Range: 0.26 - 0.40

Zinc Reference Toxicant Results:

Reference Toxicant ID: RT Zn⁶ 84
Stock Solution ID: 16 Zn02
Date Initiated: Feb 23/17
96-h LC50 (95% CL): 93.3 (75.3 - 115.7) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.5 (22.3 - 138.0) mg/L Zn
Reference Toxicant CV (%): 58

Test Results: 100% survival at 96 hours in the undiluted
100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: March 2, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Nautilus Calgary
 Sample I.D. 1617-0700-02
 W.O. # 170131
 RBT Batch #: 020717
 Date Collected/Time: Feb 21/17 @ 0900h
 Date Setup/Time: Feb 24/17 @ 1300h
 Sample Setup By: EC

Number Fish/Volume: 10/12 L
 7-d % Mortality: 0
 Total Pre-aeration Time (mins): 45
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Parameters	Undiluted Sample WQ	
	Initial WQ	Adjustment
Temp °C	14.0	14.0
D.O. (mg/L)	10.6	10.4
pH	7.5	7.5
Cond. (µS/cm)	1809	1809
Salinity (ppt)	0.9	0.9

Thermometer: CE# 2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Concentration	# Survivors						Temperature (°C)						Dissolved Oxygen (mg/L)						pH						Conductivity (µS/cm)				
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
(% v/v)				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.6	9.7	9.7	9.8	6.7	6.8	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	26	30
CT1				10	10	10	10	14.0	14.0	14.0	14.0	14.0	9.9	9.9	9.8	9.7	9.7	7.5	7.2	7.3	7.3	7.3	7.5	7.5	7.5	7.5	7.5	1809	1775
100																													
Initials				AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA

Sample Description/Comments: clear, colorless, no particulates, odourless
 Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0
 Other Observations: _____
 Reviewed by: [Signature] Date Reviewed: March 2, 2017

Rainbow trout (*Oncorhynchus mykiss*) Length and Weight Sheet

Client: Nautilus Calgary
 Sample ID: 1617-0700-02
 W.O. #: 170131

Balance ID: Bal - 2
 Date Measured: Feb 28/17
 Batch #: 020717

	Length (mm)	Weight (g)
1	<u>29</u>	<u>0.27</u>
2	<u>31</u>	<u>0.34</u>
3	<u>28</u>	<u>0.30</u>
4	<u>33</u>	<u>0.40</u>
5	<u>30</u>	<u>0.33</u>
6	<u>31</u>	<u>0.29</u>
7	<u>30</u>	<u>0.33</u>
8	<u>29</u>	<u>0.26</u>
9	<u>29</u>	<u>0.33</u>
10	<u>29</u>	<u>0.31</u>
<hr/>		
Total	<u>299</u>	<u>3.16</u>
Mean	<u>30</u>	<u>0.32</u>
Std. Dev.	<u>1</u>	<u>0.04</u>
Low	<u>28</u>	<u>0.26</u>
High	<u>33</u>	<u>0.40</u>

Loading Density (g/L) 0.26

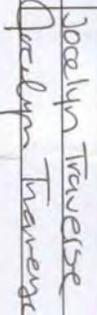
Initials EL

Reviewed by: 

Date Reviewed: March 2, 2017

APPENDIX C – Chain-of-custody form

Teck

COC ID:		20170221-AcuteToxicity		TURNAROUND TIME:		LABORATORY		REGULAR		RUSH:		OTHER INFO												
PROJECT/CLIENT INFO Facility Name / Job#: WLC AWTF Project Manager: Thomas Davidson Email: Thomas.Davidson@teck.com Address: 15 Km North HWY 43 City: Sparwood Postal Code V0B 2G0 Phone Number: 250.603.9417				Lab Name: Nautlius Environmental Lab Contact: Jacklyn Pool Email: jacklyn@NautliusEnvironmental.ca Address: #4, 6125 - 12 Street SE City: Calgary Postal Code T2H 2K1 Phone Number: +1-403-253-7121				Report Delivery Formats Email 1: thomas.davidson@teck.com Email 2: teckcoal@equisonline.com Email 3: teckwclab@epcorp.com Email 4: Chris.Sorenson@teck.com Email 5: colin.jynch@teck.com				Excel	PDF	EDD										
REPORTING INFORMATION Regular (default) <input checked="" type="checkbox"/> X Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency < 1 Day, ASAP or Weekend - Contact ALS													Sampler's Name Jocelyn Traverser		Sampler's Signature 		Mobile # 21-Feb-17							
NB OF BOTTLES RETURNED/DESCRIPTION																								
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS																								
RETIQUISHED BY/APPLICATION																								
DATE/TIME																								
ACCEPTED BY/APPLICATION																								
DATE/TIME																								
SAMPLE DETAILS																								
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab	# OF C-Comp Cont.	ANALYSIS REQUESTED		PRESEV.	FIL													
LC_WTF_IN_20170221_NP	LC_WTF_IN	WS	N	21-Feb-17	08:00	G	3	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	N	N	N	N												
WL_BFWB_OUT_SP21_20170221_N	WL_BFWB_OUT_SP21	WS	N	21-Feb-17	09:00	G	8	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	N	N	N	N												
								NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	N	N	N	N												
								EXTRA																
1617-0700-01 1617-0700-02																								

201702122 1440 NUL
 5X 20L Carboys
 6X 1L Containers
 10°C
 No seals/initials
 maintain good condition

END OF REPORT



Acute Toxicity Test Results

Samples collected February 27, 2017

Final Report – Revision 1

February 24, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation 10°C	<i>Daphnia magna</i> test initiation 20°C	
LC_WTF_IN_20170227_NP 1617-0719-01	27-Feb-17 at 0800h	28-Feb- 17 at 1140h	02-Mar- 17 at 0930h	28-Feb-17 at 1440h	28-Feb- 17 at 1420h	4.9°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test at 10° Celsius
- *Daphnia magna* 48-h single concentration screening test at 20° Celsius

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170227_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170227_NP	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.8-3.7) g/L KCl ¹	4.9 (4.6-5.3) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	6.6%	5.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, March 2, 2017; ² Test Date March 7, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Natalie McDermott, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	385 mL plastic vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival for single concentration test
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	385 mL plastic vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS Client TEC164 Reference 1617-0719-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/03/02	0930 *	FD	1	NJM	Initial pH: 7.6
1	2017/03/03	0755	TW	-	HS	Initial EC (µS/cm): 1542
2	2017/03/04	0915	FD	-	HS	Initial DO (mg/L): 6.7
3	2017/03/05	0930	SP	-	NJM	Initial Temp (°C): 10.9
4	2017/03/06	0930	TEC164	1	NJM	Salinity (ppt): 2 Nets used: yes / <input checked="" type="checkbox"/> no

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no

Preaeration time

DO(mg/L) of 100%

0.5 hours	1 hour	1.5 hours	2 hours
9.0			

Test Chemistry and Biology

Conc. CTL 100

--	--	--	--	--	--	--

pH (units) (range: 5.5-8.5)

Day 0	<u>7.6</u>	<u>7.6</u>				
Day 4	<u>8.2</u>	<u>8.2</u>				

EC (uS/cm)

Day 0	<u>429</u>	<u>1478</u>				
Day 4	<u>445</u>	<u>1473</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.8</u>	<u>9.0</u>				
Day 4	<u>8.9</u>	<u>8.9</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.0</u>	<u>13.6</u>				
Day 4	<u>14.3</u>	<u>14.3</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>3.0</u>	<u>0.3</u>	Loading Density (g/L): <u>0.125</u> Mean Length (cm): <u>2.8</u> Length Range (cm): <u>2.3-3.2</u> Mean Weight (g): <u>0.3</u> Weight Range (g): <u>0.1-0.4</u>	Batch <u>20170216</u>
2	<u>2.8</u>	<u>0.2</u>		Source <u>Sam Livingston</u>
3	<u>2.8</u>	<u>0.2</u>		Days Held <u>14</u>
4	<u>3.2</u>	<u>0.24</u>		Percent stock mortality <u>0</u> (7 days prior to test, must be ≤ 2%)
5	<u>2.8</u>	<u>0.2</u>		Test Volume (L) <u>20</u>
6	<u>2.5</u>	<u>0.2</u>		
7	<u>2.3</u>	<u>0.1</u>		
8	<u>3.0</u>	<u>0.3</u>		
9	<u>3.0</u>	<u>0.3</u>		
10	<u>2.8</u>	<u>0.3</u>		
Comments:				
<u>Needs 24 hour updates</u>				

Method DAS 10°C

Client TECL64

Reference 1617-0719-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017102128	1440	LC/ML	3	JN	7.6	1542	10.2	10.9	2
1	2017103101	0910	NJM	-	JN					
2	2017103102	0855	TW	3	NJM					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C				
----------	------	------	------	------	------	------	--	--	--	--

day

	pH (units) (range: 6.0-8.5)									
0	7.7	7.7	7.7	7.8	7.8	7.8				
2	7.5	7.5	7.5	7.9	8.0	8.0				

	EC (uS/cm)									
0	273	275	271	1494	1503	1491				
2	282	293	298	1589	1604	1686				

	DO (mg/L) (40-100% saturation at test temp.)									
0	9.4	9.4	9.4	9.4	9.5	9.4				
2	9.3	9.3	9.3	9.3	9.5 TW	9.4				

	Temperature (°C) (range: 17.5-22.5 °C)									
0	11.1	11.2	11.0	11.1	11.3	11.2				
2	11.3	11.2	11.3	11.3	11.3	11.2				

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)									
0	10	10	10	10	10	10				
1	10	10	10	10	10	10				
2	10	10	10	10	10	10				

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 22
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 105% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20min Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1029 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date F.02122 Weekly water hardness (mg/L) 81

Comments:
in glass jars 24 hr updates

Method DAS 20°C

 Client TEC164

 Reference 1617-0719-01
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017102128	1420	LC/W	3	JN	7.6	1542	10.2	10.9	2
1	2017103101	0900	NM	-	JN					
2	2017103102	0845	W	3	NM					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)					
0	7.5	7.5	7.5	7.7	7.7	7.7
2	7.8	7.7	7.7	8.2	8.2	8.3

	EC (µS/cm)					
0	264	272	272	1515	1510	1499
2	286	312	300	1607	1605	1618

	DO (mg/L) (40-100% saturation at test temp.)					
0	8.1	8.1	8.1	8.2	8.2	8.2
2	7.9	7.9	7.9	8.0	8.0	8.0

	Temperature (°C) (range: 17.5-22.5 °C)					
0	19.3	19.4	19.4	17.9	17.9	17.9
2	19.7	19.6	19.8	19.5	19.5	19.4

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>D2</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>10</u>	Average number of young produced (≥15 young) <u>22</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>94%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>—</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>1029</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>28</u>	
Dilution Water	Pail label / preparation date <u>F:02/22</u>	Weekly water hardness (mg/L) <u>81</u>
Comments:	<u>in glass jars 24 hr updates</u>	

APPENDIX C – Chain-of-custody form

Teck

COC ID:		20170227-Acute Toxicity		TURNAROUND TIME:		REGULAR		RUSH:				
PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job# WLC AWTE Project Manager: Thomas Davidson Email: Thomas.Davidson@teck.com Address: 15 Km North HWY 43				Lab Name: Neutria Environmental Lab Contact: Jacklyn Pool Email: Jacklyn@NeutriaEnvironmental.ca Address: #4, 6125 - 12 Street SE				Report Delivery Formats: Email 1: thomas.davidson@teck.com Email 2: teckcoal@equisonline.com Email 3: teckwclab@epcor.com Email 4: Chris.Senechal@teck.com Email 5: colin.lyndh@teck.com		Excel	PDF	EDD
City: Sparwood Postal Code: V0B 2G0 Phone Number: 250.603.9417		Province: BC Country: Canada		City: Calgary Postal Code: T2H 2K1 Phone Number: +1.403.253.7121		Province: AB Country: Canada		VPO 00473572 <small>Revised: 01-04-11, 04-11, 05-11, 06-11, 07-11, 08-11, 09-11, 10-11, 11-11, 12-11</small>				
SAMPLE DETAILS												
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# OF Cont.	ANALYSIS REQUESTED				
LC_WTE_IN_20170227_NP	LC_WTE_IN	WS	N	27-Feb-17	0800	G	3	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	N	N		
WL_BFWB_OUT_SPT1_20170227_N	WL_BFWB_OUT_SPT1	WS	N	27-Feb-17	0900	G	8	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	N	N		
								NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	N	N		
								EXTRA	N	N		
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION			DATE/TIME					
NB OF BOTTLES RETURNED/DESCRIPTION				SAMPLER'S NAME			MOBILE #					
Regular (default) X Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency < 1 Day, ASAP or Weekend - Contact ALS				Jacklyn Traverse Jacklyn Traverse			27-Feb-17					

4.9°C 30/7/02/128
 1140 SW/5N
 6x 20L cany + 6 x 1L bottles
 No S/I good condition
 Dropoff (ALS), Manatoulin (originality)

END OF REPORT



Acute Toxicity Test Results

Samples collected February 27, 2017

Final Report –Revision 1

February 24, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temper ature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation 10°C	<i>Daphnia magna</i> test initiation 20°C	
WL_BFWB_OUT_SP21_2017 0227_N/ 1617-0719-02	27-Feb- 17 at 0900h	28-Feb- 17 at 1140h	02-Mar- 17 at 0930h	02-Mar-17 at 1425h	02-Mar-17 at 1415h	4.9°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test at 10° Celsius
- *Daphnia magna* 48-h single concentration screening test at 20° Celsius

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170227_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170227_N	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.8-3.7) g/L KCl ¹	4.9 (4.6-5.3) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	6.6%	5.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, March 2, 2017; ² Test Date March 7, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Natalie McDermott, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	385 mL plastic vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival for single concentration test
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	385 mL plastic vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method JRS

Client TEU64

Reference 1617-0719-02

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:
0	2017/03/02	0930*	EP	1	NM	7.5
1	2017/03/03	0755	EW	-	HS	Initial EC (µS/cm): 1647
2	2017/03/04	0915	EP	-	HS	Initial DO (mg/L): 10.4
3	2017/03/05	0930	EP	-	NM	Initial Temp (°C): 9.4
4	2017/03/06	0930	EP/MU 1	-	NM	Salinity (ppt): 3

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time

0.5 hours	1 hour	1.5 hours	2 hours
9.0			

DO(mg/L) of 100%

Test Chemistry and Biology

Conc.	CTL	100					
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pH (units) (range: 5.5-8.5)

Day 0	7.8	7.8					
Day 4	8.0	8.0					

EC (uS/cm)

Day 0	458	482					
Day 4	752	1445					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.9	9.0					
Day 4	8.8	8.9					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	13.7	13.5					
Day 4	14.1	14.3					

Number Alive (In brackets number stressed)

Day 0	10	10					
Day 1	10	10					
Day 2	10	10					
Day 3	10	10					
Day 4	10	10					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information		
Control Fish	Length (cm)	Weight (g)	Batch	20170216TR	
1	3.0	0.2	Source	San Livingston	
2	2.8	0.2	Days Held	14	
3	3.0	0.3	Mean Length (cm):	2.9	
4	2.8	0.2	Length Range (cm):	2.8-3.3	
5	2.8	0.2	Mean Weight (g):	0.3	
6	2.8	0.2	Weight Range (g):	0.2-0.4	
7	2.8	0.2	Percent stock mortality (7 days prior to test, must be ≤2%)	0%	
8	3.3	0.4	Test Volume (L)	20	
9	3.3	0.4			
10	2.8	0.2			

Comments:

Needs 24 Hour updates

Method DAS 10°C

Client TEC164

Reference 1617-0719-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017102128	1425	JW/LC	3	JN	7.5	1647	10.4	9.4	3
1	2017103101	0910	NJM	-	JN					
2	2017103107	0855	NJM	3	NJM					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.3	7.2	7.4	7.4	7.4	7.5			
2	7.6	7.6	7.6	8.0	8.0	8.0			

EC (µS/cm)

0	273	273	271	1503	1511	1524			
2	275	290	290	1568	1581	1570			

DO (mg/L) (40-100% saturation at test temp.)

0	9.4	9.3	9.4	9.4	9.4	9.4			
2	9.3	9.4	9.4	9.4	9.5	9.5			

Temperature (°C) (range: 17.5-22.5 °C)

0	11.1	11.2	11.1	11.2	11.1	11.2			
2	11.2	11.3	11.3	11.3	11.4	11.3			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C5 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 23.4
 Were test treatments randomized on test tray? (Yes/No) Yes

Sample
 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): — Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1033 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) —

Dilution Water
 Pail label / preparation date F:02122 Weekly water hardness (mg/L) 81

Comments:
in glass jars 24 hr updated

Method OAS 20°C

 Client TEC164

 Reference 1617-0719-02
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	20171021/29	1415	JW/LLC	3	JN	Initial pH:	<u>7.5</u>
1	20171031/01	0900	NW	-	JN	Initial EC (µS/cm):	<u>1647</u>
2	20171031/07	0845	RW	3	NW	Initial DO (mg/L):	<u>10.4</u>
						Initial Temp (°C):	<u>9.4</u>
						Salinity (ppt):	<u>3</u>

Lab Code	<u>CTLA</u>	<u>CTLB</u>	<u>CTLC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>			
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day	pH (units) (range: 6.0-8.5)								
0	<u>7.7</u>	<u>7.8</u>	<u>7.7</u>	<u>7.9</u>	<u>7.9</u>	<u>8.0</u>			
2	<u>7.7</u>	<u>7.6</u>	<u>7.7</u>	<u>7.9</u>	<u>8.0</u>	<u>8.0</u>			

day	EC (µS/cm)								
0	<u>264</u>	<u>277</u>	<u>278</u>	<u>1502</u>	<u>1522</u>	<u>1524</u>			
2	<u>289</u>	<u>305</u>	<u>293</u>	<u>1560</u>	<u>1573</u>	<u>1578</u>			

day	DO (mg/L) (40-100% saturation at test temp.)								
0	<u>8.1</u>	<u>8.1</u>	<u>8.1</u>	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>			
2	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>			

day	Temperature (°C) (range: 17.5-22.5 °C)								
0	<u>19.4</u>	<u>19.4</u>	<u>19.6</u>	<u>17.9</u>	<u>17.8</u>	<u>17.8</u>			
2	<u>19.5</u>	<u>19.4</u>	<u>19.6</u>	<u>20.1</u>	<u>20.1</u>	<u>19.8</u>			

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10(20)</u>	<u>10</u>			
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>01</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>10</u>	Average number of young produced (≥15 young) <u>22</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>109%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>20 min</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>1033</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>F:02/22</u>	Weekly water hardness (mg/L) <u>81</u>
Comments:	<u>in glass jars 24 hr updates</u>	

APPENDIX C – Chain-of-custody form

Teck

COC ID:		20170227-Acute Toxicity		TURNAROUND TIME:		REGULAR		RUSH:						
PROJECT/CLIENT INFO				LABORATORY				OTHER INFO						
Facility Name / Job# WLC AWTE Project Manager: Thomas Davidson Email: Thomas.Davidson@teck.com Address: 15 Km North HWY 43				Lab Name: Neutria Environmental Lab Contact: Jacklyn Pool Email: Jacklyn@NeutriaEnvironmental.ca Address: #4, 6125 - 12 Street SE				Report Delivery Formats: Email 1: thomas.davidson@teck.com Email 2: teckcoal@equisonline.com Email 3: teckwclab@epcor.com Email 4: Chris.Senechal@teck.com Email 5: colin.lyndh@teck.com		Excel	PDF	EDD		
City: Sparwood Postal Code: V0B 2G0 Phone Number: 250.603.9417				City: Calgary Postal Code: T2H 2K1 Phone Number: +1.403.253.7121				Province: BC Country: Canada		Province: AB Country: Canada		VPO 00473572 <small>Revised: 01-04-2014, 02-11-2014, 03-11-2014, 04-11-2014, 05-11-2014, 06-11-2014, 07-11-2014, 08-11-2014, 09-11-2014, 10-11-2014, 11-11-2014, 12-11-2014</small>		
SAMPLE DETAILS														
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# OF Cont.	ANALYSIS REQUESTED	PRESERV.	FILE				
LC_WTE_IN_20170227_NP	LC_WTE_IN	WS	N	27-Feb-17	0800	G	3	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	N	N				
WL_BPWV_OUT_SPT1_20170227_N	WL_BPWV_OUT_SPT1	WS	N	27-Feb-17	0900	G	8	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	N	N				
								NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	N	N				
								EXTRA	N	N				
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION				DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME		
NB OF BOTTLES RETURNED/DESCRIPTION														
Regular (default) X					Sampler's Name					Mobile #				
Priority (2-3 business days) - 50% surcharge					Sampler's Signature					Date/Time				
Emergency (1 Business Day) - 100% surcharge					Jacklyn Traverse Jacklyn Traverse					27-Feb-17				
For Emergency <1 Day, ASAP or Weekend - Contact ALS														

4.9°C 30/7/02/128
 1140 SW/5N
 6x 20L cany + 6 x 1L bottles
 No S/I good condition
 Dropoff (ALS), Manatoulin (originality)

END OF REPORT



Acute Toxicity Test Results

Samples collected March 6, 2017

Final Report – Revision 1

February 24, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	<i>Daphnia magna</i> test initiation	
LC_WTF_IN_20170306_NP/ 1617-0738-01	6-Mar-17 at 0800h	07-Mar- 17 at 0930h	08-Mar- 17 at 1130h	07-Mar- 17 at 1345h	07-Mar- 17 at 1400h	7.5°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test at 10°C

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170306_NP	100	100	100

Sample ID	<i>Daphnia magna</i> Percent Immobility in 100 (% v/v)	
	10°C	20°C
LC_WTF_IN_20170306_NP	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.8-3.7) g/L KCl ¹	4.9 (4.6-5.3) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	6.6%	5.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, March 2, 2017; ² Test Date March 7, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Natalie McDermott, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass jars
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass jars
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS 10°C

Client REC164

Reference 1617-0338-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/03/07	1400	JNJW	3	LC	7.5	1446	8.3	16.7	2
1	2017/03/08	1140	JN	-	TW					
2	2017/03/09	1030	HS	3	JN					

Lab Code	CT1A	CT1B	CT1C	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.6	7.6	7.6	7.7	7.7	7.7			
2	7.6	7.6	7.6	7.9	8.0	8.0			

EC (µS/cm)

0	289	296	298	1554	1554	1559			
2	247	353	364	1803	1802	1846			

DO (mg/L) (40-100% saturation at test temp.)

0	9.5	9.5	9.5	9.4	9.5	9.5			
2	9.5	9.5	9.5	9.5	9.5	9.5			

Temperature (°C) (range: 17.5-22.5 °C)

0	11.1	11.2	11.2	11.2	11.2	11.3			
2	11.0	11.1	11.2	11.1	11.1	11.1			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 7.1

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 30.8
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1039 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date F 0301 Weekly water hardness (mg/L) 24

Comments:
x in glass jars, 24 hr updates No precipitate

Method DAS 209

Client TECIBU

Reference 1617-0738-C1

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information			
0	2017/03/07	1345	JN/JW	3	LC	Initial pH:	7.5		
1	20170308	1135	JN	-	JW	Initial EC (µS/cm):	1446		
2	2017103/09	1030	HS	3	JN	Initial DO (mg/L):	8.3		
						Initial Temp (°C):	16.7		
						Salinity (ppt):	3		
Lab Code	CTVA	CTVB	CTVC	100A	100B	100C			

day	pH (units) (range: 6.0-8.5)								
0	7.5	7.5	7.5	7.9	7.9	7.9			
2	7.9	7.9	7.9	8.1	8.2	8.2			

	EC (µS/cm)								
0	299	296	296	1486	1502	1504			
2	370	386	377	1754	1729	1770			

	DO (mg/L) (40-100% saturation at test temp.)								
0	8.1	8.1	8.1	8.1	8.1	8.1			
2	8.1	8.1	8.1	7.9	7.9	7.9			

	Temperature (°C) (range: 17.5-22.5 °C)								
0	18.2	18.7	18.3	18.6	18.6	18.6			
2	19.1	19.1	19.1	19.6	19.6	19.6			

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 71

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 30.8
 Were test treatments randomized on test tray? Yes No

Sample
 DO % of sample prior to aeration: 112 Is aeration required (<40% or >100%)? Yes No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 Filtered with 110µm screen prior to testing Yes No
 Hardness (mg CaCO₃/L) of 100%: 1039 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date F 03/01 Weekly water hardness (mg/L) 84

Comments: x in glass jars, 24 hr updates No precipitate

Method TRS Client TEC164 Reference 1617-0738-01

Test Log						Sample Information	
Day	Date	Time	Initial	Chem. Cart	Daily Data Review		
0	2017/03/08	10:30 ¹¹³⁰	NU	1	JN	Initial pH:	7.5
1	2017/03/09	0815	NU	-	JN	Initial EC (µS/cm):	1496
2	2017/03/10	0800	HS	-	JN	Initial DO (mg/L):	8.3
3	2017/03/11	0930	HS	-	LC	Initial Temp (°C):	16.7
4	2017/03/12	0830	EP	1		Salinity (ppt):	2
						Nets used: yes / no	(no)

Note: *, time when the test was loaded with fish

Sample Pre-Aeration
Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no
Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
DO(mg/L) of 100%: 9.3 8.9

Test Chemistry and Biology

Conc.	CTL	100					
pH (units) (range: 5.5-8.5)							
Day 0	8.2	8.3					
Day 4	8.0	8.0					
EC (uS/cm)							
Day 0	549	1893					
Day 4	554	1905					
DO (mg/L) (70-100% saturation at test temp.)							
Day 0	8.8	8.9					
Day 4	8.7	8.8					
Temperature (°C) (range: 13.5-16.5 °C)							
Day 0	13.8	13.8					
Day 4	14.9	14.8					
Number Alive (In brackets number stressed)							
Day 0	10	10					
Day 1	10	10					
Day 2	10	10					
Day 3	10	10					
Day 4	10	10					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	3.0	0.3	Loading Density (g/L): <u>0.195</u> Mean Length (cm): <u>3.2</u> Length Range (cm): <u>3.0-3.3</u> Mean Weight (g): <u>0.4</u> Weight Range (g): <u>0.3-0.5</u>	Batch: <u>20170216 TR</u>
2	3.0	0.3		Source: <u>Sam Livingston</u>
3	3.3	0.5		Days Held: <u>20</u>
4	3.3	0.4		Percent stock mortality (7 days prior to test, must be ≤2%): <u>0%</u>
5	3.2	0.4		Test Volume (L): <u>20</u>
6	3.3	0.5		
7	3.1	0.3		
8	3.2	0.4		
9	3.0	0.3		
10	3.3	0.5		

Comments :

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170306-Acute Toxicity		TURNAROUND TIME: REGULAR		RUSH:				
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO		
Facility Name / Job# WLC AWTF		Lab Name Nautilus Environmental		Report Delivery Formats		Excel	PDF	EDD
Project Manager Thomas Davidson		Lab Contact Jacklyn Pool		Email 1: thomas.davidson@teck.com		X	X	X
Email Thomas.Davidson@teck.com		Email Jacklyn@NautilusEnvironmental.ca		Email 2: teckcoal@equisonline.com		X	X	X
Address 15 Km North HWY 43		Address #4, 6125 - 12 Street SE		Email 3: teckwclab@epcor.com		X	X	X
City Sparwood		Province BC	City Calgary	Province AB	Email 4: Chris.Stroich@teck.com		X	X
Postal Code V0B 2G0		Country Canada	Postal Code T2H 2K1	Country Canada	Email 5: colin.lynch@teck.com		X	X
Phone Number 250.603.9417		Phone Number +1.403.253.7121		VPO 00473572				

SAMPLE DETAILS								ANALYSIS REQUESTED				Filtered - F: Field, L: Lab, FL: Field & Lab, N: None			
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	EXTRA				
LC_WTF_IN_20170306_NP 1617-0738-01	LC_WTF_IN	WS	N	6-Mar-17	0800	G	3	X	X	X					
WL_BFWB_OUT_SP21_20170306_N 1617-0738-02	WL_BFWB_OUT_SP21	WS	N	6-Mar-17	0900	G	8	X	X	X	X				

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name		Mobile #	
Regular (default) <input checked="" type="checkbox"/>		Jacklyn Traverse			
Priority (2-3 business days) - 50% surcharge		Jacklyn Traverse		Date/Time	
Emergency (1 Business Day) - 100% surcharge				6-March-17	
For Emergency <1 Day, ASAP or Weekend - Contact ALS					

2017/03/07 EP
0930
Montoulin
No E/S
good condition
6x 2L bottles, 5x 20L carboys
7.5°C

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END OF REPORT



Acute Toxicity Test Results

Samples collected March 6, 2017

Final Report – Revision 1

February 24, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	<i>Daphnia magna</i> test initiation	
WL_BFWB_OUT_SP21_20170306_N/ 1617-0738-02	6-Mar-17 at 0900h	07-Mar- 17 at 0930h	08-Mar- 17 at 1130h	07-Mar- 17 at 1400h	07-Mar- 17 at 1350h	7.5°C

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test at 10°C

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170306_N	100	100	100

Sample ID	<i>Daphnia magna</i> Percent Immobility in 100 (% v/v)	
	10°C	20°C
WL_BFWB_OUT_SP21_20170306_N	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.8-3.7) g/L KCl ¹	4.9 (4.6-5.3) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	6.6%	5.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, March 2, 2017; ² Test Date March 7, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Natalie McDermott, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass jars
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass jars
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS 202

Client TECIBU

Reference 1617-0738-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	7.2
0	2017103107	1350	JN/JW	3	LC	Initial EC (µS/cm):	1514
1	20170308	1135	JN	-	JW	Initial DO (mg/L):	8.9
2	2017103109	1030	HS	3	JN	Initial Temp (°C):	16.1
						Salinity (ppt):	3
Lab Code	CTLA	CTLB	CTLC	100A	100B	100C	

day	pH (units) (range: 6.0-8.5)					
0	7.7	7.7	7.6	7.8	7.8	7.8
2	7.8	7.8	7.8	8.1	8.1	8.2

day	EC (uS/cm)					
0	294	296	297	1555	1550	1567
2	328	370	364	1741	1794	1824

day	DO (mg/L) (40-100% saturation at test temp.)					
0	8.2	8.2	8.2	8.1	8.1	8.1
2	8.0	8.0	8.1	7.9	7.9	7.9

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	18.2	18.3	18.3	18.6	18.7	18.6
2	19.0	19.2	19.3	19.8	19.8	19.9

Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)						
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 7%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 30.8
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 110 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1020 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date F0301 Weekly water hardness (mg/L) 84

Comments: * in glass jars, 24 hr updates No precipitate.

Method DAS 10°C

 Client RECBU

 Reference 1617-0738-02
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/03/07	1400	JN/JW	3	LC	7.2	1514	8.9	16.1	3
1	2017/03/08	1140	JN	-	PLW					
2	2017/03/09	1030	HS	3	JN					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.6	7.6	7.6	7.3	7.3	7.3
2	7.6	7.6	7.5	7.9	8.0	8.0

	EC (µS/cm)					
0	287	295	299	1587	1594	1603
2	354	354	373	1994	1920	1952

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.6	9.5	9.5	9.5	9.6	9.5
2	9.5	9.5	9.5	9.5	9.5	9.5

	Temperature (°C) (range: 17.5-22.5 °C)					
0	11.3	11.2	11.2	11.1	11.2	11.2
2	11.0	11.1	11.2	11.1	11.1	11.2

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>024</u>	Jar(s) mortality 7 days prior to test (must be ≤25%)	<u>7%</u>
QA (previous month)	Days to first brood (≤12 days)	<u>9</u>	
	Average number of young produced (≥15 young)	<u>30.8</u>	
	Were test treatments randomized on test tray?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>100%</u>	Is aeration required (<40% or >100%)?	<input checked="" type="radio"/> Yes <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing	<input checked="" type="radio"/> Yes <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>1020</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)?	<input checked="" type="radio"/> Yes <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L)	<u>-</u>	
Dilution Water	Pail label / preparation date	<u>F0301</u>	Weekly water hardness (mg/L) <u>84</u>
Comments:	* in glass jars, 24 hr updates <u>No precipitate</u>		

Method TRS Client TEC164 Reference 1617-0738-02

Test Log					Sample Information	
Day	Date	Time	Initial	Chem. Cart	Daily Data Review	
0	<u>2017/03/08</u>	<u>1130 *</u>	<u>NM</u>	<u>1</u>	<u>JN</u>	Initial pH: <u>7.2</u>
1	<u>2017/03/09</u>	<u>0815</u>	<u>TW</u>	<u>-</u>	<u>JN</u>	Initial EC (µS/cm): <u>1514</u>
2	<u>2017/03/10</u>	<u>0800</u>	<u>HS</u>	<u>-</u>	<u>JN</u>	Initial DO (mg/L): <u>8.9</u>
3	<u>2017/03/11</u>	<u>0930</u>	<u>HS</u>	<u>-</u>	<u>LC</u>	Initial Temp (°C): <u>16.1</u>
4	<u>2017/03/12</u>	<u>0830</u>	<u>EP</u>	<u>1</u>		Salinity (ppt): <u>3</u>
						Nets used: yes / <u>no</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no
 Preaeration time: 0.5 hours / 1 hour / 1.5 hours / 2 hours
 DO(mg/L) of 100%: 9.3 / 8.9 / / /

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>8.1</u>	<u>8.0</u>				
Day 4	<u>8.0</u>	<u>8.0</u>				

EC (uS/cm)

Day 0	<u>523</u>	<u>173</u>				
Day 4	<u>529</u>	<u>178</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.8</u>	<u>8.9</u>				
Day 4	<u>8.5</u>	<u>8.7</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>13.8</u>	<u>13.8</u>				
Day 4	<u>15.4</u>	<u>15.3</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information		
Control Fish	Length (cm)	Weight (g)			
1	<u>3.2</u>	<u>0.3</u>	Loading Density (g/L): <u>0.205</u> Mean Length (cm): <u>3.2</u> Length Range (cm): <u>3.0-3.6</u> Mean Weight (g): <u>0.4</u> Weight Range (g): <u>0.3-0.7</u>	Batch	<u>2010216TR</u>
2	<u>3.3</u>	<u>0.4</u>		Source	<u>Sam Livingston</u>
3	<u>3.3</u>	<u>0.5</u>		Days Held	<u>20</u>
4	<u>3.3</u>	<u>0.5</u>		Percent stock mortality (7 days prior to test, must be ≤2%)	<u>0%</u>
5	<u>3.0</u>	<u>0.3</u>		Test Volume (L)	<u>20</u>
6	<u>3.1</u>	<u>0.3</u>			
7	<u>2.1</u>	<u>0.4</u>			
8	<u>3.0</u>	<u>0.3</u>			
9	<u>3.6</u>	<u>0.7</u>			
10	<u>3.2</u>	<u>0.4</u>			
Comments :					

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170306-Acute Toxicity		TURNAROUND TIME: REGULAR		RUSH:				
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO		
Facility Name / Job# WLC AWTF		Lab Name Nautilus Environmental		Report Delivery Formats		Excel	PDF	EDD
Project Manager Thomas Davidson		Lab Contact Jacklyn Pool		Email 1: thomas.davidson@teck.com		X	X	X
Email Thomas.Davidson@teck.com		Email Jacklyn@NautilusEnvironmental.ca		Email 2: teckcoal@equisonline.com		X	X	X
Address 15 Km North HWY 43		Address #4, 6125 - 12 Street SE		Email 3: teckwclab@epcor.com		X	X	X
City Sparwood		Province BC	City Calgary	Province AB	Email 4: Chris.Stroich@teck.com		X	X
Postal Code V0B 2G0		Country Canada	Postal Code T2H 2K1	Country Canada	Email 5: colin.lynch@teck.com		X	X
Phone Number 250.603.9417		Phone Number +1.403.253.7121				VPO 00473572		

SAMPLE DETAILS								ANALYSIS REQUESTED				Filtered - F: Field, L: Lab, FL: Field & Lab, N: None			
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	EXTRA				
LC_WTF_IN_20170306_NP <i>1617-0738-01</i>	LC_WTF_IN	WS	N	6-Mar-17	<i>0800</i>	G	3	X	X	X					
WL_BFWB_OUT_SP21_20170306_N <i>1617-0738-02</i>	WL_BFWB_OUT_SP21	WS	N	6-Mar-17	<i>0900</i>	G	8	X	X	X	X				

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name		Mobile #
Regular (default) <input checked="" type="checkbox"/>	Priority (2-3 business days) - 50% surcharge	Priority (1 Business Day) - 100% surcharge		For Emergency <1 Day, ASAP or Weekend - Contact ALS
		Sampler's Signature <i>Jacklyn Traverse</i>		Date/Time <i>6-March-17</i>

*2017/03/07 EP
0930
Montoulin
No E/S
good condition
6x 2L bottles, 5x 20L carboys
7.5°C*

16

END OF REPORT



Acute Toxicity Test Results

Sample collected March 12, 2017

Final Report – Revision 1

February 24, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170312_NP/ 1617-0755-01	12-Mar- 17 at 0800h	14-Mar- 17 at 1015h	15-Mar- 17 at 1340h	14-Mar- 17 at 1500h	14-Mar- 17 at 1445h	10°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170312_NP	10°C	1025	216

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test at 10°C

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170312_NP	100	100	97

Sample ID	<i>Daphnia magna</i> Percent Immobility in 100 (% v/v)	
	10°C	20°C
LC_WTF_IN_20170312_NP	0	7

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170312_NP	Rainbow trout	None	None
LC_WTF_IN_20170312_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.8-3.7) g/L KCl ¹	4.9 (4.6-5.3) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	6.6%	5.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date March 2, 2017; ² Test date March 7, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	19 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass jars
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 20°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass jars
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS 10°C

Client TECLBY

Reference 1617-0755-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/03/14	1500	JWNJM	3	JN	7.8	1916	8.5	19.8	2
1	2017/03/15	1030	LC	-	JN					
2	2017/03/16	1100	JN	3	JW					

Lab Code	C1VA	C1VB	C1VC	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)					
0	7.8	7.8	7.8	7.8	7.8	7.8
2	7.7	7.7	7.7	8.1	8.1	8.1

	EC (µS/cm)					
0	325	338	325	1758	1776	1764
2	305	313	321	1524	1541	1610

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.6	9.6	9.6	9.6	9.6	9.6
2	9.5	9.5	9.5	9.5	9.5	9.5

	Temperature (°C) (range: 17.5-22.5 °C)					
0	11.4	11.4	11.4	11.3	11.3	11.2
2	11.4	11.3	11.3	11.3	11.4	11.3

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10 (ZF)	10 (IF)	10 (ZF)
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)

Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 28.6
 Were test treatments randomized on test tray? Yes / No

Sample

DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1025 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water

Pail label / preparation date F: 03/09 Weekly water hardness (mg/L) 84

Comments:

Test set in glass jars + Needs 24HR updates + No precipitate on T.D. JN

Daphnia Bench Sheet

 Method DAS 20°C

 Client TEC164

 Reference 1617-0755-01
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	2017/03/14	1445	TW/NM	3	JN	Initial pH:	7.8
1	2017/03/15	1040	LC	-	JN	Initial EC (µS/cm):	1916
2	2017/03/16	1150	JN	3	TW	Initial DO (mg/L):	8.5
						Initial Temp (°C):	19.8
						Salinity (ppt):	2

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.8	7.8	7.8	7.9	8.0	8.0
2	7.8	7.8	7.8	8.1	8.1	8.1

day	EC (µS/cm)					
0	317	322	326	1740	1761	1765
2	299	307	306	1580	1607	1609

day	DO (mg/L) (40-100% saturation at test temp.)					
0	7.9	7.9	7.9	8.0	8.0	8.0
2	7.7	7.7	7.7	7.8	7.8	7.8

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	19.8	19.8	19.6	19.4	19.3	19.3
2	20.8	20.7	20.8	20.1	20.1	20.2

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10 (IF)	10 (IF)	10
2	10	10	10	9 (IF)	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture

 Young jar DS Jar(s) mortality 7 days prior to test (must be ≤25%) 0%
QA (previous month)

 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 28.6
 Were test treatments randomized on test tray? Yes / No

Sample

 DO % of sample prior to aeration: 127% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 70 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1025 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -
Dilution Water

 Pail label / preparation date F: 03/09 Weekly water hardness (mg/L) 84
Comments:

TEST set in Glass Jars. * Needs 24hr. updates * No precipitate on T-D JN

Method TRS Client TEC164 Reference 1617-0755-01

Test Log						Sample Information	
Day	Date	Time	Initial	Chem. Cart	Daily Data Review		
0	2017/03/15	1340*	JN/JW	1	LC	Initial pH:	7.8
1	2017/03/16	1115	JW	-	JN	Initial EC (µS/cm):	1916
2	2017/03/17	0800	HS	-	JN	Initial DO (mg/L):	8.5
3	2017/03/18	1030	HS	-	LC	Initial Temp (°C):	19.8
4	2017/03/19	1430	DM/EP	1	BP	Salinity (ppt):	2
						Nets used: yes / (no)	

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L (yes/no) yes
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 9.0

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.8</u>	<u>8.2</u>					
Day 4	<u>8.0</u>	<u>8.2</u>					

EC (uS/cm)

Day 0	<u>541</u>	<u>1211</u>					
Day 4	<u>1747</u>	<u>1731</u>					
	<u>600</u>						

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.9</u>	<u>9.0</u>					
Day 4	<u>9.0</u>	<u>8.9</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.1</u>	<u>13.9</u>					
Day 4	<u>14.0</u>	<u>14.0</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>3.3</u>	<u>0.4</u>	Loading Density (g/L):	Batch <u>20170216TR</u>
2	<u>3.7</u>	<u>0.3</u>		Source <u>Sam Livingston</u>
3	<u>3.2</u>	<u>0.3</u>	Mean Length (cm):	Days Held <u>27</u>
4	<u>3.2</u>	<u>0.3</u>		Percent stock mortality <u>0.16</u> (7 days prior to test, must be ≤2%)
5	<u>3.2</u>	<u>0.3</u>	Length Range (cm):	Test Volume (L) <u>19</u>
6	<u>3.3</u>	<u>0.4</u>		
7	<u>3.1</u>	<u>0.3</u>	Mean Weight (g):	
8	<u>3.0</u>	<u>0.3</u>	Weight Range (g):	
9	<u>3.3</u>	<u>0.3</u>		
10	<u>3.1</u>	<u>0.3</u>		

Comments: * 24 hr updates

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected March 13, 2017

Final Report – Revision 1

February 24, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_20170313 _N/ 1617-0755-02	13-Mar- 17 at 0900h	14-Mar- 17 at 1015h	15-Mar- 17 at 1345h	14-Mar- 17 at 1500h	07-Mar- 17 at 1445h	10°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170313_N	10°C	938	227

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test at 10°C

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170313_N	100	100	100

Sample ID	<i>Daphnia magna</i> Percent Immobility in 100 (% v/v)	
	10°C	20°C
WL_BFWB_OUT_SP21_20170313_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170313_N	Rainbow trout	None	None
WL_BFWB_OUT_SP21_20170313_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.8-3.7) g/L KCl ¹	4.9 (4.6-5.3) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	6.6%	5.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date March 2, 2017; ² Test date March 7, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	19 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass jars
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 20°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass jars
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS 10°C

 Client IEC164

 Reference 1617-0755-02
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	2017/03/14	1500	JWINM	3	JN	Initial pH:	7.5
1	2017/03/15	1035	LC	-	JN	Initial EC (µS/cm):	980
2	2017/03/16	1100	JN	3	JW	Initial DO (mg/L):	8.7
						Initial Temp (°C):	10.1
						Salinity (ppt):	1

Lab Code	C1A	C1B	C1C	100A	100B	100C			

day	pH (units) (range: 6.0-8.5)								
0	7.9	7.9	7.9	7.5	7.5	7.5			
2	7.7	7.7	7.7	7.9	7.9	8.0			

day	EC (µS/cm)								
0	318	329	327	1820	1834	1833			
2	322	314	320	1672	1710	1711			

day	DO (mg/L) (40-100% saturation at test temp.)								
0	9.6	9.6	9.6	9.6	9.6	9.6			
2	9.5	9.5	9.5	9.5	9.5	9.5			

day	Temperature (°C) (range: 17.5-22.5 °C)								
0	11.4	11.4	11.4	11.3	11.3	11.3			
2	11.2	11.2	11.3	11.3	11.4	11.3			

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>D2</u>	Jar(s) mortality 7 days prior to test (must be ≤25%)	<u>0%</u>
QA (previous month)	Days to first brood (≤12 days)	<u>9</u>	
	Average number of young produced (≥15 young)	<u>28.6</u>	
	Were test treatments randomized on test tray?	<input checked="" type="radio"/> Yes / No	
Sample	DO % of sample prior to aeration:	<u>100%</u>	Is aeration required (<40% or >100%)? Yes or No <input checked="" type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L):	<u>-</u>	Filtered with 110µm screen prior to testing Yes or No <input checked="" type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%:	<u>93.8</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? Yes or No <input checked="" type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L)	<u>-</u>	
Dilution Water	Pail label / preparation date	<u>F: 03/09</u>	Weekly water hardness (mg/L) <u>84</u>
Comments:	<u>Test set in glass jars a Needs 24hr. updates *</u> <u>No Precipitate on T.D</u> <u>JN</u>		

Method DAS 20°C

 Client TECIBU

 Reference 1617-0755-02
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	7.5
0	2017/03/14	1445	JWN/JM	3	JN	Initial EC (µS/cm):	980
1	2017/03/15	1045	ZC	-	JN	Initial DO (mg/L):	8.7
2	2017/03/16	1150	JN	3	JW	Initial Temp (°C):	19.1
						Salinity (ppt):	1

Lab Code	CTLA	CTLR	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.8	7.8	7.8	7.9	7.9	7.9			
2	7.9	7.9	7.9	8.1	8.1	8.1			

EC (µS/cm)

0	323	327	328	1804	1815	1803			
2	301	302	293	1578 1578	1588	1599			

DO (mg/L) (40-100% saturation at test temp.)

0	8.0	8.0	8.0	8.1	8.1	8.1			
2	7.8	7.8	7.8	7.8	7.8	7.8			

Temperature (°C) (range: 17.5-22.5 °C)

0	19.4	19.4	19.4	19.3	19.3	19.3			
2	20.2	20.2	20.2	20.3	20.3	20.3			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>D4</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>9</u>	Average number of young produced (≥15 young) <u>28.6</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes // <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>120%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>20 mins</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>938</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>F:03/09</u>	Weekly water hardness (mg/L) <u>84</u>
Comments:	<u>Test set in glass jars. * Needs 24hr. updates *</u> <u>No precipitate on T.D JN</u>	

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected March 26, 2017

Final Report – Revision 1

February 27, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation (10°C)	<i>Daphnia magna</i> test initiation	
LC_WTF_IN_ 20170326_NP/ 1617-0797-01	26-Mar-17 at 0800h	28-Mar-17 at 0900h	29-Mar-17 at 0915h	28-Mar-17 at 1445h	28-Mar-17 at 1345h	10.5°C

Sample chemistry

Sample ID	Temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170326_NP	16.5°C	731	263

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170326_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170326_NP	0	0

Precipitate observations

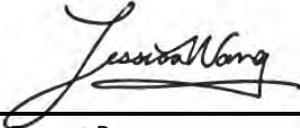
Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170326_NP	<i>Daphnia magna</i> @10°C	None	None
	<i>Daphnia magna</i> @20°C	None	White precipitate observed, floating on water surface

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.8-3.7) g/L KCl ¹	5.4 (5.2-5.6) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.7) g/L KCl	4.9 (4.2-5.7) g/L NaCl
Reference toxicant CV	6.6%	4.9%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date March 2, 2017; ² Test date March 21, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston Fish hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRK Client TEU64 Reference 1617-0797-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/03/29	0915*	EP	1	HS
1	2017/03/30	0845	JW	-	JN
2	2017/03/31	0800	LC	-	JN
3	2017/04/01	1040	JN	-	HS
4	2017/04/02	1045	JW/NM	1	NM

Sample Information

Initial pH: 7.9
 Initial EC (µS/cm): 1630
 Initial DO (mg/L): 9.3
 Initial Temp (°C): 16.5
 Salinity (ppt): 4
 Nets used: yes / (no)

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100% 9.0

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.2</u>	<u>7.7</u>					
Day 4	<u>8.0</u>	<u>7.9</u>					

EC (uS/cm)

Day 0	<u>506</u>	<u>1758</u>					
Day 4	<u>514</u>	<u>1637</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.8</u>	<u>9.0</u>					
Day 4	<u>8.8</u>	<u>8.9</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.2</u>	<u>14.0</u>					
Day 4	<u>14.3</u>	<u>14.3</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>3.2</u>	<u>0.3</u>	Loading Density (g/L): <u>0.14</u>	Batch <u>20170416TR</u>
2	<u>3.0</u>	<u>0.3</u>		Source <u>Sam Livingston</u>
3	<u>3.0</u>	<u>0.3</u>	Mean Length (cm): <u>3.0</u>	Days Held <u>41</u>
4	<u>3.0</u>	<u>0.3</u>		Percent stock mortality <u>0.1</u> (7 days prior to test, must be ≤2%)
5	<u>2.9</u>	<u>0.2</u>	Length Range (cm): <u>2.8-3.2</u>	Test Volume (L) <u>20L</u>
6	<u>3.1</u>	<u>0.3</u>		
7	<u>2.8</u>	<u>0.2</u>	Mean Weight (g): <u>0.3</u>	
8	<u>3.1</u>	<u>0.3</u>	Weight Range (g): <u>0.2-0.3</u>	
9	<u>3.0</u>	<u>0.3</u>		
10	<u>2.9</u>	<u>0.2</u>		

Comments :

Method DAS 20°

Client TEUBH

Reference 1617-0797-01

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	2017/03/28	1345	EP/NNM	3	LC	Initial pH:	<u>7.9</u>
1	2017/03/29	0830	EP	-	HS	Initial EC (µS/cm):	<u>1630</u>
2	2017/03/30	1030	HS	3	JN	Initial DO (mg/L):	<u>9.3</u>
						Initial Temp (°C):	<u>16.5</u>
						Salinity (ppt):	<u>4</u>
Lab Code	<u>CPA</u>	<u>CPB</u>	<u>CPC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>	

day

	pH (units) (range: 6.0-8.5)					
0	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>
2	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>

	EC (µS/cm)					
0	<u>310</u>	<u>315</u>	<u>312</u>	<u>1744</u>	<u>1755</u>	<u>1751</u>
2	<u>321</u>	<u>341</u>	<u>342</u>	<u>1695</u>	<u>1682</u>	<u>1694</u>

	DO (mg/L) (40-100% saturation at test temp.)					
0	<u>8.1</u>	<u>8.1</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>
2	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>

	Temperature (°C) (range: 17.5-22.5 °C)					
0	<u>19.3</u>	<u>19.3</u>	<u>19.3</u>	<u>19.1</u>	<u>19.1</u>	<u>19.2</u>
2	<u>19.6</u>	<u>19.6</u>	<u>19.6</u>	<u>19.6</u>	<u>19.7</u>	<u>20.1</u>

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 8
Average number of young produced (≥15 young) 24.8
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 113% Is aeration required (<40% or >100%)? **Yes** or **No**
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 minutes Filtered with 110µm screen prior to testing **Yes** or **No**
Hardness (mg CaCO₃/L) of 100%: 731 Is hardness adjustment required (<25 mg CaCO₃/L)? **Yes** or **No**
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
Pail label / preparation date E03/23 Weekly water hardness (mg/L) 80

Comments:
Requires 24 hour updates alkalinity = 263
Set in glass jars, no precipitate present upon test initiation
white precipitate floating on water surface at test termination

Method DAS10°

Client TEC164

Reference 1617-0797-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/03/28	1445	EP	3	LC	7.9
1	2017/03/29	0830	EP	-	HS	1630
2	2017/03/30	1030	HS	3	JN	9.3
						Initial Temp (°C):
						16.5
						Salinity (ppt):
						4

Lab Code	CPLA	CPLB	CPLC	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)					
0	7.8	7.8	7.8	7.8	7.9	7.9
2	7.7	7.8	7.7	8.0	8.0	8.0

	EC (uS/cm)					
0	296	300	299	1705	1754	1753
2	315	305	311	1707	1796	1756

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.4	9.5	9.4	9.3	9.4	9.4
2	9.4	9.4	9.4	9.4	9.5	9.5

	Temperature (°C) (range: 17.5-22.5 °C)					
0	11.1	11.2	11.3	11.2	11.2	11.3
2	10.3	10.3	10.4	10.2	10.2	10.3

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar C3 Jar(s) mortality 7 days prior to test (must be ≤25%) 700!

QA (previous month)
Days to first brood (≤12 days) 9^{EP}
Average number of young produced (≥15 young) 25.6
Were test treatments randomized on test tray? Yes No

Sample
DO % of sample prior to aeration: 99% Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
Hardness (mg CaCO₃/L) of 100%: 731 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
Pail label / preparation date E^{PH} 03/23 Weekly water hardness (mg/L) 80

Comments:
Requires 24 hour updates
Set in glass jars, No precipitate upon test initiation,
while precipitate floating on water surface at test termination NS
No precipitate at test termination

alkalinity = 263

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170327-AcuteToxicity		TURNAROUND TIME:		RUSH:	
PROJECT/CLIENT INFO		LABORATORY		OTHER INFO	
Facility Name / Job# WLC AWTF Project Manager Thomas Davidson Email Thomas.davidson@teck.com Address 15 Km North HWY 43		Lab Name Nautilus Environmental Lab Contact Claudio Quinteros Email Claudio@NautilusEnvironmental.ca Address #4, 6125 - 12 Street SE		Report Delivery Formats Email 1: thomas.davidson@teck.com Email 2: teckcoal@equisonline.com Email 3: teckw/lab@epcor.com Email 4: Chris.Sroch@teck.com Email 5: colin.lynych@teck.com Email 6: michael.moore@teck.com	
City Sparwood Postal Code V0B 2G0 Phone Number 250.603.9417		City Calgary Postal Code T2H 2K1 Phone Number +1.403.253.7121		Province BC Country Canada	

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# Of Cont.	ANALYSIS REQUESTED						DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
								ANALYSIS	PREPARE	FILE	Test @ 10C	Test @ 20C	EXTRA			
LC_WTF_IN_20170326_NP	LC_WTF_IN	WS	N	26-Mar-17	8:00	G	3	N	N	N	N	N	N			
WL_BFWB_OUT_SP21_20170327_N	WL_BFWB_OUT_SP21	WS	N	27-Mar-17	9:00	G	8	N	N	N	N	N	N			

NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name	Mobile #
Regular (default) X Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency < 1 Day, ASAP or Weekend - Contact ALS		Jaclyn Cubber J. Cubber	
		Sampler's Signature	Date/Time
			March 27, 2017

2017/03/28 HS/FA
 0830
 10-5°C
 good conditioin
 54x 20L bottles
 6x 1L bottles
 Montclair

END OF REPORT



Acute Toxicity Test Results

Samples collected March 27, 2017

Final Report – Revision 1

February 27, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation (10°C)	<i>Daphnia magna</i> test initiation	
WL_BFWB_OUT_SP 21_20170327_N/ 1617-0797-02	27-Mar-17 at 0900h	28-Mar-17 at 0900h	29-Mar-17 at 0915h	28-Mar-17 at 1445h	28-Mar-17 at 1345h	10.5°C

Sample chemistry

Sample ID	Temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170327_N	11.5°C	1025	224

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170327_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170327_N	0	0

Precipitate observations

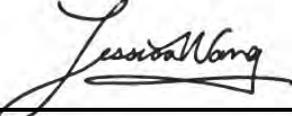
Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170327_N	<i>Daphnia magna</i> @10°C	None	None
	<i>Daphnia magna</i> @20°C	None	White precipitate observed, floating on water surface

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.8-3.7) g/L KCl ¹	5.4 (5.2-5.6) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.7) g/L KCl	4.9 (4.2-5.7) g/L NaCl
Reference toxicant CV	6.6%	4.9%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date March 2, 2017; ² Test date March 21, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston Fish hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Trout Bench Sheet

Method FRS Client TEC164 Reference 1617-0797-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/03/29	0915	EP	1	HS	Initial pH: 7.5
1	2017/03/30	0845	FW	-	JN	Initial EC (µS/cm): 177W
2	2017/03/31	0800	LC	-	JN	Initial DO (mg/L): 9.5
3	2017/04/01	1045	JN	-	HS	Initial Temp (°C): 11.5
4	2017/04/02	1050	JW/NM	1	DK	Salinity (ppt): 4 Nets used: yes / <u>no</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 9.0

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.3</u>	<u>7.5</u>					
Day 4	<u>8.0</u>	<u>7.9</u>					

EC (uS/cm)

Day 0	<u>503</u>	<u>1732</u>					
Day 4	<u>516</u>	<u>1628</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.9</u>	<u>9.0</u>					
Day 4	<u>8.8</u>	<u>8.8</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.3</u>	<u>14.0</u>					
Day 4	<u>14.5</u>	<u>14.7</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>3.8</u>	<u>0.7</u>	Loading Density (g/L): <u>0.32</u>	Batch <u>20170216TR</u>
2	<u>3.8</u>	<u>0.6</u>		Source <u>Sam Livingston</u>
3	<u>3.8</u>	<u>0.5</u>	Mean Length (cm): <u>3.8</u>	Days Held <u>41</u>
4	<u>4.0</u>	<u>0.8</u>		Percent stock mortality <u>0%</u> (7 days prior to test, must be ≤ 2%)
5	<u>3.5</u>	<u>0.5</u>	Length Range (cm): <u>3.5-4.0</u>	Test Volume (L) <u>20L</u>
6	<u>3.8</u>	<u>0.7</u>		
7	<u>4.0</u>	<u>0.8</u>	Mean Weight (g): <u>0.6</u>	
8	<u>3.8</u>	<u>0.6</u>		
9	<u>3.5</u>	<u>0.4</u>	Weight Range (g): <u>0.4-0.8</u>	
10	<u>4.0</u>	<u>0.7</u>		

Comments:

Method DAS 20°

Client TEU64

Reference 1617-0797-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/03/28	1345	NM/EP	3	LC	7.5	1774	9.5	11.5	4
1	2017/03/29	0830	EP	-	NS					
2	2017/03/30	1030	HS	3	JN					

Lab Code	CPLA	CPLB	CPLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.7	7.6	7.7	7.7	7.8	7.8			
2	7.8	7.87	7.7	7.9	7.9	7.9			

EC (uS/cm)

0	242	251	255	1743	1760	1761			
2	259	256	266	1651	1712	1746			

DO (mg/L) (40-100% saturation at test temp.)

0	8.0	8.0	8.0	8.3	8.3	8.3			
2	7.6	7.7	7.7	7.8	7.9	7.9			

Temperature (°C) (range: 17.5-22.5 °C)

0	19.2	19.3	19.2	17.6	17.5	17.5			
2	20.2	20.3	20.1	20.1	20.0	20.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar CA Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 25.6
 Were test treatments randomized on test tray? Yes No

Sample
 DO % of sample prior to aeration: 111% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 minutes Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1025 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date E 03/23 Weekly water hardness (mg/L) 80

Comments:
Requires 24 hour updates
* set in glass jars, no precipitate present upon test initiation.
white precipitate floating on water surface at test takedown

Method D/AS 10*

Client TEC164

Reference 1617-0797-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/03/28	1445	EP	3	LC	7.5	1774	9.5	11.5	4
1	2017/03/30	0830	EP	-	HS					
2	2017/03/30	1030	HS	3	JN					

Lab Code	C2A	C2B	C2C	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.7	7.7	7.7	7.5	7.6	7.6
2	7.7	7.7	7.7	8.0	8.0	8.0

day	EC (µS/cm) ^{1765 EP}					
0	297	296	295	1688	1737	1790
2	305	307	313	1711	1741	1824

day	DO (mg/L) (40-100% saturation at test temp.)					
0	9.3	9.4	9.4	9.4	9.4	9.3
2	9.4	9.4	9.4	9.5	9.5	9.5

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	11.2	11.1	11.1	11.1	11.2	11.3
2	10.2	10.3	10.2	10.3	10.3	10.3

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 25.6
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 99.1% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1025 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date E 03/23 Weekly water hardness (mg/L) 80

Comments:
Requires 24 hour updates.
Set in glass jars. No precipitate upon test initiation.
No precipitate at test termination.
 alkalinity = 224

APPENDIX C – Chain-of-custody form

Teck	COC ID: 20170327-AcuteToxicity	TURNAROUND TIME:	RUSH:	OTHER INFO:
	PROJECT/CLIENT INFO	LABORATORY	REGULAR	Excel
Facility Name / Job# Project Manager Email Address	Lab Name Lab Contact Email Address	Report Delivery Formats Email 1: Email 2: Email 3: Email 4: Email 5: Email 6:		
City Postal Code Phone Number	Province Country	Province Country		

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# Of Cont.	ANALYSIS REQUESTED						DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
								NAUT_96Hr_RT_Single Concentration_Toxicity	NAUT_48Hr_DM_Single Concentration_Toxicity	NAUT_48Hr_DM_Single Concentration_Toxicity	NAUT_48Hr_DM_Single Concentration_Toxicity	Test @ 10C	NAUT_48Hr_DM_Single Concentration_Toxicity			
LC_WTF_IN_20170326_NP	LC_WTF_IN	WS	N	26-Mar-17	8:00	G	3									
WL_BFWB_OUT_SP21_20170327_N	WL_BFWB_OUT_SP21	WS	N	27-Mar-17	9:00	G	8									

NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #
Regular (default) X Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency < 1 Day, ASAP or Weekend - Contact ALS	Jachyr Cuber Jachyr	
	Sampler's Signature	Date/Time
		March 27, 2017

2017/03/28 HS/FA
0830
Montclair
good condition
4x 20L bottles
6x 1L bottles

END OF REPORT



Acute Toxicity Test Results

Sample collected April 2, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation (10°C)	<i>Daphnia magna</i> test initiation	
LC_WTF_IN_2017 0402_NP/ 1617-0828-01	02-April-17 at 0800h	04-April-17 at 1430h	05-April-17 at 1255h	05-April-17 at 1135h	05-April-17 at 1130h	8.8°C

Sample chemistry

Sample ID	Temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170402_NP	14.0°C	835	223

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170402_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170402_NP	0	0

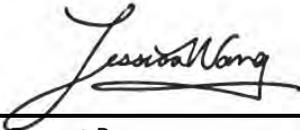
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170402_NP	<i>Daphnia magna</i> @10°C	None	Small amount of debris observed on ~50% of daphnia, no precipitate in vessel
	<i>Daphnia magna</i> @20°C	None	None
	Rainbow Trout	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.4 (2.0-3.0) g/L KCl ¹	5.2 (4.9-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	6.5%	5.1%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date April 13, 2017; ² Test date April 12, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL Fish hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Trout Bench Sheet

Method TR5 Client TECIBY Reference 1617-0828-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/04/05	1255 *	FW	1	JN	Initial pH: <u>7.5</u>
1	2017/04/06	0830	FP	-	JN	Initial EC (µS/cm): <u>1654</u>
2	2017/04/07	0840	LC	-	JN	Initial DO (mg/L): <u>9.1</u>
3	2017/04/08	0850	JN	-	HS	Initial Temp (°C): <u>14.0</u>
4	2017/04/09	1130	JW/NM	1	JW	Salinity (ppt): <u>3</u>
						Nets used: yes / <u>no</u>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.4</u>	<u>7.9</u>				
Day 4	<u>8.0</u>	<u>8.0</u>				

EC (uS/cm)

Day 0	<u>473</u>	<u>1648</u>				
Day 4	<u>481</u>	<u>1532</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.9</u>	<u>8.9</u>				
Day 4	<u>8.9</u>	<u>8.9</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.1</u>	<u>14.0</u>				
Day 4	<u>14.5</u>	<u>14.5</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>3.0</u>	<u>0.3</u>	Loading Density (g/L): <u>0.20</u>	Batch <u>20170228TR</u>
2	<u>3.4</u>	<u>0.5</u>		Source <u>LSL</u>
3	<u>3.0</u>	<u>0.4</u>	Mean Length (cm): <u>3.2</u>	Days Held <u>36</u>
4	<u>3.4</u>	<u>0.4</u>		Percent stock mortality (7 days prior to test, must be ≤ 2%) <u>0</u>
5	<u>3.2</u>	<u>0.4</u>	Length Range (cm): <u>3.0-3.5</u>	
6	<u>3.5</u>	<u>0.5</u>		
7	<u>3.2</u>	<u>0.4</u>	Mean Weight (g): <u>0.4</u>	
8	<u>3.0</u>	<u>0.3</u>	Weight Range (g): <u>0.3-0.5</u>	
9	<u>3.0</u>	<u>0.3</u>		
10	<u>3.2</u>	<u>0.4</u>		

Comments :

Method DAS-20 degree

Client TECIB4

Reference 1617-0828-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/04/05	1130	JN/NM	3	TW	7.5	1654	9.1	14.0	3
1	2017/04/06	0830	HS	-	JN					
2	2017/04/07	0815	EP	3	JW					

Lab Code	CTLA	CTLB	CTLC	1001A	1001B	1001C

day pH (units) (range: 6.0-8.5)

0	7.8	7.8	7.8	8.1	8.1	8.1			
2	7.6	7.6	7.6	7.9	7.9	7.9			

EC (uS/cm)

0	302	303	304	1662	1671	1680			
2	305	307	308	1675	1680	1690			

DO (mg/L) (40-100% saturation at test temp.)

0	8.1	8.1	8.1	8.1	8.1	8.1			
2	7.8	7.7	7.7	7.7	7.8	7.8			

Temperature (°C) (range: 17.5-22.5 °C)

0	19.0	19.0	19.2	19.3	19.1	19.1			
2	20.1	20.2	20.2	20.2	20.1	20.1			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)

Days to first brood (≤12 days) 89
 Average number of young produced (≥15 young) 325 31.0
 Were test treatments randomized on test tray? Yes No

Sample

DO % of sample prior to aeration: 107% Is aeration required (<40% or >100%)? Yes No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes No
 Hardness (mg CaCO₃/L) of 100%: 835 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) - Alkalinity = 223

Dilution Water

Pail label / preparation date # 04/03 Weekly water hardness (mg/L) 83

Comments: In glass jars

Test Initiation: No debris or precipitation present. Test Takedown: no debris or precipitate

Method DAS 10 degree

Client TECH4

Reference 1617-0828-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/04/05	1135	JN/NM	3	JW	7.5	1654	9.1	14.0	3
1	2017/04/06	11:08:30	HS	-	JN					
2	2017/04/07	0815	FA	3	JW					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.6	7.5	7.5	7.6	7.6	7.6
2	7.6	7.4	7.4	7.5	7.5	7.4

EC (uS/cm)

0	301	297	298	1701	1698	1708
2	306	302	305	1725	1715	1720

DO (mg/L) (40-100% saturation at test temp.)

0	8.5	8.5	8.5	8.6	8.6	8.6
2	8.4	8.4	8.4	8.5	8.4	8.4

Temperature (°C) (range: 17.5-22.5 °C)

0	11.1	11.1	11.1	11.4	11.4	11.4
2	10.5	10.6	10.6	10.6	10.5	10.4

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10 (5D)	10 (4D)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar C2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)

Days to first brood (≤12 days) 9
Average number of young produced (≥15 young) 35.6
Were test treatments randomized on test tray? Yes / No

Sample

DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
Hardness (mg CaCO3/L) of 100%: 835 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) - Alkalinity = 223

Dilution Water

Pail label / preparation date H 2017/04/03 Weekly water hardness (mg/L) 83

Comments: In glass jars

Test Initiation: No precipitate or debris present.
Test Takedown: About 50% of daphnids in replicates B & C had small tails of debris, still swimming fine. no precipitate observed.

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected April 3, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation (10°C)	<i>Daphnia magna</i> test initiation	
WL_BFWB_OUT_S P21_20170403_N/ 1617-0828-02	03-April-17 at 0900h	04-April-17 at 1430h	05-April-17 at 1255h	05-April-17 at 1135h	05-April-17 at 1130h	8.8°C

Sample chemistry

Sample ID	Temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170403_N	13.6°C	928	182

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170403_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170403_N	0	0

Precipitate observations

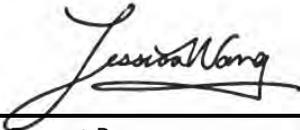
Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170403_N	<i>Daphnia magna</i> @10°C	None	Debris observed on daphnia, no precipitate in vessel
	<i>Daphnia magna</i> @20°C	None	None
	Rainbow Trout	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.4 (2.0-3.0) g/L KCl ¹	5.2 (4.9-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	6.5%	5.1%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date April 13, 2017; ² Test date April 12, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL Fish hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Trout Bench Sheet

Method JRS Client TEC164 Reference 1617-0828-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/04/05	1255 *	JW	-	JN	Initial pH: <u>7.4</u>
1	2017/04/06	0830	JP	-	JN	Initial EC (µS/cm): <u>1627</u>
2	2017/04/07	0850	LC	-	JN	Initial DO (mg/L): <u>9.5</u>
3	2017/04/08	0855	JN	-	HS	Initial Temp (°C): <u>13.6</u>
4	2017/04/10	1130	JWINM	1	JW	Salinity (ppt): <u>3</u>
						Nets used: yes / <u>(no)</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L yes/no
 Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100% 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.4</u>	<u>7.8</u>				
Day 4	<u>8.1</u>	<u>8.1</u>				

EC (uS/cm)

Day 0	<u>473</u>	<u>1611</u>				
Day 4	<u>478</u>	<u>1513</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.9</u>	<u>8.9</u>				
Day 4	<u>8.8</u>	<u>8.9</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.1</u>	<u>14.2</u>				
Day 4	<u>14.8</u>	<u>14.7</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>3.2</u>	<u>0.4</u>	Loading Density (g/L): <u>0.18</u>	Batch <u>2017022 JTR</u>
2	<u>3.5</u>	<u>0.4</u>		Source <u>LSL</u>
3	<u>3.0</u>	<u>0.3</u>	Mean Length (cm): <u>3.2</u>	Days Held <u>36</u>
4	<u>3.0</u>	<u>0.3</u>		Percent stock mortality (7 days prior to test, must be ≤2%) <u>0</u>
5	<u>3.2</u>	<u>0.4</u>	Mean Weight (g): <u>0.4</u>	
6	<u>3.0</u>	<u>0.3</u>		Weight Range (g): <u>0.3-0.5</u>
7	<u>3.0</u>	<u>0.3</u>	Test Volume (L) <u>20</u>	
8	<u>3.0</u>	<u>0.3</u>		
9	<u>3.3</u>	<u>0.5</u>		
10	<u>3.3</u>	<u>0.4</u>		

Comments :

Method DMS-20 degree

Client TECIB4

Reference 1617-0828-02

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information		
0	2017/04/05	1130	JN/NM	3	JW	Initial pH:	7.4	
1	2017/04/06	0830	LS	-	JN	Initial EC (µS/cm):	1627	
2	2017/04/07	0815	EP	3	JW	Initial DO (mg/L):	9.5	
						Initial Temp (°C):	13.6	
						Salinity (ppt):	3	
Lab Code	CTLA	CTLB	CTLC	100A	100B	100C		

day pH (units) (range: 6.0-8.5)

0	7.7	7.7	7.7	8.1	8.2	8.2			
2	7.5	7.5	7.5	7.7	7.8	7.8			

EC (uS/cm)

0	296	302	301	1658	1662	1674			
2	307	308	307	1666	1669	1676			

DO (mg/L) (40-100% saturation at test temp.)

0	8.2	8.2	8.2	8.1	8.1	8.1			
2	7.6	7.7	7.8	7.9	7.9	7.8			

Temperature (°C) (range: 17.5-22.5 °C)

0	18.1	18.2	18.4	19.4	19.4	19.4			
2	20.0	20.1	20.1	20.1	20.1	20.1			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar C5 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)

Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) DM 310 356
 Were test treatments randomized on test tray? (Yes) No

Sample

DO % of sample prior to aeration: 110% Is aeration required (<40% or >100%)? (Yes) or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110um screen prior to testing (Yes) or No
 Hardness (mg CaCO3/L) of 100%: 928 Is hardness adjustment required (<25 mg CaCO3/L)? (Yes) or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) - Alkalinity = 182

Dilution Water

Pail label / preparation date H04103 Weekly water hardness (mg/L) 23

Comments:

In glass jars
 Test Initiation: No debris or precipitate present. Test take-down: no debris or precipitate

Method DAS-10 degree

Client TECL64

Reference 1617-0828-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	7.4
0	2017/04/05	11:35	JN/NM	3	JW	Initial EC (µS/cm):	1627
1	2017/04/06	08:30	HS	-	JN	Initial DO (mg/L):	9.5
2	2017/04/07	08:15	EP	3	JW	Initial Temp (°C):	13.6
						Salinity (ppt):	3

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.7	7.7	7.7	7.5	7.5	7.5
2	7.6	7.6	7.6	7.5	7.4	7.4

EC (uS/cm)

0	303	304	304	1693	1701	1713
2	310	311	312	1701	1705	1715

DO (mg/L) (40-100% saturation at test temp.)

0	8.5	8.5	8.5	8.6	8.6	8.6
2	7.9	7.9	7.8	7.8	7.8	7.9

Temperature (°C) (range: 17.5-22.5 °C)

0	11.1	11.1	11.1	11.4	11.4	11.4
2	10.4	10.3	10.3	10.4	10.5	10.5

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10(20)	10(40)	10(50)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar ESC1, C4 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 35.6
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 928 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) - Alkalinity = 182

Dilution Water
 Pail label / preparation date H 2017/04/03 Weekly water hardness (mg/L) 83

Comments: In glass jars
 Test Initiation: No precipitate or debris present.
 Test Takedown: In the A replicate, 2 daphnids were trapped in clump of debris while in the others about 50% had small tails of debris no precipitate observed.

APPENDIX C – Chain-of-custody form

Teck	COC ID: 20170403-Acute Toxicity	TURNAROUND TIME:	RUSH:	OTHER INFO:
	PROJECT/CLIENT INFO	LABORATORY	REGULAR	Report Delivery Formats
Facility Name / Job# Project Manager Email Address	WLC AWT Thomas Davidson Thomas.Davidson@teck.com 15 Km North HWY 43	Lab Name Lab Contact Email Address	Nautilus Environmental Jacklyn Pool Jacklyn@NautilusEnvironmental.ca #4, 6125 - 12 Street SE	Excel thomas.davidson@teck.com teckcoal@equisonline.com teckw/lab@epcor.com Chris.Snoosh@teck.com
City Postal Code Phone Number	Sparwood V0B 2G0 250.603.9417	City Postal Code Phone Number	Calgary T2H 2K1 +1.403.253.7121	colin.lynch@teck.com michael.moore@teck.com
Province Country	BC Canada	Province Country	AB Canada	

Sample ID	Sample Location	Field Matrix	Time (24hr)	Date	G-Grab C-Comp	# Of Cont.	ANALYSIS REQUESTED						DATE/TIME
							HAZARDOUS MATERIAL (Yes/No)	NAUT_96HR_RT_Single Concentration_Toxicity	NAUT_48HR_DM_Single Concentration_Toxicity	NAUT_48HR_DM_Single Concentration_Toxicity @ 10C	NAUT_48HR_DM_Single Concentration_Toxicity @ 20C	EXTRA	
LC_WTF_IN_20170402_NP	LC_WTF_IN	WS	0800	2-Apr-17	G	3	N	N	N	N	N	N	
WL_BFWB_OUT_SP21_20170403_N	WL_BFWB_OUT_SP21	WS	0900	3-Apr-17	G	8	N	N	N	N	N	N	

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
	Deedya Traversa	3-Apr-17		
NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name	Mobile #	Date/Time
Regular (default) X Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency <1 Day, ASAP or Weekend - Contact ALS		Denise Tory		3-April-17

Manishin
 20170404 ON 14:30
 8.8°C
 No SII
 Good cond.
 6 x 1L bottles
 5 x 20 L carboys

END OF REPORT



Acute Toxicity Test Results

Sample collected April 9, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170409 _NP/ 1617-0849-01	09-Apr-17 at 0800h	11-Apr-17 at 1100h	12-Apr-17 at 0930h	11-Apr-17 at 1425h	11-Apr-17 at 1420h	9.0°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170409_NP	9.0°C	843	219

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170409_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170409_NP	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170409_NP	<i>Daphnia magna</i> @10°C	None	None
	<i>Daphnia magna</i> @20°C	None	None
	Rainbow trout	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.4 (2.0-3.0) g/L KCl ¹	5.2 (4.9-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	6.5%	5.5%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, April 13, 2017; ² Test Date April 12, 2017

LC = Lethal Concentration; CL = Confidence Limit

Harjot Sandhu

Report By:
Harjot Sandhu, BSc
Biologist

Claudio Quinteros

Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL Fish hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Trout Bench Sheet

Method TRS Client TEC164 Reference 1617-0849-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/04/12	0930	JN	1	NM
1	2017/04/13	0845	LD	-	HS
2	2017/04/14	1015	LC	-	HS
3	2017/04/15	1200	PS	-	JN
4	2017/04/16	1230	NMJSW	1	SW

Sample Information

Initial pH: 7.9
 Initial EC (µS/cm): 1651
 Initial DO (mg/L): 8.9
 Initial Temp (°C): 14.3
 Salinity (ppt): 2
 Nets used: yes / no

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)
 Day 0 7.23 7.9
 Day 4 8.0 8.1

EC (uS/cm)
 Day 0 449 1736
 Day 4 459 1571

DO (mg/L) (70-100% saturation at test temp.)
 Day 0 8.9 8.9
 Day 4 8.8 8.9

Temperature (°C) (range: 13.5-16.5 °C)
 Day 0 13.9 14.3
 Day 4 14.3 14.4

Number Alive (In brackets number stressed)
 Day 0 10 10
 Day 1 10 10
 Day 2 10 10
 Day 3 10 10
 Day 4 10 10

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	3.0	0.2	Loading Density (g/L): <u>0.17</u>	Batch <u>20170228TR</u>
2	3.5	0.4		Source <u>LSL</u>
3	3.5	0.4	Mean Length (cm): <u>3.3</u>	Days Held <u>43</u>
4	3.5	0.4		Percent stock mortality (7 days prior to test, must be ≤ 2%) <u>0</u>
5	3.0	0.3	Length Range (cm): <u>3.0-3.6</u>	Test Volume (L) <u>20</u>
6	3.6	0.5		
7	3.2	0.3	Mean Weight (g): <u>0.3</u>	
8	3.5	0.4		
9	3.0	0.3	Weight Range (g): <u>0.2-0.4</u>	
10	3.0	0.3		

Comments:

Daphnia Bench Sheet

Method DAS 20°C

Client TEC164

Reference 1617-0849-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/04/11	1420	JW/MS	3	NY	7.9	1651	9.5	17.5	2
1	2017/04/12	0900	JW	-	JW					
2	2017/04/13	1140	JW	3	CA					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C			
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day pH (units) (range: 6.0-8.5)

0	7.6	7.6	7.6	7.9	7.9	7.9			
2	7.6	7.4	7.6	7.8	7.9	7.9			

EC (µS/cm)

0	304	295	295	1644	1697	1706			
2	322	342	321	1659 1730	1744	1749			

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	8.1	8.1	8.1			
2	8.0	8.0	8.0	8.1	8.1	8.1			

Temperature (°C) (range: 17.5-22.5 °C)

0	19.6	19.7	19.7	17.8	17.8	17.7			
2	19.0	19.0	19.0	19.1	19.1	19.1			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10 (1F)			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 01

QA (previous month)
Days to first brood (≤12 days) 9
Average number of young produced (≥15 young) 36.7
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 107% Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
Hardness (mg CaCO₃/L) of 100%: 843 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
Pail label / preparation date G-04/10 Weekly water hardness (mg/L) 89

Comments: glass jars, @ initiation - no precipitate, clear + colourless
Takedown: No debris / precipitate

Daphnia Bench Sheet

Method DAS 10°C

Client TEC164

Reference 1617-0849-01

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/04/11	1425	JW/JW	3	JW	7.9	165	9.5	17.5	2
1	2017/04/12	0855	JW	-	JN					
2	2017/04/13	1035	JN	3	CA					

Sample Information

Lab Code	C1A	C1B	C1C	100A	100B	100C				
----------	-----	-----	-----	------	------	------	--	--	--	--

day	pH (units) (range: 6.0-8.5)								
0	7.7	7.7	7.6	7.9	7.9	7.9			
2	7.3	7.3	7.3	7.8	7.8	7.9			

	EC (µS/cm)								
0	294	295	296	1600	1680	1690			
2	307	312	315	1749	1736	1741			

	DO (mg/L) (40-100% saturation at test temp.)								
0	9.4	9.4	9.4	9.3	9.3	9.4			
2	9.2	9.2	9.3	9.3	9.2	9.3			

	Temperature (°C) (range: 17.5-22.5 °C)								
0	11.1	11.2	11.2	11.0	11.0	11.0			
2	11.3	11.3	11.3	11.2	11.2	11.2			

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 7%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 36.7
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 106% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 843 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date B: 04/10 Weekly water hardness (mg/L) 89

Comments: glass jars, @ initiation - no precipitate, clear - colourless
Takedown - No debris / precipitate

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected April 10, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_ 20170410_N/ 1617-0849-02	10-Apr-17 at 0800h	11-Apr-17 at 1100h	12-Apr-17 at 0925h	11-Apr-17 at 1425h	11-Apr-17 at 1420h	9.0°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170410_N	9.0°C	1001	180

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170410_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170410_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170410_N	<i>Daphnia magna</i> @10°C	None	Precipitate observed on carapace
	<i>Daphnia magna</i> @20°C	None	Precipitate observed on carapace
	Rainbow trout	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.4 (2.0-3.0) g/L KCl ¹	5.2 (4.9-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	6.5%	5.5%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, April 13, 2017; ² Test Date April 12, 2017

LC = Lethal Concentration; CL = Confidence Limit

Harjot Sandhu

Report By:
Harjot Sandhu, BSc
Biologist

C. Quinteros

Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL Fish hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Trout Bench Sheet

Method TRS

Client TECIBL

Reference 1617-0849-02

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:
0	2017/04/12	0925*	JN	1	MM	7.8
1	2017/04/13	0845	EP	-	HS	Initial EC (µS/cm): 1641
2	2017/04/14	1015	LC	-	HS	Initial DO (mg/L): 7.5
3	2017/04/15	1200	HS	-	JN	Initial Temp (°C): 17.3
4	2017/04/16	1225	UMI JW	1	JW	Salinity (ppt): 3
						Nets used: yes / (no)

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L (yes/no) yes

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100% 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.2</u>	<u>7.7</u>				
Day 4	<u>8.0</u>	<u>8.1</u>				

EC (uS/cm)

Day 0	<u>457</u>	<u>1633</u>				
Day 4	<u>460</u>	<u>1557</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.9</u>	<u>8.9</u>				
Day 4	<u>8.8</u>	<u>8.8</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>13.9</u>	<u>14.2</u>				
Day 4	<u>14.5</u>	<u>14.5</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control

Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>3.0</u>	<u>0.3</u>	<u>20170228TR</u>	
2	<u>3.0</u>	<u>0.2</u>	Source	<u>LSL</u>
3	<u>3.5</u>	<u>0.4</u>	Days Held	<u>43</u>
4	<u>3.2</u>	<u>0.3</u>	Percent stock mortality	<u>0</u>
5	<u>3.5</u>	<u>0.4</u>	(7 days prior to test, must be ≤2%)	
6	<u>3.5</u>	<u>0.4</u>	Test Volume (L)	<u>20</u>
7	<u>3.0</u>	<u>0.4</u>		
8 ^{Am}	<u>2.5</u>	<u>0.2</u>		
9	<u>3.0</u>	<u>0.3</u>		
10	<u>3.0</u>	<u>0.3</u>		
Loading Density (g/L): <u>0.16</u>				
Mean Length (cm): <u>3.1</u>				
Length Range (cm): <u>2.5-3.5</u>				
Mean Weight (g): <u>0.3</u>				
Weight Range (g): <u>0.2-0.4</u>				
Comments :				

Daphnia Bench Sheet

Method DAS 10°C

Client TEGIBY

Reference 1617-0849-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/04/11	1425	JW/HS	3	ATM	7.8	1691	9.5	17.3	3
1	2017/04/12	0855	JW	-	JN					
2	2017/04/13	1130	JN	3	CE					

Lab Code	CTL A	CTL B	CTL C	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)					
0	7.6	7.6	7.6	7.9	7.8	7.9
2	7.6	7.5	7.5	7.9	8.0	8.0

	EC (µS/cm)					
0	303	294	295	1662	1697	1700
2	322	326	321	1764	1797	1783

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.4	9.4	9.4	9.4	9.3	9.3
2	9.4	9.3	9.3	9.3	9.3	9.3

	Temperature (°C) (range: 17.5-22.5 °C)					
0	11.3	11.3	11.2	11.2	11.0	11.0
2	11.4	11.4	11.4	11.3	11.3	11.4

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10(10)	10(10)
2	10	10	10	10(10)	10(20)	10(10)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control DAY 1 - debris on DA - string-like * (f)
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D4, D5 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 36.7
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 107% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1001 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G: 04/10 Weekly water hardness (mg/L) 89

Comments: glass jars, @ initiation, no precipitate, clear + colourless
 Takedown: No debris / takedown precipitate. Debris = string-like on tail ends

Daphnia Bench Sheet

Method DAS 20°C

Client TECUM

Reference 1617-0849-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/04/11	1420	JW/HJ	3	N/A	7.8	1641	9.5	17.3	3
1	2017/04/12	0900	JW	-	JW					
2	2017/04/13	1140	JW	3	CO					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.6	7.6	7.6	7.8	7.9	7.9			
2	7.8	7.8	7.8	8.0	8.0	8.0			

EC (µS/cm)

0	295	300	296	1608	1684	1704			
2	304	306	311	1671	1669	1691			

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	8.3	8.3	8.3			
2	8.1	8.0	8.0	8.0	8.0	8.0			

Temperature (°C) (range: 17.5-22.5 °C)

0	19.6	19.7	19.8	17.6	17.6	17.6			
2	19.3	19.3	19.3	19.2	19.1	19.1			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10 (1F)	10	10	10 (4D)	10 (5D)	10 (3D)			
2	10	10	10	10 (4D)	10 (4D)	10 (2D)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

DHVI - debris on DH in 100 is string-like, stuck on their ends - but not inhibiting their movement

Culture
 Young jar D5 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 36.7
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 109% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1001 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G:04/10 Weekly water hardness (mg/L) 89

Comments: glass jars, @ initiation, no precipitate, clear + colourless
 Takedown: no precipitate. S^m(D) = string like debris on tail

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected April 16, 2017

Final Report – Revision 1

February 27, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170316 _NP/ 1617-0874-01	16-Apr-17	18-Apr-17 at 1100h	19-Apr-17 at 1130h	19-Apr-17 at 1445h	19-Apr-17 at 1430h	9.0°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170316_NP	9.0°C	914	233

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170316_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170316_NP	0	17

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170316_NP	<i>Daphnia magna</i> @10°C	None	None
	<i>Daphnia magna</i> @20°C	None	Precipitate observed on carapace
	Rainbow trout	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.4 (2.0-3.0) g/L KCl ¹	5.2 (4.9-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	6.5%	5.1%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, April 13, 2017; ² Test Date April 12, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Lindsay Clothier, MSc
Environmental Scientist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL Fish hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS Client TEC164 Reference 1617-0874-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/04/19	1130*	NH	1	HS	Initial pH: <u>7.6</u>
1	2017/04/20	0815	HS	-	HW	Initial EC (µS/cm): <u>1706</u>
2	2017/04/21	1000	HS	-	ED	Initial DO (mg/L): <u>9.2</u>
3	2017/04/22	1230	HS	-	NI	Initial Temp (°C): <u>14.2</u>
4	2017/04/23	1015	FP	1	IC	Salinity (ppt): <u>3</u>
						Nets used: yes / <u>no</u>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L yes no
 Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100% 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>6.5</u>	<u>7.5</u>				
Day 4	<u>7.3</u>	<u>7.6</u>				

EC (uS/cm)

Day 0	<u>468</u>	<u>1813</u>				
Day 4	<u>478</u>	<u>1905</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.9</u>	<u>8.9</u>				
Day 4	<u>8.7</u>	<u>8.8</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.7</u>	<u>14.7</u>				
Day 4	<u>14.6</u>	<u>14.6</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>3.1</u>	<u>0.3</u>	<u>20170228TR</u>	Source <u>LSL</u>
2	<u>3.2</u>	<u>0.4</u>		Days Held <u>50</u>
3	<u>3.2</u>	<u>0.4</u>	Loading Density (g/L): <u>0.165</u>	Percent stock mortality <u>0</u>
4	<u>3.2</u>	<u>0.4</u>	Mean Length (cm): <u>3.1</u>	(7 days prior to test, must be ≤2%)
5	<u>2.9</u>	<u>0.3</u>	Length Range (cm): <u>2.9-3.2</u>	Test Volume (L) <u>20</u>
6	<u>2.9</u>	<u>0.3</u>	Mean Weight (g): <u>0.3</u>	
7	<u>3.0</u>	<u>0.3</u>	Weight Range (g): <u>0.3-0.4</u>	
8	<u>3.0</u>	<u>0.3</u>		
9	<u>3.0</u>	<u>0.3</u>		
10	<u>3.1</u>	<u>0.3</u>		
Comments: <u>24 Hour Updates Needed</u>				

Daphnia Bench Sheet

Method DAS 10°C

Client TECIBU

Reference 167-0874-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	20170419	1445	JN/JWS	3	HS	7.6	1706	9.2	14.2	3
1	20170420	1040	JWS	-	HS					
2	20170421	0915	EP	3	LL					

Lab Code	CTA	CTB	CTL	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.1	7.3	7.4	7.7	7.7	7.7			
2	7.5	7.3	7.5	7.7	7.6	7.0			

EC (uS/cm)

0	312 EP	314	325	1851	1860	1872			
2	330	331	335	1768	1760	1764			

DO (mg/L) (40-100% saturation at test temp.)

0	9.6	9.6	9.6	9.2	9.2	9.2			
2	8.2	8.3	8.4	8.8	8.9	8.8			

Temperature (°C) (range: 17.5-22.5 °C)

0	11.2	11.2	11.2	11.4	11.4	11.4			
2	11.0	11.0	11.0	11.0	11.1	11.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 29.8
 Were test treatments randomized on test tray? Yes No

Sample
 DO % of sample prior to aeration: 94 Is aeration required (<40% or >100%)? Yes No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes No
 Hardness (mg CaCO3/L) of 100%: 914 Is hardness adjustment required (<25 mg CaCO3/L)? Yes No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -
 Alkalinity = 233

Dilution Water
 Pail label / preparation date G 0412 Weekly water hardness (mg/L) 88

Comments: in glass jars @ immersion: no precipitate/debris e to beddown - no precipitate present

Daphnia Bench Sheet

Method DAS 20°C

Client TECIBU

Reference 1617-0874-01

Test Log						Sample Information	
Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	7.6
0	20170419	1430	JN/JWSS	3	HS	Initial EC (µS/cm):	1706
1	2017.04.20	1030	SWISS	-	HS	Initial DO (mg/L):	9.2
2	2017/04/21	0915	EP	3	LC	Initial Temp (°C):	14.2
						Salinity (ppt):	3

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C			
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day pH (units) (range: 6.0-8.5)

0	7.6	7.6	7.6	7.8	7.9	7.9			
2	7.6	7.6	7.6	7.7	7.7	7.8			

EC (µS/cm)

0	307	319	320	1811	1826	1829			
2	322	328	330	1758	1761	1746			

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	7.9	7.8	7.8			
2	7.8	7.8	7.8	7.5	7.5	7.6			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.3	20.4	20.3	20.84	20.6	20.6			
2	20.1	20.0	20.0						

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10(I)★	10(II)★	10(II)★			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal
 * DAY 2: Immobile and mobile daphnids covered in blackish precipitate, unclear if this is causing immobility
 no precipitate present in water, only covering daphnia

Culture
 Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 29.8
 Were test treatments randomized on test tray? Yes No

Sample
 DO % of sample prior to aeration: 112% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 30 mins Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 914 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date H 0418 Weekly water hardness (mg/L) 80

Comments: in glass jars @ initiation: No precipitate/debris

APPENDIX C – Chain-of-custody form

Teck

COC ID:	20170417-Acute Toxicity	TURNAROUND TIME:	E-3 LAB	RUSH:
PROJECT/CLIENT INFO		LABORATORY		OTHER INFO
Facility Name / Job#	WLC AWTF	Lab Name	Nautlius Environmental	Report Delivery Formats
Project Manager	Thomas Davidson	Lab Contact	Jacklyn Pool	Excel
Email	Thomas.Davidson@teck.com	Email	Jacklyn@NautliusEnvironmental.ca	PDF
Address	15 Km North HWY 43	Address	#4, 6125 - 12 Street SE	EDD
City	Sparwood	City	Calgary	
Postal Code	V0B 2G0	Province	AB	
Phone Number	250 603 9417	Country	Canada	

SAMPLE DETAILS								ANALYSIS REQUESTED					Filtered - F: Field, L: Lab, FL: Field & Lab, N: None	
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	EXTRA			
LC_WTF_IN_20170316_NP	LC_WTF_IN	WS	N	16-Apr-17		G	3	X	X	X				
WL_BFWB_OUT_SP21_20170317_N	WL_BFWB_OUT_SP21	WS	N	17-Apr-17		G	8	X	X	X	X			

1617-0874
- 01
- 02

1 x 20 L CARBON + 2 x 1L BOTTLE
4 x 20L CARBON + 4 x 1L BOTTLE

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS		RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name	Mobile #	Sampler's Signature	Date/Time
Regular (default) X		KYLE ARSENAULT	250 425 6179	[Signature]	April 17/17 1430
Priority (2-3 business days) - 50% surcharge					
Emergency (1 Business Day) - 100% surcharge					
For Emergency <1 Day, ASAP or Weekend - Contact ALS					

MANATOULIN
1045
90
NO S/I

END OF REPORT



Acute Toxicity Test Results

Samples collected April 17, 2017

Final Report – Revision 1

February 27, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_ 20170317_N/ 1617-0874-02	17-Apr-17	18-Apr-17 at 1100h	19-Apr-17 at 1130h	19-Apr-17 at 1440h	11-Apr-17 at 1445h	9.0°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170317_N	9.0°C	1000	214

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170317_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170317_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170317_N	<i>Daphnia magna</i> @10°C	None	None
	<i>Daphnia magna</i> @20°C	None	None
	Rainbow trout	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.4 (2.0-3.0) g/L KCl ¹	5.2 (4.9-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	6.5%	5.1%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, April 13, 2017; ² Test Date April 12, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Lindsay Clothier, MSc
Environmental Scientist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL Fish hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS Client TEC164 Reference 1617-0874-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/04/19	1130	NM	1	HS	Initial pH: <u>7.3</u> Initial EC (µS/cm): <u>1688</u>
1	2017/04/20	0825	EP	-	JW	Initial DO (mg/L): <u>9.0</u>
2	2017/04/21	1000	HS	-	EP	Initial Temp (°C): <u>14.6</u>
3	2017/04/22	1230	HS	-	JW	Salinity (ppt): <u>2</u>
4	2017/04/23	1015	EP	1	LC	Nets used: yes / <u>no</u>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100% 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>6.7</u>	<u>7.3</u>				
Day 4	<u>7.2</u>	<u>7.4</u>				

EC (uS/cm)

Day 0	<u>466</u>	<u>1829</u>				
Day 4	<u>475</u>	<u>1436</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.9</u>	<u>8.9</u>				
Day 4	<u>8.7</u>	<u>8.7</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.7</u>	<u>14.6</u>				
Day 4	<u>14.6</u>	<u>14.6</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control

Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>3.3</u>	<u>0.4</u>	<u>20170228TR</u>	
2	<u>3.2</u>	<u>0.3</u>	<u>LSL</u>	
3	<u>2.4</u>	<u>0.3</u>		
4	<u>3.5</u>	<u>0.6</u>		
5	<u>2.2</u>	<u>0.4</u>		
6	<u>3.2</u>	<u>0.4</u>		
7	<u>3.3</u>	<u>0.4</u>		
8	<u>3.2</u>	<u>0.3</u>		
9	<u>3.3</u>	<u>0.4</u>		
10	<u>3.3</u>	<u>0.4</u>		
Loading Density (g/L): <u>0.195</u>			Source	
Mean Length (cm): <u>3.2</u>			Days Held	<u>50</u>
Length Range (cm): <u>2.4-3.5</u>			Percent stock mortality (7 days prior to test, must be ≤ 2%)	<u>0</u>
Mean Weight (g): <u>0.4</u>			Test Volume (L)	<u>20</u>
Weight Range (g): <u>0.3-0.6</u>				
Comments: <u>24 Hour Updates Required</u>				

Daphnia Bench Sheet

Method DAS 10°C

Client IECBU

Reference 1617-0874-02

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review
0	20170419	1445	JN/ISS	3	HS
1	2017/04/20	1040	JN/ISS	-	HS
2	2017/04/21	0915	EP	3	LC

Sample Information

Initial pH:	<u>7.3</u>
Initial EC (µS/cm):	<u>1688</u>
Initial DO (mg/L):	<u>9.0</u>
Initial Temp (°C):	<u>14.6</u>
Salinity (ppt):	<u>2</u>

Lab Code	00A	00B	00C	100A	100B	100C
	<u>00A</u>	<u>00B</u>	<u>00C</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>

day

pH (units) (range: 6.0-8.5)						
0	<u>7.4</u>	<u>7.5</u>	<u>7.5</u>	<u>7.4</u>	<u>7.4</u>	<u>7.4</u>
2	<u>7.6</u>	<u>7.6</u>	<u>7.6</u>	<u>7.6</u>	<u>7.7</u>	<u>7.7</u>

EC (uS/cm)						
0	<u>329</u>	<u>324</u>	<u>326</u>	<u>1854</u>	<u>1862</u>	<u>1871</u>
2	<u>333</u>	<u>338</u>	<u>338</u>	<u>1775</u>	<u>1778</u>	<u>1778</u>

DO (mg/L) (40-100% saturation at test temp.)						
0	<u>9.6</u>	<u>9.6</u>	<u>9.6</u>	<u>9.6</u>	<u>9.6</u>	<u>9.6</u>
2	<u>8.4</u>	<u>8.5</u>	<u>8.5</u>	<u>8.6</u>	<u>8.7</u>	<u>8.7</u>

Temperature (°C) (range: 17.5-22.5 °C)						
0	<u>11.3</u>	<u>11.3</u>	<u>11.3</u>	<u>11.3</u>	<u>11.3</u>	<u>11.3</u>
2	<u>11.1</u>	<u>11.0</u>	<u>11.0</u>	<u>11.0</u>	<u>11.0</u>	<u>11.0</u>

Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)						
0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10 (1F, 10)</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10 (4D)</u>	<u>10 (6D)</u>	<u>10 (7D)</u>

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 29.8
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 97 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1000 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date G 0412 Weekly water hardness (mg/L) 88

Comments: in glass jars
 @ initiation: no precipitate / debris
 @ takedown: debris falls not hampering swimming, no precipitate present or daphnia or in water

Daphnia Bench Sheet

Method DAS 2009

Client IECIBY

Reference 1617-0874-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	20170419	1440	JN/MISS	3	HS	7.3	1688	9.0	14.6	2
1	20170420	1030	SWISS	-	HS					
2	20170421	0915	EP	3	LC					

Lab Code	CTA	CTB	CTC	100A	100B	100C

day 7.5₅₅ pH (units) (range: 6.0-8.5)

0	7.4	325	7.5	7.4	7.4	7.4			
2	7.5	7.6	7.5	7.7	7.8	7.8			

EC (µS/cm)

0	325	325	321	1851	1850	1861			
2	338	338	336	1775	1781	1789			

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	7.9	7.9	7.9			
2	7.8	7.6	7.6	7.5	7.6	7.6			

Temperature (°C) (range: 17.5-22.5 °C)

0	21.1	21.1	21.1	21.1	21.1	20.3			
2	20.1	20.2	20.1	20.0	20.0	20.1			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	16			
1	10	10	10	10(3D)*	10(2D)*	10(4D)*			
2	10	10	10	10(3D)	10(2D)	10(1D)			

* DAY 1 - debris is string like, attached to daphnia on their ends, but swimming is fine

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

* DAY 2: debris similar to day 1, not impeding swimming; no precipitate present

Culture

Young jar D5 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)

Days to first brood (≤12 days) 8
Average number of young produced (≥15 young) 29.8
Were test treatments randomized on test tray? Yes / No

Sample

DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
Hardness (mg CaCO₃/L) of 100%: 1000 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Alkalinity: 214

Dilution Water

Pail label / preparation date # 04/16/17 Weekly water hardness (mg/L) 80

Comments: in glass jars

@ initiation: no precipitate debris

APPENDIX C – Chain-of-custody form

Teck

COC ID:	20170417-Acute Toxicity	TURNAROUND TIME:	E-3 LAB	RUSH:
PROJECT/CLIENT INFO		LABORATORY		OTHER INFO
Facility Name / Job#	WLC AWTF	Lab Name	Nautlius Environmental	Report Delivery Formats
Project Manager	Thomas Davidson	Lab Contact	Jacklyn Pool	Excel
Email	Thomas.Davidson@teck.com	Email	Jacklyn@NautliusEnvironmental.ca	PDF
Address	15 Km North HWY 43	Address	#4, 6125 - 12 Street SE	EDD
City	Sparwood	City	Calgary	
Postal Code	V0B 2G0	Province	AB	
Phone Number	250 603 9417	Country	Canada	

SAMPLE DETAILS **ANALYSIS REQUESTED** Filtered - F: Field, L: Lab, FL: Field & Lab, N: None

1617-0874
- 01
- 02

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	EXTRA
LC_WTF_IN_20170316_NP	LC_WTF_IN	WS	N	16-Apr-17		G	3	X	X	X	
WL_BFWB_OUT_SP21_20170317_N	WL_BFWB_OUT_SP21	WS	N	17-Apr-17		G	8	X	X	X	X

1 x 20 L CARBON + 2 x 1L BOTTLE
4 x 20L CARBON + 4 x 1L BOTTLE

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #		
Regular (default) X	KYLE ARSENAULT	250 425 6179		
Priority (2-3 business days) - 50% surcharge	<i>[Signature]</i>	April 17/17 1430		
Emergency (1 Business Day) - 100% surcharge				
For Emergency <1 Day, ASAP or Weekend - Contact ALS				

MANATOULIN
1045
90
NO S/I

END OF REPORT



Acute Toxicity Test Results

Samples collected April 23, 2017

Final Report – Revision 1

February 27, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170423 _NP/ 1617-0905-01	23-Apr-17	25-Apr-17 at 1140h	26-Apr-17 at 1100h	25-Apr-17 at 1530h	25-Apr-17 at 1545h	11.0°C

Sample chemistry

Sample ID	Temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170423_NP	18.1°C	957	268

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170423_NP	100	100	87

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170423_NP	0	20

Precipitate observations

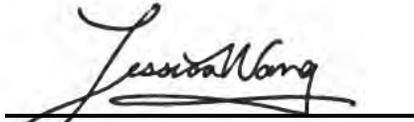
Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170423_NP	<i>Daphnia magna</i> @10°C	None	None
	<i>Daphnia magna</i> @20°C	Precipitate observed on water surface	None
	Rainbow trout	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.4 (2.0-3.0) g/L KCl ¹	5.2 (4.9-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	6.5%	5.5%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, April 13, 2017; ² Test Date April 12, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL Fish hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Daphnia Bench Sheet

Method DAS 10°C

Client TEC164

Reference 1617-0905-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	<u>2017/04/25</u>	<u>1530</u>	<u>JN/JW</u>	<u>3</u>	<u>HS</u>	<u>7.8</u>	<u>1888</u>	<u>8.2</u>	<u>18.1</u>	<u>1</u>
1	<u>2017/04/26</u>	<u>0030</u>	<u>JP</u>	-	<u>HS</u>					
2	<u>2017/04/27</u>	<u>0915</u>	<u>LC/SS</u>	<u>3</u>	<u>RW</u>					

Lab Code	CTVA	CTVB	CTVC	100A	100B	100C
	<u>CTVA</u>	<u>CTVB</u>	<u>CTVC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>

day pH (units) (range: 6.0-8.5)

0	<u>7.2</u>	<u>7.2</u>	<u>7.3</u>	<u>7.5</u>	<u>7.6</u>	<u>7.6</u>			
2	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>	<u>8.0</u>	<u>8.1</u>	<u>8.0</u>			

EC (µS/cm)

0	<u>334</u>	<u>329</u>	<u>331</u>	<u>1850</u>	<u>1879</u>	<u>1901</u>			
2	<u>368</u>	<u>345</u>	<u>345</u>	<u>1855</u>	<u>1904</u>	<u>1951</u>			

DO (mg/L) (40-100% saturation at test temp.)

0	<u>9.6</u>	<u>9.6</u>	<u>9.6</u>	<u>9.6</u>	<u>9.6</u>	<u>9.6</u>			
2	<u>9.2</u>	<u>9.3</u>	<u>9.2</u>	<u>9.4</u>	<u>9.3</u>	<u>9.3</u>			

Temperature (°C) (range: 17.5-22.5 °C)

0	<u>11.0</u>	<u>11.0</u>	<u>11.0</u>	<u>11.0</u>	<u>11.0</u>	<u>11.1</u>			
2	<u>11.6</u>	<u>11.8</u>	<u>11.8</u>	<u>11.8</u>	<u>11.8</u>	<u>11.8</u>			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 + C2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 31.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 99% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 957 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date H:04/21 Weekly water hardness (mg/L) 80

Comments:
 in glass jars @ initial: no precipitate, clear + colourless
 @ takeover: no precipitate, clear + colourless

Daphnia Bench Sheet

Method DAS 20°C

Client TEC164

Reference 1617-0905-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	<u>2017/04/25</u>	<u>1545</u>	<u>JN/JW</u>	<u>3</u>	<u>HS</u>	<u>7.8</u>	<u>1888</u>	<u>8.2</u>	<u>18.1</u>	<u>1</u>
1	<u>2017/04/26</u>	<u>0930</u>	<u>EP</u>	<u>-</u>	<u>HS</u>					
2	<u>2017/04/27</u>	<u>0905</u>	<u>LC/SS</u>	<u>3</u>	<u>JW</u>					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C
	<u>CTLA</u>	<u>CTLB</u>	<u>CTLC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>

day pH (units) (range: 6.0-8.5)

0	<u>7.6</u>	<u>7.6</u>	<u>7.6</u>	<u>7.9</u>	<u>7.9</u>	<u>8.0</u>			
2	<u>7.7</u>	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>7.9</u>	<u>8.0</u>			

EC (uS/cm)

0	<u>350</u>	<u>333</u>	<u>330</u>	<u>1883</u>	<u>1885</u>	<u>1877</u>			
2	<u>336</u>	<u>335</u>	<u>341</u>	<u>1833</u>	<u>1858</u>	<u>1857</u>			

DO (mg/L) (40-100% saturation at test temp.)

0	<u>7.8</u>	<u>7.8</u>	<u>7.9</u>	<u>8.0</u>	<u>7.9</u>	<u>7.9</u>			
2	<u>7.9</u>	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>			

Temperature (°C) (range: 17.5-22.5 °C)

0	<u>19.1</u>	<u>19.1</u>	<u>19.3</u>	<u>19.5</u>	<u>19.7</u>	<u>19.7</u>			
2	<u>20.0</u>	<u>20.3</u>	<u>20.3</u>	<u>20.4</u>	<u>20.3</u>	<u>20.2</u>			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
2	<u>10</u>	<u>10</u>	<u>10 (IF)</u>	<u>9 (IF)</u>	<u>10</u>	<u>7 (2D)</u>			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 31.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 121% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20min Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 957 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date H: 04/21 Weekly water hardness (mg/L) 80

Comments: @ initiation: no precipitate, in glass jar clear & colorless @ taken down: 100B has some precipitate on surface

Method TR5 Client TEC164 Reference 1617-0905-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/04/26	1100*	H3/SS	1	JN
1	2017/04/27	0810	NM	-	JW
2	2017/04/28	1200	HS	-	JN
3	2017/04/29	0916	PW	1	JN
4	2017/04/30	0800	NM	1	CA

Sample Information

Initial pH:	<u>7.8</u>
Initial EC (µS/cm):	<u>1888</u>
Initial DO (mg/L):	<u>8.2</u>
Initial Temp (°C):	<u>18.1</u>
Salinity (ppt):	<u>2</u>
Nets used: yes / no	yes / <u>no</u>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.8

Test Chemistry and Biology

Conc.	CTL	<u>100</u>					
-------	-----	------------	--	--	--	--	--

pH (units) (range: 5.5-8.5)

Day 0	<u>7.5</u>	<u>7.5</u>					
Day 4	<u>7.7</u>	<u>7.9</u>					

EC (µS/cm)

Day 0	<u>459</u>	<u>1168</u>					
Day 4	<u>463</u>	<u>1095</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.8</u>	<u>8.8</u>					
Day 4	<u>8.6</u>	<u>8.8</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.5</u>	<u>14.5</u>					
Day 4	<u>15.5</u>	<u>14.9</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>2.6</u>	<u>0.24</u>	<u>20170411TR</u>	Source <u>LSL</u>
2	<u>3.0</u>	<u>0.35</u>		Days Held <u>15</u>
3	<u>2.4</u>	<u>0.20</u>		Percent stock mortality <u>0.04</u> (7 days prior to test, must be ≤ 2%)
4	<u>2.3</u>	<u>0.24</u>		Test Volume (L) <u>20</u>
5	<u>2.3</u>	<u>0.3</u>		
6	<u>2.6</u>	<u>0.4</u>		
7	<u>2.7</u>	<u>0.3</u>		
8	<u>2.5</u>	<u>0.3</u>		
9	<u>2.5</u>	<u>0.3</u>		
10	<u>2.6</u>	<u>0.3</u>		
			Loading Density (g/L): <u>0.15</u>	
			Mean Length (cm): <u>2.6</u>	
			Length Range (cm): <u>2.3-3.0</u>	
			Mean Weight (g): <u>0.3</u>	
			Weight Range (g): <u>0.2-0.4</u>	

Comments: no precipitate @ test initiation
No precipitate @ takedown

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected April 24, 2017

Final Report – Revision 1

February 27, 2018

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_ 20170424_N / 1617-0905-02	24-Apr-17	25-Apr-17 at 1140h	26-Apr-17 at 1100h	25-Apr-17 at 1525h	25-Apr-17 at 1545h	11.0°C

Sample chemistry

Sample ID	Temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170424_N	16.3°C	1183	234

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170424_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170424_N	0	0

Precipitate observations

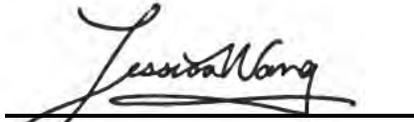
Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170424_N	<i>Daphnia magna</i> @10°C	None	None
	<i>Daphnia magna</i> @20°C	None	None
	Rainbow trout	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.4 (2.0-3.0) g/L KCl ¹	5.2 (4.9-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.5-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	6.5%	5.5%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, April 13, 2017; ² Test Date April 12, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL Fish hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Daphnia Bench Sheet

Method DAS 20°C

Client TEC164

Reference 1617-0905-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/04/25	1545	JN/JW	3	HS	7.5	1895	8.7	16.3	3
1	2017/04/26	0930	EP	-	HS					
2	2017/04/27	0850	LC/SS	3	JW					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.8	7.7	7.7	7.9	7.9	7.9			
2	7.4	7.3	7.4	7.7	7.9	7.9			

EC (µS/cm)

0	328	329	331	1829	1850	1253			
2	345	339	357	1804	1842	1852			

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	8.0	8.0	7.9	8.0	7.9			
2	7.7	7.7	7.8	7.8	7.8	7.8			

Temperature (°C) (range: 17.5-22.5 °C)

0	19.4	19.4	19.4	19.6	19.8	19.9			
2	20.1	20.3	20.3	20.3	20.2	20.2			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10(20)	10(10)	10(10)			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C4 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 31.3
 Were test treatments randomized on test tray? Yes No

Sample
 DO % of sample prior to aeration: 124% Is aeration required (<40% or >100%)? Yes No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20min Filtered with 110µm screen prior to testing Yes No
 Hardness (mg CaCO₃/L) of 100%: 1183 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date H: 04/21 Weekly water hardness (mg/L) 880

Comments:
 in glass jars @ initiation: no precipitate, clear + colourless
 @ takedown: no precipitate clear + colourless

Daphnia Bench Sheet

Method DAS 10°C

Client TEC164

Reference 1617-0905-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/04/25	1525	JN/SW	3	HS	7.5	1895	8.7	16.3	3
1	2017/04/26	0930	FP	-	HS					
2	2017/04/27	0915	LC/SS	3	FW					

Lab Code	CTVA	CTVB	CTVC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.6	7.6	7.6	7.3	7.3	7.3			
2	7.1	7.2	7.3	7.8	7.9	8.0			

EC (uS/cm)

0	331	331	327	1809	1841	1853			
2	343	336	345	1782	1899	1951			

DO (mg/L) (40-100% saturation at test temp.)

0	9.6	9.5	9.5	9.6	9.5	9.5			
2	8.9	8.9	9.1	9.2	9.2	9.3			

Temperature (°C) (range: 17.5-22.5 °C)

0	11.0	11.1	11.1	11.0	11.1	11.1			
2	11.3	11.7	11.8	11.8	11.7	11.7			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10(SD)	10(6D)	10(6D)			
2	10	10	10	10(SD)	10(FSD)	10(SD)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 31.3
 Were test treatments randomized on test tray? Yes No

Sample
 DO % of sample prior to aeration: 99% Is aeration required (<40% or >100%)? Yes No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes No
 Hardness (mg CaCO3/L) of 100%: 1183 Is hardness adjustment required (<25 mg CaCO3/L)? Yes No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date H: 04/21 Weekly water hardness (mg/L) 850

Comments:
 @ initiation: no precipitate, clear + colourless
 In glass jars @ takedown: no precipitate clear + colourless

24hour Updates



Trout Bench Sheet

Method TRS Client TEC164 Reference 1617-0905-02

Test Log						Sample Information	
Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:	
0	2017104126	1100*	HS155	1	JN	Initial EC (µS/cm):	75
1	2017104127	0800	NM	-	JW	Initial DO (mg/L):	1895
2	2017104128	1200	HS	-	JN	Initial Temp (°C):	8.7
3	2017104129	0916	TW	-	JN	Salinity (ppt):	16.3
4	2017104130	0900	NM	1	CA	Nets used: yes / no	3

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration
 Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.8

Test Chemistry and Biology

Conc.	CTL	100					
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pH (units) (range: 5.5-8.5)

Day 0	7.5	7.4					
Day 4	7.9	8.0					

EC (uS/cm)

Day 0	459	1871					
Day 4	466	1730					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.8	8.8					
Day 4	8.8	8.8					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	14.4	14.5					
Day 4	14.9	14.7					

Number Alive (In brackets number stressed)

Day 0	10	10					
Day 1	10	10					
Day 2	10	10					
Day 3	10	10					
Day 4	10	10					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	2.5	0.2	20170411TR	
2	2.8	0.3	Source	LSL
3	3.0	0.3	Loading Density (g/L):	0.14
4	3.0	0.4	Mean Length (cm):	2.8
5	3.0	0.3	Length Range (cm):	2.4-3.1
6	3.1	0.3	Mean Weight (g):	0.3
7	2.9	0.3	Weight Range (g):	0.2-0.4
8	2.6	0.3	Days Held	15
9	2.4	0.2	Percent stock mortality (7 days prior to test, must be ≤2%)	0.04
10	2.5	0.2	Test Volume (L)	20

Comments: No precipitate @ test initiation
 No precipitate at takedown

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected April 30, 2017

Final Report – Revision 1

May 15, 2017

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_201704 30_NP/ 1617-0920-01	30-April-17 at 0800h	02-May-17 at 0945h	03-May-17 at 0900h	02-May-17 at 1430h	02-May-17 at 1445h	12.0°C

Sample chemistry

Sample ID	Temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170430_NP	17.2°C	963	279

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170430_NP	90	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170430_NP	0	20

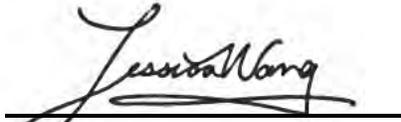
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
	<i>Daphnia magna</i> @10°C	None	None
LC_WTF_IN_20170430_NP	<i>Daphnia magna</i> @20°C	Small amount of precipitate observed on sample surface	None
	Rainbow trout	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.6 (2.0-3.0) g/L KCl ¹	4.8 (4.6-5.2) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.3-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	7.5%	5.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date April 25, 2017; ² Test date May 3, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL Fish hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Daphnia Bench Sheet

Method PA5@10°C

Client TEC164

Reference 1617-0920-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/05/02	1430	HS/EP	3	ADMS	7.7	1887	8.7	17.2	2
1	2017/05/03	0945	EP	-	RW					
2	2017/05/04	195	JN	3	HS					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.6	7.7	7.7	7.9	7.9	7.9			
2	7.7	7.6	7.6	8.1	8.2	8.2			

EC (uS/cm)

0	307	334	338	1859	1866	1881			
2	356	354	356	1901	1913	1909			

DO (mg/L) (40-100% saturation at test temp.)

0	9.3	9.4	9.4	9.4	9.5	9.5			
2	9.5	9.5	9.5	9.4	9.4	9.4			

Temperature (°C) (range: 17.5-22.5 °C)

0	10.9	11.0	11.0	11.1	11.0	11.0			
2	11.1	11.1	11.0	11.0	11.0	11.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar DH Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 41
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 119% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 minutes Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 963 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date E 04/26 Weekly water hardness (mg/L) 84

Comments: Initiation: clear solution (no precipitate) Take down = no precipitate
Test set with glass jars

Daphnia Bench Sheet

Method DAS @ 20°C Client TFC164 Reference 16170920-01

Test Log						Sample Information	
Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	
0	2017/05/02	1445	HS/FP	3	AW	7.7	
1	2017/05/03	0945	EP	-	YW	Initial EC (µS/cm):	1887
2	2017/05/04	0950	JN	3	HS	Initial DO (mg/L):	8.7
						Initial Temp (°C):	17.2
						Salinity (ppt):	2

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C			
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day pH (units) (range: 6.0-8.5)

0	7.7	7.7	7.7	7.9	7.9	7.9			
2	7.88	7.8	7.8	7.9	8.0	8.0			

EC (uS/cm)

0	338	337	338	1864	1877	1878			
2	351	346	354	1890	1905	1941			

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	8.0	8.0	8.3	8.3	8.3			
2	7.9	7.9	7.9	8.7.9	7.9	7.9			

Temperature (°C) (range: 17.5-22.5 °C)

0	19.6	19.5	19.6	19.5	19.6	19.6			
2	20.2	20.2	20.7	20.2	20.2	20.1			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 26
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 119% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 minutes Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 963 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date E 04/26 Weekly water hardness (mg/L) 84

Comments: Initiation: clear solution (no precipitate) Takedown: small amount of precipitate on surface
Test set with glass jars

APPENDIX C – Chain-of-custody form

Teck

TEC164

COC ID: 20170501-Acute Toxicity

TURNAROUND TIME:

REGULAR

RUSH:

PROJECT/CLIENT INFO

LABORATORY

OTHER INFO

Facility Name / Job#	WLC AWTF			Lab Name	Nautilus Environmental			Report Delivery Formats	Excel	PDF	EDD	
Project Manager	Thomas Davidson			Lab Contact	Jacklyn Pool			Email 1:	thomas.davidson@teck.com	X	X	X
Email	Thomas.Davidson@teck.com			Email	Jacklyn@NautilusEnvironmental.ca			Email 2:	teckcoal@equisonline.com	X	X	X
Address	15 Km North HWY 43			Address	#4, 6125 - 12 Street SE			Email 3:	teckwclab@epcor.com	X	X	X
								Email 4:	Chris.Stroch@teck.com	X	X	X
City	Sparwood	Province	BC	City	Calgary	Province	AB	Email 5:	colin.lynch@teck.com	X	X	X
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada	Email 6:	michael.moore@teck.com	X	X	X
Phone Number	250.603.9417			Phone Number	+1.403.253.7121			VPO 00473572				

SAMPLE DETAILS

ANALYSIS REQUESTED

Filtered - F: Field, L: Lab, FL: Field & Lab, N: None

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS	PIC	PRESERV.	EXTRA	
									N			N
LC_WTF_IN_20170430_NP	LC_WTF_IN	WS	N	30-Apr-17	0800	G	3	NAUT_96Hr RT Single Concentration_Toxicity Test	X	X	X	X
WL_BFWB_OUT_SP21_20170501_N	WL_BFWB_OUT_SP21	WS	N	1-May-17	0900	G	8	NAUT_48Hr DM Single Concentration_Toxicity Test @ 10C NAUT_48Hr DM Single Concentration_Toxicity Test @ 20C	X	X	X	X

1617-0920 -
- 01
- 02

MANANTALIN @ 0950
5 x 20L CARBON
6 x 1L BOTTLES
NO S/I
GOOD CONDITION

ed

120
x2
TAS
OAS
OAS

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
				120
				x2
NB OF BOTTLES RETURNED/DESCRIPTION	Regular (default) X	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend - Contact ALS
Sampler's Name	Nick Graham		Mobile #	
Sampler's Signature			Date/Time	1-May-17

END OF REPORT



Acute Toxicity Test Results

Sample collected May 1, 2017

Final Report – Revision 1

May 15, 2017

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP 21_20170501_N/ 1617-0920-02	01-May-17 at 0900h	02-May-17 at 0945h	03-May-17 at 0900h	02-May-17 at 1445h	02-May-17 at 1445h	12.0°C

Sample chemistry

Sample ID	Temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170501_N	17.4°C	1899	254

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170501_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170501_N	0	0

Precipitate observations

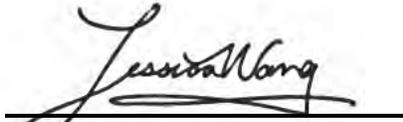
Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
	<i>Daphnia magna</i> @10°C	None	Some string-like debris observed on apical spines of daphnia
WL_BFWB_OUT_SP21_20170501_N	<i>Daphnia magna</i> @20°C	Small amount of precipitate observed on sample surface	Some string-like debris observed on apical spines of daphnia
	Rainbow trout	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.6 (2.0-3.0) g/L KCl ¹	4.8 (4.6-5.2) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.3-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	7.5%	5.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date April 25, 2017; ² Test date May 3, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL Fish hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS Client TEC164 Reference 1617-0920-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/05/03	0900 *	SS	1	JN	Initial pH: <u>7.5</u> Initial EC (µS/cm): <u>1899</u>
1	2017/05/04	0930	SS	-	JN	Initial DO (mg/L): <u>9</u>
2	2017/05/05	0830	SS	-	JW	Initial Temp (°C): <u>17.4</u>
3	2017/05/06	0900	JN	-	JW	Salinity (ppt): <u>2</u>
4	2017/05/07	1005 DM	DM	1	JW	Nets used: yes / (no) <u>2</u>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100%: 9.1 8.8

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0 7.2 7.7

Day 4 7.9 8.0

EC (uS/cm)

Day 0 425 1725

Day 4 461 1623

DO (mg/L) (70-100% saturation at test temp.)

Day 0 8.7 8.8

Day 4 8.7 8.8

Temperature (°C) (range: 13.5-16.5 °C)

Day 0 14.2 14.4

Day 4 14.5 14.5

Number Alive (In brackets number stressed)

Day 0 10 10

Day 1 10 10

Day 2 10 10

Day 3 10 10

Day 4 10 10

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	<u>20170411 TR</u>
1	<u>3.0</u>	<u>0.3</u>	Source	<u>LSC</u>
2	<u>3.0</u>	<u>0.3</u>	Days Held	<u>22</u>
3	<u>2.8</u>	<u>0.2</u>	Percent stock mortality (7 days prior to test, must be ≤ 2%)	<u>0.09</u>
4	<u>2.8</u>	<u>0.2</u>	Test Volume (L)	<u>90</u>
5	<u>2.5</u>	<u>0.2</u>		
6	<u>3.0</u>	<u>0.3</u>		
7	<u>3.0</u>	<u>0.3</u>		
8	<u>2.8</u>	<u>0.3</u>		
9	<u>2.8</u>	<u>0.2</u>		
10	<u>2.8</u>	<u>0.2</u>		
Loading Density (g/L): <u>0.13</u>				
Mean Length (cm): <u>2.9</u>				
Length Range (cm): <u>2.5-3.0</u>				
Mean Weight (g): <u>0.3</u>				
Weight Range (g): <u>0.2-0.3</u>				

Comments:

*NO precipitate on fish down
2017/05/07 DM*

Daphnia Bench Sheet

Method OAS@10°C

Client TEC164

Reference 1617-0920-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/05/02	1445	HS/EP	3	NM	7.5	1899	9.0	17.4	2
1	2017/05/03	0945	EP	-	JW					
2	2017/05/04	1010	JN	3	HS					

Lab Code	CTCA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.7	7.7	7.7	7.7	7.7	7.7
2	7.9	7.8	7.8	8.1	8.1	8.2

	EC (uS/cm)					
0	338	338	340	1880	1880	1877
2	355	349	367	1931	1943	1945

	DO (mg/L) (40-100% saturation at test temp.)					
0	8.0	8.0	9.4	9.1	9.2	9.2
2	9.5	9.5	9.5	9.5	9.5	9.3

	Temperature (°C) (range: 17.5-22.5 °C)					
0	19.4	19.4	11.0	11.2	11.2	11.2
2	11.0	11.0	11.0	11.2	11.2	11.2

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10(I4D)	10(I3D)	10(I3D)
2	10	10	10	10(I1D)	10(I1D)	10(I1D)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 26
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 117% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 minutes Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 950 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date E 04126 Weekly water hardness (mg/L) 84

Comments: Initiation: clear solution (no precipitate) Take down = no precipitate
Test set with glass jars D = string debris on daphnid ends

Daphnia Bench Sheet

Method DAS@20°C

Client TEC164

Reference 1617-0920-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	7.7
0	2017/05/02	1445	HS/SP	3	ADK	Initial EC (µS/cm):	1899
1	2017/05/03	1000	EP	-	JW	Initial DO (mg/L):	9.0
2	2017/05/04	1010	JN	3	HS	Initial Temp (°C):	17.4
						Salinity (ppt):	2

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C			
----------	------	------	------	------	------	------	--	--	--

day pH (units) (range: 6.0-8.5)

0	7.7	7.7	7.7	7.7	7.7	7.7			
2	7.4	7.4	7.5	7.8	7.9	7.9			

EC (µS/cm)

0	340	341	340	1833	1841	1871			
2	340	349	350	1827	1834	1831			

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	8.0	8.0	8.2	8.2	8.2			
2	7.9	7.9	7.9	7.9	7.9	7.9			

Temperature (°C) (range: 17.5-22.5 °C)

0	19.5	19.5	19.5	19.8	19.9	19.8			
2	20.0	20.0	20.1	20.1	20.1	20.1			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10(3D)	10(2D)	10(2D)			
2	10	10	10	10(2D)	10(2D)	10(2D)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 41
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 117% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 minutes Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 950 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date E 04/26 Weekly water hardness (mg/L) 84

Comments: Initiation: clear solution (no precipitate) Test set with grass jars
Takedown: small amount of precipitate at surface
D = debris on tails.

APPENDIX C – Chain-of-custody form

Teck

TEC164

COC ID: 20170501-Acute Toxicity

TURNAROUND TIME:

REGULAR

RUSH:

PROJECT/CLIENT INFO

LABORATORY

OTHER INFO

Facility Name / Job#	WLC AWTF			Lab Name	Nautilus Environmental			Report Delivery Formats	Excel	PDF	EDD	
Project Manager	Thomas Davidson			Lab Contact	Jacklyn Pool			Email 1:	thomas.davidson@teck.com	X	X	X
Email	Thomas.Davidson@teck.com			Email	Jacklyn@NautilusEnvironmental.ca			Email 2:	teckcoal@equisonline.com	X	X	X
Address	15 Km North HWY 43			Address	#4, 6125 - 12 Street SE			Email 3:	teckwclab@epcor.com	X	X	X
								Email 4:	Chris.Stroch@teck.com	X	X	X
City	Sparwood	Province	BC	City	Calgary	Province	AB	Email 5:	colin.lynch@teck.com	X	X	X
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada	Email 6:	michael.moore@teck.com	X	X	X
Phone Number	250.603.9417			Phone Number	+1.403.253.7121			VPO 00473572				

SAMPLE DETAILS

ANALYSIS REQUESTED

Filtered - F: Field, L: Lab, FL: Field & Lab, N: None

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS REQUESTED				EXTRA
								NAUT_96Hr RT Single Concentration_Toxicity Test	NAUT_48Hr DM Single Concentration_Toxicity Test @ 10C	NAUT_48Hr DM Single Concentration_Toxicity Test @ 20C		
LC_WTF_IN_20170430_NP	LC_WTF_IN	WS	N	30-Apr-17	0800	G	3	X	X	X		
WL_BFWB_OUT_SP21_20170501_N	WL_BFWB_OUT_SP21	WS	N	1-May-17	0900	G	8	X	X	X	X	

1617-0920 -
- 01
- 02

MANANTALIN @ 0950
5 x 20L CARBON
6 x 1L BOTTLES
NO S/I
GOOD CONDITION

[Handwritten signature]

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
				120
				x2

TAS
OAS
OAS

NB OF BOTTLES RETURNED/DESCRIPTION	Regular (default) X	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend - Contact ALS	Sampler's Name	Nick Graham	Mobile #	
					Sampler's Signature		Date/Time	1-May-17

END OF REPORT



Acute Toxicity Test Results

Samples collected June 4, 2017

Final Report - Revision 1

June 23, 2017

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170604 _NP / 1617-1036-01	4-Jun-17 at 2030h	6-Jun-17 at 0845	7-Jun-17 at 1020h	6-Jun-17 at 1515h	6-Jun-17 at 1500h	15°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170604_NP	18°C	580	289

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170604_NP	100	100	90

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170604_NP	0	20

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
	<i>Daphnia magna</i> @10°C	None	None
LC_WTF_IN_20170604_NP	<i>Daphnia magna</i> @20°C	Small amount of precipitate observed on sample surface	None
	Rainbow trout	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.5 (2.1-2.9) g/L KCl ¹	5.4 (4.9-5.8) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.3-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	8%	5%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date May 9, 2017; ² Test Date May 31, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Leila Oosterbroek, BSc
Environmental Scientist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In house culture
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Trout Bench Sheet

Method TRS

Client TECIB4

Reference 1617-1036-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/06/07	1020 *	LC	1	TW	Initial pH: <u>7.2</u>
1	2017/06/08	0800	EP	-	AS	Initial EC (µS/cm): <u>1277</u>
2	2017/06/09	0830	SR	-	CA	Initial DO (mg/L): <u>8.3</u>
3	2017/06/10	1100	LC	-		Initial Temp (°C): <u>19</u>
4	2017/06/11	1103	SS	1		Salinity (ppt): <u>3</u>
						Nets used: yes / <u>no</u>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100%: 8.8

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.2</u>	<u>7.2</u>				
Day 4	<u>8.0</u>	<u>7.9</u>				

EC (uS/cm)

Day 0	<u>453</u>	<u>1301</u>				
Day 4	<u>467</u>	<u>1098</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.5</u>	<u>8.8</u>				
Day 4	<u>8.6</u>	<u>8.8</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.8</u>	<u>14.7</u>				
Day 4	<u>14.7</u>	<u>14.6</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control

Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.8</u>	<u>0.2</u>	Loading Density (g/L): <u>0.12</u> Mean Length (cm): <u>3.0</u> Length Range (cm): <u>2.8-3.1</u> Mean Weight (g): <u>0.3</u> Weight Range (g): <u>0.2-0.4</u>	Batch <u>20170315TR</u>
2	<u>3.1</u>	<u>0.3</u>		Source <u>NE</u>
3	<u>3.0</u>	<u>0.3</u>		Days Held <u>84</u>
4	<u>3.1</u>	<u>0.3</u>		Percent stock mortality <u>0</u>
5	<u>2.9</u>	<u>0.3</u>		(7 days prior to test, must be ≤2%)
6	<u>3.0</u>	<u>0.3</u>		Test Volume (L) <u>20L</u>
7	<u>2.8</u>	<u>0.2</u>		
8	<u>3.1</u>	<u>0.4</u>		
9	<u>3.0</u>	<u>0.3</u>		
10	<u>3.0</u>	<u>0.3</u>		
Comments :				

Daphnia Bench Sheet

Method DAS 10°C

Client TECIBM

Reference 1617-1036-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/06/06	1515	SS/JW	3	LC	7.2	1277	8.3	19.0	3
1	2017/06/07	0950	LC	-	JW					
2	2017/06/08	1000	SS	3						

Lab Code	CTVA	CTVB	CTVC	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)					
0	7.8	7.9	7.9	7.4	7.5	7.5
2	7.8	7.8	7.8	8.2	8.2	8.2

	EC (uS/cm)					
0	332	341	341	1322	1336	1344
2	340	347	345	1295	1307	1320

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.5	9.5	9.6	9.5	9.4	9.5
2	9.0	9.0	9.3	9.4	9.5	9.5

	Temperature (°C) (range: 17.5-22.5 °C)					
0	11.3	11.3	11.3	10.8	10.8	10.9
2	11.5	11.8	11.9	11.8	11.7	11.7

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 7%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 26.0
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 99.1 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 580 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) 580
 Alkalinity = 289

Dilution Water
 Pail label / preparation date H:06102 Weekly water hardness (mg/L) 84

Comments:
 initial observations: clear, colorless, no precipitate
 - in glass jars
 DAY 2: clear, colorless, no precipitate

Daphnia Bench Sheet

 Method DAS 20°C

 Client TEC164

 Reference 1617-1036-01
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017106106	1500	AW/SS	3	LC	7.2	1277	8.3	19.0	3
1	2017106107	1000	LC	-	AW					
2	2017106108	0945	SS	3						

Lab Code	CTVA	CTVB	CTVC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.8	7.8	7.9	7.9	7.8	7.9
2	8.0	8.0	8.0	8.4	8.3	8.3

day	EC (µS/cm)					
0	338	339	344	1307	1306	1311
2	366	369	371	1325	1314	1369

day	DO (mg/L) (40-100% saturation at test temp.)					
0	7.9	7.9	7.9	7.8	8.0	8.0
2	7.9	7.9	7.9	7.9	7.9	7.9

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	20.4	20.4	20.4	20.4	20.5	20.7
2	20.3	20.2	20.3	20.0	20.2	20.4

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10(I,F)	8(I,D,2I)	9(I,I)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 26.9
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 118% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 580 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -
 Alkalinity = 289

Dilution Water
 Pail label / preparation date H: 06/02 Weekly water hardness (mg/L) 84

Comments:
 initial observations: clear + colourless no precipitate
 Day 12: precipitate formation on surface
 * In glass jars

APPENDIX C – Chain-of-custody form

TEC164

COC ID: 20170605-Acute Toxicity		TURNAROUND TIME: REGULAR		RUSH:					
PROJECT/CLIENT INFO			LABORATORY			OTHER INFO			
Facility Name / Job#	WLC AWTF		Lab Name	Nautilus Environmental		Report Delivery Formats			
Project Manager	Thomas Davidson		Lab Contact	Jacklyn Pool		Excel	PDF	EDD	
Email	Thomas.Davidson@teck.com		Email	Jacklyn@NautilusEnvironmental.ca		Email 1:	thomas.davidson@teck.com	X X X	
Address	15 Km North HWY 43		Address	#4, 6125 - 12 Street SE		Email 2:	teckcoal@equisonline.com	X X X	
City	Sparwood	Province	BC	City	Calgary	Province	AB	Email 3:	
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada	teckwclab@epcor.com	
Phone Number	250.603.9417		Phone Number	+1.403.253.7121		Email 4:	Marty.Halke@teck.com	X X X	
SAMPLE DETAILS			ANALYSIS REQUESTED			VPO 00473572			
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# Of Cont.	PH: N N N N	
LC_WTF_IN_20170604_NP	LC_WTF_IN	WS	N	4-Jun-17	2030	G	3	PRSERV: N N N N	
WL_BFWB_OUT_SP21_20170605_N	WL_BFWB_OUT_SP21	WS	N	5-Jun-17	0900	G	8	ANALYSIS: NAUT_96Hr_RT_Single_Concentration_Toxicity Test X X X EXTRA X	
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS			RELINQUISHED BY/AFFILIATION			DATE/TIME		ACCEPTED BY/AFFILIATION	
NB OF BOTTLES RETURNED/DESCRIPTION			SAMPLER'S NAME			DATE/TIME		DATE/TIME	
Regular (default) X			Grant Fleming			5-June-17		MANATOULIN @ 0845 2017/06/06 5x200 CARBON 6x1L BOTTLES 150 GOOD CONDITION NO S/I	
Priority (2-3 business days) - 50% surcharge			SAMPLER'S SIGNATURE			DATE/TIME			
Emergency (1 Business Day) - 100% surcharge									
For Emergency <1 Day, ASAP or Weekend - Contact ALS									

1617-1036
-01
-02

END OF REPORT



Acute Toxicity Test Results

Sample collected June 5, 2017

Final Report – Revision 1

June 23, 2017

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_20170605_N/ 1617-1036-02	5-Jun-17 at 0900h	6-Jun-17 at 0845	7-Jun-17 at 1015h	6-Jun-17 at 1515h	6-Jun-17 at 1510h	15°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170605_N	18°C	660	211

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170605_N	100	100	97

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170605_N	0	7

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
	<i>Daphnia magna</i> @10°C	None	None
WL_BFWB_OUT_SP21_20170605_N	<i>Daphnia magna</i> @20°C	Small amount of precipitate observed on sample surface	None
	Rainbow trout	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.5 (2.1-2.9) g/L KCl ¹	5.4 (4.9-5.8) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.3-3.7) g/L KCl	4.9 (4.2-5.8) g/L NaCl
Reference toxicant CV	8%	5%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date May 9, 2017; ² Test Date May 31, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Leila Oosterbroek, BSc
Environmental Scientist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In house culture
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Trout Bench Sheet

Method TRS Client TEC164 Reference 1617-1036-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/06/07	1015 *	LC	1	TW
1	2017/06/08	0800	EP	-	HS
2	2017/06/09	0830	SS	-	CR
3	2017/06/10	1105	LC	-	
4	2017/06/11	1110	SS	1	

Sample Information

Initial pH: 7.4
 Initial EC (µS/cm): 1371
 Initial DO (mg/L): 8.4
 Initial Temp (°C): 18
 Salinity (ppt): 3
 Nets used: yes / (no)

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L yes/no 3
 Preaeration time: 0.5 hours 3 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.7

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.3</u>	<u>7.2</u>				
Day 4	<u>8.0</u>	<u>7.9^{SS}</u>				

EC (uS/cm)

Day 0	<u>456</u>	<u>1365</u>				
Day 4	<u>467</u>	<u>1098</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.5</u>	<u>8.7</u>				
Day 4	<u>8.7</u>	<u>8.8</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.6</u>	<u>14.5</u>				
Day 4	<u>14.5</u>	<u>14.4</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>3.1</u>	<u>0.3</u>	Loading Density (g/L): <u>0.14</u> Mean Length (cm): <u>3.1</u> Length Range (cm): <u>2.8-3.1</u> Mean Weight (g): <u>0.3</u> Weight Range (g): <u>0.2-0.5</u>	Batch <u>2017035TR</u>
2	<u>3.0</u>	<u>0.3</u>		Source <u>NE</u>
3	<u>3.1</u>	<u>0.3</u>		Days Held <u>84</u>
4	<u>3.1</u>	<u>0.3</u>		Percent stock mortality <u>0</u> (7 days prior to test, must be ≤2%)
5	<u>3.1</u>	<u>0.3</u>		Test Volume (L) <u>20L</u>
6	<u>3.0</u>	<u>0.3</u>		
7	<u>2.9</u>	<u>0.2</u>		
8	<u>3.5</u>	<u>0.5</u>		
9	<u>2.8</u>	<u>0.2</u>		
10	<u>3.0</u>	<u>0.3</u>		
Comments :				

Daphnia Bench Sheet

Method DAS 10°C

Client TECIBY

Reference 1617-1036-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/06/06	1515	AWISS	3	LL	7.4	1371	8.4	18.0	3
1	2017/06/07	0950	LC	-	TW					
2	2017/06/08	1000	SS	3						

Lab Code	CTA	CTB	CTC	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)					
0	7.8	7.8	7.9	7.4	7.5	7.5
2	7.95 8.0	7.9	7.9	8.2	8.2	8.2

	EC (uS/cm)					
0	334	341	344	1345	1375	1409
2	390	356	354	1341	1366	1393

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.6	9.5	9.5	9.6	9.6	9.5
2	7.95 9.0	9.3	9.4	9.6	9.6	9.7

	Temperature (°C) (range: 17.5-22.5 °C)					
0	11.1	11.1	11.2	10.9	10.9	10.9
2	11.6	11.4	11.4	11.6	11.5	11.8

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10(3D)	10(1D)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 7.1.

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 26.0
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 660 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Alkalinity = 211

Dilution Water
 Pail label / preparation date H: 06/02 Weekly water hardness (mg/L) 84

Comments:
* in glass jars
Initial observations: clear, colorless, no precipitate
DAY 2: clear, colorless, no precipitate

Daphnia Bench Sheet

Method DAS 20°C

Client JEC164

Reference 1617-1036-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	7.4
0	<u>2017106/06</u>	<u>1510</u>	<u>JWISS</u>	<u>3</u>	<u>LC</u>	Initial EC (µS/cm):	<u>1371</u>
1	<u>2017106/07</u>	<u>1010</u>	<u>LC</u>	-	<u>TW</u>	Initial DO (mg/L):	<u>8.4</u>
2	<u>2017106/08</u>	<u>0930</u>	<u>SS</u>	<u>3</u>		Initial Temp (°C):	<u>18.0</u>
						Salinity (ppt):	<u>3</u>

Lab Code	<u>CTVA</u>	<u>CTVB</u>	<u>CTVC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>			
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day pH (units) (range: 6.0-8.5)

0	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>			
2	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>8.2</u>	<u>8.2</u>	<u>8.2</u>			

EC (uS/cm)

0	<u>322</u>	<u>338</u>	<u>313</u>	<u>1365</u>	<u>1353</u>	<u>1361</u>			
2	<u>390</u>	<u>394</u>	<u>379</u>	<u>1360</u>	<u>1368</u>	<u>1347</u>			

DO (mg/L) (40-100% saturation at test temp.)

0	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>			
2	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>			

Temperature (°C) (range: 17.5-22.5 °C)

0	<u>20.4</u>	<u>20.4</u>	<u>20.4</u>	<u>20.5</u>	<u>20.5</u>	<u>20.5</u>			
2	<u>20.3</u>	<u>20.2</u>	<u>20.3</u>	<u>20.4</u>	<u>20.5</u>	<u>20.4</u>			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>9 (1I)</u>	<u>10</u>			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C3, C5 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 26.9
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 117% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 660 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Alkalinity = 211
Dilution Water
 Pail label / preparation date H: 06102 Weekly water hardness (mg/L) 84

Comments:
* in glass jars
Initial observations: clear, colourless, no precipitate
Day 2: (clear) colourless precipitate on surface

APPENDIX C – Chain-of-custody form

TEC164

COC ID: 20170605-Acute Toxicity		TURNAROUND TIME: REGULAR		RUSH:				
PROJECT/CLIENT INFO			LABORATORY			OTHER INFO		
Facility Name / Job#	WLC AWTF		Lab Name	Nautilus Environmental		Report Delivery Formats		
Project Manager	Thomas Davidson		Lab Contact	Jacklyn Pool		Excel	PDF	EDD
Email	Thomas.Davidson@teck.com		Email	Jacklyn@NautilusEnvironmental.ca		Email 1:	thomas.davidson@teck.com	X X X
Address	15 Km North HWY 43		Address	#4, 6125 - 12 Street SE		Email 2:	teckcoal@equisonline.com	X X X
City	Sparwood	Province	BC	City	Calgary	Province	AB	Email 3:
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada	teckwclab@epcor.com
Phone Number	250.603.9417		Phone Number	+1.403.253.7121		Email 4:	Marty.Halke@teck.com	X X X
SAMPLE DETAILS			ANALYSIS REQUESTED			VPO 00473572		
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# Of Cont.	PH: N N N N
LC_WTF_IN_20170604_NP	LC_WTF_IN	WS	N	4-Jun-17	2030	G	3	PRSRV: N N N N
WL_BFWB_OUT_SP21_20170605_N	WL_BFWB_OUT_SP21	WS	N	5-Jun-17	0900	G	8	ANALYSIS: NAUT_96Hr_RT_Single_Concentration_Toxicity Test X X X EXTRA X
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS			RELINQUISHED BY/AFFILIATION			DATE/TIME		
NB OF BOTTLES RETURNED/DESCRIPTION			SAMPLER'S NAME			MOBILE #		
Regular (default) X			Grant Fleming			Date/Time		
Priority (2-3 business days) - 50% surcharge						5-June-17		
Emergency (1 Business Day) - 100% surcharge								
For Emergency <1 Day, ASAP or Weekend - Contact ALS								

1617-1036
-01
-02

MANATOULIN
@ 0845
2017/06/06
5 x 200 CARBON
6 x 1L BOTTLES
150
GOOD CONDITION
NO S/I

END OF REPORT



Acute Toxicity Test Results

Sample collected June 11, 2017

Final Report – Revision 1

June 30, 2017

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170611 _NP/ 1617-1069-01	11-Jun-17 at 0800h	13-Jun-17 at 0830	13-Jun-17 at 1515h	13-Jun-17 at 1540h	13-Jun-17 at 1555h	17°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170611_NP	17°C	539	314

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170611_NP	100	100	97

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170611_NP	0	33

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170611_N P	<i>Daphnia magna</i> @10°C	None	None
	<i>Daphnia magna</i> @20°C	None	None
	Rainbow trout	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.7 (2.1-3.1) g/L KCl ¹	4.5 (4.0-5.0) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.3-3.7) g/L KCl	5.0 (4.2-5.8) g/L NaCl
Reference toxicant CV	7.9%	5.3%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date June 20, 2017; ² Test Date June 13, 2017
 LC = Lethal Concentration; CL = Confidence Limit

Harjot Sandhu

Report By:
Harjot Sandhu, BSc
Biologist

Claudio Quinteros

Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In house culture
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Trout Bench Sheet

Method TR Client TEC164 Reference 1617-1069-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/06/13	1515 *	FD	1	TW	Initial pH: <u>7.2</u>
1	2017/06/14	0830	FD	-	TW	Initial EC (µS/cm): <u>1374</u>
2	2017/06/15	0900	CA	-	FW	Initial DO (mg/L): <u>7.9</u>
3	2017/06/16	0900	CA	-	FW	Initial Temp (°C): <u>19.0</u>
4	2017/06/17	1640	SW/LC	1	TW	Salinity (ppt): <u>4</u>
						Nets used: yes / <u>(no)</u>

Note: *, time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L (yes/no) (yes)
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.7

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.0</u>	<u>7.2</u>					
Day 4	<u>7.3</u>	<u>7.5</u>					

EC (uS/cm)

Day 0	<u>417</u>	<u>1335</u>					
Day 4	<u>422</u>	<u>1130</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.6</u>	<u>8.7</u>					
Day 4	<u>8.6</u>	<u>8.8</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.1</u>	<u>15.0</u>					
Day 4	<u>15.0</u>	<u>14.7</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>2.7</u>	<u>0.2</u>	<u>20170504TR</u>	
2	<u>2.9</u>	<u>0.2</u>	Source <u>NE</u>	
3	<u>2.9</u>	<u>0.3</u>	Days Held <u>39</u>	
4	<u>2.7</u>	<u>0.27</u>	Percent stock mortality <u>0%</u>	
5	<u>2.9</u>	<u>0.3</u>	(7 days prior to test, must be ≤2%)	
6	<u>3.0</u>	<u>0.3</u>	Test Volume (L) <u>20L</u>	
7	<u>2.9</u>	<u>0.2</u>		
8	<u>3.0</u>	<u>0.3</u>		
9	<u>3.1</u>	<u>0.3</u>		
10	<u>3.0</u>	<u>0.3</u>		
Loading Density (g/L): <u>0.13</u>				
Mean Length (cm): <u>2.9</u>				
Length Range (cm): <u>2.7-3.1</u>				
Mean Weight (g): <u>0.3</u>				
Weight Range (g): <u>0.2-0.3</u>				
Comments: <u>Test initiation: no precipitate</u> <u>Test term: no precipitate</u>				

Method DHS10C Client TEC164 Reference ¹⁶¹⁷ 71069-01

Test Log						Sample Information	
Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	
0	2017/06/13	1540	SS/LC	3	DMC	Initial EC (µS/cm):	7.3
1	2017/06/14	0935	TW	-	HS	Initial DO (mg/L):	1374
2	2017/06/15	0845	LC	3	TW	Initial Temp (°C):	7.9
						Salinity (ppt):	19
Lab Code	CTLA	CTLB	CTLC	LWA	LWB	LWC	

day pH (units) (range: 6.0-8.5)

0	8.0	8.0	8.1	7.7	7.8	7.8			
2	7.9	7.9	7.8	8.1	8.2	8.2			

EC (uS/cm)

0	358	363	363	1387	1385	1395			
2	369	379	383	1374	1429	1461			

DO (mg/L) (40-100% saturation at test temp.)

0	9.5	9.5	9.6	9.5	9.5	9.5			
2	9.5	9.5	9.5	9.3	9.5	9.5			

Temperature (°C) (range: 17.5-22.5 °C)

0	11.0	11.1	11.1	11.3	11.3	11.1			
2	11.4	11.2	11.4	11.4	11.4	11.3			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10	10 cc		
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 30
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 89% Is aeration required (<40% or >100%)? **Yes or No**
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing **Yes or No**
 Hardness (mg CaCO3/L) of 100%: 539 Is hardness adjustment required (<25 mg CaCO3/L)? **Yes or No**
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date D:06/10 Weekly water hardness (mg/L) 84

Comments: initial observations: clear + colourless, no precipitate
take down observations: "

Method DAS 20C

Client TEC164

Reference 1617-1069-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/06/13	1555	LC/SS	3	DM	7.3	1374	7.9	19	4
1	2017/06/14	0935	BN	-	HS					
2	2017/06/15	0845	LC	3	BN					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	8.0	8.0	8.0	8.2	8.2	8.2			
2	8.1	8.0	8.0	8.0	8.1	8.1			

EC (uS/cm)

0	380	374	362	1336	1350	1365			
2	381	382	375	1302	1348	1348			

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.8	7.8	7.8	7.8	7.8			
2	7.9	7.9	8.0	7.9	7.9	7.9			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.3	20.3	20.3	20.3	20.3	20.3			
2	20.4	20.4	20.3	20.4	20.5	20.4			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10 (1F)	10	10	10	10			
2	10	10	10	10 (2I)	9 (4I)	10 (3I)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar 01/02 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 1
 Average number of young produced (≥15 young) 39
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 111, 100, 1 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 30min - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 539 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date D: 06/10 Weekly water hardness (mg/L) 84

Comments: initial observations: clear + colourless, no precipitate
Final observations: clear, colourless, no precipitate

APPENDIX C – Chain-of-custody form

TEC 164

Teck

COC ID:	20170612-AcuteToxicity	TURNAROUND TIME:	REGULAR	RUSH:	
PROJECT/CLIENT INFO		LABORATORY		OTHER INFO	
Facility Name / Job#	WLC AWTF	Lab Name	Nautilus Environmental	Report Delivery Formats	Excel PDF EDD
Project Manager	Thomas Davidson	Lab Contact	Jacklyn Pool	Email 1:	thomas.davidson@teck.com X X X
Email	Thomas.Davidson@teck.com	Email	Jacklyn@NautilusEnvironmental.ca	Email 2:	teckcoal@equisonline.com X X X
Address	15 Km North HWY 43	Address	#4, 6125 - 12 Street SE	Email 3:	teckwclab@epcor.com X X X
				Email 4:	Marty.Halkes@teck.com X X X
City	Sparwood	Province	BC	City	Calgary
Postal Code	V0B 2G0	Country	Canada	Province	AB
Phone Number	250.603.9417	City	Calgary	Country	Canada
		Postal Code	T2H 2K1	Email 5:	colin.lynch@teck.com X X X
		Phone Number	+1.403.253.7121	Email 6:	michael.moore@teck.com X X X
				VPO 00473572	

1617-
1069-
-01
-02

SAMPLE DETAILS								ANALYSIS REQUESTED				Filtered - F: Field, L: Lab, FL: Field & Lab, N: None			
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# Of Cont.	PHL	PHS	ANALYSIS	PHL	PHS	ANALYSIS	PHL	PHS
LC_WTF_IN_20170611_NP	LC_WTF_IN	WS	N	11-Jun-17	0800	G	3	N	N	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	X	X	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	X	X
WL_BFWB_OUT_SP21_20170612_N	WL_BFWB_OUT_SP21	WS	N	12-Jun-17	1130	G	8	N	N	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	X	X	EXTRA	X	X

MANATOULIN
2017/06/13
5 x 20L CARBONS
6 x 1L BOTTLES
NO S/I
GOOD CONDITION
170

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION Regular (default) X Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency <1 Day, ASAP or Weekend - Contact ALS		Sampler's Name Grant Fleming	Mobile #
		Sampler's Signature 	Date/Time 12-June-17

TRE
DAS
DAS

END OF REPORT



Acute Toxicity Test Results

Sample collected June 12, 2017

Final Report – Revision 1

June 30, 2017

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_ 20170612_N/ 1617-1069-02	12-Jun-17 at 1130h	13-Jun-17 at 0830	13-Jun-17 at 1515h	13-Jun-17 at 1545h	13-Jun-17 at 1550h	17°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170612_N	17°C	580	241

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170612_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170612_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170612_N	<i>Daphnia magna</i> @10°C	None	None
	<i>Daphnia magna</i> @20°C	None	None
	Rainbow trout	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.7 (2.1-3.1) g/L KCl ¹	4.5 (4.0-5.0) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.3-3.7) g/L KCl	5.0 (4.2-5.8) g/L NaCl
Reference toxicant CV	7.9%	5.3%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date June 20, 2017; ² Test Date June 13, 2017
 LC = Lethal Concentration; CL = Confidence Limit

Harjot Sandhu

Report By:
Harjot Sandhu, BSc
Biologist

Claudio Quinteros

Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In house culture
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Trout Bench Sheet

Method FRS

Client TEC/164

Reference 1617-1069-02

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:
0	2017/06/13	1515	EP	1	TW	7.3
1	2017/06/14	0830	EP	-	TW	Initial EC (µS/cm): 1397
2	2017/06/15	0900	CE	-	TW	Initial DO (mg/L): 7.8
3	2017/06/16	0900	CE	-	TW	Initial Temp (°C): 19.0
4	2017/06/17	1035	WLC	1	TW	Salinity (ppt):
						Nets used: yes / <u>no</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100%: 8.7

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.1</u>	<u>7.8</u>				
Day 4	<u>7.3</u>	<u>7.6</u>				

EC (uS/cm)

Day 0	<u>420</u>	<u>1386</u>				
Day 4	<u>396</u>	<u>1266</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.5</u>	<u>8.7</u>				
Day 4	<u>8.3</u>	<u>8.7</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.1</u>	<u>15.0</u>				
Day 4	<u>14.9</u>	<u>14.9</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>3.1</u>	<u>0.3</u>	<u>20170504TR</u>	
2	<u>3.0</u>	<u>0.3</u>	Source	<u>NE</u>
3	<u>3.7</u>	<u>0.2</u>	Days Held	<u>89</u>
4	<u>2.7</u>	<u>0.2</u>	Percent stock mortality	<u>0.1</u>
5	<u>2.9</u>	<u>0.3</u>	(7 days prior to test, must be ≤ 2%)	
6	<u>2.8</u>	<u>0.2</u>	Test Volume (L)	<u>20L</u>
7	<u>3.0</u>	<u>0.3</u>		
8	<u>3.1</u>	<u>0.3</u>		
9	<u>3.0</u>	<u>0.3</u>		
10	<u>3.0</u>	<u>0.3</u>		
Loading Density (g/L): <u>0.14</u>				
Mean Length (cm): <u>2.9</u>				
Length Range (cm): <u>2.7 - 3.1</u>				
Mean Weight (g): <u>0.3</u>				
Weight Range (g): <u>0.2-0.3</u>				
Comments: Test initiation: no precipitate Test termination: no precipitate				

Method DAS 10C

Client TECIB4

Reference 1617-1069-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	7.3
0	2017/06/13	1545	LC/SS	3	NM	Initial EC (µS/cm):	1397
1	2017/06/14	0935	AW	-	HS	Initial DO (mg/L):	7.8
2	2017/06/15	0850	LC	3	AW	Initial Temp (°C):	19
						Salinity (ppt):	3

Lab Code	CTCA	CTLB	CTLC	IWA	IWB	IWC

day pH (units) (range: 6.0-8.5)

0	8.1	8.1	8.1	7.7	7.8	7.8			
2	8.1	7.9	7.9	8.0	8.1	8.1			

EC (uS/cm)

0	360	359	362	1408	1423	1432			
2	370	382	384	1452	1483	1513			

DO (mg/L) (40-100% saturation at test temp.)

0	9.4	9.5	9.5	9.5	9.5	9.4			
2	9.4	9.5	9.5	9.5	9.5	9.5			

Temperature (°C) (range: 17.5-22.5 °C)

0	11.0	11.0	11.2	11.3	11.3	11.2			
2	11.6	11.4	11.3	11.4	11.6	11.5			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C2</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>7</u>	Average number of young produced (≥15 young) <u>36</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>97.1</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>580</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>D. 06/10</u>	Weekly water hardness (mg/L) <u>84</u>
Comments:	Initial observation: clear + colourless. no precipitate	
	take down observation: "	

Method DAS 20C Client TEC164 Reference ¹⁶¹⁷⁻1069-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	7.3
0	2017/06/13	1550	LC/SS	3	NM	Initial EC (µS/cm):	1397
1	2017/06/14	0935	TW	-	45	Initial DO (mg/L):	7.8
2	2017/06/15	0840	LC	3	TW	Initial Temp (°C):	19
						Salinity (ppt):	3

Lab Code	CTLA	CTLB	CTLC	IWA	IWB	IWC

day pH (units) (range: 6.0-8.5)

0	7.9	7.9	7.9	7.6	7.7	7.7			
2	7.9	7.9	7.9	8.0	8.1	8.1			

EC (uS/cm)

0	334	353	359	1417	1429	1432			
2	378	378	361	1354	1411				

DO (mg/L) (40-100% saturation at test temp.)

0	7.25	7.5	7.6	7.9	7.9	7.9			
2	7.8	7.9	7.9	7.9	7.9	7.9			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.1	20.3	20.3	20.3	20.3	20.5			
2	19.8	20.4	20.3	20.4	20.4	20.4			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10 (IF)	10	10 (IF)	10 (ID)	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control ^{Day 1-100B - 1 DA w/ debris}
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move ^{string-like attached to its end}
 Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C2</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>7</u>	Average number of young produced (≥15 young) <u>36</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>114%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110um screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>580</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input type="radio"/> Yes or <input checked="" type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>D: 06/10</u>	Weekly water hardness (mg/L) <u>84</u>
Comments:	Initial observations: clear, colourless, no precipitate Final observations: clear, colourless, no precipitate	

APPENDIX C – Chain-of-custody form

TEC 164

Teck

COC ID:	20170612-AcuteToxicity	TURNAROUND TIME:	REGULAR	RUSH:	
PROJECT/CLIENT INFO		LABORATORY		OTHER INFO	
Facility Name / Job#	WLC AWTF	Lab Name	Nautilus Environmental	Report Delivery Formats	Excel PDF EDD
Project Manager	Thomas Davidson	Lab Contact	Jacklyn Pool	Email 1:	thomas.davidson@teck.com X X X
Email	Thomas.Davidson@teck.com	Email	Jacklyn@NautilusEnvironmental.ca	Email 2:	teckcoal@equisonline.com X X X
Address	15 Km North HWY 43	Address	#4, 6125 - 12 Street SE	Email 3:	teckwclab@epcor.com X X X
				Email 4:	Marty.Halkes@teck.com X X X
City	Sparwood	Province	BC	City	Calgary
Postal Code	V0B 2G0	Country	Canada	Province	AB
Phone Number	250.603.9417	City	Calgary	Country	Canada
		Postal Code	T2H 2K1	Email 5:	colin.lynch@teck.com X X X
		Phone Number	+1.403.253.7121	Email 6:	michael.moore@teck.com X X X
				VPO 00473572	

1617-
1069-
-01
-02

SAMPLE DETAILS								ANALYSIS REQUESTED				Filtered - F: Field, L: Lab, FL: Field & Lab, N: None			
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# Of Cont.	ANALYSIS	PHYS. PROP.	PERFORM.	PREP.	TEST	TEST	TEST	TEST
LC_WTF_IN_20170611_NP	LC_WTF_IN	WS	N	11-Jun-17	0800	G	3	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	N	N	N	N			
WL_BFWB_OUT_SP21_20170612_N	WL_BFWB_OUT_SP21	WS	N	12-Jun-17	1130	G	8	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	N	N	N	N			
								NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C							
								EXTRA							

MANATOULIN
2017/06/13
5 x 20L CARBONS
6 x 1L BOTTLES
NO S/I
GOOD CONDITION
170

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name	Mobile #
Regular (default)	X	Grant Fleming	
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge			
For Emergency <1 Day, ASAP or Weekend - Contact ALS		Sampler's Signature	Date/Time
			12-June-17

TRE
DAS
DAS

END OF REPORT



Acute Toxicity Test Results

Sample collected July 9, 2017

Final Report – Revision 1

August 16, 2017

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_2017070 9_NP / 1617-1227-01	9-July-17	11-July-17 at 1120h	13-July-17 at 1450h	14-July-17 at 1245h	14-July-17 at 1230h	14°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170709_NP	14°C	1015	276

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170709_NP	100	100	90

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170709_NP	0	20

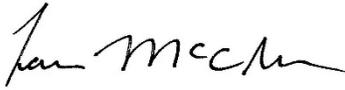
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170709_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed on surface of 20°C test	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.4 (2.9-3.9) g/L KCl ¹	4.9 (4.6-5.2) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.2-3.7) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	8%	6%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, July 11, 2017; ² Test Date July 11, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
H	
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

24 hour updates

Trout Bench Sheet

Method TRS ~~ARS~~ Client TEC164 Reference 1617-1227-01
TEC164 ^{nm} 1617-1220-07 ^{ca}

Test Log

Sample Information

Day	Date ^{nm}	Time	Initial	Chem. Cart	Daily Data Review
0	2017/07/13	1450 *	FA/SS	1	HS
1	2017/07/14	1400	SS	-	HS
2	2017/07/15	1240	SS	-	HS
3	2017/07/16	1130	NW	-	HS
4	2017/07/17	0915 + 120		1	

Initial pH: 8.3
Initial EC (µS/cm): 2050
Initial DO (mg/L): 10.6
Initial Temp (°C): 6.2
Salinity (ppt): nm 6.7
Nets used: yes / no

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L : yes/no
Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours
DO(mg/L) of 100% 8.6

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.8</u>	<u>7.9</u>					
Day 4	<u>8.1</u>	<u>8.1</u>					

EC (uS/cm)

Day 0	<u>500</u>	<u>2140</u>					
Day 4	<u>505</u>	<u>2050</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.4</u>	<u>8.6</u>					
Day 4	<u>8.7</u>	<u>8.9</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.5</u>	<u>15.3</u>					
Day 4	<u>15.1</u>	<u>15.0</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>3.0</u>	<u>0.3</u>	Loading Density (g/L): <u>0.155</u>	Batch <u>20170626TR</u>
2	<u>3.0</u>	<u>0.3</u>		Source <u>LSL</u>
3	<u>3.1</u>	<u>0.4</u>	Mean Length (cm): <u>3.0</u>	Days Held <u>17</u>
4	<u>3.2</u>	<u>0.4</u>		Percent stock mortality <u>0%</u> (7 days prior to test, must be ≤2%)
5	<u>3.0</u>	<u>0.3</u>	Mean Weight (g): <u>0.3</u>	
6	<u>3.0</u>	<u>0.3</u>		Length Range (cm): <u>2.8-3.2</u>
7	<u>2.9</u>	<u>0.3</u>	Weight Range (g): <u>0.2-0.4</u>	
8	<u>3.0</u>	<u>0.3</u>		Test Volume (L) <u>20L</u>
9	<u>3.0</u>	<u>0.3</u>		
10	<u>2.8</u>	<u>0.3</u>		

Comments :

Method DAS @10 deg

Client TEC164

Reference 1617-1227-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/14	1245	PL/W	3	HS	8.3	2050	10.6	9.5	7
1	2017/07/15	1130	HS	-	SS					
2	2017/07/16	1245	PL/W	3						

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C			

day

	pH (units) (range: 6.0-8.5)									
0	7.7	7.7	7.7	7.7	7.7	7.7				
2	7.8	7.8	7.8	8.2	8.2	8.2				

	EC (µS/cm)									
0	351	360	351	2060	2060	2070				
2	355	361	362	2090	2080	2090				

	DO (mg/L) (40-100% saturation at test temp.)									
0	9.5	9.5	9.5	9.8	9.8	9.8				
2	9.5	9.5	9.5	9.6	9.7	9.7				

	Temperature (°C) (range: 17.5-22.5 °C)									
0	10.1	10.3	10.1	10.3	10.1	10.2				
2	10.2	10.2	10.4	10.2	10.2	10.3				

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)									
0	10	10	10	10	10	10				
1	10	10	10	10	10	10				
2	10	10	10	10	10	10				

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar 04 Jar(s) mortality 7 days prior to test (must be ≤25%) 20

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 43
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 99 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 101.5 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date 5 07/12/12 Weekly water hardness (mg/L) 61

Comments: 24 HOUR UPDATES
 no ppt at 0 hrs
 no ppt at 48 hrs

Method DAS @20 deg

Client TEC164

Reference 1617-1227-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/14	1230	RSW	3	HS	8.3	2050	10.6	6.5	7
1	2017/07/15	1130	HS	-	SS					
2	2017/07/16	1210	FW	3						

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C			

day pH (units) (range: 6.0-8.5)

0	7.7	7.8	7.8	7.7	7.7	7.8			
2	7.9	7.9	7.9	8.1	8.1	8.1			

EC (uS/cm)

0	328	345	355	1995	2060	2060			
2	331	341	356	1890	1915	1924			

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.7	7.7	7.7	7.7	7.7			
2	7.6	7.6	7.6	7.6	7.7	7.7			

Temperature (°C) (range: 17.5-22.5 °C)

0	21.2	21.0	21.0	21.2	21.2	21.2			
2	21.2	21.0	21.0	20.9	20.8	20.8			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	9 (2D)	8 (1D)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar 01 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 43
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 10.5 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date 9 07/12 Weekly water hardness (mg/L) 81

Comments: 24 HOUR UPDATES
 no ppt at 0 hrs
 filmy thin white ppt at 48 hrs
 on surface

APPENDIX C – Chain-of-custody form

Teck

COC ID: **20170710-Acute Toxicity** TURNAROUND TIME: **REGULAR** RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO						
Facility Name / Job# WLC AWTF				Lab Name Nautilus Environmental				Report Delivery Formats						
Project Manager Thomas Davidson				Lab Contact Jacklyn Pool				Excel	PDF	EDD				
Email Thomas.Davidson@teck.com				Email Jacklyn@NautilusEnvironmental.ca				Email 1: thomas.davidson@teck.com	X	X	X			
Address 15 Km North HWY 43				Address #4, 6125 - 12 Street SE				Email 2: teckcoal@equisonline.com			X			
								Email 3: teckwclab@epcor.com	X	X	X			
City Sparwood Province BC				City Calgary Province AB				Email 4: Mary.Hafke@teck.com	X	X	X			
Postal Code V0B 2G0 Country Canada				Postal Code T2H 2K1 Country Canada				Email 5: colin.lynch@teck.com				X		
Phone Number 250.603.9417				Phone Number +1.403.253.7121				Email 6: michael.moore@teck.com	X	X	X			
							VPO 00473572							

SAMPLE DETAILS							ANALYSIS REQUESTED							Filtered - F: Field, L: Lab, FL: Field & Lab, N: None						
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	EXTRA									
LC_WTF_IN_20170709_NP	LC_WTF_IN	WS	N	9-Jul-17		G	3	X	X	X										
WL_BFWB_OUT_SP21_20170710_N	WL_BFWB_OUT_SP21	WS	N	10-Jul-17		G	8	X	X	X	X									

1607
1228

(Handwritten circle around 'Time' column header)

1x 20L, 2x 1L
4x 20L, 4x 1L

MANATOUKIN
2017/07/11 @ 1120
NO 5 II
GOOD CONDITION
140

(Handwritten signature/initials)

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name	Mobile #	Date/Time
Regular (default)	X	David Graham		
Priority (2-3 business days) - 50% surcharge				
Emergency (1 Business Day) - 100% surcharge				
For Emergency <1 Day, ASAP or Weekend - Contact ALS				
				10-July-2017

END OF REPORT



Acute Toxicity Test Results

Sample collected July 10, 2017

Final Report – Revision 1

August 16, 2017

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates						Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 20°C re- test initiation	
WL_BFWB_OUT_SP21_201707 10_N / 1617-1227-02	10-July-17	11-July-17 at 1120h	13-July-17 at 1500h	14-July-17 at 1245h	14-July-17 at 1230h	20-July-17 at 1530h	14°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170710_N	14°C	842	231

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample			
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C	<i>Daphnia magna</i> 20°C - reset
WL_BFWB_OUT_SP21_20170710_N	100	100	97	67

Sample ID	Percent Immobility in 100 (% v/v)		
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C	<i>Daphnia magna</i> 20°C - reset
WL_BFWB_OUT_SP21_20170710_N	0	17	100

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170710_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed on surface of 20°C test	Precipitate observed on carapace

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.4 (2.9-3.9) g/L KCl ¹	4.9 (4.6-5.2) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.2-3.7) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	8%	6%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, July 11, 2017; ² Test Date July 11, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
H	
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

**24 hour Updates*

Method TRS *TR5 on* Client TEC164 *TEC164 on* Reference 1617-1227-02 *1617-1220-06 on*

Test Log						Sample Information	
Day	Date	Time	Initial	Chem. Cart	Daily Data Review		
0	2017107113	1500*	FS/SS	1	HS	Initial pH:	8.5
1	2017107114	1400	SS	-	HS	Initial EC (µS/cm):	2210
2	2017107115	1240	SS	-	HS	Initial DO (mg/L):	10.9
3	2017107116	1130	NDL	-	HS	Initial Temp (°C):	5.9
4	2017/07/17	0915	SD	1		Salinity (ppt):	8
						Nets used: yes	<input checked="" type="radio"/> no

Note: * : time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L yes no
 Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100% 9.6

Test Chemistry and Biology

Conc.

CTL	100						
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pH (units) (range: 5.5-8.5)

Day 0	7.8	7.9					
Day 4	8.0	8.2					

EC (uS/cm)

Day 0	1498	2160					
Day 4	1490	2240					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.4	8.6					
Day 4	8.6	8.7					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	15.5	15.3					
Day 4	15.0	15.0					

Number Alive (In brackets number stressed)

Day 0	10	10					
Day 1	10	10					
Day 2	10	10					
Day 3	10	10					
Day 4	10	10					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	3.0	0.3	20170626TR	Source <u>LSL</u>
2	2.8	0.3		Days Held <u>17</u>
3	2.8	0.2		Percent stock mortality <u>0%</u> (7 days prior to test, must be ≤2%)
4	2.7	0.2		Test Volume (L) <u>20L</u>
5	2.9	0.3		
6	3.0	0.3		
7	3.0	0.3		
8	3.0	0.3		
9	2.7	0.2		
10	2.8	0.3		
			Loading Density (g/L):	<u>0.135</u>
			Mean Length (cm):	<u>2.9</u>
			Length Range (cm):	<u>2.7-3.0</u>
			Mean Weight (g):	<u>0.3</u>
			Weight Range (g):	<u>0.2-0.3</u>
Comments :				

Method DAS@10

Client TECLBY

Reference 1617-1227-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/14	1245	CAJW	3	H ⁵	8.5	2210	10.9	5.9	8
1	2017/07/15	1130	FS	-	SS					
2	2017/07/16	1250	JW	3						

Lab Code	CTLA	CTB	CTL	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.9	7.7	7.7	7.7	7.7	7.7			
2	7.9	7.9	7.9	8.1	8.1	8.1			

EC (uS/cm)

0	350	351	361	2090	2090	2110			
2	359	360	365	2030	2090	2090			

DO (mg/L) (40-100% saturation at test temp.)

0	9.5	9.5	9.5	9.7	9.8	9.8			
2	9.5	9.5	9.5	9.6	9.7	9.7			

Temperature (°C) (range: 17.5-22.5 °C)

0	10.1	10.1	10.1	10.2	10.2	10.1			
2	10.3	10.3	10.2	10.3	10.3	10.2			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C3 Jar(s) mortality 7 days prior to test (must be ≤25%) 14

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 37
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 99 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 842 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G 07/12 Weekly water hardness (mg/L) 81

Comments:
 no ppt @ 6 hrs
 no ppt @ 48 hrs

Method DACE20

Client TEC64

Reference 1617-1227-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/14	1230	Calow	3	HS	8.5	2210	10.9	5.9	
1	2017/07/15	1130	HS	-	SS					
2	2017/07/16	1155	JW	3						

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C
	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.8	7.8	7.8	7.7	7.7	7.7			
2	8.0	8.0	8.0	8.0	8.0	8.0			

EC (uS/cm)

0	323	343	348	2050	2090	2060			
2	340	361	360	1553	1577	1613	RW		

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.7	7.7	7.7	7.7	7.7			
2	7.6	7.7	7.7	7.7	7.7	7.7			

Temperature (°C) (range: 17.5-22.5 °C)

0	21.3	21.2	21.2	21.4	21.4	21.4			
2	20.9	20.8	20.8	20.8	20.7	20.7			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	9 (2I)	10 (1I)	10 (1I)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 43
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 842 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date 9 07/12 Weekly water hardness (mg/L) 81

Comments:
no rot @ 0 hrs
light film of white precip on culture @ 48 hrs. under scope, DA appear to have film of debris/dirt on them

Method PAS @ 20°C

Client TECIBU

Reference 1617-1227-02
(RESET)

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	2017/07/20	1530	JW	3	HS	Initial pH:	8.5
1	2017/07/21	0815	EP/HS	-	HS	Initial EC (µS/cm):	2210
2	2017/07/22	1130	HS	3	HS	Initial DO (mg/L):	10.9
						Initial Temp (°C):	5.9
						Salinity (ppt):	8
Lab Code	CTUA	CTUB	CTVC	100A	100B	100C	

day

	pH (units) (range: 6.0-8.5)								
0	7.8	7.9	7.9	8.0	8.0	8.0			
2	7.9	8.0	8.0	8.0	8.0	8.0			

	EC (µS/cm)								
0	200	317	320	1720	1742	1758			
2	353	343	338	1625	1662	1652			

	DO (mg/L) (40-100% saturation at test temp.)								
0	7.9	7.9	7.9	7.9	7.9	7.9			
2	7.7	7.7	7.7	7.7	7.7	7.8			

	Temperature (°C) (range: 17.5-22.5 °C)								
0	19.9	20.0	20.0	20.0	20.0	20.0			
2	20.1	20.1	20.1	20.0	20.0	20.0			

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10(6I)	10(5I)	10(7I)			
2	10	10	10	7(7I)	6(6I)	7(7I)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 36.0
 Were test treatments randomized on test tray? (Yes) / No

Sample
 DO % of sample prior to aeration: 109% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 842 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date X: 07/17 Weekly water hardness (mg/L) 86

Comments:

APPENDIX C – Chain-of-custody form

Teck

COC ID:	20170710-Acute Toxicity	TURNAROUND TIME:	REGULAR	RUSH:	
PROJECT/CLIENT INFO		LABORATORY		OTHER INFO	
Facility Name / Job#	WLC AWTF	Lab Name	Nautilus Environmental	Report Delivery Formats	Excel PDF EDD
Project Manager	Thomas Davidson	Lab Contact	Jacklyn Pool	Email 1:	thomas.davidson@teck.com X X X
Email	Thomas.Davidson@teck.com	Email	Jacklyn@NautilusEnvironmental.ca	Email 2:	teckcoal@equisonline.com X
Address	15 Km North HWY 43	Address	#4, 6125 - 12 Street SE	Email 3:	teckwclab@epcor.com X X X
				Email 4:	Mary.Halkes@teck.com X X X
City	Sparwood	Province	BC	City	Calgary
Postal Code	V0B 2G0	Country	Canada	Province	AB
Phone Number	250.603.9417	Postal Code	T2H 2K1	Country	Canada
		Phone Number	+1.403.253.7121	Email 5:	colin.lynch@teck.com X
				Email 6:	michael.moore@teck.com X X X
					VPO 00473572

SAMPLE DETAILS							ANALYSIS REQUESTED									
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	EXTRA	Filtered - F: Field, L: Lab, FL: Field & Lab, N: None				
LC_WTF_IN_20170709_NP	LC_WTF_IN	WS	N	9-Jul-17		G	3	X	X	X						
WL_BFWB_OUT_SP21_20170710_N	WL_BFWB_OUT_SP21	WS	N	10-Jul-17		G	8	X	X	X	X					

167
1228

Time (24hr)

1x 20L, 2x 1L
4x 20L, 4x 1L

MANATOUKIN
2017/07/11 @ 1120
NO 5 II
GOOD CONDITION
140

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION	Regular (default) X	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend - Contact ALS	Sampler's Name	David Graham	Mobile #		Sampler's Signature		Date/Time	10-July-2017
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END OF REPORT



Acute Toxicity Test Results

Sample collected July 17, 2017

Final Report – Revision 1

August 23, 2017

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170717_NP / 1617-1269-01	17-July-17 at 1200h	18-July-17 at 0945h	19-July-17 at 1100h	18-July-17 at 1540h	18-July-17 at 1450h	11°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170717_NP	11°C	870	306

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170717_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170717_NP	0	70

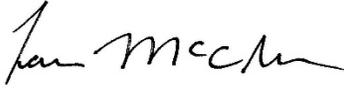
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170717_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed on the surface of the 20°C test	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.9-3.6) g/L KCl ¹	4.9 (4.6-5.2) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.2-3.7) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	9%	6%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, July 14, 2017; ² Test Date July 11, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS

Client TECL64

Reference 1617-1269-01

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:
0	2017/07/19	1100 *	LC	1	JW	7.6
1	2017/07/20	0900	TP	-	JW	Initial EC (µS/cm): 2260
2	2017/07/21	0900	CA	-	HS	Initial DO (mg/L): 7.4
3	2017/07/22	0860	CA	-	HS	Initial Temp (°C): 19
4	2017/07/23	0930	HS	1		Salinity (ppt): 4
						Nets used: yes / <u>no</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L yes/no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100% 8.7

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.5</u>	<u>7.6</u>				
Day 4	<u>7.8</u>	<u>7.8</u>				

EC (uS/cm)

Day 0	<u>408</u>	<u>1748</u>				
Day 4	<u>415</u>	<u>1630</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.6</u>	<u>8.7</u>				
Day 4	<u>8.7</u>	<u>8.7</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.0</u>	<u>15.0</u>				
Day 4	<u>14.7</u>	<u>14.7</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>3.1</u>	<u>0.4</u>	Loading Density (g/L): <u>0.175</u> Mean Length (cm): <u>3.0</u> Length Range (cm): <u>2.7-3.1</u> Mean Weight (g): <u>0.4</u> Weight Range (g): <u>0.3-0.4</u>	Batch <u>20170630TR</u>
2	<u>3.0</u>	<u>0.3</u>		Source <u>Sam Livingston</u>
3	<u>3.0</u>	<u>0.3</u>		Days Held <u>19</u>
4	<u>3.0</u>	<u>0.3</u>		Percent stock mortality <u>0</u> (7 days prior to test, must be ≤2%)
5	<u>2.7</u>	<u>0.3</u>		Test Volume (L) <u>20</u>
6	<u>3.1</u>	<u>0.4</u>		
7	<u>3.1</u>	<u>0.4</u>		
8	<u>3.0</u>	<u>0.4</u>		
9	<u>3.0</u>	<u>0.4</u>		
10	<u>3.0</u>	<u>0.3</u>		
Comments :				

Method DAS @10 deg

Client TEC164

Reference 1617-1269-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/18	1540	SS/CC	3	HS	7.6	2260	7.4	19	4
1	2017/07/19	0930	SS	-	JW					
2	2017/07/20	0900	HS/JW	3	HS					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	7.8	7.9	7.9	7.6	7.6	7.6			
2	7.7	7.8	7.8	8.0	8.0	8.0			

EC (µS/cm)

0	362	367	366	2130	2180	2200			
2	320	329	334	1812	1882	1890			

DO (mg/L) (40-100% saturation at test temp.)

0	9.4	9.4	9.4	9.5	9.5	9.5			
2	9.6	9.6	9.6	9.6	9.6	9.6			

Temperature (°C) (range: 17.5-22.5 °C)

0	11.5	11.6	11.6	11.0	11.2	11.2			
2	10.8	10.8	10.8	10.6	10.6	10.6			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10 (IF)	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 28.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 97 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 870 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date D:07114 Weekly water hardness (mg/L) 80

Comments: 24 HOUR UPDATES no ppt at 0 hrs
no ppt at 48 hrs

Method DAS @20 deg

Client TEC164

Reference 1617-1269-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017107118	1450	SS/IC	3	HS	7.6	2260	7.4	19	4
1	2017107119	1055	NMISS	-	JW					
2	201710720	0900	HS/JW	3	HS					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	7.9	8.0	7.9	8.1	8.1	8.1
2	7.9	7.9	7.9	8.0	8.0	8.0

EC (µS/cm)

0	379	373	369	2090	2120	2140
2	330	335	331	1701	1704	1763

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	7.9	7.9	8.0
2	7.7	7.7	7.8	7.8	7.8	7.8

Temperature (°C) (range: 17.5-22.5 °C)

0	19.8	20.1	20.1	19.9	19.9	19.8
2	20.8	20.6	20.1	20.4	20.4	20.4

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10(2F)	10	10	10	10	10(4I)
2	10	10	10	10(8F)	10(7I)	10(6I)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C5 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 28.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 110 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 870 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) —

Dilution Water
 Pail label / preparation date D-07114 Weekly water hardness (mg/L) 80

Comments: 24 HOUR UPDATES
 no ppt at 0 hrs
 film of ppt at surface of H₂O at 48 hrs

APPENDIX C – Chain-of-custody form

Teck

COC ID:	20170717-Acute Toxicity	TURNAROUND TIME:	REGULAR	RUSH:	
PROJECT/CLIENT INFO		LABORATORY		OTHER INFO	
Facility Name / Job#	WLC AWTF	Lab Name	Nautilus Environmental	Report Delivery Formats	Excel PDF EDD
Project Manager	Thomas Davidson	Lab Contact	Jacklyn Pool	Email 1:	thomas.davidson@teck.com X X X
Email	Thomas.Davidson@teck.com	Email	Jacklyn@NautilusEnvironmental.ca	Email 2:	teckcoal@equisonline.com X X X
Address	15 Km North HWY 43	Address	#4, 6125 - 12 Street SE	Email 3:	teckwclab@epcor.com X X X
				Email 4:	Marty.Hafke@teck.com X X X
City	Sparwood	Province	BC	Email 5:	colin.lynch@teck.com X X X
Postal Code	V0B 2G0	Country	Canada	Email 6:	michael.moore@teck.com X X X
Phone Number	250.603.9417	Phone Number	+1.403.253.7121		VPO 00473572

SAMPLE DETAILS								ANALYSIS REQUESTED				Filtered - F: Field, L: Lab, FL: Field & Lab, N: None			
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96Hr RT_Single Concentration_Toxicity Test	NAUT_48Hr DM_Single Concentration_Toxicity Test @ 10C	NAUT_48Hr DM_Single Concentration_Toxicity Test @ 20C	EXTRA				
LC_WTF_IN_20170717_NP	LC_WTF_IN	WS	N	17-Jul-17	12:00	G	3	X	X	X					
WL_BFWB_OUT_SP21_20170717_N	WL_BFWB_OUT_SP21	WS	N	17-Jul-17	9:00	G	8	X	X	X	X				

1617-1269

-01
-02

2017/07/18
MANATOULIN
& O9C15
NO SIF
GOOD CONDITION
5x20L CARBOYS, 5x1L BOTTLES
110
EACIS

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS		RELINQUISHED BY/AFFILIATION		DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name		Mobile #	Date/Time	
Regular (default) X		David Graham			July 17, 2017	
Priority (2-3 business days) - 50% surcharge		Sampler's Signature				
Emergency (1 Business Day) - 100% surcharge						
For Emergency <1 Day, ASAP or Weekend - Contact ALS						

END OF REPORT



Acute Toxicity Test Results

Sample collected July 17, 2017

Final Report – Revision 1

August 23, 2017

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_201707 17_N / 1617-1269-02	17-July-17 at 0900h	18-July-17 at 0945h	19-July-17 at 1100h	18-July-17 at 1540h	18-July-17 at 1450h	11°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170717_N	11°C	941	260

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170717_N	100	100	53

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170717_N	10	70

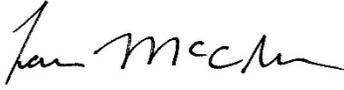
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170717_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed on the surface of the 20°C test	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.9-3.6) g/L KCl ¹	4.9 (4.6-5.2) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.2-3.7) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	9%	6%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, July 14, 2017; ² Test Date July 11, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS Client TECLWA Reference 1617-1269-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/07/19	1110 *	LC	1	JW	Initial pH: <u>7.9</u>
1	2017/07/20	0900	TD	-	JW	Initial EC (µS/cm): <u>2310</u>
2	2017/07/21	0900	CA	-	HS	Initial DO (mg/L): <u>7.6</u>
3	2017/07/22	0900	CA	-	HS	Initial Temp (°C): <u>19</u>
4	2017/07/23	0930	HS	1		Salinity (ppt): <u>4</u>
						Nets used: yes / <u>no</u>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time

0.5 hours	1 hour	1.5 hours	2 hours
<u>8.7</u>			

DO(mg/L) of 100%

Test Chemistry and Biology

Conc.	CTL	<u>100</u>				
-------	-----	------------	--	--	--	--

pH (units) (range: 5.5-8.5)

Day 0	<u>7.5</u>	<u>7.8</u>				
Day 4	<u>7.6</u>	<u>7.8</u>				

EC (uS/cm)

Day 0	<u>104</u>	<u>1858</u>				
Day 4	<u>408</u>	<u>1800</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.5</u>	<u>8.7</u>				
Day 4	<u>8.6</u>	<u>8.7</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.9</u>	<u>14.8</u>				
Day 4	<u>14.6</u>	<u>14.6</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>2.8</u>	<u>0.3</u>	<u>20170630TR</u>	
2	<u>2.8</u>	<u>0.4</u>	Source	<u>Sam Livingston</u>
3	<u>2.9</u>	<u>0.3</u>	Mean Length (cm):	<u>3.0</u>
4	<u>3.1</u>	<u>0.4</u>	Length Range (cm):	<u>2.8-3.1</u>
5	<u>3.1</u>	<u>0.4</u>	Mean Weight (g):	<u>0.4</u>
6	<u>3.0</u>	<u>0.4</u>	Weight Range (g):	<u>0.3-0.4</u>
7	<u>3.0</u>	<u>0.3</u>	Days Held	<u>19</u>
8	<u>3.0</u>	<u>0.4</u>	Percent stock mortality	<u>0</u>
9	<u>3.1</u>	<u>0.3</u>	(7 days prior to test, must be ≤2%)	
10	<u>3.0</u>	<u>0.3</u>	Test Volume (L)	<u>20</u>
Comments :				

Method DAS @10 deg

Client TEC164

Reference 1017-1269-02

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	2017/07/18	1540	SS/LC	3	HS	Initial pH:	<u>7.9</u>
1	2017/07/19	0930	SS	-	JW	Initial EC (µS/cm):	<u>2310</u>
2	2017/07/20	0900	HS/JW	3	HS	Initial DO (mg/L):	<u>7.6</u>
						Initial Temp (°C):	<u>19</u>
						Salinity (ppt):	<u>4</u>

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C			

day

	pH (units) (range: 6.0-8.5)								
0	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>			
2	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>8.2</u>	<u>8.1</u>	<u>8.1</u>			

	EC (µS/cm)								
0	<u>373</u>	<u>369</u>	<u>368</u>	<u>2180</u>	<u>2230</u>	<u>2250</u>			
2	<u>325</u>	<u>324</u>	<u>328</u>	<u>1775</u>	<u>1849</u>	<u>1880</u>			

	DO (mg/L) (40-100% saturation at test temp.)								
0	<u>9.5</u>	<u>9.5</u>	<u>9.6</u>	<u>9.6</u>	<u>9.6</u>	<u>9.6</u>			
2	<u>9.4</u>	<u>9.4</u>	<u>9.4</u>	<u>9.3</u>	<u>9.3</u>	<u>9.4</u>			

	Temperature (°C) (range: 17.5-22.5 °C)								
0	<u>11.3</u>	<u>11.3</u>	<u>11.4</u>	<u>11.2</u>	<u>11.2</u>	<u>11.4</u>			
2	<u>11.0</u>	<u>11.0</u>	<u>11.0</u>	<u>11.0</u>	<u>10.6</u>	<u>10.7</u>			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10 (SI)	10 (I)			
2	10	10	10	10 (I)	10 (I)	10 (I)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C2</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>8</u>	Average number of young produced (≥15 young) <u>28.2</u>
	Were test treatments randomized on test tray? Yes / No	
Sample	DO % of sample prior to aeration: <u>97</u>	Is aeration required (<40% or >100%)? Yes or No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing Yes or No
	Hardness (mg CaCO ₃ /L) of 100%: <u>941</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? Yes or No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>P: 07/14</u>	Weekly water hardness (mg/L) <u>80</u>
Comments:	<u>24 HOUR UPDATES</u> no ppt at 0 hrs no ppt at 48 hrs	

Method DAS @20 deg

Client TEC164

Reference 1017-1269-03

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/18	1450	SS/LLC	3	HS	7.9	2310	7.6	19	4
1	2017/07/19	0920	SS	-	JLW					
2	2017/07/20	0900	HS/JW	3	HS					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C			

day pH (units) (range: 6.0-8.5)

0	7.8	7.9	7.8	8.1	8.2	8.2			
2	7.9	7.9	7.9	7.9	7.9	7.9			

EC (µS/cm)

0	342	362	364	1996	2070	1924			
2	338	341	331	1744	1779	1828			

DO (mg/L) (40-100% saturation at test temp.)

0	7.6	7.6	7.5	7.8	7.8	7.9			
2	7.8	7.8	7.8	7.8	7.8	7.8			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.3	20.3	20.2	19.9	19.9	19.9			
2	20.4	20.4	20.4	20.4	20.4	20.4			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10 (5D)	10 (1F, 4D)	10 (6D)			
2	10	10	10	9 (1I)	4 (4I)	3 (2I)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C5</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>8</u>	Average number of young produced (≥15 young) <u>28.2</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>111</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>20 min</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>941</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>D:07/14</u>	Weekly water hardness (mg/L) <u>80</u>
Comments:	<u>24 HOUR UPDATES</u> <u>no ppt at 0 hrs</u> <u>Film of white ppt on surface at 48 hrs</u>	

APPENDIX C – Chain-of-custody form

Teck

COC ID:	20170717-Acute Toxicity	TURNAROUND TIME:	REGULAR	RUSH:	
PROJECT/CLIENT INFO		LABORATORY		OTHER INFO	
Facility Name / Job#	WLC AWTF	Lab Name	Nautilus Environmental	Report Delivery Formats	Excel PDF EDD
Project Manager	Thomas Davidson	Lab Contact	Jacklyn Pool	Email 1:	thomas.davidson@teck.com X X X
Email	Thomas.Davidson@teck.com	Email	Jacklyn@NautilusEnvironmental.ca	Email 2:	teckcoal@equisonline.com X X X
Address	15 Km North HWY 43	Address	#4, 6125 - 12 Street SE	Email 3:	teckwclab@epcor.com X X X
				Email 4:	Marty.Hafke@teck.com X X X
City	Sparwood	Province	BC	City	Calgary
Postal Code	V0B 2G0	Country	Canada	Province	AB
Phone Number	250.603.9417	Postal Code	T2H 2K1	Country	Canada
		Phone Number	+1.403.253.7121	Email 5:	colin.lynch@teck.com X X X
				Email 6:	michael.moore@teck.com X X X
					VPO 00473572

SAMPLE DETAILS **ANALYSIS REQUESTED** Filtered - F; Field, L; Lab, FL: Field & Lab, N: None

1617-1269

-01
-02

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	PH	PHYSIC.	ANALYSIS	EXTRA	
								N	N	NAUT_96Hr RT Single Concentration_Toxicity Test	NAUT_48Hr DM Single Concentration_Toxicity Test @ 10C	NAUT_48Hr DM Single Concentration_Toxicity Test @ 20C
LC_WTF_IN_20170717_NP	LC_WTF_IN	WS	N	17-Jul-17	12:00	G	3	N	N	X	X	X
WL_BFWB_OUT_SP21_20170717_N	WL_BFWB_OUT_SP21	WS	N	17-Jul-17	9:00	G	8	N	N	X	X	X

2017/07/18
MANATOULIN
& O9C15
NO SIF
GOOD CONDITION
5x20L CARBOYS, 5x1L BOTTLES
110
EACIS

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #	Date/Time
Regular (default) X	David Graham		July 17, 2017
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge			
For Emergency <1 Day, ASAP or Weekend - Contact ALS			

END OF REPORT



Acute Toxicity Test Results

Sample collected July 23, 2017

Final Report – Revision 1

August 10, 2017

Submitted to: **Teck WLC AWTF**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates						Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> Antiscalant test initiation	
LC_WTF_IN_201707 23_NP / 1617-1308-01	23-Jul-17 at 0900h	25-Jul-17 at 1130h	28-Jul-17 at 1510h	27-Jul-17 at 1330h	27-Jul-17 at 1330h	27-Jul-17 at 1500h	12.4°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170723_NP	12.4°C	795	288

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample			
	Rainbow trout	<i>Daphnia magna</i> 20°C	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> Antiscalant
LC_WTF_IN_20170723_NP	100	90	100	100

Sample ID	Percent Immobility in 100 (% v/v)		
	<i>Daphnia magna</i> 20°C	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> Antiscalant
LC_WTF_IN_20170723_NP	10	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170723_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed on surface in 20°C test	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	4.9 (4.6-5.2) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	6%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date July 11, 2017

LC = Lethal Concentration; CL = Confidence Limit

The rainbow trout component was subcontracted to CARO Analytical in Edmonton. All reference toxicant data, QA/QC, and test data are included in Appendix B – Toxicity Test data.

Harjot Sandhu

Report By:
Harjot Sandhu, BSc
Biologist

C. Quinteros

Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

REPORTED TO Nautilus Environmental (Calgary)
#4, 6125 12th Street SE
Calgary, AB T2H 2K1

TEL (403) 253-7121
FAX (403) 252-9363

ATTENTION Claudio Quinteros

WORK ORDER 7072451

PO NUMBER

RECEIVED / TEMP 2017-07-28 12:30 / 23°C

PROJECT Bioassay

REPORTED 2017-08-09

PROJECT INFO

COC NUMBER no #

General Comments:

CARO Analytical Services employs methods which are conducted according to procedures accepted by appropriate regulatory agencies, and/or are conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts, except where otherwise agreed to by the client.

The results in this report apply to the samples analyzed in accordance with the Chain of Custody or Sample Requisition document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.



Authorized By:

Eilish St.Clair, B.Sc., C.I.T.
Client Service Representative

If you have any questions or concerns, please contact me at estclair@caro.ca

Locations:

#110 4011 Viking Way
Richmond, BC V6V 2K9
Tel: 604-279-1499

#102 3677 Highway 97N
Kelowna, BC V1X 5C3
Tel: 250-765-9646

17225 109 Avenue
Edmonton, AB T5S 1H7
Tel: 780-489-9100

www.caro.ca

REPORTED TO PROJECT Nautilus Environmental (Calgary)
Bioassay

WORK ORDER REPORTED 7072451
2017-08-09

Analysis Description	Method Reference	Technique	Location
Trout Mortality in Water	EPS 1/RM/13 A	Rainbow Trout Acute Lethality: Single-concentration	Edmonton

Method Reference Descriptions:

EPS Environment Canada Biological Test Methods

Glossary of Terms:

MRL Method Reporting Limit

< Less than the Reported Detection Limit (RDL) - the RDL may be higher than the MRL due to various factors such as dilutions, limited sample volume, high moisture, or interferences

% Mortality Percent mortality

REPORTED TO PROJECT Nautilus Environmental (Calgary)
Bioassay

WORK ORDER REPORTED 7072451
2017-08-09

Analyte	Result / Recovery	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: 1617-1308-01 (7072451-01) [Water] Sampled: 2017-07-23 00:00

Aquatic Bioassay Parameters

Mortality, 96 h Trout	0		% Mortality	2017-07-28	2017-08-01	TOX
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Sample ID: 1617-1308-02 (7072451-02) [Water] Sampled: 2017-07-23 00:00

Aquatic Bioassay Parameters

Mortality, 96 h Trout	0		% Mortality	2017-07-28	2017-08-01	TOX
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Sample / Analysis Qualifiers:

TOX Please refer to the Appendix for the full Toxicity Report

Work Order: 7072451-01

Client: Nautilus
Project: Sublet
Attention: Claudio Quinteros

1. SAMPLE INFORMATION

Sample Origin: Nautilus
Calgary, AB
Sample Type: Effluent
Sample Description: 1617-1308-01
Sampling Date and Time: July 23, 2017 @ - hrs
Sampling Method: Grab
Sampled by: -

2. TEST INFORMATION

Laboratory Name / Location: CARO Analytical Services (Edmonton)
Laboratory Address: 17225 109 Avenue NW
Edmonton, AB T5S 1H7

Test Organism: *Oncorhynchus mykiss*
Test Description: Acute, 96-hour, static, Single-concentration (Mortality)
Lab Test Method ID: CE-TM-027
Reference Method: Biological Test method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout, 2000. Environment Canada, EPS 1/RM/13, 2nd Ed. , (including May 2007 ammendments)

Analyst Name: Justine Foster
Start of Test Date: July 28, 2017
Holding/Dilution Water: Dechlorinated City of Edmonton tap water, acclimated to test conditions

Test Container Description: 25 L, Disposable polyethylene liner
Test Solution Volume: 20 L
Test Solution Depth: 33 cm
Number of Test Organisms/Container: 10 (1 organism per 2 L)
Aeration of test solutions: 6.5 ± 1 mL/min per L
pH Adjustment: The sample was not pH adjusted
Lighting: Full spectrum fluorescent lights; 100-500 lux at surface
Photoperiod: 16 h light : 8 h dark
Deviations from Reference Method: None

Work Order: 7072451-01

3. RECEIPT CONDITION

Container Description: 20 L HDPE carboy Qty: 1 Volume (L): 20
 Receipt Date and Time: July 28, 2017 @ 12:30 hrs
 Transit Irregularities: None
 Observations: Colour: None
 Odour: Mild
 Turbidity: None
 Settleable Solids: None
 Measured Parameters: Temperature: 17.2 °C
 pH: 7.51
 Conductivity: 1876 µmhos/cm
 Dissolved Oxygen: 8.55 mg/L

4. PRE-AERATION

Duration at 6.5 ± 1 mL/min per L: 30 min
 Sample Test Concentration (V/V): 100% 0%
 Before Pre-Aeration Dissolved Oxygen: 8.43 8.45 mg/L
 Air Saturation: 96 92 %
 After Pre-Aeration Dissolved Oxygen: 8.83 8.76 mg/L
 Air Saturation: 95 95 %

5. TEST ORGANISM DATA

Lot Number: 170622
 Weekly Mortality Preceding Test: 0.43 (<2) %
 Sample Size: 10
 Loading Density: 0.28 g/L

Fish #	Wet Weight (g)	Fork Length (cm)
1	<u>0.63</u>	<u>4.4</u>
2	<u>0.72</u>	<u>4.6</u>
3	<u>0.44</u>	<u>4.0</u>
4	<u>0.42</u>	<u>3.8</u>
5	<u>0.54</u>	<u>4.1</u>
6	<u>0.61</u>	<u>4.3</u>
7	<u>0.62</u>	<u>4.5</u>
8	<u>0.40</u>	<u>4.0</u>
9	<u>0.59</u>	<u>4.3</u>
10	<u>0.59</u>	<u>4.1</u>
Average	<u>0.56</u>	<u>4.2</u>
StDev	<u>0.10</u>	<u>0.3</u>

6. TEST DATA

Sample Concentration (% V/V)	100	0
------------------------------	-----	---

0 hours Time: 3:10 PM

Temperature (°C)	15.6	15.9
pH	7.54	7.47
Conductivity @ 25°C (µmhos/cm):	1862	363
Dissolved Oxygen (mg/L):	8.79	8.77

24 hours Time: 1:40 PM

Stressed (Qty)	0	0
Mortality (Qty)	0	0
Temperature (°C)	15.5	15.7
pH	8.09	7.71
Conductivity @ 25°C (µmhos/cm):	1837	361
Dissolved Oxygen (mg/L):	9.37	9.29

48 hours Time: 1:30 PM

Stressed (Qty)	0	0
Mortality (Qty)	0	0
Temperature (°C)	14.3	14.5
pH	8.28	7.83
Conductivity @ 25°C (µmhos/cm):	1827	370
Dissolved Oxygen (mg/L):	9.33	9.29

72 hours Time: 1:25 PM

Stressed (Qty)	0	0
Mortality (Qty)	0	0
Temperature (°C)	14.3	14.6
pH	8.27	7.76
Conductivity @ 25°C (µmhos/cm):	1830	367
Dissolved Oxygen (mg/L):	9.41	9.32

96 hours Time: 1:20 PM

Stressed (Qty)	0	0
Mortality (Qty)	0	0
Temperature (°C)	14.4	14.7
pH	8.21	7.69
Conductivity @ 25°C (µmhos/cm):	1824	368
Dissolved Oxygen (mg/L):	9.42	9.25

Work Order: 7072451-01

7. SUBLETHAL BIOLOGICAL EFFECTS

Sample Conc (%)	Time(s) Observed (h)	Effect(s) Observed
		None

8. OBSERVATIONS / COMMENTS

None

9. RESULTS

Mortality (%) 0
 LC50 (%) >100

10. REFERENCE TOXICANT DATA

Toxicant: Phenol
 Test Starting Date: July 6, 2017
 96-hour LC₅₀ (mg/L) 8.39
 95% Lower Confidence Interval v/v (%): 6.88
 95% Upper Confidence Interval v/v (%): 9.18
 Method of Calculation: Linear Regression
 Confirmed by Graph: Yes
 Historic Geometric Mean LC₅₀ (mg/L) 9.95
 95% Lower Confidence Interval v/v (%): 8.00
 95% Upper Confidence Interval v/v (%): 12.38

Method DAS 20°C

Client TEC164

Reference 1617-1308-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/27	1330	SSIEP	S	HS	7.5	1878	9.4	16.4	3
1	2017/07/28	0730	FP	-	HS					
2	2017/07/29	0915	FP	S	HS					

Lab Code	CTLA	CTLB	CTLC	L0A	L0B	L0C

day pH (units) (range: 6.0-8.5)

0	8.0	7.9	7.9	7.6	7.6	7.6			
2	8.0	8.1	8.1	7.9	7.9	8.0			

EC (µS/cm)

0	319	323	343	1870	1886	1901			
2	320	330	330	1789	1850	1890			

338 FP 2:30 is 339 FP

DO (mg/L) (40-100% saturation at test temp.)

0	7.8	7.8	7.8	7.8	7.7	7.8			
2	8.0	7.9	7.9	7.9	7.9	7.9			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.9	20.9	20.8	21.9	22.0	21.9			
2	20.3	20.3	20.3	20.3	20.4	20.4			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	9	9	9			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C2, C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 3.5%

QA (previous month)
 Days to first brood (≤12 days) 11
 Average number of young produced (≥15 young) 24.8
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 795 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date PAILE: 07/24 Weekly water hardness (mg/L) 84

Comments: observations: 0h - clear, no ppt. 48h - ppt on surface

Method DAS 10°C

Client TECIB4

Reference 1617-1308-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/27	1330	SSIEP	3	HS	7.5	1878	9.4	16.4	3
1	2017/07/28	0730	FP	-	HS					
2	2017/07/29	0930	SD	3	HS					

Lab Code	CTA	CTB	CTC	1WA	1WB	1WC
	CTA	CTB	CTC	1WA	1WB	1WC

day

	pH (units) (range: 6.0-8.5)					
0	7.9	8.0	8.0	7.5	7.6	7.5
2	8.0	8.1	8.1	7.8	7.8	7.8

	EC (µS/cm)					
0	319	302	324	1941	1941	1960
2	322	328	330	1960	1967	1958

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.7	9.7	9.6	9.6	9.6	9.6
2	9.4	9.4	9.4	9.4	9.4	9.4

	Temperature (°C) (range: 17.5-22.5 °C)					
0	10.4	10.4	10.5	10.9	11.0	11.0
2	11.0	11.0	10.9	10.9	10.9	10.9

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 11
 Average number of young produced (≥15 young) 24.8
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 90% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 795 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date E: 07124 Weekly water hardness (mg/L) 84

Comments:
Observations: Oh - clean no ppt. 4sh - no ppt

Method DAS 20°C
(ANTISCALANT)

Client TEC 164

Reference 1617-1308-01

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	<u>2017/07/27</u>	<u>1500</u>	<u>SSIEP</u>	<u>3</u>	<u>HS</u>	Initial pH:	<u>7.5</u>
1	<u>2017/07/28</u>	<u>0730</u>	<u>EP</u>	<u>-</u>	<u>HS</u>	Initial EC (µS/cm):	<u>1878</u>
2	<u>2017/07/29</u>	<u>0915</u>	<u>EP</u>	<u>3</u>	<u>HS</u>	Initial DO (mg/L):	<u>9.4</u>
						Initial Temp (°C):	<u>16.4</u>
						Salinity (ppt):	<u>3</u>
Lab Code	<u>CTLA</u>	<u>CTLB</u>	<u>CTLC</u>	<u>IC0A</u>	<u>IC0B</u>	<u>IC0C</u>	

day	pH (units) (range: 6.0-8.5)					
0	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.6</u>	<u>7.7</u>	<u>7.7</u>
2	<u>7.9</u>	<u>7.9</u>	<u>8.0</u>	<u>8.1</u>	<u>8.1</u>	<u>8.1</u>

day	EC (µS/cm)					
0	<u>306</u>	<u>321</u>	<u>332</u>	<u>1859</u>	<u>1880</u>	<u>1905</u>
2	<u>329</u>	<u>332</u>	<u>340</u>	<u>1866</u>	<u>1890</u>	<u>1901</u>

day	DO (mg/L) (40-100% saturation at test temp.)					
0	<u>7.5</u>	<u>7.6</u>	<u>7.6</u>	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>
2	<u>8.0</u>	<u>7.9</u>	<u>7.9</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	<u>20.6</u>	<u>21.0</u>	<u>21.1</u>	<u>21.6</u>	<u>21.7</u>	<u>21.7</u>
2	<u>20.7</u>	<u>20.1</u>	<u>20.1</u>	<u>20.1</u>	<u>20.1</u>	<u>20.1</u>

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar C2, E1, E3 Jar(s) mortality 7 days prior to test (must be ≤25%) 2.3%

QA (previous month)

Days to first brood (≤12 days) 11.8
 Average number of young produced (≥15 young) 24.8, 29.8
 Were test treatments randomized on test tray? Yes / No

Sample

DO % of sample prior to aeration: 99% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 795 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water

Pail label / preparation date E:07/24 Weekly water hardness (mg/L) 84

Comments: no ppt @ 0hrs
no ppt @ 48hrs

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected July 24, 2017

Final Report – Revision 1

August 10, 2017

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates						Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> Antiscalant test initiation	
WL_BFWB_OUT_SP 21_20170724_N / 1617-1308-02	24-Jul-17 at 0900h	25-Jul-17 at 1130h	28-Jul-17 at 1510h	27-Jul-17 at 1330h	27-Jul-17 at 1430h	27-Jul-17 at 1500h	12.4°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170724_N	12.4°C	1029	260

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample			
	Rainbow trout	<i>Daphnia magna</i> 20°C	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> Antiscalant
WL_BFWB_OUT_SP21_20170724_N	100	87	100	100

Sample ID	Percent Immobility in 100 (% v/v)		
	<i>Daphnia magna</i> 20°C	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> Antiscalant
WL_BFWB_OUT_SP21_20170724_N	100	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170724_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed on surface in 20°C test	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	4.9 (4.6-5.2) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	6%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date July 11, 2017

LC = Lethal Concentration; CL = Confidence Limit

The rainbow trout component was subcontracted to CARO Analytical in Edmonton. All reference toxicant data, QA/QC, and test data are included in Appendix B – Toxicity Test data.

Harjot Sandhu

Report By:
Harjot Sandhu, BSc
Biologist

C. Quinteros

Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

REPORTED TO Nautilus Environmental (Calgary)
#4, 6125 12th Street SE
Calgary, AB T2H 2K1

TEL (403) 253-7121
FAX (403) 252-9363

ATTENTION Claudio Quinteros

WORK ORDER 7072451

PO NUMBER

RECEIVED / TEMP 2017-07-28 12:30 / 23°C

PROJECT Bioassay

REPORTED 2017-08-09

PROJECT INFO

COC NUMBER no #

General Comments:

CARO Analytical Services employs methods which are conducted according to procedures accepted by appropriate regulatory agencies, and/or are conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts, except where otherwise agreed to by the client.

The results in this report apply to the samples analyzed in accordance with the Chain of Custody or Sample Requisition document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.



Authorized By:

Eilish St.Clair, B.Sc., C.I.T.
Client Service Representative

If you have any questions or concerns, please contact me at estclair@caro.ca

Locations:

#110 4011 Viking Way
Richmond, BC V6V 2K9
Tel: 604-279-1499

#102 3677 Highway 97N
Kelowna, BC V1X 5C3
Tel: 250-765-9646

17225 109 Avenue
Edmonton, AB T5S 1H7
Tel: 780-489-9100

www.caro.ca

REPORTED TO PROJECT Nautilus Environmental (Calgary)
Bioassay

WORK ORDER REPORTED 7072451
2017-08-09

Analysis Description	Method Reference	Technique	Location
Trout Mortality in Water	EPS 1/RM/13 A	Rainbow Trout Acute Lethality: Single-concentration	Edmonton

Method Reference Descriptions:

EPS Environment Canada Biological Test Methods

Glossary of Terms:

MRL Method Reporting Limit

< Less than the Reported Detection Limit (RDL) - the RDL may be higher than the MRL due to various factors such as dilutions, limited sample volume, high moisture, or interferences

% Mortality Percent mortality

REPORTED TO PROJECT Nautilus Environmental (Calgary)
Bioassay

WORK ORDER REPORTED 7072451
2017-08-09

Analyte	Result / Recovery	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: 1617-1308-01 (7072451-01) [Water] Sampled: 2017-07-23 00:00

Aquatic Bioassay Parameters

Mortality, 96 h Trout	0	% Mortality	2017-07-28	2017-08-01	TOX
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Sample ID: 1617-1308-02 (7072451-02) [Water] Sampled: 2017-07-23 00:00

Aquatic Bioassay Parameters

Mortality, 96 h Trout	0	% Mortality	2017-07-28	2017-08-01	TOX
-----------------------	---	-------------	------------	------------	-----

Sample / Analysis Qualifiers:

TOX Please refer to the Appendix for the full Toxicity Report

Work Order: 7072451-02

Client: Nautilus
Project: Sublet
Attention: Claudio Quinteros

1. SAMPLE INFORMATION

Sample Origin: Nautilus
Calgary, AB
Sample Type: Effluent
Sample Description: 1617-1308-02
Sampling Date and Time: July 23, 2017 @ - hrs
Sampling Method: Grab
Sampled by: -

2. TEST INFORMATION

Laboratory Name / Location: CARO Analytical Services (Edmonton)
Laboratory Address: 17225 109 Avenue NW
Edmonton, AB T5S 1H7

Test Organism: *Oncorhynchus mykiss*
Test Description: Acute, 96-hour, static, Single-concentration (Mortality)
Lab Test Method ID: CE-TM-027
Reference Method: Biological Test method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout, 2000. Environment Canada, EPS 1/RM/13, 2nd Ed. , (including May 2007 ammendments)

Analyst Name: Justine Foster
Start of Test Date: July 28, 2017
Holding/Dilution Water: Dechlorinated City of Edmonton tap water, acclimated to test conditions
Test Container Description: 25 L, Disposable polyethylene liner
Test Solution Volume: 20 L
Test Solution Depth: 33 cm
Number of Test Organisms/Container: 10 (1 organism per 2 L)
Aeration of test solutions: 6.5 ± 1 mL/min per L
pH Adjustment: The sample was not pH adjusted
Lighting: Full spectrum fluorescent lights; 100-500 lux at surface
Photoperiod: 16 h light : 8 h dark
Deviations from Reference Method: None

Work Order: 7072451-02

3. RECEIPT CONDITION

Container Description: 20 L HDPE carboy Qty: 1 Volume (L): 20
 Receipt Date and Time: July 28, 2017 @ 12:30 hrs
 Transit Irregularities: None
 Observations: Colour: Pale
 Odour: Mild
 Turbidity: None
 Settleable Solids: None
 Measured Parameters: Temperature: 18.1 °C
 pH: 7.57
 Conductivity: 1906 µmhos/cm
 Dissolved Oxygen: 8.27 mg/L

4. PRE-AERATION

Duration at 6.5 ± 1 mL/min per L: 30 min
 Sample Test Concentration (V/V): 100% 0%
 Before Pre-Aeration Dissolved Oxygen: 8.07 8.53 mg/L
 Air Saturation: 95 93 %
 After Pre-Aeration Dissolved Oxygen: 8.43 8.76 mg/L
 Air Saturation: 92 95 %

5. TEST ORGANISM DATA

Lot Number: 170622
 Weekly Mortality Preceding Test: 0.43 (<2) %
 Sample Size: 10
 Loading Density: 0.26 g/L

Fish #	Wet Weight (g)	Fork Length (cm)
1	<u>0.56</u>	<u>4.3</u>
2	<u>0.70</u>	<u>4.5</u>
3	<u>0.63</u>	<u>4.4</u>
4	<u>0.56</u>	<u>4.2</u>
5	<u>0.50</u>	<u>4.0</u>
6	<u>0.54</u>	<u>4.3</u>
7	<u>0.66</u>	<u>4.5</u>
8	<u>0.32</u>	<u>3.6</u>
9	<u>0.44</u>	<u>4.0</u>
10	<u>0.30</u>	<u>3.7</u>
Average	<u>0.52</u>	<u>4.2</u>
StDev	<u>0.13</u>	<u>0.3</u>

6. TEST DATA

Sample Concentration (% V/V)	100	0
------------------------------	-----	---

0 hours Time: 3:10 PM

Temperature (°C)	16.0	15.9
pH	7.57	7.54
Conductivity @ 25°C (µmhos/cm):	1896	365
Dissolved Oxygen (mg/L):	8.47	8.79

24 hours Time: 1:40 PM

Stressed (Qty)	0	0
Mortality (Qty)	0	0
Temperature (°C)	15.0	15.1
pH	7.99	7.88
Conductivity @ 25°C (µmhos/cm):	1873	363
Dissolved Oxygen (mg/L):	9.37	9.39

48 hours Time: 1:20 PM

Stressed (Qty)	0	0
Mortality (Qty)	0	0
Temperature (°C)	14.5	14.6
pH	8.03	7.96
Conductivity @ 25°C (µmhos/cm):	1837	376
Dissolved Oxygen (mg/L):	9.37	9.32

72 hours Time: 1:30 PM

Stressed (Qty)	0	0
Mortality (Qty)	0	0
Temperature (°C)	14.5	14.5
pH	7.94	7.88
Conductivity @ 25°C (µmhos/cm):	1819	368
Dissolved Oxygen (mg/L):	9.46	9.39

96 hours Time: 1:20 PM

Stressed (Qty)	0	0
Mortality (Qty)	0	0
Temperature (°C)	14.6	14.5
pH	7.96	7.85
Conductivity @ 25°C (µmhos/cm):	1806	369
Dissolved Oxygen (mg/L):	9.43	9.33

Work Order: 7072451-02

7. SUBLETHAL BIOLOGICAL EFFECTS

Sample Conc (%)	Time(s) Observed (h)	Effect(s) Observed
		None

8. OBSERVATIONS / COMMENTS

None

9. RESULTS

Mortality (%) 0
 LC50 (%) >100

10. REFERENCE TOXICANT DATA

Toxicant: Phenol
 Test Starting Date: July 6, 2017
 96-hour LC₅₀ (mg/L) 8.39
 95% Lower Confidence Interval v/v (%): 6.88
 95% Upper Confidence Interval v/v (%): 9.18
 Method of Calculation: Linear Regression
 Confirmed by Graph: Yes
 Historic Geometric Mean LC₅₀ (mg/L) 9.95
 95% Lower Confidence Interval v/v (%): 8.00
 95% Upper Confidence Interval v/v (%): 12.38

Method DAS 20°C

Client TEC164

Reference 1617-1308-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/27	1330	SSIEP	3	HS	7.6	1939	8.8	16.5	3
1	2017/07/28	0730	FD	-	HS					
2	2017/07/29	0915	FD	3	HS					

Lab Code	CTLA	CTLB	CTLC	160A	160B	160C

day pH (units) (range: 6.0-8.5)

0	8.0	7.9	7.9	7.6	7.6	7.6			
2	8.0	8.1	8.1	7.9	8.0	8.0			

EC (uS/cm)

0	319	323	343	1900	1904	1924			
2	320	330	338	1910	1920	1927			

DO (mg/L) (40-100% saturation at test temp.)

0	7.8	7.8	7.8	7.8	7.8	7.8			
2	7.9	8.0	8.0	8.1	8.1	8.1			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.9	20.9	20.9	22.0	22.0	22.1			
2	20.4	20.4	20.4	20.4	20.4	20.4			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	9(I)	8(I)	9(I)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>02, 454</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>3.5%</u>
QA (previous month)	Days to first brood (≤12 days) <u>11</u>	Average number of young produced (≥15 young) <u>24.8</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>100%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>1029</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>E: 07124</u>	Weekly water hardness (mg/L) <u>84</u>
Comments:	<u>observations: on - clear, no ppt. 48h - ppt on surface</u>	

Method DAS 10°C

Client TEC164

Reference 1617-1308-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/27	1430	SSIEP	3	HS	7.6	1939	8.8	16.5	3
1	2017/07/28	0730	EP	-	HS					
2	2017/07/29	0915	EP	3	HS					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C			
----------	------	------	------	------	------	------	--	--	--

day pH (units) (range: 6.0-8.5)

0	7.9	8.0	8.0	7.7	7.7	7.7			
2	8.0	8.1	8.1	7.9	8.0	8.0			

EC (µS/cm)

0	319	322	324	1863	1937	1951			
2	326	328	330	1858	1899	1910			

DO (mg/L) (40-100% saturation at test temp.)

0	9.7	9.7	9.6	9.5	9.6	9.5			
2	9.4	9.4	9.4	9.5	9.5	9.5			

Temperature (°C) (range: 17.5-22.5 °C)

0	10.4	10.4	10.5	10.9	11.1	11.1			
2	10.9	11.0	11.0	11.1	11.1	11.1			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar 02 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 11
 Average number of young produced (≥15 young) 24.8
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 90% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1029 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date E: 07124 Weekly water hardness (mg/L) 84

Comments: Observations: 0h - clear, no ppt
48h - no ppt

Method DAS 20°C
(Antiscalant)

 Client TECLBY

 Reference 1617-1308-02
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/27	1500	SS/EP	3	HS	7.6	1939	8.8	16.5	3
1	2017/07/28	0730	EP	-	HS					
2	2017/07/29	0915	EP	3	HS					

Lab Code	CTLA	CTLB	CTLC	1WA	1WB	1WC

day	pH (units) (range: 6.0-8.5)					
0	7.9	7.9	7.9	7.8	7.8	7.8
2	7.9	7.9	8.0	8.1	8.1	8.2

day	EC (uS/cm)					
0	806	321	330	1935	1930	1936
2	3201	332	340	1942	1930	1943

day	DO (mg/L) (40-100% saturation at test temp.)					
0	7.5	7.6	7.6	7.8	7.8	7.8
2	8.1	8.0	8.0	8.0	8.0	8.0

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	20.6	21.0	21.1	21.3	21.1	21.1
2	20.1	20.1	20.1	20.2	20.2	20.2

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	1
1	10	10	10	10	10	
2	10	10	10	10	10	

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

 Young jar E2, E1, E3

Jar(s) mortality 7 days prior to test (must be ≤25%)

23%
QA (previous month)

 Days to first brood (≤12 days) 11, 8

 Average number of young produced (≥15 young) 24.8, 29.8

 Were test treatments randomized on test tray? Yes / No

Sample

 DO % of sample prior to aeration: 99% Is aeration required (<40% or >100%)? Yes or No

 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No

 Hardness (mg CaCO₃/L) of 100%: 1029 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No

 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -
Dilution Water

 Pail label / preparation date E107/24 Weekly water hardness (mg/L) 84

 Comments: no ppt @ 0hrs
no ppt @ 48hrs

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170724-AcuteToxicity TURNAROUND TIME: REGULAR RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job# WLC AWTF				Lab Name Nautilus Environmental				Report Delivery Formats				
Project Manager Thomas Davidson				Lab Contact Jacklyn Pool				Email 1: thomas.davidson@teck.com	X	X	X	
Email Thomas.Davidson@teck.com				Email Jacklyn@NautilusEnvironmental.ca				Email 2: teckcoal@equisonline.com				X
Address 15 Km North HWY 43				Address #4, 6125 - 12 Street SE				Email 3: teckwclab@epcor.com	X	X	X	
City Sparwood Province BC				City Calgary Province AB				Email 4: Marty.Hafke@teck.com	X	X	X	
Postal Code V0B 2G0 Country Canada				Postal Code T2H 2K1 Country Canada				Email 5: colin.lynch@teck.com				X
Phone Number 250.603.9417				Phone Number +1.403.253.7121				Email 6: michael.moore@teck.com	X	X	X	
								Email 7: jocelyn.traverse@teck.com	X	X	X	
								VPO 00473572				

SAMPLE DETAILS								ANALYSIS REQUESTED							
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96Hr_RT_Single Concentration_Toxicity Test	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C + Antiseptant	EXTRA	Excel	PDF	EDD
LC_WTF_IN_20170723_NP	LC_WTF_IN	WS	N	23-Jul-17	9:00	G	4	X	X	X	X				
WL_BFWB_OUT_SP21_20170724_N	WL_BFWB_OUT_SP21	WS	N	24-Jul-17	9:00	G	9	X	X	X	X	X			

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name	Mobile #
Regular (default) X		Relda Akkerman	
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge			
For Emergency <1 Day, ASAP or Weekend - Contact ALS		Sampler's Signature	Date/Time
			July 24, 2017

2017/07/25 15P
 1130 No I/S
 12.4°C good condition
 8x2L bottles
 5x20L carboys Manitowlin

END OF REPORT



Acute Toxicity Test Results

Sample collected July 30, 2017

Final Report – Revision 1

September 2, 2017

Submitted to: **Teck Coal Ltd. WLC AWTF**
Sparwood, B.C.

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170730_NP / 1617-1372-01	30-July-17 at 0900h	02-Aug-17 at 0850h	03-Aug-17 at 1300h	03-Aug-17 at 1430h	03-Aug-17 at 1420h	16°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170730_NP	16°C	745	560

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170730_NP	100	100	37

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170730_NP	0	80

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170730_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed on the surface of the 20°C test	Precipitate observed on the carapace of the 20°C test

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.4 (3.0-3.8) g/L KCl ¹	5.3 (5.0-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.3-3.8) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	8.1%	5.7%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, August 11, 2017; ² Test Date August 15, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tanya Aubin, B.Sc.
Laboratory Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	15 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	LSL
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	LSL
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR5 Client TEC164 Reference 1617-1372-01

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:
0	201708/03	1300 *	Ca	1	ITS	_____
1	201708/04	1100	Ca	-	HS	Initial EC (µS/cm): _____
2	201708/05	1030	Ca	-	SS	Initial DO (mg/L): _____
3	201708/06	1030	HS	-	SS	Initial Temp (°C): _____
4	201708/07	1130	HS/PM	1	SS	Salinity (ppt): _____
						Nets used: yes / <input checked="" type="radio"/> no

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L : yes / no

Preaeration time

0.5 hours	1 hour	1.5 hours	2 hours
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DO(mg/L) of 100%

_____	_____	_____	_____
-------	-------	-------	-------

Test Chemistry and Biology

Conc.

CTL	100						
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pH (units) (range: 5.5-8.5)

Day 0	8.2	8.1					
Day 4	8.1	8.1					

EC (uS/cm)

Day 0	398	1865					
Day 4	411	1900					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.7	8.8					
Day 4	8.7	8.8					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	14.8	14.4					
Day 4	14.9	14.9					

Number Alive (In brackets number stressed)

Day 0	10	10					
Day 1	10	10					
Day 2	10	10					
Day 3	10	10					
Day 4	10	10					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	2.8	0.3	Loading Density (g/L): <u>0.193</u>	Batch <u>20170720TR</u>
2	3.0	0.3		Source <u>LSC</u>
3	2.8	0.3	Mean Length (cm): <u>2.9</u>	Days Held <u>14</u>
4	2.9	0.3		Percent stock mortality (7 days prior to test, must be ≤ 2%) <u>0%</u>
5	2.9	0.3	Length Range (cm): <u>2.8-3.0</u>	
6	3.0	0.3		Mean Weight (g): <u>0.3</u>
7	2.8	0.2	Weight Range (g): <u>0.2-0.3</u>	
8	2.9	0.3		
9	2.9	0.3		
10	2.8	0.3		

Comments :

Method DAS @ 10 deg

 Client TEC164

 Reference 1617-1372-01
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/03	1430	JW/HS	3	AP	7.5	1963	7.9	21	0
1	2017/08/04	1145	LC	-	HS					
2	2017/08/05	1115	SS	3						

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day

pH (units) (range: 6.0-8.5)

0	7.9	7.9	7.9	7.6	7.6	7.6			
2	7.9	7.8	7.8	8.2	8.2	8.2			

EC (µS/cm)

0	310	311	320	1907	1945	1994			
2	341	336	341	1953	1993	2080			

DO (mg/L) (40-100% saturation at test temp.)

0	9.6	9.6	9.6	9.6	9.7	9.7			
2	9.6	9.7	9.7	9.7	9.7	9.7			

Temperature (°C) (range: 17.5-22.5 °C)

0	10.4	10.5	10.4	10.4	10.4	10.3			
2	10.6	10.7	10.7	10.9	10.9	10.8			

Number Alive

(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10(2F)	10(3F)	10(1F)			
2	10	10	10	10(1F)	10(3F)	10(2F)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

 Young jar D4, D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%
QA (previous month)

 Days to first brood (≤12 days) 11
 Average number of young produced (≥15 young) 34
 Were test treatments randomized on test tray? Yes / No

Sample

 DO % of sample prior to aeration: 99% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1093 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -
Dilution Water

 Pail label / preparation date X: 6/7/29 Weekly water hardness (mg/L) 80
Comments:

24 Hour Updates

 at 0 hrs no ppt
 at 48 hrs clear, no ppt.

Method DAS @ 20 deg

Client TEC164

Reference 1617-1372-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/03	1420	JW/HS	3	AP	7.5	196.5	7.9	21	0
1	2017/08/04	1220	LC	-	HS					
2	2017/08/05	1010	SS	3	CE					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day

	pH (units) (range: 6.0-8.5)					
0	7.9	7.9	7.9	7.7	7.7	7.7
2	8.1	8.0 ²⁵	7.9	8.0	8.0	8.0
	7.9	7.9				

	EC (µS/cm)					
0	330	331	331	1940	1954	1972
2	369 ³	342 ³	332	1846	1857	1874
	328	329				

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.6	7.6	7.7	7.9	7.9	7.9
2	7.8	7.8	7.7	7.8	7.8	7.97

	Temperature (°C) (range: 17.5-22.5 °C)					
0	20.3	20.3	20.4	20.3	20.2	20.2
2	20.2	20.2	20.5	20.4	20.4	20.2

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

	10	10	10	10	10	10
0	10	10	10	10	10	10
1	10	10	10	10 (10I)	10 (10I, 3B)	10 (2I)
2	10 (1F)	10	10	11 (1F)	0	10 (4I)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D5, D3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 11
 Average number of young produced (≥15 young) 34
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 109.3 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date X: 07/29 Weekly water hardness (mg/L) 80

Comments:
 24 Hour Updates
 at 0 hrs no ppt
 at 48 hrs white ppt. on surface, some ppt. present in carapaces

APPENDIX C – Chain-of-custody form

Teck

COC ID:	20170731-AcuteToxicity			TURNAROUND TIME:	REGULAR	RUSH:	
PROJECT/CLIENT INFO				LABORATORY			OTHER INFO
Facility Name / Job#	WLC AWTF			Lab Name	Nautilus Environmental		Report Delivery Formats
Project Manager	Thomas Davidson			Lab Contact	Jacklyn Pool		Excel
Email	Thomas.Davidson@teck.com			Email	Jacklyn@NautilusEnvironmental.ca		PDF
Address	15 Km North HWY 43			Address	#4, 6125 - 12 Street SE		EDD
City	Sparwood	Province	BC	City	Calgary	Province	AB
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada
Phone Number	250.603.9417			Phone Number	+1.403.253.7121		VPO 00473572

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372-01
372-02

SAMPLE DETAILS								ANALYSIS REQUESTED				Filtered - F: Field, L: Lab, FL: Field & Lab, N: None			
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96Hr_RT_Single Concentration_Toxicity Test	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C	EXTRA				
LC_WTF_IN_20170730_NP	LC_WTF_IN	WS	N	30-Jul-17	9:00	G	3	X	X	X					
WL_BFWB_OUT_SP21_20170731_N	WL_BFWB_OUT_SP21	WS	N	31-Jul-17	9:00	G	8	X	X	X	X				

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION	Regular (default) X	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend - Contact ALS	Sampler's Name	David Graham	Mobile #	Sampler's Signature	Date/Time	July 31, 2017
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2017102/02 0850 JW
MANITOUIIN 16°C
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good cond

END OF REPORT



Acute Toxicity Test Results

Sample collected July 31, 2017

Final Report – Revision 1

September 2, 2017

Submitted to: **Teck Coal Ltd. WLC AWTF**
Sparwood, B.C.

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_20170731_ N / 1617-1372-02	31-July-17 at 0900h	02-Aug-17 at 0850h	03-Aug-17 at 1300h	03-Aug-17 at 1430h	03-Aug-17 at 1420h	16°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170731_N	16°C	700	307

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170731_N	100	100	97

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170731_N	0	93

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
	Rainbow trout	None	None
WL_BFWB_OUT_SP21_20170731_N	<i>Daphnia magna</i>	Precipitate observed on the bottom of test vessel of the 10°C test. Precipitate observed on the surface of the 20°C test	Precipitate observed on the carapace of the 20°C test

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.4 (3.0-3.8) g/L KCl ¹	5.3 (5.0-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.3-3.8) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	8.1%	5.7%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, August 11, 2017; ² Test Date August 15, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tanya Aubin, B.Sc.
Laboratory Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	15 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	LSL
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	LSL
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR5 Client TECIG4 Reference 1617-1372-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/08/03	1300 *	CR	1	HS	Initial pH: <u>7.5</u> Initial EC (µS/cm): <u>2000</u> Initial DO (mg/L): <u>7.8</u> Initial Temp (°C): <u>21</u> Salinity (ppt): <u>0</u> Nets used: yes / <u>(no)</u>
1	2017/08/04	1100	CR	-	HS	
2	2017/08/05	0700	CR	-	SS	
3	2017/08/06	1030	HS	-	HN	
4	2017/08/07	1130	HS/NN	1	CR	

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no ^{HS}
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 9.6

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>8.2</u>	<u>8.1</u>					
Day 4	<u>8.1</u>	<u>8.1</u>					

EC (uS/cm)

Day 0	<u>390</u>	<u>1939</u>					
Day 4	<u>411</u>	<u>1941</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.6</u>	<u>8.6</u>					
Day 4	<u>8.7</u>	<u>8.8</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.3</u>	<u>16.3</u>					
Day 4	<u>15.1</u>	<u>15.1</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.9</u>	<u>0.3</u>	Loading Density (g/L): <u>0.180</u> <u>0.135</u>	Batch <u>20170720TR</u>
2	<u>2.8</u>	<u>0.3</u>		Source <u>LSL</u>
3	<u>2.8</u>	<u>0.2</u>	Mean Length (cm): <u>2.9</u>	Days Held <u>14</u>
4	<u>2.8</u>	<u>0.3</u>		Percent stock mortality <u>0%</u> (7 days prior to test, must be ≤ 2%)
5	<u>3.0</u>	<u>0.3</u>	Mean Weight (g): <u>0.3</u>	
6	<u>3.0</u>	<u>0.3</u>		
7	<u>2.8</u>	<u>0.2</u>	Weight Range (g): <u>0.2-0.3</u>	Test Volume (L) <u>15</u>
8	<u>2.8</u>	<u>0.2</u>		
9	<u>2.9</u>	<u>0.3</u>		
10	<u>2.8</u>	<u>0.3</u>		

Comments:

Method DAS @ 10 deg

Client TEC164

Reference 1617-1372-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/10 3	1430	JW/HH	3	AP	7.5	2066	7.8	21	0
1	2017/08/10 4	1145	LC	-	HS					
2	2017/08/10 5	1120	SS	3						

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day

	pH (units) (range: 6.0-8.5)					
0	7.9	7.9	7.9	7.6	7.6	7.6
2	8.0 7.9	7.9	7.8	8.2	8.2	8.2

	EC (µS/cm)					
0	310	311	320	1478	1990	2000
2	336 3461	336	341	1973	2010	2070

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.6	9.6	9.6	9.7	9.7	9.7
2	9.6	9.7	9.7	9.7	9.7	9.7

	Temperature (°C) (range: 17.5-22.5 °C)					
0	10.4 ^m 9.6	10.5	10.4	10.5	10.5	10.4
2	10.6	10.9	10.7	10.9	10.8	10.8

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10 (SD)	10 (SD)	10 (SD)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D4, D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 11
 Average number of young produced (≥15 young) 34
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 934 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date X: 07/29 Weekly water hardness (mg/L) 80

Comments:
 24 Hour Updates
 at 0 hrs no ppt
 at 48 hrs brown ppt. on bottom of glass jar

Method DAS @ 20 deg

Client TEC164

Reference 167-1372-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/03	1420	JW/HJ	3	AP	7.5	2068	7.8	21	0
1	2017/08/04	1220	LC	-	H					
2	2017/08/10	1040	SS	3	A					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	7.9	7.9	7.9	7.7	7.7	7.7			
2	7.9	7.9	7.9	8.0	7.9	8.0			

EC (µS/cm)

0	330	331	331	1967	1984	2000			
2	328	329	332	1922	1909	1919			

DO (mg/L) (40-100% saturation at test temp.)

0	7.6	7.6	7.7	7.8	7.9	7.8			
2	7.8	7.8	7.7	7.8	7.8	7.8			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.3	20.3	20.4	20.3	20.4	20.4			
2	20.2	20.2	20.5	20.4	20.3	20.3			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10(2I, 1F)	10			
2	10	10	10	9(8I)	10(10I, 1F)	10(9I, 1F)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar DS, D3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)

Days to first brood (≤12 days) 11
 Average number of young produced (≥15 young) 34
 Were test treatments randomized on test tray? Yes / No

Sample

DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): — Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 934 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) —

Dilution Water

Pail label / preparation date X: 07129 Weekly water hardness (mg/L) 80

Comments:

24 Hour Updates

at 0 hrs no ppt
 at 48 hrs ppt - present on surface, daphnia covered in debris

APPENDIX C – Chain-of-custody form

Teck

COC ID:	20170731-AcuteToxicity		TURNAROUND TIME:	REGULAR	RUSH:	
PROJECT/CLIENT INFO			LABORATORY		OTHER INFO	
Facility Name / Job#	WLC AWTF		Lab Name	Nautilus Environmental		Report Delivery Formats
Project Manager	Thomas Davidson		Lab Contact	Jacklyn Pool		Excel
Email	Thomas.Davidson@teck.com		Email	Jacklyn@NautilusEnvironmental.ca		PDF
Address	15 Km North HWY 43		Address	#4, 6125 - 12 Street SE		EDD
City	Sparwood	Province	BC	City	Calgary	Province
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country
Phone Number	250.603.9417		Phone Number	+1.403.253.7121		VPO 00473572

617-
372-01
372-02

SAMPLE DETAILS								ANALYSIS REQUESTED				Filtered - F: Field, L: Lab, FL: Field & Lab, N: None			
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96Hr_RT_Single Concentration_Toxicity Test	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C	EXTRA				
LC_WTF_IN_20170730_NP	LC_WTF_IN	WS	N	30-Jul-17	9:00	G	3	X	X	X					
WL_BFWB_OUT_SP21_20170731_N	WL_BFWB_OUT_SP21	WS	N	31-Jul-17	9:00	G	8	X	X	X	X				

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	David Graham	Mobile #
Regular (default) X	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend - Contact ALS
	Sampler's Signature	Date/Time	July 31, 2017

2017102/02 0850 JW
MANITOUIIN 16°C
NOSIS
good cond

END OF REPORT



Acute Toxicity Test Results

Samples collected August 7, 2017

Final Report – Revision 1

October 18, 2017

Submitted to: **Teck Coal Ltd.**
Sparwood, B.C.

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates				Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C and 20°C test initiation	
LC_WTF_IN_20170807_NP / 1617-1433-01	07-Aug-17 at 0900h	09-Aug-17 at 1455h	11-Aug-17 at 1430h	10-Aug-17 at 1440h	15°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170807_NP	15°C	1314	400

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170807_NP	100	100	87

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170807_NP	0	70

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170807_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate on the surface of the 20°C test	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.8 (2.2-3.2) g/L KCl ¹	5.3 (5.0-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.3-3.7) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	8.3%	5.7%
Organism health history	Acceptable	Acceptable
Protocol deviations	See Below	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, August 14, 2017; ² Test Date August 15, 2017
 LC = Lethal Concentration; CL = Confidence Limit

The mean weight of the control fish in the rainbow trout test was below the required 0.3 g per fish.



Report By:
Tanya Aubin, B.Sc.
Laboratory Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In House Culture
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR5

Client TEC164

Reference 1617-1433-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/08/11	1430 *	EP	1	JW
1	2017/08/12	1015	JW	-	EP
2	2017/08/13	0850	LC	-	NTH
3	2017/08/14	1010	JW	-	LC
4	2017/08/15	0845	AP 152	1	JW

Sample Information

Initial pH:	7.9
Initial EC (µS/cm):	2060
Initial DO (mg/L):	10.2
Initial Temp (°C):	21.8
Salinity (ppt):	2
Nets used: yes / no	no

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time	0.5 hours	1 hour	1.5 hours	2 hours
DO(mg/L) of 100%	8.0			

Test Chemistry and Biology

Conc.	CTL	100				
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pH (units) (range: 5.5-8.5)

Day 0	8.0	7.9				
Day 4	8.2	8.1				

EC (µS/cm)

Day 0	417	2140				
Day 4	397	1323				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.8	8.8				
Day 4	8.9	8.9				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	15.3	15.3				
Day 4	14.7	14.7				

Number Alive (In brackets number stressed)

Day 0	10	10				
Day 1	10	10				
Day 2	10	10				
Day 3	10	10				
Day 4	10	10				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	Source
1	2.5	0.2	80170713TR	In House
2	2.5	0.2		
3	2.6	0.2		
4	2.7	0.2		
5	2.5	0.1		
6	2.6	0.2		
7	2.6	0.2		
8	2.6	0.2		
9	2.7	0.2		
10	2.7	0.2		
Loading Density (g/L):			0.095	Days Held: 29
Mean Length (cm):			2.6	Percent stock mortality (7 days prior to test, must be ≤ 2%): 0.43
Length Range (cm):			2.5-2.7	Test Volume (L): 20L
Mean Weight (g):			0.2	
Weight Range (g):			0.1-0.2	
Comments: daily updates				

Method DAS 10 deg

Client TEC164

Reference 1617-1433-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/10	1440	SS/LJW	3	AP	7.9	2060	10.2	21.8	2
1	2017/08/11	1030	AP/LG	-	JW					
2	2017/08/12	1200	JW/EP	3	JW					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	7.9	8.0	8.0	7.9	7.9	7.9			
2	7.7	7.8	7.7	7.8	7.7	7.8			

EC (uS/cm)

0	329	327	328	2170	2160	2170			
2	309	320	330	1988	2100	2200			

DO (mg/L) (40-100% saturation at test temp.)

0	9.7	9.6	9.6	9.7	9.7	9.7			
2	9.5	9.5	9.5	9.4	9.4	9.4			

Temperature (°C) (range: 17.5-22.5 °C)

0	10.6	10.6	10.5	10.4	10.4	10.4			
2	10.5	10.6	10.7	10.8	10.8	10.8			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar EM Jar(s) mortality 7 days prior to test (must be ≤25%) 14%

QA (previous month)
 Days to first brood (≤12 days) 11
 Average number of young produced (≥15 young) 28.6
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 124% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1314 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date G:08/08 Weekly water hardness (mg/L) 82

Comments:
 In glass jars at 0 hrs no ppt
 24 hour updates at 48 hrs no ppt

Method DAS 20 deg

Client TEC164

Reference 1617-1433-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/10	1440	SS/JW	3	AF	7.9	3060	10.2	21.8	0
1	2017/08/11	1030	AF/LC	-	JW					
2	2017/08/12	1700	JW/EP	3	JW					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	8.0	8.0	8.0	7.9	7.9	7.9			
2	7.9	7.9	7.9	8.0	8.0	8.0			

EC (uS/cm)

0	322	323	322	1971	2120	2150			
2	332	328	335	1867	1985	2110			

DO (mg/L) (40-100% saturation at test temp.)

0	7.8	7.8	7.8	7.9	7.9	7.9			
2	7.9	7.9	7.9	7.9	7.9	7.9			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.6	20.6	20.6	20.4	20.3	20.2			
2	19.8	19.7	19.7	19.6	19.6	19.5			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10 (8F)	8 (8F)	8 (7F)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar E2, E3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0.147/2 = 7.1

QA (previous month)

Days to first brood (≤12 days) 11
 Average number of young produced (≥15 young) 28.6
 Were test treatments randomized on test tray? Yes / No

Sample

DO % of sample prior to aeration: 126% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1314 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water

Pail label / preparation date G:02/08 Weekly water hardness (mg/L) 82

Comments:

In glass jars at 0 hrs no ppt
 24 hour updates at 48 hrs ppt on surface

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170808-Acute Toxicity		TURNAROUND TIME: REGULAR		RUSH:			
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO	
Facility Name / Job# WLC AWTF				Lab Name Nautilus Environmental		Report Delivery Formats	
Project Manager Thomas Davidson				Lab Contact Jacklyn Pool		Excel	PDF
Email Thomas.Davidson@teck.com				Email Jacklyn@NautilusEnvironmental.ca		EDD	
Address 15 Km North HWY 43				Address #4, 6125 - 12 Street SE		Email 1: thomas.davidson@teck.com	X
City Sparwood				City Calgary		Email 2: teckcoal@equisonline.com	X
Province BC				Province AB		Email 3: teckwclab@epcor.com	X
Postal Code V0B 2G0				Postal Code T2H 2K1		Email 4: Marty.Hafke@teck.com	X
Country Canada				Country Canada		Email 5: colin.lynch@teck.com	X
Phone Number 250.603.9417				Phone Number +1.403.253.7121		Email 6: michael.moore@teck.com	X
						Email 7: jocelyn.traverse@teck.com	X

SAMPLE DETAILS								ANALYSIS REQUESTED									
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	PH	PRESEV.	ANALYSIS							
1617-1433-01 LC_WTF_IN_20170807_NP	LC_WTF_IN	WS	N	7-Aug-17	9:00	G	3	N	N	N	N	N	N	N	N	N	N
1617-1433-02 WL_BFWB_OUT_SP21_20170808_N	WL_BFWB_OUT_SP21	WS	N	8-Aug-17	9:00	G	8	N	N	N	N	N	N	N	N	N	N

Handwritten notes:
 @JC
 2017/08/08
 1455
 5 x 20L canboys
 5 x 1L bottles
 Manitoulin
 No SII
 15°C
 good condition

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION				DATE/TIME				ACCEPTED BY/AFFILIATION				DATE/TIME			
NB OF BOTTLES RETURNED/DESCRIPTION																			
Regular (default) X				Sampler's Name				Taylor Dean				Mobile #							
Priority (2-3 business days) - 50% surcharge				Sampler's Signature								Date/Time				August 8, 2017			
Emergency (1 Business Day) - 100% surcharge																			
For Emergency <1 Day, ASAP or Weekend - Contact ALS																			

END OF REPORT



Acute Toxicity Test Results

Sample collected August 8, 2017

Final Report - Revision 1

October 18, 2017

Submitted to: **Teck Coal Ltd.**
Sparwood, B.C.

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates						Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C and 20°C test initiation	<i>Daphnia magna</i> 10°C and 20°C re- test initiation	<i>Daphnia magna</i> TIE test initiation	
WL_BFWB_OUT_S P21_20170808_N / 1617-1433-02	08-Aug-17 at 0900h	09-Aug-17 at 1455h	11-Aug-17 at 1430h	10-Aug-17 at 1440h	13-Aug-17 at 1400h 10°C / 1415h 20°C / 14-Aug-17 at 1430h 20°C LC50	19-Aug-17 at 1630h	15°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170808_N	15°C	1291	320

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)
- *Daphnia magna* 48-h LC50, EC50 test
- *Daphnia magna* 48-h TIE test round 1:
 - Adjusted to pH 5, spun and returned to initial pH
 - Adjusted to pH 10, filtered and returned to initial pH

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample				
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C	<i>Daphnia magna</i> 10°C Reset	<i>Daphnia magna</i> 20°C Reset
WL_BFWB_OUT_SP21_20170808_N	100	100	13	100	57

Sample ID	Percent Immobility in 100 (% v/v)			
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C	<i>Daphnia magna</i> 10°C Reset	<i>Daphnia magna</i> 20°C Reset
WL_BFWB_OUT_SP21_20170808_N	0	100	0	100

Daphnia magna TIE test (for sample WL_BFWB_OUT_SP21_20170808_N 1617-1433-02):

LC50 Reset

Sample ID	<i>Daphnia magna</i> LC50/EC50 (% v/v) [95% CL]	
	LC50	EC50
WL_BFWB_OUT_SP21_20170808_N	100 [NA-NA]	54 [42-68]

EC = Effect Concentration, CL=Confidence Limit

Sample ID	<i>Daphnia magna</i>	
	Percent survival in 100% (v/v) sample	Percent Immobility in 100 (% v/v)
WL_BFWB_OUT_SP21_20170808_N	50	100

Treatment	<i>Daphnia magna</i>	
	Percent survival in 100% (v/v) sample	Percent Immobility in 100 (% v/v)
WL_BFWB_OUT_SP21_20170808_N untreated	97	73
Adjusted to pH5, spun, re-adjusted to initial pH	100	0
Adjusted to pH10, filtered, re-adjusted to initial pH	100	30

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170808_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate on the surface of 20°C test and the 20°C resets	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.8 (2.2-3.2) g/L KCl ¹	5.3 (5.0-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.3-3.7) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	8.3%	5.7%
Organism health history	Acceptable	Acceptable
Protocol deviations	See Below	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, August 14, 2017; ² Test Date August 15, 2017
 LC = Lethal Concentration; CL = Confidence Limit

The mean weight of the control fish in the rainbow trout test was below the required 0.3 g per fish.



Report By:
Tanya Aubin, B.Sc.
Laboratory Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In House Culture
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR5 Client FEU64 Reference 1617-143302

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/08/11	1430 *	EP	1	JW	Initial pH: <u>7.9</u>
1	2017/08/12	1015	JW	-	EP	Initial EC (µS/cm): <u>2060</u>
2	2017/08/13	0850	LC	-	ATW	Initial DO (mg/L): <u>10.2</u>
3	2017/08/14	1010	JW	-	LE	Initial Temp (°C): <u>21.7</u>
4	2017/08/15	0830	SS/AP	1	JW	Salinity (ppt): <u>1</u>
						Nets used: yes / <u>no</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L yes/no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100% 8.8

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>8.0</u>	<u>8.0</u>				
Day 4	<u>8.1</u>	<u>8.1</u>				

EC (uS/cm)

Day 0	<u>217</u>	<u>2190</u>				
Day 4	<u>442</u>	<u>1838</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.8</u>	<u>8.8</u>				
Day 4	<u>8.9</u>	<u>8.9</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.3</u>	<u>15.2</u>				
Day 4	<u>14.5</u>	<u>14.6</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	<u>20170713TK</u>
1	<u>2.5</u>	<u>0.2</u>	Source	<u>In House</u>
2	<u>2.5</u>	<u>0.2</u>	Days Held	<u>29</u>
3	<u>2.6</u>	<u>0.2</u>	Percent stock mortality (7 days prior to test, must be ≤2%)	<u>0.45</u>
4	<u>2.7</u>	<u>0.2</u>	Test Volume (L)	<u>20</u>
5	<u>2.5</u>	<u>0.1</u>		
6	<u>2.6</u>	<u>0.2</u>		
7	<u>2.6</u>	<u>0.2</u>		
8	<u>2.6</u>	<u>0.2</u>		
9	<u>2.7</u>	<u>0.2</u>		
10	<u>2.7</u>	<u>0.2</u>		
Loading Density (g/L): <u>0.095</u>				
Mean Length (cm): <u>2.6</u>				
Length Range (cm): <u>2.5-2.7</u>				
Mean Weight (g): <u>0.2</u>				
Weight Range (g): <u>0.1-0.2</u>				
Comments: <u>daily updates</u>				

Method DAS 10 deg

Client TEC164

Reference 1617-1433-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/10	1400	SS/JW	3	AP	7.9	2060	10.2	21.7	1291
1	2017/08/11	1030	FP/LG	-	JW					
2	2017/08/12	1200	JW/EP	3	JW					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day

pH (units) (range: 6.0-8.5)

0	7.9	8.0	8.0	7.9	7.9	7.9			
2	7.7	7.7	7.7	8.1	8.0	8.0			

EC (µS/cm)

0	329	327	328	2160	2160	2170			
2	309	320	330	2210	2170	2200			

DO (mg/L) (40-100% saturation at test temp.)

0	9.7	9.6	9.6	9.8	9.8	9.8			
2	9.5	9.5	9.5	9.4	9.5	9.6			

Temperature (°C) (range: 17.5-22.5 °C)

0	10.6	10.6	10.5	10.3	10.3	10.3			
2	10.5	10.6	10.7	10.7	10.8	10.8			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar EY

Jar(s) mortality 7 days prior to test (must be ≤25%)

14%

QA (previous month)

Days to first brood (≤12 days) 11

Average number of young produced (≥15 young) 28.6

Were test treatments randomized on test tray? Yes / No

Sample

DO % of sample prior to aeration: 122%

Is aeration required (<40% or >100%)? Yes or No

Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min

Filtered with 110µm screen prior to testing Yes or No

Hardness (mg CaCO₃/L) of 100%: 1291

Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No

Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) ✓

Dilution Water

Pail label / preparation date G-08/08

Weekly water hardness (mg/L) 82

Comments:

In glass jars
24 hour updates

at 0 hrs no ppt
at 48 hrs no ppt

Method DAS 20 deg

Client TEC164

Reference 1617-1433-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/10	1440	SS/LW	3	AP	7.9	2060	10.2	21.7	1291
1	2017/08/11	1030	AP/LC	-	JW					
2	2017/08/12	1206	SW/EP	3	JW					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	8.0	8.0	8.0	7.9	7.9	7.9			
2	7.9	7.9	7.9	8.0	7.9	7.9			

EC (µS/cm)

0	322	323	322	2140	2140	2150			
2	332	328	335	1910	1988	2090			

DO (mg/L) (40-100% saturation at test temp.)

0	7.8	7.8	7.8	8.0	8.0	7.9			
2	7.9	7.9	7.9	7.9	7.9	7.9			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.6	20.6	20.6	19.7	19.6	19.6			
2	19.8	19.7	19.7	19.7	19.6	19.7			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10 (3I)	10 (2I)	10 (5I)			
2	10	10	10	0	2 (2I)	2 (2I)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar E2, E3 Jar(s) mortality 7 days prior to test (must be ≤25%) 7.1

QA (previous month)
 Days to first brood (≤12 days) 11
 Average number of young produced (≥15 young) 286
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 128.7 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1291 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G: 08/08 Weekly water hardness (mg/L) 82

Comments:
 In glass jars at 0 hrs no ppt
 24 hour updates at 48 hrs ppt on surface

Method DAS 10 deg RESET Client TEC164 Reference 1617-1433-02

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information
0	<u>2017/08/13</u>	<u>1400</u>	<u>LC</u>	<u>3</u>	<u>NJM</u>	Initial pH: <u>7.9</u>
1	<u>2017/08/14</u>	<u>1045</u>	<u>LC</u>	<u>-</u>	<u>LC</u>	Initial EC (µS/cm): <u>2060</u>
2	<u>2017/08/15</u>	<u>0945</u>	<u>LC</u>	<u>3</u>	<u>JW</u>	Initial DO (mg/L): <u>10.2</u>
						Initial Temp (°C): <u>21.7</u>
						Salinity (ppt): <u>1</u>

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day	pH (units) (range: 6.0-8.5)					
0	<u>7.5</u>	<u>7.7</u>	<u>7.7</u>	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>
2	<u>7.5</u>	<u>7.6</u>	<u>7.6</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>

day	EC (uS/cm)					
0	<u>306</u>	<u>325</u>	<u>326</u>	<u>2150</u>	<u>2170</u>	<u>2200</u>
2	<u>310</u>	<u>327</u>	<u>333</u>	<u>2100</u>	<u>2160</u>	<u>2190</u>

day	DO (mg/L) (40-100% saturation at test temp.)					
0	<u>9.6</u>	<u>9.6</u>	<u>9.7</u>	<u>9.6</u>	<u>9.6</u>	<u>9.6</u>
2	<u>9.5</u>	<u>9.4</u>	<u>9.4</u>	<u>9.3</u>	<u>9.4</u>	<u>9.5</u>

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	<u>16.1</u>	<u>10.2</u>	<u>10.2</u>	<u>10.4</u>	<u>10.4</u>	<u>10.4</u>
2	<u>11.4</u>	<u>11.3</u>	<u>11.3</u>	<u>11.6</u>	<u>11.6</u>	<u>11.5</u>

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>D1/04</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>14%</u>
QA (previous month)	Days to first brood (≤12 days) <u>8</u>	Average number of young produced (≥15 young) <u>31.2</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>97</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>—</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>1291</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>—</u>	
Dilution Water	Pail label / preparation date <u>0.08/09</u>	Weekly water hardness (mg/L) <u>82</u>
Comments:	In glass jars 24 hour updates	<u>noppt</u> at 0 hrs <u>noppt</u> at 48 hrs

Method DAS 20 deg RESET

Client TEC164

Reference 1617-1433-02

Test Log						Sample Information	
Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	
0	2017/08/13	1415	LC	3	NTM	Initial EC (µS/cm):	<u>7.9</u>
1	2017/08/14	1045	EP/AP	-	LC	Initial DO (mg/L):	<u>2060</u>
2	2017/08/15	0950	LC	3	JW	Initial Temp (°C):	<u>10.2</u>
						Salinity (ppt):	<u>21.7</u>
							<u>1</u>

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

pH (units) (range: 6.0-8.5)

day	CTL A	CTL B	CTL C	100 A	100 B	100 C
0	<u>7.9</u>	<u>7.9</u>	<u>7.8</u>	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>
2	<u>8.0</u>	<u>7.9</u>	<u>7.9</u>	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>

EC (uS/cm)

day	CTL A	CTL B	CTL C	100 A	100 B	100 C
0	<u>347</u>	<u>332</u>	<u>329</u>	<u>2100</u>	<u>2120</u>	<u>2150</u>
2	<u>353</u>	<u>339</u>	<u>333</u>	<u>2130</u>	<u>2160</u>	<u>2190</u>

DO (mg/L) (40-100% saturation at test temp.)

day	CTL A	CTL B	CTL C	100 A	100 B	100 C
0	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>7.8</u>
2	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>

Temperature (°C) (range: 17.5-22.5 °C)

day	CTL A	CTL B	CTL C	100 A	100 B	100 C
0	<u>19.8</u>	<u>19.6</u>	<u>19.6</u>	<u>21.0</u>	<u>21.1</u>	<u>21.1</u>
2	<u>20.1</u>	<u>20.1</u>	<u>20.2</u>	<u>20.3</u>	<u>20.2</u>	<u>20.1</u>

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

day	CTL A	CTL B	CTL C	100 A	100 B	100 C
0	10	10	10	10	10	10
1	10	10	10	10(F)	10(B)	10(F)
2	10	10	10	8(8I)	6(6I)	3(3I)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D1D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 14%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 31.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): — Filtered with 110um screen prior to testing? Yes or No
 Hardness (mg CaCO3/L) of 100%: 1291 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) —

Dilution Water
 Pail label / preparation date D-08/09 Weekly water hardness (mg/L) 82

Comments:
 In glass jars
 24 hour updates white ppt on surface at 0 hrs
noppt at 48 hrs

Method DAD

Client TECIGA

Reference 1617-1433-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/14	1430	JW	3	HS	7.9	2060	10.2	21.7	1
1	2017/08/15	0950	LC	-	JW					
2	2017/08/16	1125	HS/AP	3	CO					

Lab Code	CTL	6	12	25	50	100				
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day pH (units) (range: 6.0-8.5)

0	7.8	7.8	7.7	7.7	7.7	7.7				
2	8.0	7.9	7.8	7.9	7.8	7.9				

EC (uS/cm)

0	338	480	599	714	1217	2100				
2	347	501	611	733	1229	2160				

DO (mg/L) (40-100% saturation at test temp.)

0	7.8	7.8	7.9	7.9	7.8	7.9				
2	7.8	7.8	7.8	7.9	7.9	7.9				

Temperature (°C) (range: 17.5-22.5 °C)

0	19.8	19.9	19.9	20.1	20.0	20.5				
2	20.0	20.1	20.1	20.1	20.2	20.3				

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10				
1	10	10	10	10(F)	10(I)	10(3I)				
2	10	10	10	10(I±)	10(3I)	5(5±)				

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar E3 Jar(s) mortality 7 days prior to test (must be ≤25%) 14

QA (previous month)
 Days to first brood (≤12 days) 11
 Average number of young produced (≥15 young) 29.5
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): < Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1290 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date D:08/13 Weekly water hardness (mg/L) 87

Comments: Glass jars no ppt @ 0hrs
24 hour updates white ppt on surface at 48 hrs

CETIS Analytical Report

Report Date: 26 Aug-17 07:40 (p 1 of 1)
Test Code: 1617-1433-02 DA | 08-5708-0890

Daphnia magna 48-h Acute Survival Test

Nautilus Environmental Calgary

Analysis ID: 13-4156-1227	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.9.0
Analyzed: 26 Aug-17 7:39	Analysis: Untrimmed Spearman-Kärber	Official Results: Yes
Batch ID: 11-9341-6613	Test Type: Survival (48h)	Analyst: Harjot Sandhu
Start Date: 14 Aug-17	Protocol: EC/EPS 1/RM/14	Diluent: Mod-Hard Synthetic Water
Ending Date: 16 Aug-17	Species: Daphnia magna	Brine: Not Applicable
Duration: 48h	Source: In-House Culture	Age: <24h
Sample ID: 10-9062-3289	Code: 1617-1433-02	Client: Teck Coal Ltd
Sample Date: 08 Aug-17	Material: Water Sample	Project:
Receipt Date: 09 Aug-17	Source: Teck Coal Ltd	
Sample Age: 6d 0h	Station: WL_BFWB_OUT_SP21_20170808_N	

Spearman-Kärber Estimates

Threshold Option	Threshold	Trim	Mu	Sigma	LC50	95% LCL	95% UCL
Control Threshold	0	0.00%	1.729	0.05214	53.59	42.15	68.13

48h Survival Rate Summary

Calculated Variate(A/B)

Group	Code	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	N	1	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%	10	10
12.5		1	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%	10	10
25		1	0.9000	0.9000	0.9000	0.0000	0.0000	0.00%	10.00%	9	10
50		1	0.7000	0.7000	0.7000	0.0000	0.0000	0.00%	30.00%	7	10
100		1	0.0000	0.0000	0.0000	0.0000	0.0000		100.00%	0	10

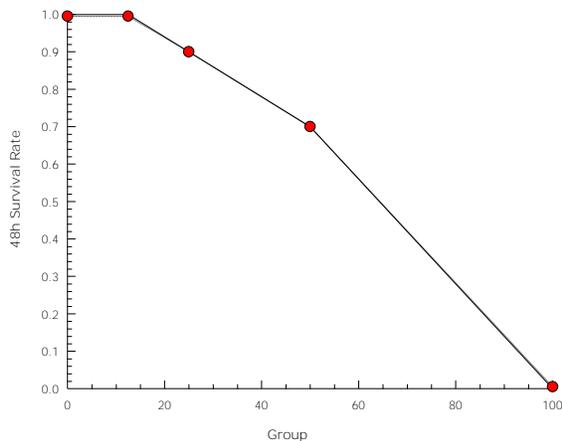
48h Survival Rate Detail

Group	Code	Rep 1
0	N	1.0000
12.5		1.0000
25		0.9000
50		0.7000
100		0.0000

48h Survival Rate Binomials

Group	Code	Rep 1
0	N	10/10
12.5		10/10
25		9/10
50		7/10
100		0/10

Graphics



CETIS Analytical Report

Report Date: 26 Aug-17 07:37 (p 1 of 2)
Test Code: 1617-1433-02 DA | 08-5708-0890

Daphnia magna 48-h Acute Survival Test				Nautilus Environmental Calgary			
Analysis ID: 11-9978-3278	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.9.0					
Analyzed: 26 Aug-17 7:36	Analysis: Trimmed Spearman-Kärber	Official Results: Yes					
Batch ID: 11-9341-6613	Test Type: Survival (48h)	Analyst: Harjot Sandhu					
Start Date: 14 Aug-17	Protocol: EC/EPS 1/RM/14	Diluent: Mod-Hard Synthetic Water					
Ending Date: 16 Aug-17	Species: Daphnia magna	Brine: Not Applicable					
Duration: 48h	Source: In-House Culture	Age: <24h					
Sample ID: 10-9062-3289	Code: 1617-1433-02	Client: Teck Coal Ltd					
Sample Date: 08 Aug-17	Material: Water Sample	Project:					
Receipt Date: 09 Aug-17	Source: Teck Coal Ltd						
Sample Age: 6d 0h	Station: WL_BFWB_OUT_SP21_20170808_N						

Trimmed Spearman-Kärber Estimates

Threshold Option	Threshold	Trim	Mu	Sigma	LC50	95% LCL	95% UCL
Control Threshold	0	50.00%	2	0	100	N/A	N/A

48h Survival Rate Summary

Group	Code	Count	Calculated Variate(A/B)								
			Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	N	1	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%	10	10
6.25		1	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%	10	10
12.5		1	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%	10	10
25		1	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%	10	10
50		1	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%	10	10
100		1	0.5000	0.5000	0.5000	0.0000	0.0000	0.00%	50.00%	5	10

48h Survival Rate Detail

Group	Code	Rep 1
0	N	1.0000
6.25		1.0000
12.5		1.0000
25		1.0000
50		1.0000
100		0.5000

48h Survival Rate Binomials

Group	Code	Rep 1
0	N	10/10
6.25		10/10
12.5		10/10
25		10/10
50		10/10
100		5/10

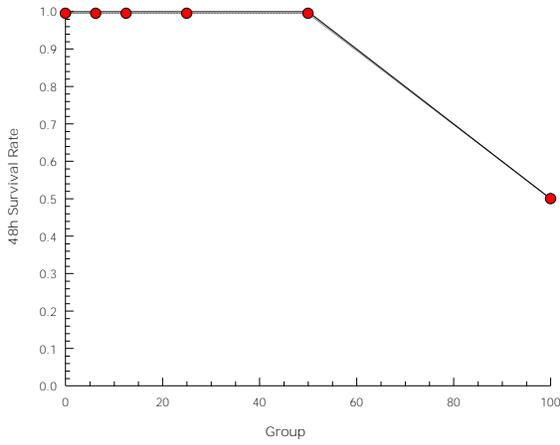
Daphnia magna 48-h Acute Survival Test

Nautilus Environmental Calgary

Analysis ID: 11-9978-3278 Endpoint: 48h Survival Rate
Analyzed: 26 Aug-17 7:36 Analysis: Trimmed Spearman-Kärber

CETIS Version: CETISv1.9.0
Official Results: Yes

Graphics



Daphnia Bench Sheet

Method TIE
DAS

Client TEC164

Reference 1617-1433-02
Untreated

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information		
0	2017/08/19	1630	HS/SS	3	HS	Initial pH:		
1	2017/08/20	1130	LC	-	Ca	Initial EC (µS/cm):		
2	2017/08/21	1030	NMA	3	Ca	Initial DO (mg/L):		
						Initial Temp (°C):		
						Salinity (ppt):		
Lab Code	CTLA	CTLB	CTLC	100A	100B	100C		

day

	pH (units) (range: 6.0-8.5)								
0	7.9	7.9	7.9	7.6	7.6	7.6			
2	7.8	7.8	7.8	7.8	7.8	7.8			

	EC (uS/cm)								
0	332	329	330	2080	2100	2120			
2	327	333	334	1962	1967	2060			

	DO (mg/L) (40-100% saturation at test temp.)								
0	7.7	7.7	7.7	8.1	8.1	8.1			
2	7.8	7.8	7.8	8.0	7.9	8.0			

	Temperature (°C) (range: 17.5-22.5 °C)								
0	20.4	20.4	20.5	19.1	18.9	18.9			
2	20.6	20.4	20.2	20.3	20.3	20.2			

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	9 (8I)	10 (6I)	10 (11)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar b2 181 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 15.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 99 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: - Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date 0 08/15 Weekly water hardness (mg/L) 88

Comments: no ppt @ 0hr 5
untreated sample
white ppt on surface & dark ppt inside daphnia
@ 48 hrs.

Method TIE
DAS

Client TEC164

Reference 1617-1433-02
pH 5 treatment

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information
0	2017/08/19	1630	HS/SS	3	165	Initial pH: _____
1	2017/08/20	1130	LC	-	16	Initial EC (µS/cm): _____
2	2017/08/21	1040	NML	3	16	Initial DO (mg/L): _____
						Initial Temp (°C): _____
						Salinity (ppt): _____
Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.9	7.9	7.9	7.6	7.6	7.6			
2	7.8	7.8	7.8	8.1	8.1	8.1			

EC (µS/cm)

0	332	329	330	2410	2450	2470			
2	327	333	334	2470	2490	2500			

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.7	7.7	7.7	7.7	7.7			
2	7.8	7.8	7.8	7.9	7.9	8.0			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.4	20.4	20.5	20.3	20.3	20.4			
2	20.6	20.4	20.2	20.1	20.1	20.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar 021E1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
Days to first brood (≤12 days) 11+7=18÷2=9
Average number of young produced (≥15 young) 15.3
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 99 Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): _____ Filtered with 110µm screen prior to testing Yes or No
Hardness (mg CaCO3/L) of 100%: _____ Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) _____

Dilution Water
Pail label / preparation date 0 08/15 Weekly water hardness (mg/L) 88

Comments: no ppt @ 0 hrs
No ppt on surface @ 48 hours
No ppt in daphnia @ 48 hours
adjusted to pH 5 with HCl and stirred for 2 hours on a stir plate. pH readjusted to 7.6 (original pH)

Written by SG on 1995/05/12

Revised by JP on 2016/08/31

@ 48 hours

Hand: 1233

NIK: 119

Nautilus Environmental (Calgary)

File: Daphnia Bench Sheet

F050

Method TIE
DAS

 Client TFC164

 Reference 1617-1433-02
pH 10 Treatment
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information		
0	2017/08/19	1630	HS/SS	3	HS	Initial pH:		
1	2017/08/20	1130	LL	-	CA	Initial EC (µS/cm):		
2	2017/08/21	1030	NM	3	CA	Initial DO (mg/L):		
						Initial Temp (°C):		
						Salinity (ppt):		

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C			

day

	pH (units) (range: 6.0-8.5)								
0	7.9	7.9	7.9	7.6	7.6	7.6			
2	7.8	7.8	7.8	8.0	8.0	8.0			

	EC (uS/cm)								
0	332	329	330	2490	2540	2560			
2	327	333	334	2420	2550	2560			

	DO (mg/L) (40-100% saturation at test temp.)								
0	7.7	7.7	7.7	7.6	7.5	7.5			
2	7.8	7.8	7.8	7.9	7.9	7.9			

	Temperature (°C) (range: 17.5-22.5 °C)								
0	20.4	20.4	20.5	20.2	20.1	20.1			
2	20.6	20.4	20.2	20.2	20.3	20.3			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10 (2I)	10 (4I)	10 (8I)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture

 Young jar D2181 Jar(s) mortality 7 days prior to test (must be ≤25%) 0
QA (previous month)

 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 15.3
 Were test treatments randomized on test tray? Yes / No

Sample

 DO % of sample prior to aeration: 94 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: - Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -
Dilution Water

 Pail label / preparation date D 08/15 Weekly water hardness (mg/L) 88
Comments:

no ppt @ 0hrs
 some grey ppt @ 1hr
 added 10 ppt in daphnia jar
 @ 28.48 hrs
 Adjusted to pH 10 with NaOH and filtered through a 0.45µm filter. pH readjusted to 7.6 (original pH)

 Written by SG on 1995/05/12
 Revised by JP on 2016/08/31

 Hard: 1317
 Aik: 185

Nautilus Environmental (Calgary)

File: Daphnia Bench Sheet

F050

Daphnia slow moving
 @ 48 hours

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170808-Acute Toxicity		TURNAROUND TIME: REGULAR		RUSH:			
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO	
Facility Name / Job# WLC AWTF				Lab Name Nautilus Environmental		Report Delivery Formats	
Project Manager Thomas Davidson				Lab Contact Jacklyn Pool		Excel	PDF
Email Thomas.Davidson@teck.com				Email Jacklyn@NautilusEnvironmental.ca		EDD	
Address 15 Km North HWY 43				Address #4, 6125 - 12 Street SE		Email 1: thomas.davidson@teck.com	X
City Sparwood Province BC				City Calgary Province AB		Email 2: teckcoal@equisonline.com	X
Postal Code V0B 2G0 Country Canada				Postal Code T2H 2K1 Country Canada		Email 3: teckwclab@epcor.com	X
Phone Number 250.603.9417				Phone Number +1.403.253.7121		Email 4: Marty.Hafke@teck.com	X
						Email 5: colin.lynch@teck.com	X
						Email 6: michael.moore@teck.com	X
						Email 7: jocelyn.traverse@teck.com	X
						VPO 00473572	

SAMPLE DETAILS								ANALYSIS REQUESTED									
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	PH	PRESEV.	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS
										NAUT_96Hr_RT_Single Concentration_Toxicity Test	NAUT_48Hr_DM_Single LC_Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single LC_Concentration_Toxicity Test @ 20C	EXTRA				
1617-1433-01																	
LC_WTF_IN_20170807_NP	LC_WTF_IN	WS	N	7-Aug-17	9:00	G	3			X	X	X					
WL_BFWB_OUT_SP21_20170808_N	WL_BFWB_OUT_SP21	WS	N	8-Aug-17	9:00	G	8			X	X	X	X				
1617-1433-02																	

Handwritten notes:
 @JC
 2017/08/08
 1455
 5 x 20L canboys
 5 x 1L bottles
 Manitoulin
 No S/I
 15°C
 good condition

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION				DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
NB OF BOTTLES RETURNED/DESCRIPTION													
Regular (default) X				Sampler's Name				Taylor Dean		Mobile #			
Priority (2-3 business days) - 50% surcharge				Sampler's Signature						Date/Time		August 8, 2017	
Emergency (1 Business Day) - 100% surcharge													
For Emergency <1 Day, ASAP or Weekend - Contact ALS													

END OF REPORT



Acute Toxicity Test Results

Samples collected August 7, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Coal Ltd. WLC AWTF**
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> test initiation	
LC_WTF_IN_20170807_NP / 1617-1434-01	7-Aug-17 at 0900h	9-Aug-17 at 1455h	10-Aug-17 at 1445h	15°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170807_NP	15°C	1314	400

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	<i>Daphnia magna</i>	
	Percent survival in 100% (v/v) sample	Percent Immobility in 100 (% v/v)
LC_WTF_IN_20170807_NP	100	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170807_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.3 (5.0-5.5) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	6%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, August 15, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L) and 5mg/L of Antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS 20 deg

Client TEC164

Reference 1617-1434-01 (AS)

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/10	1145	SS/JW	3	AP	7.9	3060	10.2	21.8	2
1	2017/08/11	1030	AP/JC	-	JW					
2	2017/08/12	1200	JW/AP	3	JW					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	8.0	8.0	8.0	7.8	7.8	7.8			
2	7.9	7.9	7.9	6.4	8.7	8.4			

EC (uS/cm)

0	316	320	323	2080	2140	2160			
2	310	321	328	1845	1991	2100			

DO (mg/L) (40-100% saturation at test temp.)

0	8.0	8.0	7.9	8.0	8.0	8.1			
2	7.7	7.7	7.7	7.7	7.7	7.7			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.9	21.0	21.0	19.7	19.1	19.2			
2	20.1	20.7	20.7	20.7	20.7	20.7			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar D4, D1 Jar(s) mortality 7 days prior to test (must be ≤25%) $\frac{0+14}{2} = 7\%$

QA (previous month)

Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 30.8
 Were test treatments randomized on test tray? Yes / No

Sample

DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? **Yes or No**
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing **Yes or No**
 Hardness (mg CaCO₃/L) of 100%: 1314 Is hardness adjustment required (<25 mg CaCO₃/L)? **Yes or No**
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water

Pail label / preparation date 6:08/08 Weekly water hardness (mg/L) 82

Comments:

In glass jars at 0 hrs clear, no ppt.
 24 hour updates at 48 hrs no ppt

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170808-Acute Toxicity-antiscalant		TURNAROUND TIME: REGULAR		RUSH:				
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO		
Facility Name / Job# WLC AWTF		Lab Name Nautilus Environmental		Report Delivery Formats		Excel	PDF	EDD
Project Manager Thomas Davidson		Lab Contact Jacklyn Pool		Email 1:	thomas.davidson@teck.com	X	X	X
Email Thomas.Davidson@teck.com		Email Jacklyn@NautilusEnvironmental.ca		Email 2:	teckcoal@equisonline.com	X	X	X
Address 15 Km North HWY 43		Address #4, 6125 - 12 Street SE		Email 3:	teckwclab@epcor.com	X	X	X
City Sparwood		Province BC	City Calgary	Province AB	Email 4:	Marty.Hafke@teck.com	X	X
Postal Code V0B 2G0	Country Canada	Postal Code T2H 2K1	Country Canada	Email 5:	colin.lynch@teck.com	X	X	X
Phone Number 250.603.9417	Phone Number +1.403.253.7121			Email 6:	michael.moore@teck.com	X	X	X
				Email 7:	jocelyn.traverse@teck.com	X	X	X
								VPO 00473572

SAMPLE DETAILS								ANALYSIS REQUESTED														
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	PH	PHENOL	ANALYSIS												
<i>148A JC</i> 1617-1434-01																						
LC_WTF_IN_20170807_NP	LC_WTF_IN	WS	N	7-Aug-17	9:00	G	1			NAUT_48Hr_DM_Single Concentration Toxicity Test @ 20C + Antiscalant												
WL_BFWB_OUT_SP21_20170808_N <i>1617-1434-02</i>	WL_BFWB_OUT_SP21	WS	N	8-Aug-17	9:00	G	1															
<p><i>ca/JC</i> <i>2017/08/09</i> <i>1455</i> <i>15°C</i> <i>Manitowish</i> <i>X 2x 1L bottles</i> <i>No S/I</i> <i>good completion</i></p>																						

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION				DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
NB OF BOTTLES RETURNED/DESCRIPTION													
Regular (default) X				Sampler's Name				Taylor Dean		Mobile #			
Priority (2-3 business days) - 50% surcharge				Sampler's Signature						Date/Time		August 8, 2017	
Emergency (1 Business Day) - 100% surcharge													
For Emergency <1 Day, ASAP or Weekend - Contact ALS													

END OF REPORT



Acute Toxicity Test Results

Sample collected August 8, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Coal Ltd. WLC AWTF**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> test initiation	
WL_BFWB_OUT_SP21_20170808_N / 1617-1434-02	8-Aug-17 at 0900h	9-Aug-17 at 1455h	10-Aug-17 at 1445h	15°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170808_N	15°C	1291	320

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	<i>Daphnia magna</i>	
	Percent survival in 100% (v/v) sample	Percent Immobility in 100 (% v/v)
WL_BFWB_OUT_SP21_20170808_N	100	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170808_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.3 (5.0-5.5) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	6%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, August 15, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L) and 5mg/L of Antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS 20 deg

Client TEC164

Reference 1617-1434-02 (AS)

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	2017/08/10	1145	SS/JW	3	AF	Initial pH:	7.9
1	2017/08/11	1030	AF/LG	-	JW	Initial EC (µS/cm):	2060
2	2017/08/12	1200	JW/LE	3	JW	Initial DO (mg/L):	10.2
						Initial Temp (°C):	21.7
						Salinity (ppt):	1

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	8.0	8.0	8.0	7.9	7.9	7.9			
2	7.9	7.9	7.9	8.3	8.3	8.4			

EC (uS/cm)

0	316	320	323	2130	2150	2160			
2	310	371	375	2100	2100	2100			

DO (mg/L) (40-100% saturation at test temp.)

0	8.0	8.0	7.9	8.1	8.1	8.0			
2	7.7	7.7	7.7	7.8	7.8	7.7			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.9	21.0	21.0	19.0	19.0	19.3			
2	20.1	20.7	20.7	20.7	20.7	20.6			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10 (IF)	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D4, D1 Jar(s) mortality 7 days prior to test (must be ≤25%) $\frac{0.4}{2} = 21\%$

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 30.8
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1291 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date G:08108 Weekly water hardness (mg/L) 82

Comments:
 In glass jars at 0 hrs Clear, no ppt.
 24 hour updates at 48 hrs no ppt

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected August 13, 2017

Final Report - Revision 1

September 12, 2017

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170813_NP / 1617-1474-01	13-Aug-17 at 0900h	15-Aug-17 at 0940h	17-Aug-17 at 1530h	7°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170813_NP	7°C	1249	357

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (antiscalant)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	<i>Daphnia magna</i> 20°C	
LC_WTF_IN_20170813_NP	100	

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 20°C	
LC_WTF_IN_20170813_NP	0	

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170813_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.3 (5.0-5.5) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	5.7%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, August 15, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS 20 deg

 Client TEC164

 Reference 1617-1474-01
Antiscalant
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	<u>20170817</u>	<u>1530</u>	<u>LCIAP</u>	<u>3</u>	<u>HS</u>	<u>7.7</u>	<u>2090</u>	<u>8.8</u>	<u>20.1</u>	<u>2</u>
1	<u>201708/18</u>	<u>KAP 1100</u>	<u>HP</u>	<u>-</u>	<u>HS</u>					
2	<u>201708/19</u>	<u>0830</u>	<u>HS</u>	<u>3</u>	<u>HS</u>					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day

	pH (units) (range: 6.0-8.5)					
0	<u>7.9</u>	<u>8.0</u>	<u>7.9</u>	<u>7.6</u>	<u>7.6</u>	<u>7.6</u>
2	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>8.2</u>	<u>8.2</u>	<u>8.2</u>

	EC (µS/cm)					
0	<u>335</u>	<u>334</u>	<u>334</u>	<u>2090</u>	<u>2130</u>	<u>2150</u>
2	<u>338</u>	<u>338</u>	<u>340</u>	<u>2080</u>	<u>2110</u>	<u>2130</u>

	DO (mg/L) (40-100% saturation at test temp.)					
0	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>8.0</u>	<u>7.9</u>	<u>7.9</u>
2	<u>7.8</u>	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>

	Temperature (°C) (range: 17.5-22.5 °C)					
0	<u>20.6</u>	<u>20.7</u>	<u>19.6</u>	<u>19.9</u>	<u>20.1</u>	<u>20.2</u>
2	<u>20.4</u>	<u>20.3</u>	<u>20.3</u>	<u>20.1</u>	<u>20.0</u>	<u>20.0</u>

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10 (IF)</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C3</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>7</u>	Average number of young produced (≥15 young) <u>15</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>100</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>—</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>357</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>—</u>	
Dilution Water	Pail label / preparation date <u>X:08/11</u>	Weekly water hardness (mg/L) <u>91</u>
Comments:	In glass jars <u>no ppt</u> at 0 hrs 24 hour updates <u>no ppt</u> at 48 hrs	

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170814-Acute Toxicity-antiscalant

TURNAROUND TIME:

REGULAR

RUSH:

PROJECT/CLIENT INFO

LABORATORY

OTHER INFO

Facility Name / Job# WLC AWTF

Lab Name Nautilus Environmental

Report Delivery Formats

Excel PDF EDD

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VPO 00473572

SAMPLE DETAILS

ANALYSIS REQUESTED

Filtered - F; Field; L; Lab; FL: Field & Lab; N: None

-01
-02

1617-1474 99

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.
LC_WTF_IN_20170813_NP	LC_WTF_IN	WS	N	13-Aug-17	9:00	G	1
WL_BFWB_OUT_SP21_20170814_N	WL_BFWB_OUT_SP21	WS	N	14-Aug-17	9:00	G	1

PHI	PROBIO	ANALYSIS
N	N	NAUT_48Hr_DM_Single Concentration Toxicity Test @ 20C + Antiscalant
		245

Antiscalant

S.C.
2017/08/15
09:40
70C
Manitowlin
5x 20L cans, 8x 1L bottle
No S/No B

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS

RELINQUISHED BY/AFFILIATION

DATE/TIME

ACCEPTED BY/AFFILIATION

DATE/TIME

Good condition

NB OF BOTTLES RETURNED/DESCRIPTION

Regular (default) X
Priority (2-3 business days) - 50% surcharge
Emergency (1 Business Day) - 100% surcharge
For Emergency <1 Day, ASAP or Weekend - Contact ALS

Sampler's Name

David Graham

Mobile #

Sampler's Signature

Date/Time

August 14, 2017

END OF REPORT



Acute Toxicity Test Results

Samples collected August 14, 2017

Final Report – Revision 1

September 12, 2017

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_20170814_N / 1617-1474-02	14-Aug-17 at 0900h	15-Aug-17 at 0940h	17-Aug-17 at 1530h	7°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170814_N	7°C	1220	313

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (antiscalant)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	<i>Daphnia magna</i> 20°C	
WL_BFWB_OUT_SP21_20170814_N	100	

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 20°C	
WL_BFWB_OUT_SP21_20170814_N	0	

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170814_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.3 (5.0-5.5) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	5.7%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, August 15, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS 20 deg

Client TEC164

Reference 1617-1474-02
Antiscalant

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	<u>2017/08/17</u>	<u>1530</u>	<u>LCJAP</u>	<u>3</u>	<u>ca</u>	<u>7.6</u>	<u>2110</u>	<u>8.8</u>	<u>20.4</u>	<u>2</u>
1	<u>2017/08/18</u>	<u>1100</u>	<u>AP</u>	<u>-</u>	<u>ca</u>					
2	<u>2017/08/19</u>	<u>0830</u>	<u>HS</u>	<u>3</u>	<u>ca</u>					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	<u>7.9</u>	<u>8.0</u>	<u>7.9</u>	<u>7.6</u>	<u>7.6</u>	<u>7.6</u>			
2	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>8.2</u>	<u>8.2</u>	<u>8.2</u>			

EC (uS/cm)

0	<u>335</u>	<u>334</u>	<u>334</u>	<u>2110</u>	<u>2170</u>	<u>2170</u>			
2	<u>338</u>	<u>338</u>	<u>340</u>	<u>2180</u>	<u>2190</u>	<u>2190</u>			

DO (mg/L) (40-100% saturation at test temp.)

0	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>8.0</u>	<u>8.0</u>	<u>7.9</u>			
2	<u>7.8</u>	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>			

Temperature (°C) (range: 17.5-22.5 °C)

0	<u>20.6</u>	<u>20.7</u>	<u>19.6</u>	<u>21.2</u>	<u>21.2</u>	<u>21.2</u>			
2	<u>20.4</u>	<u>20.3</u>	<u>20.3</u>	<u>19.7</u>	<u>19.7</u>	<u>19.8</u>			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar C3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 7
Average number of young produced (≥15 young) 14.9 15
Were test treatments randomized on test tray? Yes/ No Yes No

Sample
DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes No
Duration of aeration (37.5 +/- 12.5 mL/min/L): — Filtered with 110um screen prior to testing Yes No
Hardness (mg CaCO3/L) of 100%: 1220 Is hardness adjustment required (<25 mg CaCO3/L)? Yes No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) —

Dilution Water
Pail label / preparation date X-08/11 Weekly water hardness (mg/L) 91

Comments: In glass jars no ppt at 0 hrs
24 hour updates no ppt at 48 hrs

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170814-Acute Toxicity-antiscalant

TURNAROUND TIME:

REGULAR

RUSH:

PROJECT/CLIENT INFO

LABORATORY

OTHER INFO

Facility Name / Job# WLC AWTF

Lab Name Nautilus Environmental

Report Delivery Formats

Excel PDF EDD

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X X X

VPO 00473572

SAMPLE DETAILS

ANALYSIS REQUESTED

Filtered - F; Field; L; Lab; FL: Field & Lab; N: None

1617-1474 99

Sample ID

Sample Location

Field Matrix

Hazardous Material (Yes/No)

Date

Time (24hr)

G=Grab C=Comp

Of Cont.

PHI

PROBIO

ANALYSIS

NAUT_48Hr_DM_Single Concentration Toxicity Test @ 20C + Antiscalant

245

Antiscalant

LC_WTF_IN_20170813_NP

LC_WTF_IN

WS

N

13-Aug-17

9:00

G

1

X

WL_BFWB_OUT_SP21_20170814_N

WL_BFWB_OUT_SP21

WS

N

14-Aug-17

9:00

G

1

X

S.C.

2017/08/15

09:40

70C

Manitowlin

5x 20L cans, 8x 1L bottle

No S/No B

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS

RELINQUISHED BY/AFFILIATION

DATE/TIME

ACCEPTED BY/AFFILIATION

DATE/TIME

Good condition

NB OF BOTTLES RETURNED/DESCRIPTION

Regular (default) X

Priority (2-3 business days) - 50% surcharge

Emergency (1 Business Day) - 100% surcharge

For Emergency <1 Day, ASAP or Weekend - Contact ALS

Sampler's Name

David Graham

Mobile #

Sampler's Signature

Date/Time

August 14, 2017

END OF REPORT



Acute Toxicity Test Results

Sample collected August 13, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170813_NP / 1617-1475-01	13-Aug-17 at 0900h	15-Aug-17 at 0940h	16-Aug-17 at 1515h	15-Aug-17 at 1500h	15-Aug-17 at 1500h	7°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170813_NP	7°C	1249	357

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170813_NP	100	100	97

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170813_NP	0	100

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
	Rainbow trout	None	None
LC_WTF_IN_20170813_NP	<i>Daphnia magna</i>	Precipitate observed in the 20°C test	Precipitate observed on carapace in 20°C test

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.8 (2.2-3.2) g/L KCl ¹	5.3 (5.0-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.3-3.7) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	8.3%	5.7%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, August 14, 2017; ² Test Date August 15, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In-house culture
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	15 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR

Client TECLH

Reference 1617-1475-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/08/16	1515 *	EP/APCB	1	LC	Initial pH: <u>7.7</u>
1	2017/08/17	0900	AP	-	LC	Initial EC (µS/cm): <u>2090</u>
2	2017/08/18	0845	EP	-	HS	Initial DO (mg/L): <u>8.8</u>
3	2017/08/19	1115	SS	-	HS	Initial Temp (°C): <u>20.1</u>
4	2017/08/20	0930	ca	1		Salinity (ppt): <u>2</u>
						Nets used: yes / <u>(no)</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L : yes/no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100% 8.8

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.9</u>	<u>8.1</u>					
Day 4	<u>8.2</u>	<u>8.1</u>					

EC (uS/cm)

Day 0	<u>417</u>	<u>2120</u>					
Day 4	<u>444</u>	<u>1778</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.5</u>	<u>8.7</u>					
Day 4	<u>8.8</u>	<u>8.8</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.4</u>	<u>15.1</u>					
Day 4	<u>14.7</u>	<u>14.6</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control

Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information		
Control Fish	Length (cm)	Weight (g)			
1	<u>2.6</u>	<u>0.2</u>	Loading Density (g/L):	<u>0.193</u>	Batch <u>20170713TR</u>
2	<u>2.7</u>	<u>0.3</u>		Source <u>In house</u>	
3	<u>2.7</u>	<u>0.3</u>	Mean Length (cm):	<u>2.7</u>	Days Held <u>34</u>
4	<u>2.7</u>	<u>0.3</u>	Length Range (cm):	<u>2.6-2.8</u>	Percent stock mortality <u>0.02</u> (7 days prior to test, must be ≤ 2%)
5	<u>2.6</u>	<u>0.3</u>			
6	<u>2.8</u>	<u>0.3</u>	Mean Weight (g):	<u>0.3</u>	Test Volume (L) <u>15L</u>
7	<u>2.7</u>	<u>0.3</u>			
8	<u>2.6</u>	<u>0.3</u>	Weight Range (g):	<u>0.2-0.3</u>	
9	<u>2.7</u>	<u>0.3</u>			
10	<u>2.8</u>	<u>0.3</u>			

Comments :

Method DAS 20 deg

Client TEC164

Reference 1617-1475-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/15	1500	H51551CB	3	LC	7.7	2090	8.8	20.1	2
1	2017/08/16	0445	EP/AM	-	H5					
2	2017/08/17	1015	EP/SS	3	H5					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day

	pH (units) (range: 6.0-8.5)					
0	7.9	7.9	7.9	7.5	7.5	7.5
2	7.89 SS	7.9	7.9	7.8	7.9	7.9

	EC (µS/cm)					
0	294	328	329	2100	2130	2150
2	336	338	354	1930	1947	2100

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.9	7.9	7.9	7.9	7.9	7.9
2	7.6	7.6	7.6	7.7	7.7	7.7

	Temperature (°C) (range: 17.5-22.5 °C)					
0	20.0	20.1	20.1	20.1	19.9	19.9
2	20.9	20.9	20.9	20.8	20.8	20.7

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

	10	10	10	10	10	10
0	10	10	10	10(I)	10	10
1	10	10	10	9(I)	10(I)	10(I)
2	10	10	10	9(I)	10(I)	10(I)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar P3 Jar(s) mortality 7 days prior to test (must be ≤25%) G

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 18
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 124.9 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date E 08/11 Weekly water hardness (mg/L) 89

Comments:
 In glass jars
 24 hour updates no ppt at 0 hrs
ppt at 48 hrs daphnids coated slightly in dark debris

Method DAS @ 10 deg

 Client TEC164

 Reference 1617-1475-01
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/15	1500	HS/SS/ICB	3	LC	7.7	2090	8.8	20.1	2
1	2017/08/16	0945	EP/NM	-	45					
2	2017/08/17	1015	EP/LS	3	HS					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day

pH (units) (range: 6.0-8.5)

0	9.0	7.9	7.9	7.5	7.6	7.5			
2	7.7	7.7	7.7	8.1	8.1	8.1			

EC (uS/cm)

0	320	332	332	2100	2120	2160			
2	328	339	341	2140	2140	2180			

DO (mg/L) (40-100% saturation at test temp.)

0	9.7	9.7	9.8	9.8	9.8	9.8			
2	9.6	9.6	9.6	9.7	9.7	9.6			

Temperature (°C) (range: 17.5-22.5 °C)

0	10.1	10.1	10.1	10.2	10.1	10.1			
2	11.0	11.0	11.1	11.0	11.1	11.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>01/05</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>3.5</u>
QA (previous month)	Days to first brood (≤12 days) <u>7</u>	Average number of young produced (≥15 young) <u>18</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>100</u>	Is aeration required (<40% or >100%)? Yes or <input checked="" type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110um screen prior to testing Yes or <input checked="" type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>1249</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? Yes or <input checked="" type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>E 03/11</u>	Weekly water hardness (mg/L) <u>89</u>
Comments:	24 Hour Updates <u>no rpt</u> at 0 hrs <u>no ppt</u> at 48 hrs	

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170814-AcuteToxicity		TURNAROUND TIME:		REGULAR		RUSH:					
PROJECT/CLIENT INFO				LABORATORY				OTHER INFO			
Facility Name / Job# WLC AWTF				Lab Name Nautilus Environmental				Report Delivery Formats			
Project Manager Thomas Davidson				Lab Contact Jacklyn Pool				Excel <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EDD <input checked="" type="checkbox"/>			
Email Thomas.Davidson@teck.com				Email Jacklyn@NautilusEnvironmental.ca				Email 1: thomas.davidson@teck.com <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>			
Address 15 Km North HWY 43				Address #4, 6125 - 12 Street SE				Email 2: teckcoal@equisonline.com <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>			
City Sparwood Province BC				City Calgary Province AB				Email 3: teckwclab@epcor.com <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>			
Postal Code V0B 2G0 Country Canada				Postal Code T2H 2K1 Country Canada				Email 4: Marty.Hafke@teck.com <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>			
Phone Number 250.603.9417				Phone Number +1.403.253.7121				Email 5: colin.lynch@teck.com <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>			
								Email 6: michael.moore@teck.com <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>			
								Email 7: jocelyn.traverse@teck.com <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>			
								VPO 00473572			

SAMPLE DETAILS								ANALYSIS REQUESTED										
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	PHC	PHC	PHC	PHC	PHC	PHC	PHC	PHC	PHC	PHC	
								NAUT_96Hr_RT_Single Concentration_Toxicity Test	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C	EXTRA							
1617-1475 -01 LC_WTF_IN_20170813_NP	LC_WTF_IN	WS	N	13-Aug-17	9:00	G	3	X	X	X								
-02 WL_BFWB_OUT_SP21_20170814_N	WL_BFWB_OUT_SP21	WS	N	14-Aug-17	9:00	G	8	X	X	X	X							
<p>J.C. 2017/08/15 09:40 7°C Monitoin 5x 20L carboys, 8x 1L bottle No S/No L</p>								<p>TRS DAS DAS10</p>										

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION				DATE/TIME				ACCEPTED BY/AFFILIATION				DATE/TIME							
				Good condition																			
NB OF BOTTLES RETURNED/DESCRIPTION																							
Regular (default) <input checked="" type="checkbox"/>								Sampler's Name				David Graham				Mobile #							
Priority (2-3 business days) - 50% surcharge								Sampler's Signature								Date/Time				August 14, 2017			
Emergency (1 Business Day) - 100% surcharge																							
For Emergency <1 Day, ASAP or Weekend - Contact ALS																							

END OF REPORT



Acute Toxicity Test Results

Sample collected August 14, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_20170814 _N/ 1617-1475-02	14-Aug-17 at 0900h	15-Aug-17 at 0940h	16-Aug-17 at 1515h	15-Aug-17 at 1500h	15-Aug-17 at 1500h	7°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170814_N	7°C	1220	313

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170814_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170814_N	0	100

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
	Rainbow trout	None	None
WL_BFWB_OUT_SP21_20170814_N	<i>Daphnia magna</i>	Precipitate observed in the 20°C test	Precipitate observed on carapace in 20°C test

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.8 (2.2-3.2) g/L KCl ¹	5.3 (5.0-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.3-3.7) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	8.3%	5.7%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, August 14, 2017; ² Test Date August 15, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In-house culture
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	15 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR2S

Client TEC164

Reference 1617-1475-02

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:	7.6
0	20170816	1515	* FP/ALGS	1	LC	Initial EC (µS/cm):	2110
1	20170817	0900	AP	-	LC	Initial DO (mg/L):	8.8
2	20170818	0845	EP	-	HS	Initial Temp (°C):	20.4
3	20170819	1115	SS	-	HS	Salinity (ppt):	2
4	20170820	0930	CA	1	HS	Nets used: yes /	no

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L : yes / no

Preaeration time

0.5 hours	1 hour	1.5 hours	2 hours
8.8			

DO(mg/L) of 100%

Test Chemistry and Biology

Conc.	CTL	100				
-------	-----	-----	--	--	--	--

8.0 AP

pH (units) (range: 5.5-8.5)

Day 0	7.9	7.8				
Day 4	8.1	8.1				

EC (µS/cm)

Day 0	417	2170				
Day 4	430	1868				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.5	8.7				
Day 4	8.6	8.9				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	15.4	15.1				
Day 4	14.9	14.7				

Number Alive (In brackets number stressed)

Day 0	10	10				
Day 1	10	10				
Day 2	10	10				
Day 3	10	10				
Day 4	10	10				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	2.6	0.2	20170713TR	In house
2	2.7	0.3		
3	2.7	0.3		
4	2.7	0.3		
5	2.6	0.3		
6	2.8	0.3		
7	2.7	0.3		
8	2.6	0.3		
9	2.7	0.3		
10	2.8	0.3		
Loading Density (g/L):			0.193	Source
Mean Length (cm):			2.7	Days Held
Length Range (cm):			2.6-2.8	Percent stock mortality
Mean Weight (g):			0.3	(7 days prior to test, must be ≤ 2%)
Weight Range (g):			0.2-0.3	Test Volume (L)
15L				
Comments :				

Method DAS 20 deg

 Client TEC164

 Reference 1617-1475-02
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/15	1500	HS/SS/GB	3	LC	7.6	2110	8.8	20.4	2
1	2017/08/16	0945	FP/AY	-	HS					
2	2017/08/17	1015	FP/SS	3	HS					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C			

day

	pH (units) (range: 6.0-8.5)								
0	7.9	7.9	7.9	7.5	7.5	7.5			
2	7.9	7.9	7.9	7.9	7.9	7.9			

	EC (µS/cm)								
0	704	328	329	2110	2170	2190			
2	336	338	357	1993	2050	2110			

	DO (mg/L) (40-100% saturation at test temp.)								
0	7.9	7.9	7.9	7.9	7.9	8.0			
2	7.6	7.6	7.6	7.8	7.8	7.8			

	Temperature (°C) (range: 17.5-22.5 °C)								
0	20.1	20.1	20.1	20.0	20.0	20.1			
2	20.9	20.9	20.9	20.7	20.7	20.5			

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10(2I)	10(2I)			
2	10	10	10	10(10I)	10(10I)	10(10I)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>D3</u>	Jar(s) mortality 7 days prior to test (must be ≤25%)	<u>0</u>
QA (previous month)	Days to first brood (≤12 days) <u>7</u>	Average number of young produced (≥15 young)	<u>18</u>
	Were test treatments randomized on test tray?	<input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>100</u>	Is aeration required (<40% or >100%)?	Yes or <input checked="" type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing	Yes or <input checked="" type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>1220</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)?	Yes or <input checked="" type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L)	<u>-</u>	
Dilution Water	Pail label / preparation date <u>E 09/11</u>	Weekly water hardness (mg/L)	<u>89</u>
Comments:	In glass jars	no ppt	at 0 hrs
	24 hour updates	ppt	at 48 hrs
			daphnids coated in dark debris

Method DAS @ 10 deg

Client TEC164

Reference 1617-1475-02

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information
0	2017/08/15	1500	HS/SS/CS	3	LC	Initial pH: <u>7.6</u>
1	2017/08/16	0945	EP/AM	-	HS	Initial EC (µS/cm): <u>2110</u>
2	2017/08/17	1015	EP/CS	3	HS	Initial DO (mg/L): <u>8.8</u>
						Initial Temp (°C): <u>20.4</u>
						Salinity (ppt): <u>2</u>
Lab Code	CTLA	CTLB	CTLC	100 A	100 B	100 C

day

	pH (units) (range: 6.0-8.5)					
0	8.0	7.9	7.9	7.5	7.5	7.5
2	7.7	7.7	7.7	8.1	8.1	8.1

	EC (µS/cm)					
0	320	332	332	2060	2170	2180
2	328	339	341	2210	2180	2200

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.8	9.8	9.8	9.8	9.8	9.8
2	9.6	9.6	9.6	9.6	9.7	9.7

	Temperature (°C) (range: 17.5-22.5 °C)					
0	10.2	10.1	10.1	10.2	10.1	10.1
2	11.0	11.0	11.1	11.0	11.0	11.0

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>01/05</u>	Jar(s) mortality 7 days prior to test (must be ≤25%)	<u>3.5</u>
QA (previous month)	Days to first brood (≤12 days)	<u>7</u>	
	Average number of young produced (≥15 young)	<u>18</u>	
	Were test treatments randomized on test tray?	<input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration:	<u>100</u>	Is aeration required (<40% or >100%)? <input type="radio"/> Yes or <input checked="" type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L):	<u>-</u>	Filtered with 110µm screen prior to testing <input type="radio"/> Yes or <input checked="" type="radio"/> No
	Hardness (mg CaCO3/L) of 100%:	<u>1220</u>	Is hardness adjustment required (<25 mg CaCO3/L)? <input type="radio"/> Yes or <input checked="" type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L)	<u>-</u>	
Dilution Water	Pail label / preparation date	<u>3 08/11</u>	Weekly water hardness (mg/L) <u>87</u>
Comments:	24 Hour Updates <u>no ppt</u> at 0 hrs		
	<u>no ppt</u> at 48 hrs		

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170814-Acute Toxicity

TURNAROUND TIME:

REGULAR

RUSH:

PROJECT/CLIENT INFO

LABORATORY

OTHER INFO

Facility Name / Job# WLC AWTF
 Project Manager Thomas Davidson
 Email Thomas.Davidson@teck.com
 Address 15 Km North HWY 43

Lab Name Nautilus Environmental
 Lab Contact Jacklyn Pool
 Email Jacklyn@NautilusEnvironmental.ca
 Address #4, 6125 - 12 Street SE

Report Delivery Formats
 Email 1: thomas.davidson@teck.com X X X
 Email 2: teckcoal@equisonline.com X X X
 Email 3: teckwclab@epcor.com X X X
 Email 4: Marty.Hafke@teck.com X X X
 Email 5: colin.lynch@teck.com X X X
 Email 6: michael.moore@teck.com X X X
 Email 7: jocelyn.traverse@teck.com X X X

City Sparwood Province BC
 Postal Code V0B 2G0 Country Canada

City Calgary Province AB
 Postal Code T2H 2K1 Country Canada

VPO 00473572

SAMPLE DETAILS

ANALYSIS REQUESTED

Filtered - F: Field, L: Lab, FL: Field & Lab, N: None

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS REQUESTED			
								NAUT_96Hr_RT_Single Concentration_Toxicity Test	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C	EXTRA
1617-1475 -01 LC_WTF_IN_20170813_NP	LC_WTF_IN	WS	N	13-Aug-17	9:00	G	3	X	X	X	
-02 WL_BFWB_OUT_SP21_20170814_N	WL_BFWB_OUT_SP21	WS	N	14-Aug-17	9:00	G	8	X	X	X	X

TRS
DAS
DAS10

J.C.
2017/08/15
09:40
7°C
Monitoin
5x 20L carboys, 8x 1L bottle
No S/No L

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS

RELINQUISHED BY/AFFILIATION

DATE/TIME

ACCEPTED BY/AFFILIATION

DATE/TIME

Good condition

NB OF BOTTLES RETURNED/DESCRIPTION

Regular (default) X
 Priority (2-3 business days) - 50% surcharge
 Emergency (1 Business Day) - 100% surcharge
 For Emergency <1 Day, ASAP or Weekend - Contact ALS

Sampler's Name
 Sampler's Signature

David Graham

Mobile #

Date/Time

August 14, 2017

END OF REPORT



Acute Toxicity Test Results

Samples collected August 21, 2017

Final Report - Revision 1

September 12, 2017

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170821_NP / 1617-1533-01	21-Aug-17 at 0900h	22-Aug-17 at 0850h	25-Aug-17 at 1500h	23-Aug-17 at 1515h	23-Aug-17 at 1515h	10°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170821_NP	10°C	1037	264

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170821_NP	100	100	60

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170821_NP	0	100

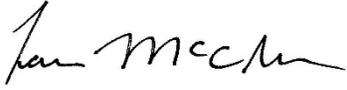
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170821_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the 20°C test	Precipitate observed in the 20°C test

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.8 (2.2-3.2) g/L KCl ¹	5.3 (5.0-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.3-3.7) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	8.3%	5.7%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, August 14, 2017; ² Test Date August 15, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In-house culture
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	15 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS Client TEC164 Reference 1617-1533-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/08/25	1500 *	CA	1	HS	Initial pH: <u>8.1</u>
1	2017/08/26	0845	FD	-	HS	Initial EC (µS/cm): <u>1931</u>
2	2017/08/27	1345	AF	-	SS	Initial DO (mg/L): <u>7.3</u>
3	2017/08/28	0957	CB	-	JW	Initial Temp (°C): <u>23.3</u>
4	2017/08/29	0900	FD	1	JW	Salinity (ppt): <u>0</u>
						Nets used: <input checked="" type="checkbox"/> / no

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100% 8.8

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.9</u>	<u>8.0</u>					
Day 4	<u>8.1</u>	<u>8.1</u>					

EC (µS/cm)

Day 0	<u>403</u>	<u>1956</u>					
Day 4	<u>420</u>	<u>1978</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.7</u>	<u>8.8</u>					
Day 4	<u>8.7</u>	<u>8.6</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.6</u>	<u>14.3</u>					
Day 4	<u>15.1</u>	<u>15.2</u>					

Number Alive (In brackets number stressed)

Day 0	<u>12</u>	<u>(0)</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.9</u>	<u>0.3</u>	Loading Density (g/L): <u>0.18</u>	Batch <u>20170713TR</u>
2	<u>2.9</u>	<u>0.3</u>		Source <u>In house</u>
3	<u>2.8</u>	<u>0.3</u>	Mean Length (cm): <u>2.9</u>	Days Held <u>42</u>
4	<u>2.9</u>	<u>0.3</u>		Percent stock mortality <u>0</u> (7 days prior to test, must be ≤2%)
5	<u>3.0</u>	<u>0.3</u>	Length Range (cm): <u>2.6-3.0</u>	
6	<u>3.0</u>	<u>0.3</u>		
7	<u>2.8</u>	<u>0.3</u>	Mean Weight (g): <u>0.3</u>	
8	<u>2.6</u>	<u>0.3</u>	Weight Range (g): <u>0.2-0.3</u>	
9	<u>2.8</u>	<u>0.3</u>		
10	<u>2.8</u>	<u>0.3</u>		

Comments:

Method DAS @ 10 deg

Client TEC164

Reference 1617-1533-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/23	1515	RS/EP	3	CO	8.1	1931	7.3	23.8	0
1	2017/08/24	0900	EP	-	CO					
2	2017/08/25	1100	EP	3	CO					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day

	pH (units) (range: 6.0-8.5)					
0	7.9	7.9	7.9	7.8	7.8	7.8
2	8.1	8.1	8.1	8.2	8.3	8.3

	EC (µS/cm)					
0	325	326	322	2130	2140	2160
2	335	336	336	2200	2190	2190

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.7	9.7	9.7	9.8	9.8	9.7
2	9.6	9.6	9.6	9.6	9.6	9.6

	Temperature (°C) (range: 17.5-22.5 °C)					
0	10.0	10.0	10.0	10.0	9.9	10.0
2	10.9	10.8	10.8	10.8	10.8	10.8

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar 02/03 Jar(s) mortality 7 days prior to test (must be ≤25%) 0/1

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 29.0
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 99.1 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1037 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date X: 08/18 Weekly water hardness (mg/L) 80

Comments:
 24 Hour Updates
 no ppt at 0 hrs
 no ppt at 48 hrs

Method DAS 20 deg

 Client TEC164

 Reference 1617-1533-01
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	2017/08/23	1515	HS/EP	3	OK	Initial pH:	8.1
1	2017/08/24	0900	EP	-	OK	Initial EC (µS/cm):	1931
2	2017/08/25	1100	EP	3	OK	Initial DO (mg/L):	7.3
						Initial Temp (°C):	23.8
						Salinity (ppt):	0
Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C	

day 7.9 EP pH (units) (range: 6.0-8.5)

0	8.0	7.9	7.9	7.9	8.0	8.0			
2	8.0	8.0	8.0	8.0	8.1	8.1			

325 EP 322 EP EC (µS/cm)

0	334	326	329	2160	2180	2190			
2	333	334	331	2210	2200	2240			

7.7 DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.7	7.7	7.7	7.7	7.7			
2	7.8	7.8	7.8	7.8	7.8	7.8			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.5	20.4	20.4	20.6	20.7	20.7			
2	20.6	20.4	20.3	20.3	20.3	20.7			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10(F)	10(F)	10(F)			
2	10	10	10	6(F)	7(F)	5(F)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	
Young jar <u>DAPS</u> <u>ca/03 EP</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	
Days to first brood (≤12 days)	<u>8</u>
Average number of young produced (≥15 young)	<u>23</u>
Were test treatments randomized on test tray?	(Yes) / No
Sample	
DO % of sample prior to aeration: <u>100</u>	Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing Yes or No
Hardness (mg CaCO ₃ /L) of 100%: <u>1037</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L)	<u>-</u>
Dilution Water	
Pail label / preparation date <u>x 08/18</u>	Weekly water hardness (mg/L) <u>80</u>
Comments:	
In glass jars	<u>no ppt</u> at 0 hrs
24 hour updates	at 48 hrs <u>surfacial ppt + daphnids covered in dark debris</u>

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected August 21, 2017

Final Report – Revision 1

September 12, 2017

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_20170821 _N / 1617-1533-02	21-Aug-17 at 0900h	22-Aug-17 at 0850h	25-Aug-17 at 1500h	23-Aug-17 at 1515h	23-Aug-17 at 1515h	10°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170821_N	10°C	1097	189

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170821_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170821_N	0	100

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170821_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the 20°C test	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.8 (2.2-3.2) g/L KCl ¹	5.3 (5.0-5.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.3-3.7) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	8.3%	5.7%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, August 14, 2017; ² Test Date August 15, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In-house culture
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	15 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS

Client TEC164

Reference 1617-1533-02

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/08/25	1600 *	CA	1	HS
1	2017/08/26	0830	ES	-	HS
2	2017/08/27	1145	AP	-	SS
3	2017/08/28	0937	CB	-	JW
4	2017/08/29	0900	ES	1	JW

Initial pH:	<u>8.0</u>
Initial EC (µS/cm):	<u>1967</u>
Initial DO (mg/L):	<u>7.3</u>
Initial Temp (°C):	<u>22.8</u>
Salinity (ppt):	<u>2</u>
Nets used: yes / no	<u>no</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L : yes/no

Preaeration time	0.5 hours	1 hour	1.5 hours	2 hours
DO(mg/L) of 100%	<u>8.7</u>			

Test Chemistry and Biology

Conc.	CTL	<u>10.0</u>					
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pH (units) (range: 5.5-8.5)

Day 0	<u>7.9</u>	<u>7.9</u>					
Day 4	<u>8.1</u>	<u>8.1</u>					

EC (uS/cm)

Day 0	<u>403</u>	<u>2200</u>					
Day 4	<u>425</u>	<u>2180</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.7</u>	<u>8.7</u>					
Day 4	<u>8.6</u>	<u>8.6</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.6</u>	<u>14.6</u>					
Day 4	<u>15.0</u>	<u>15.0</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>2.9</u>	<u>0.3</u>	<u>20170713TR</u>	
2	<u>2.0</u>	<u>0.3</u>	Source	<u>In house</u>
3	<u>2.8</u>	<u>0.2</u>	Days Held	<u>42</u>
4	<u>2.9</u>	<u>0.3</u>	Percent stock mortality	<u>0.1</u>
5	<u>3.0</u>	<u>0.3</u>	(7 days prior to test, must be ≤ 2%)	
6	<u>3.0</u>	<u>0.3</u>	Test Volume (L)	<u>15L</u>
7	<u>2.8</u>	<u>0.3</u>		
8	<u>2.6</u>	<u>0.2</u>		
9	<u>2.8</u>	<u>0.2</u>		
10	<u>2.8</u>	<u>0.3</u>		
Loading Density (g/L):			<u>0.18</u>	
Mean Length (cm):			<u>2.9</u>	
Length Range (cm):			<u>2.6-3.0</u>	
Mean Weight (g):			<u>0.3</u>	
Weight Range (g):			<u>0.2-0.3</u>	
Comments :				

Method DAS @ 10 deg

Client TEC164

Reference 1617-1535-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/23	1515	EP/HS	J	ca	8.1	1931	19.67	23.8	0.2
1	2017/08/24	0900	EP	J	ca					
2	2017/08/25	1100	EP	J	ca					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day	pH (units) (range: 6.0-8.5)					
0	7.9	7.9	7.9	7.9	7.8	7.8
2	8.1	8.1	8.1	8.0	8.0	8.0

	EC (µS/cm)					
0	325	326	322	2170	2170	2190
2	335	337	340	2210	2240	2050

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.7	9.7	9.7	9.8	9.7	9.8
2	9.6	9.6	9.6	9.7	9.7	9.7

	Temperature (°C) (range: 17.5-22.5 °C)					
0	10.0	10.0	10.0	10.0	10.0	10.0
2	10.8	10.8	10.8	10.8	10.8	10.8

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>1D8/1D3</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>7</u>	Average number of young produced (≥15 young) <u>24.0</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes // <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>99%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>—</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO3/L) of 100%: <u>1097</u>	Is hardness adjustment required (<25 mg CaCO3/L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) <u>—</u>	
Dilution Water	Pail label / preparation date <u>X:08/18</u>	Weekly water hardness (mg/L) <u>80</u>
Comments:	24 Hour Updates <u>no ppt at 0 hrs</u> <u>no ppt at 48 hrs</u>	

Method DAS 20 deg

Client TEC164

Reference 1617-1533-02

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review
0	2017/08/23	1575	HS/EP	3	CA
1	2017/08/24	0900	EP	-	CA
2	2017/08/25	1100	EP	3	CA

Sample Information

Initial pH:	<u>8.0</u>
Initial EC (µS/cm):	<u>1967</u>
Initial DO (mg/L):	<u>7.3</u>
Initial Temp (°C):	<u>23.8</u>
Salinity (ppt):	<u>2</u>

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	<u>8.0</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>
2	<u>8.1</u>	<u>8.1</u>	<u>8.1</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>

EC (µS/cm) 2200 EP

0	<u>334</u>	<u>326</u>	<u>329</u>	<u>2180</u>	<u>2100</u>	<u>202</u>
2	<u>337</u>	<u>328</u>	<u>340</u>	<u>2250</u>	<u>2260</u>	<u>2270</u>

DO (mg/L) (40-100% saturation at test temp.)

0	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>	<u>7.8</u>	<u>7.8</u>
2	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>

Temperature (°C) (range: 17.5-22.5 °C)

0	<u>20.5</u>	<u>20.4</u>	<u>20.3</u>	<u>20.5</u>	<u>20.4</u>	<u>20.4</u>
2	<u>20.4</u>	<u>20.4</u>	<u>20.4</u>	<u>20.5</u>	<u>20.5</u>	<u>20.5</u>

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10(SI,SD)</u>	<u>10(10I,8B)</u>	<u>10(10I,1D)</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10(10I)</u>	<u>10(10I)</u>	<u>10(10I)</u>

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar ca/03 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 23
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1097 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date X 08/18 Weekly water hardness (mg/L) 80

Comments: In glass jars no ppt at 0 hrs
 24 hour updates at 48 hrs superficial ppt + EP

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected August 21, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170821_NP / 1617-1534-01	21-Aug-17 at 0900h	22-Aug-17 at 0850h	24-Aug-17 at 1515h	10°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170821_NP	10°C	989	232

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (antiscalant)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170821_NP	100

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170821_NP	0

Precipitate observations

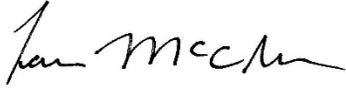
Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170821_NP	<i>Daphnia magna</i>	Precipitate observed in the test vessel	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.3 (5.0-5.5) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	5.7%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, August 15, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS 20 deg Antiscabonit

 Client TEC164

 Reference 1617-1534-01
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	2017/08/24	1575	RLCB	3	HS	Initial pH:	8.0
1	2017/08/25	1115	ED	-	HS	Initial EC (µS/cm):	1490
2	2017/08/26	1030	HS	3	HS	Initial DO (mg/L):	7.3
						Initial Temp (°C):	23.6
						Salinity (ppt):	1

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C			

day	pH (units) (range: 6.0-8.5)								
0	8.0	7.9	8.0	8.0	8.0	8.0			
2	7.9	7.9	7.9	8.3	8.3	8.3			

	EC (µS/cm)								
0	327	325	329	2130	2120	2130			
2	360	367	358	2330	2310	2310			

	DO (mg/L) (40-100% saturation at test temp.)								
0	7.9	8.0	8.0	8.0	8.0	8.1			
2	8.0	8.0	8.0	8.1	8.1	8.1			

	Temperature (°C) (range: 17.5-22.5 °C)								
0	20.5	20.4	20.4	20.6	20.6	20.5			
2	18.6	18.6	18.6	18.7	18.7	18.6			

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>E1</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>11</u>	Average number of young produced (≥15 young) <u>15.5</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>99%</u>	Is aeration required (<40% or >100%)? Yes or <input checked="" type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing Yes or <input checked="" type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>989</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? Yes or <input checked="" type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>X:08/18</u>	Weekly water hardness (mg/L) <u>80</u>
Comments:	In glass jars <u>no ppt</u> at 0 hrs 24 hour updates <u>white ppt</u> at 48 hrs	

APPENDIX C – Chain-of-custody form

Teck

COC ID:	20170821-Acute Toxicity-antiscalant	TURNAROUND TIME:	REGULAR	RUSH:	
PROJECT/CLIENT INFO			LABORATORY		OTHER INFO
Facility Name / Job#	WLC AWTF	Lab Name	Nautilus Environmental		Report Delivery Formats
Project Manager	Thomas Davidson	Lab Contact	Jacklyn Pool		Email 1: thomas.davidson@teck.com
Email	Thomas.Davidson@teck.com	Email	Jacklyn@NautilusEnvironmental.ca		Email 2: teckcoal@equisonline.com
Address	15 Km North HWY 43	Address	#4, 6125 - 12 Street SE		Email 3: teckwclab@epcor.com
City	Sparwood	City	Calgary	Province	AB
Postal Code	V0B 2G0	Postal Code	T2H 2K1	Country	Canada
Phone Number	250.603.9417	Phone Number	+1.403.253.7121		VPO 00473572

SAMPLE DETAILS								ANALYSIS REQUESTED				Filtered - F: Field, L: Lab, FL: Field & Lab, N: None				
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_48hr_DM_Single Concentration_Toxicity Test @ 20C + Antiscalant								
1617-1534																
LC_WTF_IN_20170821_NP - 01	LC_WTF_IN	WS	N	21-Aug-17	9:00	G	1	X								
WL_BFWB_OUT_SP21_20170821_N - 02	WL_BFWB_OUT_SP21	WS	N	21-Aug-17	9:00	G	1	X								

OAS - Antiscalant

*J.C.
2017/08/22
08:50
10°C
Manitowlin
5x 20L carboy
4x 1L bottle
No S/No L
Good condition*

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION				
Regular (default)	X	Sampler's Name	Relda Akkerman	Mobile #
Priority (2-3 business days) - 50% surcharge		Sampler's Signature		Date/Time
Emergency (1 Business Day) - 100% surcharge				August 21, 2017
For Emergency <1 Day, ASAP or Weekend - Contact ALS				

END OF REPORT



Acute Toxicity Test Results

Samples collected August 21, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_20170821_N / 1617-1534-02	21-Aug-17 at 0900h	22-Aug-17 at 0850h	24-Aug-17 at 1515h	10°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170821_N	10°C	1214	231

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (antiscalant)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	<i>Daphnia magna</i> 20°C	
WL_BFWB_OUT_SP21_20170821_N	100	

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 20°C	
WL_BFWB_OUT_SP21_20170821_N	0	

Precipitate observations

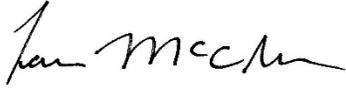
Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170821_N	<i>Daphnia magna</i>	Precipitate observed in the test vessel	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.3 (5.0-5.5) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	5.7%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, August 15, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS 20 deg Antiscabnt

Client TEC164

Reference 1617-1534-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/04	1515	EP/LB	3	HS	7.9	2100	7.3	23.8	1
1	2017/08/05	1115	HS	-	HS					
2	2017/08/26	1030	HS	3	HS					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	8.0	7.9	8.0	7.9	7.9	7.9			
2	7.9	7.9	7.9	8.3	8.3	8.3			

EC (µS/cm)

0	327	325	329	2190	2190	2200			
2	360	367	358	2080	2360	2420			

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	8.0	8.0	7.9	7.9	8.0			
2	8.0	8.0	8.0	8.1	8.1	8.1			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.5	20.4	20.4	20.7	20.7	20.6			
2	18.6	18.6	18.6	19.0	19.0	18.9			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar E1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 11
 Average number of young produced (≥15 young) 15.5
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 99% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1214 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date X:08/18 Weekly water hardness (mg/L) 80

Comments:
 In glass jars no ppt at 0 hrs
 24 hour updates white ppt at 48 hrs

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected August 28, 2017

Final Report – Revision 1

September 29, 2017

Submitted to: **Teck Coal Ltd.**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170828_NP / 1617-1582-01	28-Aug-17 at 0900h	30-Aug-17 at 1446h	01-Sep-17 at 1200h	31-Aug-17 at 1430h	31-Aug-17 at 1430h	15°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170828_NP	15°C	965	256

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170828_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170828_NP	0	93

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170828_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the 20°C test	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.9 (2.4-3.3) g/L KCl ¹	5.7 (5.3-6.1) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.3-3.8) g/L KCl	4.9 (4.1-5.9) g/L NaCl
Reference toxicant CV	8.4%	5.8%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, September 1, 2017; ² Test Date August 29, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	15 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR5 Client TFC164 Reference 1617-1582-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/09/01	1200*	EP	1	HS
1	2017/09/02	0905	JW	-	HS
2	2017/09/03	1100	AP	-	SS
3	2017/09/04	0900	LC	-	SS
4	2017/09/05	0500	AP	1	JW

Sample Information

Initial pH: 8.0
Initial EC (µS/cm): 1987
Initial DO (mg/L): 7.5
Initial Temp (°C): 23.0
Salinity (ppt): 2
Nets used: yes / 10

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L yes/no
Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
DO(mg/L) of 100%: 8.5

Test Chemistry and Biology

Conc. CTL 100

7.6 pH (units) (range: 5.5-8.5)
Day 0 7.8 7.8
Day 4 8.1 8.0

EC (uS/cm)
Day 0 422 2110
Day 4 466 1839

DO (mg/L) (70-100% saturation at test temp.)
Day 0 8.6 8.5
Day 4 8.8 8.8

Temperature (°C) (range: 13.5-16.5 °C)
Day 0 14.4 14.9
Day 4 14.9 14.8

Number Alive (In brackets number stressed)
Day 0 10 10
Day 1 10 10
Day 2 10 10
Day 3 10 10
Day 4 10 10

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.9</u>	<u>0.4</u>	Loading Density (g/L): <u>0.17</u> Mean Length (cm): <u>2.7</u> Length Range (cm): <u>2.6-2.9</u> Mean Weight (g): <u>0.3</u> Weight Range (g): <u>0.2-0.4</u>	Batch <u>20170815TR</u>
2	<u>2.8</u>	<u>0.3</u>		Source <u>LSC</u>
3	<u>2.8</u>	<u>0.3</u>		Days Held <u>14</u>
4	<u>2.7</u>	<u>0.2</u>		Percent stock mortality (7 days prior to test, must be ≤2%) <u>0</u>
5	<u>2.9</u>	<u>0.3</u>		Test Volume (L) <u>15</u>
6	<u>2.8</u>	<u>0.3</u>		
7	<u>2.6</u>	<u>0.2</u>		
8	<u>2.7</u>	<u>0.2</u>		
9	<u>2.6</u>	<u>0.2</u>		
10	<u>2.6</u>	<u>0.2</u>		

Comments :

Method DAS @ 10 deg

Client TEC164

Reference ¹⁶⁷ 1582-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/31	1430	AP/SS	3	HS	8.0	1987	7.5	23.0	2
1	2017/09/01	0915	HS	-	HS					
2	2017/09/02	0900	HS	3	JW					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day

	pH (units) (range: 6.0-8.5)					
0	7.9	7.9	7.9	7.5	7.6	7.6
2	7.9	8.0	8.0	7.7	7.7	7.7

	EC (uS/cm)					
0	314	320	323	1994	2085	2060
2	320	324	325	2000	2060	2060

9.6 AP

	DO (mg/L) (40-100% saturation at test temp.)					
0	10.9	9.6	9.7	9.6	9.6	9.6
2	9.7	9.7	9.7	9.7	9.7	9.7

10.9 AP

	Temperature (°C) (range: 17.5-22.5 °C)					
0	9.6	10.9	10.8	10.9	10.9	10.9
2	10.1	10.1	10.2	10.1	10.1	10.1

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 36.8
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 40% 100 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20min Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 965 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date D: 08/26 Weekly water hardness (mg/L) 85

Comments:
 24 Hour Updates at 0 hrs no ppt.
 at 48 hrs no ppt

Method DAS20

 Client TEC164

 Reference 1617-1582-01
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/31	1430	SS/AP	3	HS	8.0	1987	7.5	23.0	2
1	2017/09/01	0915	HS	-	HS					
2	2017/09/02	0900	HS	3	JW					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 A

day	pH (units) (range: 6.0-8.5)					
0	7.8	7.8	7.8	7.6	7.6	7.6
2	8.0	8.0	8.0	8.1	8.1	8.1

day	EC (µS/cm)					
0	320	320	323	2060	2090	2090
2	353	348	347	1993	1951	1959

day	DO (mg/L) (40-100% saturation at test temp.)					
0	7.9	7.9	7.9	7.9	7.9	7.9
2	7.7	7.7	7.7	7.8	7.8	7.8

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	20.5	20.5	20.5	20.9	20.9	20.9
2	19.8	19.8	19.7	19.9	19.9	19.89

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10(F)	10
2	10	10	10	10 (9F)	10 (10F)	10 (10F)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C1</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0</u>
QA (previous month)	Days to first brood (≤12 days) <u>9</u>	Average number of young produced (≥15 young) <u>36.8</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>100</u>	Is aeration required (<40% or >100%)? <input type="radio"/> Yes or <input checked="" type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>965</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input type="radio"/> Yes or <input checked="" type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>P: 08/26</u>	Weekly water hardness (mg/L) <u>85</u>
Comments:	Observations: 0h: no ppt. 48h: white ppt	

APPENDIX C – Chain-of-custody form

COC ID: 20170828-AcuteToxicity		TURNAROUND TIME: REGULAR		RUSH:														
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO												
Facility Name / Job# WLC AWTF				Lab Name Nautilus Environmental		Report Delivery Formats												
Project Manager Thomas Davidson				Lab Contact Jacklyn Pool		Excel	PDF	EDD										
Email Thomas.Davidson@teck.com				Email Jacklyn@NautilusEnvironmental.ca		Email 1: thomas.davidson@teck.com	X	X	X									
Address 15 Km North HWY 43				Address #4, 6125 - 12 Street SE		Email 2: teckcoal@equisonline.com			X									
City Sparwood Province BC				City Calgary Province AB		Email 3: teckwclab@epcor.com	X	X	X									
Postal Code V0B 2G0 Country Canada				Postal Code T2H 2K1 Country Canada		Email 4: Marty.HaKe@teck.com	X	X	X									
Phone Number 250.603.9417				Phone Number +1.403.253.7121		Email 5: colin.lynch@teck.com			X									
						Email 6: michael.moore@teck.com	X	X	X									
						Email 7: jocelyn.traverse@teck.com	X	X	X									
						VPO 00473572												
SAMPLE DETAILS					ANALYSIS REQUESTED													
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96hr_RT_Single Concentration_Toxicity Test	NAUT_48hr_DM_Single Concentration_Toxicity Test @ 10C	NAUT_48hr_DM_Single Concentration_Toxicity Test @ 20C	EXTRA							
LC_WTF_IN_20170828_NP - 01	LC_WTF_IN	WS	N	28-Aug-17	9:00	G	3	X	X	X								
WL_BFWB_OUT_SP21_20170828_N - 02	WL_BFWB_OUT_SP21	WS	N	28-Aug-17	9:00	G	8	X	X	X	X							
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS					RELINQUISHED BY/AFFILIATION		DATE/TIME	ACCEPTED BY/AFFILIATION		DATE/TIME								
NB OF BOTTLES RETURNED/DESCRIPTION																		
Regular (default) X					Priority (2-3 business days) - 50% surcharge					Emergency (1 Business Day) - 100% surcharge								
For Emergency <1 Day, ASAP or Weekend - Contact ALS					Sampler's Name David Graham					Mobile #								
					Sampler's Signature					Date/Time August 28, 2017								

J.C.
 2017/08/30
 2:45 14:46
 15°C
 Manitowlin
 6x 20L carboy, 8x 1L bottle
 No S/No I.
 Good condition

END OF REPORT



Acute Toxicity Test Results

Samples collected August 28, 2017

Final Report – Revision 1

September 29, 2017

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_20170828 _N / 1617-1582-02	28-Aug-17 at 0900h	30-Aug-17 at 1446h	01-Sep-17 at 1200h	31-Aug-17 at 1430h	31-Aug-17 at 1430h	15°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170828_N	15°C	1212	230

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170828_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170828_N	0	100

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170828_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the 20°C test	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.9 (2.4-3.3) g/L KCl ¹	5.7 (5.3-6.1) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.3-3.8) g/L KCl	4.9 (4.1-5.9) g/L NaCl
Reference toxicant CV	8.4%	5.8%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, September 1, 2017; ² Test Date August 29, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	15 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method FRS

Client TEC164

Reference 1617-K8202

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/09/04	0900*	ED	1	HS
1	2017/09/04	0905	JW	-	HS
2	2017/09/03	1700	AP	-	SS
3	2017/09/04	0900	LC	-	SS
4	2017/09/05	0800	AP	1	JW

Sample Information

Initial pH:	7.8
Initial EC (µS/cm):	1951
Initial DO (mg/L):	7.3
Initial Temp (°C):	22.9
Salinity (ppt):	5
Nets used: yes / no	no

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L (yes/no) yes

Preaeration time	0.5 hours	1 hour	1.5 hours	2 hours
DO(mg/L) of 100%	8.7			

Test Chemistry and Biology

Conc.	CTL	100				
-------	-----	-----	--	--	--	--

pH (units) (range: 5.5-8.5)

Day 0	7.6	7.8				
Day 4	8.7	8.1				

EC (µS/cm)

Day 0	477	2460				
Day 4	466	894				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.6	8.7				
Day 4	8.8	8.8				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	14.4	14.6				
Day 4	14.9	14.9				

Number Alive (In brackets number stressed)

Day 0	10	10				
Day 1	10	10				
Day 2	10	10				
Day 3	10	10				
Day 4	10	10				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	2.9	0.4	20170318TK	
2	2.8	0.3	Source	LSL
3	2.8	0.3	Days Held	14
4	2.7	0.2	Percent stock mortality (7 days prior to test, must be ≤2%)	0
5	2.9	0.3	Test Volume (L)	15
6	2.5	0.3		
7	2.6	0.2		
8	2.7	0.2		
9	2.6	0.2		
10	2.6	0.2		
Loading Density (g/L):			0.17	
Mean Length (cm):			2.7	
Length Range (cm):			2.6-2.9	
Mean Weight (g):			0.3	
Weight Range (g):			0.2-0.4	
Comments :				

Method DAS 10 Deg

Client TEC 164

Reference 1617-1582-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/31	1430	AP/SS	3	HS	7.8	1951	7.3	22.9	5
1	2017/09/01	0915	ED	-	HS					
2	2017/09/02	0900	HS	3	JW					

Lab Code	CTL A	CTL B	CTLC	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)						
0	7.9	7.9	7.9	7.5	7.5	7.5	
2	7.9	8.0	8.0	7.6	7.6	7.7	

	EC (uS/cm)						
0	314	320	323	2970	2090	2090	
2	320	324	325	2040 AP	2080	2100	

	DO (mg/L) (40-100% saturation at test temp.)						
0	9.6	9.6	9.7	10.6	9.6	9.6	
2	9.7	9.7	9.7	9.7	9.7	9.7	

	Temperature (°C) (range: 17.5-22.5 °C)						
0	10.9	10.9	10.8	10.8	10.8	10.9	
2	10.1	10.8	10.2	10.2	10.2	10.2	

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)						
0	10	10	10	10	10	10	
1	10	10	10	10	10	10	
2	10	10	10	10	10	10	

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar a Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 36.8
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 109 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20min Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1212 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date D:08/26 Weekly water hardness (mg/L) 85

Comments:
 0h: no ppt.
 45h: no ppt

Method DAS20

Client TEC164

Reference 1617-1582-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/31	1430	SS/AP	3	HS	7.8	1951	7.3	22.9	5
1	2017/09/01	0915	HS	-	HS					
2	2017/09/02	0900	HS	3	SW					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 A

day

	pH (units) (range: 6.0-8.5)					
0	7.8	7.8	7.8	7.6	7.6	7.6
2	8.0	8.0	8.0	8.1	8.0	8.0

	EC (µS/cm)					
0	320	320	322	2100	2090	2100
2	353	348	347	1926	1964	1986

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.9	7.9	7.9	7.9	7.9	7.9
2	7.7	7.7	7.7	7.8	7.8	7.8

	Temperature (°C) (range: 17.5-22.5 °C)					
0	20.5	20.5	20.5	20.9	21.0	21.0
2	19.8	19.8	19.7	20.1	20.2	20.1

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10 (1F, 1D)	10 (1F)	10 (2F)
2	10	10	10	10 (10F)	10 (10F)	10 (10F)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar 01 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 36.8
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1212 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date D: 08/26 Weekly water hardness (mg/L) 85

Comments: Observations: 0h: no ppt
 48h: white ppt

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170828-AcuteToxicity		TURNAROUND TIME: REGULAR		RUSH:														
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO												
Facility Name / Job# WLC AWTF				Lab Name Nautilus Environmental		Report Delivery Formats												
Project Manager Thomas Davidson				Lab Contact Jacklyn Pool		Excel	PDF	EDD										
Email Thomas.Davidson@teck.com				Email Jacklyn@NautilusEnvironmental.ca		Email 1: thomas.davidson@teck.com	X	X	X									
Address 15 Km North HWY 43				Address #4, 6125 - 12 Street SE		Email 2: teckcoal@equisonline.com	X	X	X									
City Sparwood Province BC				City Calgary Province AB		Email 3: teckwclab@epcor.com	X	X	X									
Postal Code V0B 2G0 Country Canada				Postal Code T2H 2K1 Country Canada		Email 4: Marty.HaKe@teck.com	X	X	X									
Phone Number 250.603.9417				Phone Number +1.403.253.7121		Email 5: colin.lynch@teck.com	X	X	X									
						Email 6: michael.moore@teck.com	X	X	X									
						Email 7: jocelyn.traverse@teck.com	X	X	X									
						VPO 00473572												
SAMPLE DETAILS				ANALYSIS REQUESTED					Filtered - F: Field, L: Lab, FL: Field & Lab, N: None									
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96hr_RT_Single Concentration_Toxicity Test	NAUT_48hr_DM_Single Concentration_Toxicity Test @ 10C	NAUT_48hr_DM_Single Concentration_Toxicity Test @ 20C	EXTRA							
1617-1582 LC_WTF_IN_20170828_NP - 01	LC_WTF_IN	WS	N	28-Aug-17	9:00	G	3	X	X	X								
WL_BFWB_OUT_SP21_20170828_N - 02	WL_BFWB_OUT_SP21	WS	N	28-Aug-17	9:00	G	8	X	X	X	X							
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME								
										J.C. 2017/08/30 2:45 14:46 15°C Manitowlin 6x 20L carboy, 8x 1L bottle No S/No I. Good condition								
NB OF BOTTLES RETURNED/DESCRIPTION				Sampler's Name		Mobile #		Sampler's Signature		Date/Time								
Regular (default) X				David Graham						August 28, 2017								
Priority (2-3 business days) - 50% surcharge																		
Emergency (1 Business Day) - 100% surcharge																		
For Emergency <1 Day, ASAP or Weekend - Contact ALS																		

END OF REPORT



Acute Toxicity Test Results

Sample collected August 28, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170828_NP / 1617-1583-01	28-Aug-17 at 0900h	30-Aug-17 at 1446h	31-Aug-17 at 1445h	15°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170828_NP	15°C	965	256

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	<i>Daphnia magna</i> 20°C	
LC_WTF_IN_20170828_NP	100	

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 20°C	
LC_WTF_IN_20170828_NP	0	

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170828_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.7 (5.3-6.1) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-5.9) g/L NaCl
Reference toxicant CV	5.8%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, August 29, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS20 Antiscalant

Client TEC164

Reference 1583-01
1617-1583-01/95

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/31	1445	SS/AP	3	HS	8.0	1987	7.5	23.0	2
1	2017/09/01	0915	HS	-	HS					
2	2017/09/02	0900	HS	3	JW					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 A

day pH (units) (range: 6.0-8.5)

0	7.8	8.0	8.0	8.1	8.2	8.2			
2	7.9	8.0	8.0	8.2	8.3	8.3			

EC (uS/cm)

0	301	304	328	1927	1969	1993			
2	339	344	340	1940	1945	1990			

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.8	7.8	7.9	7.8	7.8			
2	7.8	7.8	7.8	7.8	7.8	7.8			

Temperature (°C) (range: 17.5-22.5 °C)

0	21.1	21.0	20.9	21.1	21.0	21.2			
2	19.9	19.9	19.9	19.8	19.9	20.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar 0 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 36.8
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 110 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 965 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date D:08/26 Weekly water hardness (mg/L) 85

Comments: Observations: 0h: no ppt, 48h: no ppt

APPENDIX C – Chain-of-custody form

COC ID: **20170828-AcuteToxicity-antiscalant**

TURNAROUND TIME:

REGULAR

RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO						
Facility Name / Job#	WLC AWTF			Lab Name	Nautilus Environmental			Report Delivery Formats			Excel	PDF	EDD	
Project Manager	Thomas Davidson			Lab Contact	Jacklyn Pool			Email 1:	thomas.davidson@teck.com			X	X	X
Email	Thomas.Davidson@teck.com			Email	Jacklyn@NautilusEnvironmental.ca			Email 2:	teckcoal@equisonline.com			X	X	X
Address	15 Km North HWY 43			Address	#4, 6125 - 12 Street SE			Email 3:	teckwclab@epcor.com			X	X	X
								Email 4:	Marty.Hafke@teck.com			X	X	X
City	Sparwood	Province	BC	City	Calgary	Province	AB	Email 5:	colin.lynch@teck.com			X	X	X
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada	Email 6:	michael.moore@teck.com			X	X	X
Phone Number	250.603.9417			Phone Number	+1.403.253.7121			Email 7:	jocelyn.traverse@teck.com			X	X	X
								VPO 00473572						

SAMPLE DETAILS								ANALYSIS REQUESTED							
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	PH	PH	PH	PH	PH	PH	PH	PH
LC_WTF_IN_20170828_NP -01	LC_WTF_IN	WS	N	28-Aug-17	9:00	G	1	N	N	N	N	N	N	N	N
WL_BFWB_OUT_SP21_20170828_N -02	WL_BFWB_OUT_SP21	WS	N	28-Aug-17	9:00	G	1	N	N	N	N	N	N	N	N

J.C.
 2017/08/30
 14:46
 15°C
 Manitoulin
 5 x 20 L carboy, 8 x 1 L bottle
 No S/No Z
 Good Condition

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name	Mobile #
Regular (default)	X	David Graham	
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge			
For Emergency <1 Day, ASAP or Weekend - Contact ALS			
		Sampler's Signature	Date/Time
			August 28, 2017

END OF REPORT



Acute Toxicity Test Results

Sample collected August 28, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_20170828_N / 1617-1583-02	28-Aug-17 at 0900h	30-Aug-17 at 1446h	31-Aug-17 at 1445h	15°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170828_N	15°C	1212	230

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample <i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170828_N	100

Sample ID	Percent Immobility in 100 (% v/v) <i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170828_N	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170828_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.7 (5.3-6.1) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-5.9) g/L NaCl
Reference toxicant CV	5.8%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, August 29, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS20 Antiscalant

 Client TEC164

 Reference 1583-02
~~+5 1617-1583-02~~₉₅
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/08/31	1445	SS/AP	3	HS	7.8	1951	7.3	22.9	5
1	2017/09/01	0915	HS	-	HS					
2	2017/09/02	0900	HS	3	JW					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 A

day	pH (units) (range: 6.0-8.5)					
0	7.8	8.0	8.0	8.1	8.1	8.1
2	7.9	8.0	8.0	8.1	8.1	8.1

day	EC (µS/cm)					
0	321	324	328	2080	2090	20200
2	339	344	340	2040	2040	2050

day	DO (mg/L) (40-100% saturation at test temp.)					
0	7.7	7.8	7.8	7.7	7.7	7.8
2	7.8	7.8	7.8	7.8	7.8	7.8

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	21.1	21.0	20.9	21.3	21.3	21.1
2	19.9	19.9	19.9	20.0	20.1	20.0

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C1</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0</u>
QA (previous month)	Days to first brood (≤12 days) <u>9</u>	Average number of young produced (≥15 young) <u>36.8</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>109</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>20min</u>	Filtered with 110um screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO3/L) of 100%: <u>1212</u>	Is hardness adjustment required (<25 mg CaCO3/L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>D:08/26</u>	Weekly water hardness (mg/L) <u>85</u>
Comments:	Observations: 0h: no ppt. 48h: no ppt.	

APPENDIX C – Chain-of-custody form

COC ID: **20170828-AcuteToxicity-antiscalant** TURNAROUND TIME: REGULAR RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO						
Facility Name / Job#	WLC AWTF			Lab Name	Nautilus Environmental			Report Delivery Formats			Excel	PDF	EDD	
Project Manager	Thomas Davidson			Lab Contact	Jacklyn Pool			Email 1:	thomas.davidson@teck.com			X	X	X
Email	Thomas.Davidson@teck.com			Email	Jacklyn@NautilusEnvironmental.ca			Email 2:	teckcoal@equisonline.com			X	X	X
Address	15 Km North HWY 43			Address	#4, 6125 - 12 Street SE			Email 3:	teckwlab@epcor.com			X	X	X
								Email 4:	Marty.Hafke@teck.com			X	X	X
City	Sparwood	Province	BC	City	Calgary	Province	AB	Email 5:	colin.lynch@teck.com			X	X	X
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada	Email 6:	michael.moore@teck.com			X	X	X
Phone Number	250.603.9417			Phone Number	+1.403.253.7121			Email 7:	jocelyn.traverse@teck.com			X	X	X
								VPO 00473572						

SAMPLE DETAILS **ANALYSIS REQUESTED** Filtered - F: Field, L: Lab, FL: Field & Lab, N: None

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	PHI	PRESERV.	ANALYSIS								
LC_WTF_IN_20170828_NP -01	LC_WTF_IN	WS	N	28-Aug-17	9:00	G	1	N	N	NAUT 48hr DM Single Concentration Toxicity Test @ 20C + Antiscalant	X							
WL_BFWB_OUT_SP21_20170828_N -02	WL_BFWB_OUT_SP21	WS	N	28-Aug-17	9:00	G	1	N	N	NAUT 48hr DM Single Concentration Toxicity Test @ 20C + Antiscalant	X							

J.C.
 2017/08/30
 14:46
 15°C
 Manitoulin
 5 x 20L carboy, 8 x 1L bottle
 No S/No Z
 Good Condition

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name	Mobile #
Regular (default)	X	David Graham	
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge			
For Emergency <1 Day, ASAP or Weekend - Contact ALS			
		Sampler's Signature	Date/Time
			August 28, 2017

END OF REPORT



Acute Toxicity Test Results

Samples collected September 5, 2017

Final Report – Revision 1

October 19, 2017

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170905_NP / 1718-0030-01	5-Sept-17 at 0900h	6-Sept-17 at 1100h	7-Sept-17 at 1245h	7-Sept-17 at 1430h	7-Sept-17 at 1430h	7.4°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO3)	Alkalinity (mg/L CaCO3)
LC_WTF_IN_20170905_NP	7.4°C	1640	249

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170905_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170905_NP	0	97

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170905_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the 20°C test	Precipitate observed in the 20°C test

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.8 (3.3-4.4) g/L KCl ¹	5.7 (5.3-6.1) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.3-3.8) g/L KCl	4.9 (4.1-5.9) g/L NaCl
Reference toxicant CV	8.3%	5.8%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, September 3, 2017; ² Test Date August 29, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Claudio Quinteros
Laboratory Technical Lead



Reviewed By:
Leila Oosterbroek, BSc
Environmental Scientist

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method FRS Client TEC164 Reference 1718-0030-01

Test Log						Sample Information	
Day	Date	Time	Initial	Chem. Cart	Daily Data Review		
0	2017/09/07	1245 *	FD	1	CA	Initial pH:	8.0
1	2017/09/08	0800	AF	-	JW	Initial EC (µS/cm):	2130
2	2017/09/09	1200	10	-	HS	Initial DO (mg/L):	9.4
3	2017/09/10	0845	AP	-	SS	Initial Temp (°C):	19.9
4	2017/09/11	1100	GP	1	CA	Salinity (ppt):	2
						Nets used: yes / no	no

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L : yes / no

Preaeration time

0.5 hours	1 hour	1.5 hours	2 hours
8.7			

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	7.6	7.6					
Day 4	8.2	8.1					

EC (uS/cm)

Day 0	459	2230					
Day 4	470	1887					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.7	8.7					
Day 4	8.8	8.8					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	15.1	14.9					
Day 4	14.7	14.6					

Number Alive (In brackets number stressed)

Day 0	10	10					
Day 1	10	10					
Day 2	10	16					
Day 3	10	10					
Day 4	10	10					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	3.0	0.3	Loading Density (g/L): <u>0.15</u> Mean Length (cm): <u>2.9</u> Length Range (cm): <u>2.8-3.0</u> Mean Weight (g): <u>0.3</u> Weight Range (g): <u>0.2-0.3</u>	Batch <u>20170820TR</u>
2	2.8	0.3		Source <u>Sam. L</u>
3	2.9	0.3		Days Held <u>16</u>
4	3.0	0.3		Percent stock mortality <u>0-1</u> (7 days prior to test, must be ≤2%)
5	2.9	0.3		
6	3.0	0.3		
7	3.0	0.3		
8	2.9	0.3		
9	2.8	0.2		
10	2.8	0.3		Test Volume (L) <u>200</u>
Comments :				

Method DAS @ 10 deg

Client TEC164

Reference 1718-0030-C1

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/07	1430	JW/AP	3	FP	8.0	2130	9.4	1640	2
1	2017/09/08	1100	ED/CIS	-	JW				19.9	
2	2017/09/09	1200	HS/JW	3	HS					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	7.9	7.9	7.9	7.3	7.3	7.3			
2	7.9	7.8	7.8	8.2	8.2	8.2			

EC (µS/cm)

0	362	348	341	2100	2120	2148			
2	331	333	335	1960	2070	2080			

DO (mg/L) (40-100% saturation at test temp.)

0	9.6	9.6	9.6	9.6	9.6	9.6			
2	9.6	9.7	9.7	9.6	9.6	9.7			

Temperature (°C) (range: 17.5-22.5 °C)

0	10.4	10.6	10.6	10.6	10.5	10.5			
2	10.1	10.2	10.2	10.2	10.2	10.1			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D2, D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 3.51

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 48.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 111% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 30 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1640 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date G:09/01 Weekly water hardness (mg/L) 87

Comments:
 24 Hour Updates at 0hrs: no ppt
 In glass jars at 48hrs: no ppt

Method DAS @ 20 deg

Client TEC164

Reference 1718-0030-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/07	1430	SW/AP	3	RD	8.0	2130	9.4	19.9	2
1	2017/09/08	1100	EPL/US	-	JW					
2	2017/09/09	1200	HS/JW	3	HS					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	7.9	7.9	7.9	8.2	8.2	8.2	8.8 HS			
2	7.9	7.9	8.0	8.1	8.1	8.0				

EC (uS/cm)

0	302	329	331	2070	2070	1985	1985 HS			
2	326	325	330	1702	1735	1746				

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	7.9	7.9	7.9	7.9 HS			
2	7.8	7.8	7.7	7.8	7.8	7.9				

Temperature (°C) (range: 17.5-22.5 °C)

0	20.3	20.4	20.3	20.5	20.4	20.6	20.6 HS			
2	20.4	20.4	20.3	20.4	20.4	20.3				

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10				
1	10	10	10	10 (4F)	10	10 (6D)				
2	10	10	10	10 (9±)	10 (10)	10 (10)				

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar DS Jar(s) mortality 7 days prior to test (must be ≤25%) 71.

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 48.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 111. Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1640 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date G:09/01 Weekly water hardness (mg/L) 87

Comments:
 24 Hour Updates In glass jars at 0hrs: no ppt
 at 48hrs: white ppt; daphnids covered in debris

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected September 5, 2017

Final Report – Revision 1

October 19, 2017

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_20170905 _N / 1718-0030-02	5-Sept-17 at 0900h	6-Sept-17 at 1100h	7-Sept-17 at 1245h	7-Sept-17 at 1430h	7-Sept-17 at 1430h	8.0°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170905_N	8.0°C	1500	368

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170905_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170905_N	0	63

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170905_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the 20°C test	Precipitate observed in the 20°C test

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.8 (3.3-4.4) g/L KCl ¹	5.7 (5.3-6.1) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.3-3.8) g/L KCl	4.9 (4.1-5.9) g/L NaCl
Reference toxicant CV	8.3%	5.8%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, September 3, 2017; ² Test Date August 29, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Claudio Quinteros
Laboratory Technical Lead



Reviewed By:
Leila Oosterbroek, BSc
Environmental Scientist

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR5 Client TFC164 Reference 1718-0030-02

Test Log						Sample Information	
Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:	
0	2017/09/07	1245*	AP	1	CL	8.0	
1	2017/09/08	0800	AP	-	JW	Initial EC (µS/cm):	2180
2	2017/09/09	1200	SW	-	HS	Initial DO (mg/L):	9.0
3	2017/09/10	0845	AP	-	SS	Initial Temp (°C):	20.0
4	2017/09/11	1100	AP	-	CL	Salinity (ppt):	0
						Nets used: yes / no	(no)

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.6

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.3</u>	<u>7.6</u>					
Day 4	<u>8.2</u>	<u>8.2</u>					

EC (uS/cm)

Day 0	<u>440</u>	<u>2050</u>					
Day 4	<u>480</u>	<u>2140</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.5</u>	<u>8.6</u>					
Day 4	<u>8.8</u>	<u>8.8</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.1</u>	<u>15.0</u>					
Day 4	<u>14.7</u>	<u>14.8</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>3.0</u>	<u>0.3</u>	Loading Density (g/L): <u>0.14</u> Mean Length (cm): <u>2.9</u> Length Range (cm): <u>2.7-3.0</u> Mean Weight (g): <u>0.3</u> Weight Range (g): <u>0.2-0.3</u>	Batch <u>20170822TR</u>
2	<u>3.1</u>	<u>0.3</u>		Source <u>Sam. L</u>
3	<u>3.0</u>	<u>0.3</u>		Days Held <u>16</u>
4	<u>2.8</u>	<u>0.3</u>		Percent stock mortality <u>0%</u> <small>(7 days prior to test, must be ≤ 2%)</small> Test Volume (L) <u>20L</u>
5	<u>2.8</u>	<u>0.3</u>		
6	<u>2.7</u>	<u>0.2</u>		
7	<u>2.8</u>	<u>0.2</u>		
8	<u>2.7</u>	<u>0.2</u>		
9	<u>2.8</u>	<u>0.3</u>		
10	<u>2.9</u>	<u>0.3</u>		
Comments :				

Method DAS @ 20 deg

 Client TEC164

 Reference 1718-0030-02
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information		
0	2017/09/07	1430	JW/AB	3	E	Initial pH:	8.0	
1	2017/09/08	1100	EP/CS	-	JW	Initial EC (µS/cm):	2180	
2	2017/09/09	1200	HS/JW	3	HS	Initial DO (mg/L):	9.0	
						Initial Temp (°C):	20.2	
						Salinity (ppt):	2	

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day

	pH (units) (range: 6.0-8.5)					
0	7.9	7.9	7.9	7.6	7.6	7.6
2	7.9	7.9	8.0	8.0	8.0	8.0

	EC (µS/cm)					
0	302	329	331	2130	2130	2100
2	320	325	330	1927	1937	1954

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.9	7.9	7.9	8.2	8.2	8.2
2	7.8	7.8	7.7	7.8	7.9	7.9

	Temperature (°C) (range: 17.5-22.5 °C)					
0	20.3	20.4	20.3	20.6	20.7	20.7
2	20.4	20.4	20.3	20.3	20.3	20.3

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10 (IF)	10 (IF)	10 (IF)
2	10	10	10	10 (IF)	10 (IF)	10 (IF)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar DS Jar(s) mortality 7 days prior to test (must be ≤25%) 71

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 48.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 113.1 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 30 min Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1500 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) —

Dilution Water
 Pail label / preparation date G:09/01 Weekly water hardness (mg/L) 87

Comments:
 24 Hour Updates In glass jars at 0hrs: no ppt
 at 48hrs: white ppt; daphnids covered in debris

Method DAS @ 10 deg

 Client TEC164

 Reference 1718-0030-02
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information			
0	2017/09/16	1430	JW/AP	3	JP	Initial pH:	8.0		
1	2017/09/18	1100	EP/CB	-	JW	Initial EC (µS/cm):	2180		
2	2017/09/19	1200	HS/JW	3	HS	Initial DO (mg/L):	9.0		
						Initial Temp (°C):	20.2		
						Salinity (ppt):	2		
Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C			

day AP pH (units) (range: 6.0-8.5)

0	7.9	7.9	7.9	7.4	7.4	7.4			
2	7.9	7.8	7.8	8.0	8.1	8.1			

EC (µS/cm)

0	362	340	341	2200	2200	2190			
2	331	333	355	2070	2100	2120			

DO (mg/L) (40-100% saturation at test temp.)

0	9.6	9.6	9.6	9.6	9.6	9.6			
2	9.6	9.7	9.7	9.6	9.6	9.7			

Temperature (°C) (range: 17.5-22.5 °C)

0	10.4	10.6	10.6	10.5	10.5	10.4			
2	10.1	10.2	10.2	10.1	10.1	10.2			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	
Young jar <u>D2, D4</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>3.5%</u>
QA (previous month)	
Days to first brood (≤12 days) <u>9</u>	
Average number of young produced (≥15 young) <u>46.3</u>	
Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	
DO % of sample prior to aeration: <u>100</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
Duration of aeration (37.5 +/- 12.5 mL/min/L): _____	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
Hardness (mg CaCO ₃ /L) of 100%: <u>1500</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	
Pail label / preparation date <u>C1:09/01</u>	Weekly water hardness (mg/L) <u>87</u>
Comments:	
24 Hour Updates	at 0hrs: <u>no ppt</u>
In glass jars	at 48hrs: <u>no ppt</u>

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected September 5, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170905_NP / 1718-0031-01	5-Sept-17 at 0900h	6-Sept-17 at 1100h	7-Sept-17 at 1430h	7.1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170905_NP	7.1°C	1640	249

TEST TYPES

- Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample <i>Daphnia magna</i> 20°C
LC_WTF_IN_20170905_NP	100

Sample ID	Percent Immobility in 100 (% v/v) <i>Daphnia magna</i> 20°C
LC_WTF_IN_20170905_NP	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170905_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.7 (5.3-6.1) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-5.9) g/L NaCl
Reference toxicant CV	5.8%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, August 29, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Claudio Quinteros
Laboratory Technical Lead



Reviewed By:
Leila Oosterbroek, BSc
Environmental Scientist

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS Anti-Scalant

 Client TEC164

 Reference 1718-0031-01
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/07	1430	JW/ABP	3	12	8.0	2130	9.4	19.9	2
1	2017/09/08	1100	EP/CBS	-	JW					
2	2017/09/09	1200	HS/JW	3	HS					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day	pH (units) (range: 6.0-8.5)					
0	7.9	8.0	8.0	8.2	8.2	8.2
2	8.0	8.0	8.0	8.5	8.5	8.5

day	EC (µS/cm)					
0	341	341	338	1999	2100	2090
2	334	335	335	1909	1926	1949

day	DO (mg/L) (40-100% saturation at test temp.)					
0	7.9	7.9	7.9	7.9	7.9	7.9
2	7.8	7.7	7.7	7.7	7.8	7.8

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	20.4	20.4	20.4	20.7	20.7	20.7
2	20.4	20.4	20.3	20.4	20.3	20.3

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

 Young jar D5 Jar(s) mortality 7 days prior to test (must be ≤25%) 71.
QA (previous month)

 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 48.3
 Were test treatments randomized on test tray? Yes / No

Sample

 DO % of sample prior to aeration: 113.7. Is aeration required (<40% or >100%)? **Yes or No**
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing **Yes or No**
 Hardness (mg CaCO₃/L) of 100%: 1640 Is hardness adjustment required (<25 mg CaCO₃/L)? **Yes or No**
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -
Dilution Water

 Pail label / preparation date 9-09/01 Weekly water hardness (mg/L) 87
Comments: 24 Hour Updates at 0hrs: no ppt
 In glass jars at 48hrs: no ppt

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected September 5, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_20170905_N / 1718-0031-02	5-Sept-17 at 0900h	6-Sept-17 at 1100h	7-Sept-17 at 1430h	8.5°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170905_N	8.5°C	1500	368

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	<i>Daphnia magna</i> 20°C	
WL_BFWB_OUT_SP21_20170905_N	100	

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 20°C	
WL_BFWB_OUT_SP21_20170905_N	0	

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170905_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.7 (5.3-6.1) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-5.9) g/L NaCl
Reference toxicant CV	5.8%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, August 29, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Claudio Quinteros
Laboratory Technical Lead



Reviewed By:
Leila Oosterbroek, BSc
Environmental Scientist

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS Anti-Scalant

 Client TEC164

 Reference 1718-0031-02
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	8.0
0	2017/09/07	1430	JWIAP	3	JP	Initial EC (µS/cm):	2180
1	2017/09/08	1100	EP/CLB	-	JP	Initial DO (mg/L):	9.0
2	2017/09/09	1200	HSOW	3	HS	Initial Temp (°C):	20.2
						Salinity (ppt):	2

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day

pH (units) (range: 6.0-8.5)

0	7.9	8.0	8.0	8.1	8.1	8.1			
2	8.0	8.0	8.0	8.5	8.5	8.5			

EC (µS/cm)

0	341	341	338	2080	2130	2140			
2	334	335	335	1980	1994	1912			

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	7.9	7.9	7.9			
2	7.8	7.7	7.7	7.7	7.8	7.9			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.4	20.4	20.4	20.6	20.5	20.5			
2	20.4	20.4	20.3	20.4	20.4	20.4			

Number Alive

(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

 Young jar D5

Jar(s) mortality 7 days prior to test (must be ≤25%)

71.
QA (previous month)

 Days to first brood (≤12 days) 9

 Average number of young produced (≥15 young) 48.3

 Were test treatments randomized on test tray? Yes / No

Sample

 DO % of sample prior to aeration: 109.7. Is aeration required (<40% or >100%)? Yes or No

 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes or No

 Hardness (mg CaCO₃/L) of 100%: 1500 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No

 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -
Dilution Water

 Pail label / preparation date G:09/01

 Weekly water hardness (mg/L) 87
Comments:

24 Hour Updates

 at 0hrs: no ppt

In glass jars

 at 48hrs: no ppt

APPENDIX C – Chain-of-custody form

Teck

COC ID: **20170905-Acute Toxicity-antiscalant**

TURNAROUND TIME:

REGULAR

RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO						
Facility Name / Job#	WLC AWTF			Lab Name	Nautilus Environmental			Report Delivery Formats			Excel	PDF	EDD	
Project Manager	Thomas Davidson			Lab Contact	Jacklyn Pool			Email 1:	thomas.davidson@teck.com			X	X	X
Email	Thomas.Davidson@teck.com			Email	Jacklyn@NautilusEnvironmental.ca			Email 2:	teckcoal@equisonline.com			X	X	X
Address	15 Km North HWY 43			Address	#4, 6125 - 12 Street SE			Email 3:	teckwclab@epcor.com			X	X	X
City	Sparwood	Province	BC	City	Calgary	Province	AB	Email 4:	Marty.Hafke@teck.com			X	X	X
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada	Email 5:	colin.lynch@teck.com			X	X	X
Phone Number	250.603.9417			Phone Number	+1.403.253.7121			Email 6:	michael.moore@teck.com			X	X	X
								Email 7:	jocelyn.traverse@teck.com			X	X	X
									VPO 00473572					

SAMPLE DETAILS								ANALYSIS REQUESTED									
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	PH	PRESERV.	ANALYSIS							
20170916 1100 TWIAP Mantoulin No S/I 2 x 1L bottles good condition																	
LC_WTF_IN_20170905_NP	LC_WTF_IN	WS	N	5-Sep-17	9:00	G	1	X		NAUT_48hr_DM_Single Concentration Toxicity Test @ 20C + Antiscalant	7.1 PC	1718-0031-01					
WL_BFWB_OUT_SP21_20170905_N	WL_BFWB_OUT_SP21	WS	N	5-Sep-17	9:00	G	1	X			8.5 PC	1718-0031-02					

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #	Date/Time
Regular (default) X	Relda Arkerman		September 5, 2017
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge			
For Emergency < 1 Day, ASAP or Weekend - Contact ALS			

END OF REPORT



Acute Toxicity Test Results

Samples collected September 12, 2017

Final Report – Revision 1

October 19, 2017

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170912 _NP / 1718-0106-01	12-Sept-17 at 0900h	13-Sept-17 at 0945h	14-Sept-17 at 1130h	13-Sept-17 at 1510h	13-Sept-17 at 1510h	7.4°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170912_NP	7.4°C	1983	320

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170912_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170912_NP	0	27

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170912_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the 20°C test	Precipitate observed in the 20°C test

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.8 (3.3-4.4) g/L KCl ¹	5.9 (5.4-6.4) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.3-3.8) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	8.4%	5.8%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, September 3, 2017; ² Test Date September 11, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Claudio Quinteros
Laboratory Technical Lead



Reviewed By:
Leila Oosterbroek, BSc
Environmental Scientist

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	15 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS Client TECIBU Reference 1718-0106-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/09/14	1130 *	SS	1	HS
1	2017/09/15	0900	CR	-	HS
2	2017/09/16	1300	HS	-	FW
3	2017/09/17	0930	AP	-	EP
4	2017/09/18	0930	AP	1	FW

Sample Information

Initial pH:	7.8
Initial EC (µS/cm):	2070
Initial DO (mg/L):	9.7
Initial Temp (°C):	17.2
Salinity (ppt):	3
Nets used: yes /	(10)

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100%:

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	7.6	7.8				
Day 4	8.0	8.1				

EC (uS/cm)

Day 0	388	2190				
Day 4	424	1956				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.7	9.0				
Day 4	8.6	8.9				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	15.0	14.7				
Day 4	14.9	14.5				

Number Alive (In brackets number stressed)

Day 0	10	10				
Day 1	10	10				
Day 2	10	10				
Day 3	10	10				
Day 4	10	10				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	<u>20170822 TR</u>
1	3.2	0.3	Source	<u>Sam Livingston</u>
2	3.0	0.3	Days Held	<u>23</u>
3	3.1	0.2	Percent stock mortality	<u>0</u>
4	3.5	0.2	(7 days prior to test, must be ≤2%)	
5	3.4	0.3	Test Volume (L)	<u>15</u>
6	3.8	0.4		
7	3.9	0.4		
8	3.2	0.24		
9	3.4	0.24		
10	3.4	0.3		
Loading Density (g/L):			<u>0.15</u>	
Mean Length (cm):			<u>3.3</u>	
Length Range (cm):			<u>3.0-3.9</u>	
Mean Weight (g):			<u>0.3</u>	
Weight Range (g):			<u>0.2-0.4</u>	

Comments :

24 hour updates

Method DAS @ 10 deg

Client TEC164

Reference 1718- 0106-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/13	1510	JW/AP	3	SS	7.8	2030	9.7	17.2	2
1	2017/09/14	0930	AP/SS	-	HS					
2	2017/09/15	1145	ED	3	ca					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day

	pH (units) (range: 6.0-8.5)					
0	7.8	7.9	7.9	7.9	8.0	8.0
2	8.0	8.0	8.0	8.1	8.0	8.2

	EC (uS/cm)					
0	325	347	350	2180	2210	2210
2	358	365	370	2150	2290	2240

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.6	9.6	9.6	9.7	9.7	9.7
2	9.5	9.5	9.5	9.5	9.4	9.4

	Temperature (°C) (range: 17.5-22.5 °C)					
0	10.7	10.7	10.7	10.9	10.9	10.9
2	11.1	11.0	11.0	11.0	11.0	11.0

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar E3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 0
 Average number of young produced (≥15 young) 34.0
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 123% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 36 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G:02/08 Weekly water hardness (mg/L) 111

Comments:
 24 Hour Updates at 0hrs: no ppt
 In glass jars at 48hrs: ↓

Method DAS @ 20 deg

Client TEC164

Reference 1718-0106-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/13	1510	JW/AP	3	SS	7.8	2070	9.7	17.2	3
1	2017/09/14	0930	AP/SS	-	HS					
2	2017/09/15	0930	GP/UB	3	a					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day

	pH (units) (range: 6.0-8.5)					
0	8.0	8.0	8.0	8.0	8.1	8.1
2	7.8	7.8	7.8	7.8	7.8	7.9

	EC (µS/cm)					
0	339	352	353	2160	2196	2190
2	375	384	385	2010	2070	2160

	DO (mg/L) (40-100% saturation at test temp.)					
0	8.0	8.0	8.0	8.3	8.3	8.2
2	7.9	8.0	7.9	7.8	7.9	7.9

	Temperature (°C) (range: 17.5-22.5 °C)					
0	19.9	19.9	19.9	19.4	19.3	19.3
2	19.9	19.9	19.9	19.8	20.1	20.0

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10(2B)	10(2F, 1D)	10(1D)
2	10	10	10	10(1F)	10(3F, 4E, 2D)	10(4D, 3F)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar E3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 34.0
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 129% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 320 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G:09/18 Weekly water hardness (mg/L) 111

Comments:
 24 Hour Updates In glass jars at 0hrs: no ppt
 at 48hrs: surfacial ppt w/ daphnids trapped in stringy debris

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170912-Acute Toxicity		TURNAROUND TIME: REGULAR		RUSH:							
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO					
Facility Name / Job# WLC AWTF		Lab Name Nautilus Environmental		Report Delivery Formats		Excel	PDF	EDD			
Project Manager Thomas Davidson		Lab Contact Jacklyn Pool		Email 1: thomas.davidson@teck.com		X	X	X			
Email Thomas.Davidson@teck.com		Email Jacklyn@NautilusEnvironmental.ca		Email 2: teckcoal@equisonline.com				X			
Address 15 Km North HWY 43		Address #4, 6125 - 12 Street SE		Email 3: teckwclab@epcor.com		X	X	X			
City Sparwood Province BC		City Calgary Province AB		Email 4: Marty.Hafke@teck.com		X	X	X			
Postal Code V0B 2G0 Country Canada		Postal Code T2H 2K1 Country Canada		Email 5: colin.lynch@teck.com				X			
Phone Number 250.603.9417		Phone Number +1.403.253.7121		Email 6: michael.moore@teck.com		X	X	X			
				Email 7: jocelyn.traverse@teck.com		X	X	X			
SAMPLE DETAILS				ANALYSIS REQUESTED							
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	FIL N N N N PRESERV. N N N N ANALYSIS NAUT_96Hr_RT_Single_Concentration_Toxicity Test NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C EXTRA	AP 2017/09/13 0945 7.40C 3x 1L bottles + 3x 20L culb bags N 1/5 good condition puralator		
LC_WTF_IN_20170912_NP	LC_WTF_IN	WS	N	12-Sep-17	9:00	G	3	X X X			
WL_BFWB_OUT_SP21_20170912_N	WL_BFWB_OUT_SP21	WS	N	12-Sep-17	9:00	G	8	X X X X			
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
NB OF BOTTLES RETURNED/DESCRIPTION				Sampler's Name		Mobile #		Sampler's Signature		Date/Time	
Regular (default) X				Adam Kelly						September 12, 2017	
Priority (2-3 business days) - 50% surcharge											
Emergency (1 Business Day) - 100% surcharge											
For Emergency <1 Day, ASAP or Weekend - Contact ALS											

END OF REPORT



Acute Toxicity Test Results

Samples collected September 12, 2017

Final Report – Revision 1

October 19, 2017

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Collected	Received	Dates			Receipt temperature
			Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_ 20170912_N / 1718-0106-02	12-Sept-17 at 0900h	13-Sept-17 at 0945h	14-Sept-17 at 1130h	13-Sept-17 at 1510h	13-Sept-17 at 1510h	7.4°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170912_N	7.4°C	1328	247

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170912_N	100	100	73

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170912_N	0	97

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20170912_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the 20°C test	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.8 (3.3-4.4) g/L KCl ¹	5.9 (5.4-6.4) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.3-3.8) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	8.4%	5.8%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, September 3, 2017; ² Test Date September 11, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Claudio Quinteros
Laboratory Technical Lead



Reviewed By:
Leila Oosterbroek, BSc
Environmental Scientist

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	15 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS @ 10 deg

Client TEC164

Reference 1718-0106-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/13	1510	JW/MP	3	SS	7.7	2180	9.5	12.6	3
1	2017/09/14	0930	AS/SS	-	HS					
2	2017/09/15	1145	ED	3	Q					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day

	pH (units) (range: 6.0-8.5)					
0	7.8	7.9	7.9	7.7	7.7	7.7
2	8.0	8.1	8.1	8.2	8.2	8.2

	EC (uS/cm)					
0	325	347	356	2240	2270	2260
2	353	366	370	2150	2240	2240

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.6	9.6	9.6	9.6	9.6	9.6
2	9.6	9.6	9.7	9.7	9.7	9.7

	Temperature (°C) (range: 17.5-22.5 °C)					
0	10.7	10.7	10.7	10.9	11.0	11.0
2	11.0	11.0	11.0	11.1	11.1	11.1

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar E3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 34.0
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 117% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 132.8 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G:09/08 Weekly water hardness (mg/L) 111

Comments: 24 Hour Updates at 0hrs: nopp
 in glass jars at 48hrs: ↓

Method DAS @ 20 deg

 Client TEC164

 Reference 1718- 0106-02
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/13	1510	JW/IMP	3	SS	7.7	2180	9.5	17.6	3
1	2017/09/14	0930	AP/SS	-	HJ					
2	2017/09/15	0945	EP/LB	3	a					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day	pH (units) (range: 6.0-8.5)					
0	8.0	8.0	8.0	8.1	8.1	8.1
2	7.8	7.8	7.5	7.8	7.8	7.8

day	EC (µS/cm)					
0	339	357	353	2200	2240	2250
2	375	384	385	2090	2160	2160

day	DO (mg/L) (40-100% saturation at test temp.)					
0	8.0	8.0	8.0	8.3	8.4	8.4
2	7.9	7.9	7.9	7.9	7.9	7.9

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	19.9	19.9	19.9	18.8	18.6	18.6
2	19.9	19.9	19.9	20.1	20.1	20.1

day	Number Alive					
	(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10 (6F, 2D)	10 (5F, 1D)	
2	10	10	10	9 (8F)	7 (7F)	6 (6F)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>E3</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>9</u>	Average number of young produced (≥15 young) <u>34.0</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>118%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>20 mins</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>132.8</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>G-09/08</u>	Weekly water hardness (mg/L) <u>111</u>
Comments:	24 Hour Updates In glass jars	at 0hrs: <u>no ppt</u> at 48hrs: <u>sufficial ppt</u>

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170912-AcuteToxicity		TURNAROUND TIME:		REGULAR		RUSH:																
PROJECT/CLIENT INFO				LABORATORY				OTHER INFO														
Facility Name / Job# WLC AWTF				Lab Name Nautilus Environmental		Report Delivery Formats			Excel	PDF	EDD											
Project Manager Thomas Davidson				Lab Contact Jacklyn Pool		Email 1: thomas.davidson@teck.com			X	X	X											
Email Thomas.Davidson@teck.com				Email Jacklyn@NautilusEnvironmental.ca		Email 2: teckcoal@equisonline.com																
Address 15 Km North HWY 43				Address #4, 6125 - 12 Street SE		Email 3: teckwclab@epcor.com			X	X	X											
City Sparwood				Province BC	City Calgary	Province AB	Email 4: Marty.Hafke@teck.com			X	X	X										
Postal Code V0B 2G0				Country Canada	Postal Code T2H 2K1	Country Canada	Email 5: colin.lynch@teck.com															
Phone Number 250.603.9417				Phone Number +1.403.253.7121		Email 6: michael.moore@teck.com			X	X	X											
							Email 7: jocelyn.traverse@teck.com			X	X	X										
VPO 00473572																						
SAMPLE DETAILS				ANALYSIS REQUESTED																		
				Filtered - F: Field, L: Lab, FL: Field & Lab, N: None																		
				HAZARDOUS MATERIAL (Yes/No)																		
Sample ID				Sample Location	Field Matrix	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C	EXTRA	AP 2017/09/13 0943 7.40C 3x 1L bottles + 3x 20L carboys N 1/5 good condition puralator								
LC_WTF_IN_20170912_NP				LC_WTF_IN	WS	12-Sep-17	9:00	G	3	X	X	X										
WL_BFWB_OUT_SP21_20170912_N				WL_BFWB_OUT_SP21	WS	12-Sep-17	9:00	G	8	X	X	X	X									
1718-0106-01																						
1718-0106-02																						
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION				DATE/TIME	ACCEPTED BY/AFFILIATION			DATE/TIME										
NB OF BOTTLES RETURNED/DESCRIPTION																						
Regular (default) X				Sampler's Name				Adam Kelly			Mobile #											
Priority (2-3 business days) - 50% surcharge				Sampler's Signature							Date/Time											
Emergency (1 Business Day) - 100% surcharge											September 12, 2017											
For Emergency <1 Day, ASAP or Weekend - Contact ALS																						

END OF REPORT



Acute Toxicity Test Results

Samples collected September 18, 2017

Final Report – Revision 1

October 19, 2017

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates				Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C, 20°C and Antiscalant test initiation	
LC_WTF_IN_201 70918_NP / 1718-0152-01	18-Sep-17 at 0900h	19-Sep-17 at 1250h	20-Sep-17 at 1500h	19-Sep-17 at 1500h	2.5°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170918_NP	2.5°C	1020	300

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample			
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C	<i>Daphnia magna</i> Antiscalant
LC_WTF_IN_20170918_NP	100	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)		
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C	<i>Daphnia magna</i> Antiscalant
LC_WTF_IN_20170918_NP	0	30	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170918_NP	Rainbow Trout	None	None
	<i>Daphnia magna</i>	Precipitate observed on the bottom of test vessel in 20 °C test	Precipitate observed on carapace in 20 °C test

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.9 (2.4-3.3) g/L KCl ¹	5.9 (5.4-6.4) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.3-3.8) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	8.4%	6.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date September 1, 2017; ² Test date September 11, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS Client TEC164 Reference 1718-0152-01

Test Log						Sample Information	
Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:	
0	2017/09/20	1500 *	SS	1	CA	7.5	
1	2017/09/21	1000	EP	-	SS	Initial EC (µS/cm):	2170
2	2017/09/22	1140	HS	-	AP	Initial DO (mg/L):	8.8
3	2017/09/23	0920	AP	-	SS	Initial Temp (°C):	13.5
4	2017/09/24	1130	HS	1	CA	Salinity (ppt):	3
						Nets used: yes / no	(no)

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time	0.5 hours	1 hour	1.5 hours	2 hours
DO(mg/L) of 100%	8.7			

Test Chemistry and Biology

Conc.	CTL	100					
-------	-----	-----	--	--	--	--	--

pH (units) (range: 5.5-8.5)

Day 0	7.6	7.5					
Day 4	7.7	7.7					

EC (µS/cm)

Day 0	420	2130					
Day 4	423	2090					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.6	8.7					
Day 4	8.7	8.7					

Temperature (°C) (range: 14-16°C)

Day 0	14.0	14.1					
Day 4	14.9	14.8					

Number Alive (In brackets number stressed)

Day 0	10	10					
Day 1	10	10					
Day 2	10	10					
Day 3	10	10					
Day 4	10	10					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	3.0	0.3	20170516TR	
2	3.0	0.3	Source	LSL
3	2.8	0.3	Mean Length (cm):	2.9
4	2.7	0.3	Length Range (cm):	2.7-3.1
5	2.9	0.3	Mean Weight (g):	0.3
6	3.1	0.4	(Must be ≥0.3g)	
7	3.0	0.3	Weight Range (g):	0.3-0.4
8	3.0	0.3	Batch	20170516TR
9	2.9	0.3	Source	LSL
10	3.0	0.3	Days Held	33
			Percent stock mortality (7 days prior to test, must be ≤2%)	0.28
			Test Volume (L)	20L

Comments:

Reviewed By: CA

Date Reviewed: 2017/09/29

Method DAS 30°C

Client TEC164

Reference 1718-0150-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/19	1500	SS/EP	3	JW	7.5	2170	8.8	13.5	3
1	2017/09/20	0940	AP/CS	-	JW					
2	2017/09/21	1150	JW/AP	3	LC					

Lab Code	CHA	CHB	CHC	IWA	IWB	IWC

day

	pH (units) (range: 6.0-8.5)					
0	7.7	7.7	7.7	7.7	7.7	7.7
2	7.7	7.6	7.6	7.8	7.7	7.9

	EC (µS/cm)					
0	346	349	355	2160	2190	2190
2	389	382	386	1980	2090	2160

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.8	7.8	7.9	8.3	8.3	8.3
2	7.7	7.7	7.7	7.8	7.8	7.8

	Temperature (°C) (range: 17.5-22.5 °C)					
0	19.0	19.0	19.1	18.0	17.9	17.9
2	19.9	19.9	19.9	19.5	19.6	19.6

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	5 (S)	5 (S)	5 (S)	10 (2I)	10 (2I)	15 (4I)
2	10	10	10	10 (2I)	10 (3I)	10 (4I)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 7%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 26.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 111 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1020 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date D:09113 Weekly water hardness (mg/L) 80

Comments:
Oh: no pet
Ush: very light film of white surficial ppt on IWC only.

Method DAS 10°C

Client TECL64

Reference 1718-0152-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/19	1:00	SSIEP	3	JW	7.5	2170	8.8	13.5	
1	2017/09/20	09:40	AP/CB	-	JW					
2	2017/09/21	12:00	JW/AP	3	LC					

Lab Code	CHA	CHB	CHC	IWA	IWB	IWC

day pH (units) (range: 6.0-8.5)

0	7.7	7.6	7.7	7.7	7.7				
2	7.6	7.5	7.5	8.0	8.0	8.0			

EC (uS/cm)

0	355	350	354	2100	2180	2140			
2	369	369	370	2070	2190	2280			

DO (mg/L) (40-100% saturation at test temp.)

0	9.4	9.4	9.4	9.5	9.5	9.2			
2	9.3	9.3	9.3	9.2	9.2	9.2			

Temperature (°C) (range: 17.5-22.5 °C)

0	10.9	10.8	10.8	10.8	10.8	10.8			
2	11.0	11.0	11.0	11.1	11.1	11.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 7%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 26.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 111 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20min Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1020 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date D:09/13 Weekly water hardness (mg/L) 80

Comments:
 Oh: no ppt
 48h: no ppt

APPENDIX C – Chain-of-custody form

Teck

Page 1 of

COG ID: **20170918-AcuteToxicity** TURNAROUND TIME: **REGULAR** RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO					
Facility Name / Job#	WLC AWTF			Lab Name	Nautilus Environmental			Report Delivery Formats			Excel	PDF	EDD
Project Manager	Thomas Davidson			Lab Contact	Jacklyn Pool			Email 1:	thomas.davidson@teck.com		X	X	X
Email	Thomas.Davidson@teck.com			Email	Jacklyn@NautilusEnvironmental.ca			Email 2:	teckcoal@equisonline.com		X	X	X
Address	15 Km North HWY 43			Address	#4, 6125 - 12 Street SE			Email 3:	teckwclab@epcor.com		X	X	X
City	Sparwood	Province	BC	City	Calgary	Province	AB	Email 4:	Marty.Hafke@teck.com		X	X	X
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada	Email 5:	colin.lynch@teck.com		X	X	X
Phone Number	250.603.9417			Phone Number	+1.403.253.7121			Email 6:	michael.moore@teck.com		X	X	X
								Email 7:	jocelyn.traverse@teck.com		X	X	X
													VPO 00473572

SAMPLE DETAILS								ANALYSIS REQUESTED						Filtered - F: Field, L: Lab, FL: Field & Lab, N: None				
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	FILE	PHOSPH.	ANALYSIS								
LC_WTF_IN_20170918_NP	LC_WTF_IN	WS	N	18-Sep-17	9:00	G	3	N	N	NAUT_96Hr_RT_Single_Concentration_Toxicity Test	X	X	X				2.5°C	
WL_BFWB_OUT_SP21_20170918_N	WL_BFWB_OUT_SP21	WS	N	18-Sep-17	9:00	G	8	N	N	NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C EXTRA	X	X	X	X				4.8°C

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name	Mobile #
Regular (default)	X	Reida Arkerman	
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge			
For Emergency <1 Day, ASAP or Weekend - Contact ALS		Sampler's Signature	Date/Time
			September 18, 2017

20170919 1250 SS
 Manitowin 5x20L
 8x1L
 N 2/5
 good condition

END OF REPORT



Acute Toxicity Test Results

Samples collected September 18, 2017

Final Report – Revision 1

October 19, 2017

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C, 20°C and Antiscalant test initiation	<i>Daphnia magna</i> TIE test initiation	
WL_BFWB_OUT_ SP21_20170918 _N/ 1718-0152-02	18-Sep-17 at 0900h	19-Sep-17 at 1250h	20-Sep-17 at 1500h	19-Sep-17 at 1500h	27-Sep-17 at 1521h/ 28-Sep-17 at 1600h	4.8°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170918_N	4.8°C	910	376

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)
- *Daphnia magna* 48-h multiple concentration LC50 test
- *Daphnia magna* 48-h single concentration screening test (antiscalant added)
- *Daphnia magna* 48-h TIE test round 1:
 - Adjusted to pH 5, spun and returned to initial pH
 - Adjusted to pH 10, filtered and returned to initial pH
- *Daphnia magna* 48-h TIE test round 2:
 - EDTA Treatment
 - C8-Column Treatment

RESULTS

Toxicity test results

Routine Testing (10°C, 20°C and Antiscalant *Daphnia magna* test):

Sample ID	Percent survival in 100% (v/v) sample			
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C	<i>Daphnia magna</i> Antiscalant
WL_BFWB_OUT_SP21_20170918_N	90	100	0	100

Sample ID	Percent Immobility in 100 (% v/v)		
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C	<i>Daphnia magna</i> Antiscalant
WL_BFWB_OUT_SP21_20170918_N	0	100	0

Daphnia magna TIE test (for sample WL_BFWB_OUT_SP21_20170918_N 1718-0152-02):

LC50 Reset

Sample ID	<i>Daphnia magna</i> LC50/EC50 (% v/v) [95% CL]	
	LC50	EC50
WL_BFWB_OUT_SP21_20170918_N	>100 [NA]	>100 [NA]

EC = Effect Concentration, CL=Confidence Limit

Sample ID	<i>Daphnia magna</i>	
	Percent survival in 100% (v/v) sample	Percent Immobility in 100 (% v/v)
WL_BFWB_OUT_SP21_20170918_N	80	40

Treatment	<i>Daphnia magna</i>	
	Percent survival in 100% (v/v) sample	Percent Immobility in 100 (% v/v)
Adjusted to pH5, spun, re-adjusted to initial pH	97	3
Adjusted to pH10, filtered, re-adjusted to initial pH	100	0
EDTA Treatment	30	97
C8-Column Treatment	100	73

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_201709 18_N	Rainbow Trout	None	None
	<i>Daphnia magna</i>	Precipitate observed on the bottom of test vessel in 20 °C test	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.9 (2.4-3.3) g/L KCl ¹	5.9 (5.4-6.4) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.3-3.8) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	8.4%	6.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date September 1, 2017; ² Test date September 11, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS Client TEC164 Reference 1718-0152-02

Test Log						Sample Information	
Day	Date	Time	Initial	Chem. Cart	Daily Data Review		
0	2017/09/20	1500 *	SS	1	CA	Initial pH:	7.3
1	2017/09/21	1000	EP	-	SS	Initial EC (µS/cm):	2260
2	2017/09/22	1140	HS	-	AP	Initial DO (mg/L):	9.1
3	2017/09/23	0920	AP	-	SS	Initial Temp (°C):	14.0
4	2017/09/24	1130	HS	1	CO	Salinity (ppt):	3
						Nets used: yes /	10

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L yes / no

Preaeration time	0.5 hours	1 hour	1.5 hours	2 hours
DO(mg/L) of 100%	8.7			

Test Chemistry and Biology

Conc.	CTL	100					
-------	-----	-----	--	--	--	--	--

pH (units) (range: 5.5-8.5)

Day 0	7.7	7.5					
Day 4	7.8	7.6					

EC (µS/cm)

Day 0	418	2260					
Day 4	425	2180					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.7	8.9					
Day 4	8.7	8.2					

Temperature (°C) (range: 14-16°C)

Day 0	14.0	14.0					
Day 4	14.9	15.0					

Number Alive (In brackets number stressed)

Day 0	10	10					
Day 1	10	10					
Day 2	10	10					
Day 3	10	10					
Day 4	10	10					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information		
Control Fish	Length (cm)	Weight (g)			
1	2.9	0.3	Loading Density (g/L): <u>0.16</u> Mean Length (cm): <u>2.9</u> Length Range (cm): <u>2.8-3.1</u> Mean Weight (g): <u>0.3</u> (Must be ≥0.3g) Weight Range (g): <u>0.3-0.4</u>	Batch <u>20170818TR</u>	
2	2.8	0.3		Source <u>LSL</u>	
3	3.0	0.3		Days Held <u>33</u>	
4	3.0	0.3		Percent stock mortality <u>0.28</u> (7 days prior to test, must be ≤2%)	
5	3.0	0.3			Test Volume (L) <u>20L</u>
6	2.8	0.5			
7	2.8	0.3			
8	2.9	0.3			
9	3.1	0.4			
10	3.0	0.4			
Comments :					

Reviewed By: CA

Date Reviewed: 2017/09/29

Method DAS 20°C

Client TEC164

Reference 1718-0152-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/19	1700	SSIEP	3	JW	7.3	2260	9.1	14.0	3
1	2017/09/20	0940	APUGB	-	JW					
2	2017/09/21	1150	JW/AP	3	LC					

Lab Code	CH1A	CH1B	CHC	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)					
0	7.7	7.7	7.7	7.7	7.7	7.7
2	7.8 7.7 ^{pr}	7.6	7.6	7.8	7.8	7.8

	EC (uS/cm)					
0	346	349	355	2230	2210	2130
2	2070 389	382	386	2670	2110	2080

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.8	7.8	7.9	8.2	8.2	8.2
2	7.7	7.7	7.7	7.6	7.7	7.8

	Temperature (°C) (range: 17.5-22.5 °C)					
0	19.0	19.1	19.1	17.9	18.0	18.0
2	19.9	19.9	19.9	19.8	19.8	19.7

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10(21)	10(21)	10(31)
2	10	10	10	0	0	0

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 7%

QA (previous month)
Days to first brood (≤12 days) 8
Average number of young produced (≥15 young) 26.3
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 110 Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20min Filtered with 110um screen prior to testing Yes or No
Hardness (mg CaCO3/L) of 100%: 910 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
Pail label / preparation date D:09/13 Weekly water hardness (mg/L) 80

Comments:
oh: no ppt
4sh: very light film of surficial ppt on surface, under microscope -
daphnia appear to be covered in long stringy-hair-like debris.
Unusually long from all
pail of their bottles.

Method DAS 10°C

 Client TECIBU

 Reference 1718-0152-02
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/19	1500	SS/EP	3	SW	7.3	3260	9.1	14.0	3
1	2017/09/20	0940	AP/UB	-	SW					
2	2017/09/21	1200	JW/AP	3	LC					

Lab Code	CHA	CHB	CHC	110A	110B	110C

day	pH (units) (range: 6.0-8.5)					
0	7.7	7.6	7.7	7.7	7.7	7.7
2	7.7	7.6	7.6	8.0	7.9	7.9

	EC (µS/cm)					
0	355	350	354	2210	2170	2170
2	389	382	386	2190	2230	2260

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.4	9.4	9.4	9.4	9.4	9.4
2	9.4	9.3	9.4	9.3	9.3	9.3

	Temperature (°C) (range: 17.5-22.5 °C)					
0	10.8	10.8	10.9	11.0	11.0	11.0
2	11.0	11.0	11.1	11.1	11.1	11.1

#P 11.1

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10(1D)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	
Young jar <u>D2</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>7.1</u>
QA (previous month)	
Days to first brood (≤12 days)	<u>8</u>
Average number of young produced (≥15 young)	<u>26.3</u>
Were test treatments randomized on test tray?	<input checked="" type="radio"/> Yes / <input type="radio"/> No
Sample	
DO % of sample prior to aeration: <u>110</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>20min</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
Hardness (mg CaCO ₃ /L) of 100%: <u>910</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L)	<u>-</u>
Dilution Water	
Pail label / preparation date <u>D:09/13</u>	Weekly water hardness (mg/L) <u>80</u>
Comments:	
<u>Oh: no ppt</u>	
<u>4sh: no ppt</u>	

Method DAD

Client TEC 164

Reference 1758-0152-02
(retest)

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/21	1445	AP/EP	3	SS	7.3	2260	9.1	19.0	3
1	2017/09/22	0830	SD	-	Ca					
2	2017/09/23	1130	JW/CS	3	SS					

Lab Code	CTL	6	12	25	50	100

day

	pH (units) (range: 6.0-8.5)					
0	7.8	7.8	7.7	7.7	7.6	7.5
2	7.8	7.8	7.7	8.1	8.1	7.9

	EC (µS/cm)					
0	416	517	644	900	1324	2040
2	393	361 ^{SS}	360 ^{SS}	935	1342	2060

	DO (mg/L) (40-100% saturation at test temp.)					
0	8.1	8.0	8.0	8.0	8.0	8.0
2	7.8	7.9	7.9	7.9	7.9	7.9

	Temperature (°C) (range: 17.5-22.5 °C)					
0	19.4	19.6	19.6	19.8	20.0	20.0
2	20.0	20.0	20.0	19.9	19.9	20.0

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10 (1F, 10)	10 (10)	10 (10)	8 (3I)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 71.

QA (previous month)

Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 23.5
 Were test treatments randomized on test tray? Yes / (No)

Sample

DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or **No**
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 910^{AP} Filtered with 110µm screen prior to testing Yes or **No**
 Hardness (mg CaCO₃/L) of 100%: 910 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or **No**
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water

Pail label / preparation date H109/16 Weekly water hardness (mg/L) 87

Comments:

Observations: at 0 hrs: no ppt
 at 48 hrs: small film of surficial ppt on surface, DA covered in debris under scope, especially the dead ones, visible build-up on jar sides (can be scratched away w/ pipette)

Method DAS + adjusted to pH 5 + spun Client TEC164 Reference 1718-0152-02

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information
0	2017/09/27	1521	EP/CB	3	ep	Initial pH: <u>7.3</u>
1	<u>2017/09/28</u>	<u>0900</u>	<u>JW/AP</u>	-	ep	Initial EC (µS/cm): <u>2260</u>
2	<u>2017/09/29</u>	<u>1000</u>	<u>SS/CB</u>	3	ca	Initial DO (mg/L): <u>9.1</u>
						Initial Temp (°C): <u>14.0</u>
						Salinity (ppt): <u>3</u>

Lab Code	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	<u>7.3</u>	<u>7.3</u>	<u>7.3</u>						
2	<u>7.3</u>	<u>7.4</u>	<u>7.4</u>						

EC (µS/cm)

0	<u>2520</u>	<u>2550</u>	<u>2550</u>						
2	<u>2560</u>	<u>2620</u>	<u>2610</u>						

DO (mg/L) (40-100% saturation at test temp.)

0	<u>7.6</u>	<u>7.6</u>	<u>7.5</u>						
2	<u>7.9</u>	<u>8.0</u>	<u>8.0</u>						

Temperature (°C) (range: 17.5-22.5 °C)

0	<u>22.7</u>	<u>22.7</u>	<u>23.0</u>						
2	<u>20.1</u>	<u>20.2</u>	<u>20.2</u>						

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10						
1	<u>10</u>	<u>10</u>	<u>10</u>						
2	<u>8</u>	<u>9</u>	<u>9</u>						

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C5</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>10</u>	Average number of young produced (≥15 young) <u>18.9</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / No	
Sample	DO % of sample prior to aeration: <u>99%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>910</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>X: 09125</u>	Weekly water hardness (mg/L) <u>91</u>
Comments:		

Method DAS adjusted to pH 10 + Filtr. Client TEC164 Reference 1718-0152-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/27	1521	EP/CB	3	ep	7.3	2260	9.1	14.0	3
1	201710128	0900	JW/AP	-	ep					
2	201710129	1050	SS/CB	3	ce					

Lab Code	100A	100B	100C						

day pH (units) (range: 6.0-8.5)

0	7.4	7.4	7.4						
2	8.0	8.0	8.0						

EC (µS/cm)

0	2330	2560	2570						
2	2640	2600	2660						

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.6	7.6						
2	7.9	8.0	8.0						

Temperature (°C) (range: 17.5-22.5 °C)

0	21.5	21.7	21.8						
2	20.0	19.9	20.0						

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10						
1	10	10	10						
2	10	10	10						

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C5 Jar(s) mortality 7 days prior to test (must be ≤25%) 07.

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 18.9
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 99.1 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 916 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date X:09125 Weekly water hardness (mg/L) 91

Comments:

Method DA -TIE

Client TEC164

Reference 1A18-0152-02 / 1A18-0186-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/28	1500	HS/JW	3	CC	-	-	-	-	-
1	2017/09/29	1042	CB/SS	-	EP	-	-	-	-	-
2	2017/09/30	1500	SS/EP	3	CC	-	-	-	-	-

Lab Code	<u>CTL A</u>	<u>CTL B</u>	<u>CTL C</u>							
----------	--------------	--------------	--------------	--	--	--	--	--	--	--

day 08 pH (units) (range: 6.0-8.5)

0	<u>7.4</u>	<u>7.4</u>	<u>7.4</u>						
2	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>						

EC (uS/cm)

0	<u>439</u>	<u>464</u>	<u>470</u>						
2	<u>470</u>	<u>478</u>	<u>489</u>						

DO (mg/L) (40-100% saturation at test temp.)

0	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>						
2	<u>7.5</u>	<u>7.5</u>	<u>7.6</u>						

Temperature (°C) (range: 17.5-22.5 °C)

0	<u>20.1</u>	<u>20.1</u>	<u>20.1</u>						
2	<u>20.1</u>	<u>20.0</u>	<u>19.9</u>						

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	<u>10</u>	<u>10</u>	<u>10</u>						
1	<u>10</u>	<u>10</u>	<u>10</u>						
2	<u>10</u>	<u>10</u>	<u>10</u>						

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar 91 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 15
 Were test treatments randomized on test tray? Yes No

Sample
 DO % of sample prior to aeration: - Is aeration required (<40% or >100%)? Yes No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes No
 Hardness (mg CaCO3/L) of 100%: - Is hardness adjustment required (<25 mg CaCO3/L)? Yes No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date X 09/25 Weekly water hardness (mg/L) 1591

Comments:

Method DA-TIE

Client TEC164

Reference 1718-0152-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/28	1600	JW/HS	3	CA	7.3	2260	9.1	14.0	3
1	2017/09/29	1042	CB/SS	-	EP					
2	2017/09/30	1500	SS/EP	3	CP					

Lab Code	CTLA	CTRB	CTLC	100A	100B	100C			
				UNTREATED					

day

pH (units) (range: 6.0-8.5)

0	7.5	7.5	7.5	7.7	7.7	7.7			
2	7.5	7.6	7.6	7.6	7.7	7.8			

EC (uS/cm)

0	350	356	358	2230	2270	2280			
2	356	362	370	2110	2150	2150			

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.8	7.8	7.9	7.9	7.9			
2	7.7	7.7	7.7	7.8	7.7	7.7			

Temperature (°C) (range: 17.5-22.5 °C)

0	19.5	19.5	19.4	19.4	19.3	19.2			
2	20.1	20.0	19.9	20.0	20.1	20.1			

Number Alive

(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10(4I)	10(7I)	10(4I)			
2	10	10	10	4(3I)	6(3I)	5(3I)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar 81 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)

Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 37
 Were test treatments randomized on test tray? Yes / No

Sample

DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 910 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) _____

Dilution Water

Pail label / preparation date X 09/25 Weekly water hardness (mg/L) 91

Comments:

In glass jars Observations at 0h: no ppt
 48 h: a lot of ppt on surface

Method DA-TIE

Client TEC164

Reference 1718-0152-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/28	1600	JW/HS	3	CB	7.3	2260	9.1	14.0	3
1	2017/09/29	1042	CB/SS	-	ED					
2	2017/09/30	1500	SS/EP	3	CB					

Lab Code	100A	100B	100C	100A	100B	100C			
	EDTA			CB					

day	pH (units) (range: 6.0-8.5)								
0	7.6	7.6	7.6	7.7	7.7	7.7			
2	7.68	7.8	7.8	7.9	7.8	7.8			

	EC (uS/cm)								
0	2310	2310	2320	2090	2220	2250			
2	2180	2190	2140	2180	2190	2020			

	DO (mg/L) (40-100% saturation at test temp.)								
0	8.0	8.0	8.0	7.8	7.7	7.7			
2	7.8	7.8	7.8	7.8	7.8	7.7			

	Temperature (°C) (range: 17.5-22.5 °C)								
0	19.2	19.2	19.1	20.1	20.1	20.1			
2	20.1	20.1	20.0	19.9	19.9	19.9			

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar 41 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 37
 Were test treatments randomized on test tray? Yes / No

Sample EDTA = 98%
 DO % of sample prior to aeration: CB = 100 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 9.0 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date - Weekly water hardness (mg/L) -

Comments:
 In glass jars Observations at 0h: no ppt
 48 h: ppt present, along with dark coating on daphnids
EDTA - ppt present on surface, however DA are not coated in dark debris

APPENDIX C – Chain-of-custody form

Teck

Page 1 of 1

COG ID: **20170918-AcuteToxicity** TURNAROUND TIME: **REGULAR** RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO					
Facility Name / Job#	WLC AWTF			Lab Name	Nautilus Environmental			Report Delivery Formats			Excel	PDF	EDD
Project Manager	Thomas Davidson			Lab Contact	Jacklyn Pool			Email 1:	thomas.davidson@teck.com		X	X	X
Email	Thomas.Davidson@teck.com			Email	Jacklyn@NautilusEnvironmental.ca			Email 2:	teckcoal@equisonline.com		X	X	X
Address	15 Km North HWY 43			Address	#4, 6125 - 12 Street SE			Email 3:	teckwclab@epcor.com		X	X	X
City	Sparwood	Province	BC	City	Calgary	Province	AB	Email 4:	Marty.Hafke@teck.com		X	X	X
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada	Email 5:	colin.lynch@teck.com		X	X	X
Phone Number	250.603.9417			Phone Number	+1.403.253.7121			Email 6:	michael.moore@teck.com		X	X	X
								Email 7:	jocelyn.traverse@teck.com		X	X	X
								VPO 00473572					

SAMPLE DETAILS								ANALYSIS REQUESTED						Filtered - F: Field, L: Lab, FL: Field & Lab, N: None							
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	FILE	PHOSPH.	ANALYSIS											
LC_WTF_IN_20170918_NP	LC_WTF_IN	WS	N	18-Sep-17	9:00	G	3			NAUT_96Hr_RT_Single_Concentration_Toxicity Test	X	X	X								
WL_BFWB_OUT_SP21_20170918_N	WL_BFWB_OUT_SP21	WS	N	18-Sep-17	9:00	G	8			NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 10C	X	X	X								
										NAUT_48Hr_DM_Single_Concentration_Toxicity Test @ 20C											
										EXTRA											

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name	Mobile #
Regular (default)	X	Reida Arkerman	
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge			
For Emergency <1 Day, ASAP or Weekend - Contact ALS		Sampler's Signature	Date/Time
			September 18, 2017

118-
0152-01
52-02

20171021/19 1250 SS
Manitowin 5x20L
8x1L
N 2/5
good condition

END OF REPORT



Acute Toxicity Test Results

Sample collected September 25, 2017

Final Report – Revision 1

October 19, 2017

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_20170 925_NP / 1718-0200-01	25-Sep-17 at 0900h	26-Sep-17 at 0930h	27-Sep-17 at 1445h	26-Sep-17 at 1445h	26-Sep-17 at 1430h	7.3°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20170925_NP	12.5°C	969	275

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170925_NP	100	97	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20170925_NP	10	7

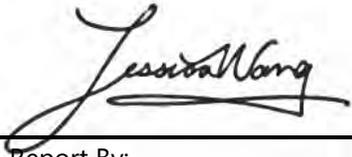
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170925_NP	Rainbow Trout	None	None
	<i>Daphnia magna</i>	Precipitate observed on the bottom of test vessel in 10°C and 20°C test	Precipitate observed on carapace in 10°C test

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.9 (2.4-3.3) g/L KCl ¹	5.9 (5.4-6.4) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.3-3.8) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	8.4%	6.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date September 1, 2017; ² Test date September 11, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS

Client TEC164

Reference 1718-0200-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/09/19	1445 *	SS	1	HS
1	2017/09/28	0900	ca	-	HS
2	2017/09/29	0900	ca	-	HS
3	2017/09/30	1345	EP	-	SS
4	2017/10/01	1130	AP	1	LC

Sample Information

Initial pH:	<u>7.6</u>
Initial EC (µS/cm):	<u>1898</u>
Initial DO (mg/L):	<u>8.5</u>
Initial Temp (°C):	<u>12.5</u>
Salinity (ppt):	<u>1</u>
Nets used: yes / no	yes / <u>no</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L yes/no

Preaeration time	<u>0.5</u> hours	1 hour	1.5 hours	2 hours
DO(mg/L) of 100%	<u>9.0</u>			

Test Chemistry and Biology

Conc.	CTL	<u>100</u>					
-------	-----	------------	--	--	--	--	--

pH (units) (range: 5.5-8.5)

Day 0	<u>7.9</u>	<u>8.1</u>					
Day 4	<u>8.0</u>	<u>8.0</u>					

EC (µS/cm)

Day 0	<u>443</u>	<u>2290</u>					
Day 4	<u>443</u>	<u>1919</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.8</u>	<u>9.0</u>					
Day 4	<u>8.8</u>	<u>8.8</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.0</u>	<u>14.7</u>					
Day 4	<u>14.9</u>	<u>14.6</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>8</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>3.0</u>	<u>0.3</u>	<u>20170818TR</u>	Source <u>LSC</u>
2	<u>2.9</u>	<u>0.2</u>		Days Held <u>40</u>
3	<u>3.0</u>	<u>0.3</u>		Percent stock mortality <u>0</u> (7 days prior to test, must be ≤ 2%)
4	<u>3.1</u>	<u>0.3</u>		Test Volume (L) <u>15</u>
5	<u>3.0</u>	<u>0.3</u>		
6	<u>2.9</u>	<u>0.2</u>		
7	<u>3.2</u>	<u>0.3</u>		
8	<u>3.1</u>	<u>0.3</u>		
9	<u>2.9</u>	<u>0.2</u>		
10	<u>3.1</u>	<u>0.3</u>		
			Loading Density (g/L):	<u>0.18</u>
			Mean Length (cm):	<u>3.0</u>
			Length Range (cm):	<u>2.9-3.2</u>
			Mean Weight (g):	<u>0.3</u>
			Weight Range (g):	<u>0.2-0.3</u>

Comments :

Method TR5 Client TEC164 Reference 1718-0200-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/09/27	1445 *	SS	1	H5
1	2017/09/28	1400	ca	-	H5
2	2017/09/29	0400	cl	-	H5
3	2017/09/30	1345	EP	XFD	SS
4	2017/10/01	1130	FR	1	LC

Sample Information

Initial pH:	<u>7.6</u>
Initial EC (µS/cm):	<u>2030</u>
Initial DO (mg/L):	<u>9.0</u>
Initial Temp (°C):	<u>14.8</u>
Salinity (ppt):	<u>1</u>
Nets used: yes / no	<u>no</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no

Preaeration time	0.5 hours	1 hour	1.5 hours	2 hours
DO(mg/L) of 100%	<u>9.0</u>			

Test Chemistry and Biology

Conc.	CTL	<u>100</u>					
-------	-----	------------	--	--	--	--	--

pH (units) (range: 5.5-8.5)

Day 0	<u>7.9</u>	<u>7.9</u>					
Day 4	<u>8.0</u>	<u>7.9</u>					

EC (uS/cm)

Day 0	<u>443</u>	<u>2380</u>					
Day 4	<u>445</u>	<u>2240</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.8</u>	<u>9.0</u>					
Day 4	<u>8.8</u>	<u>8.8</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.0</u>	<u>14.5</u>					
Day 4	<u>14.9</u>	<u>14.5</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>3.0</u>	<u>0.3</u>	<u>20170818TR</u>	Source <u>LSL</u>
2	<u>2.9</u>	<u>0.3</u>		Days Held <u>40</u>
3	<u>3.0</u>	<u>0.3</u>		Percent stock mortality <u>0</u> (7 days prior to test, must be ≤2%)
4	<u>3.1</u>	<u>0.3</u>		Test Volume (L) <u>15</u>
5	<u>3.1</u>	<u>0.3</u>		
6	<u>3.0</u>	<u>0.3</u>		
7	<u>2.9</u>	<u>0.3</u>		
8	<u>3.2</u>	<u>0.3</u>		
9	<u>2.9</u>	<u>0.2</u>		
10	<u>3.1</u>	<u>0.3</u>		
Loading Density (g/L): <u>0.18</u>				
Mean Length (cm): <u>3.0</u>				
Length Range (cm): <u>2.9-3.2</u>				
Mean Weight (g): <u>0.3</u>				
Weight Range (g): <u>0.2-0.3</u>				
Comments :				

Method DAS @ 10 deg

Client TEC164

Reference 1718-0200-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/26	1445	JWISS	3	HS	7.6	1898	8.5	12.5	1
1	2017/09/27	0939	LB/SS	-	JW					
2	2017/09/28	0900	AR/JW	3	HS					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	7.6	7.6	7.6	7.5	7.5	7.5			
2	7.5	7.4	7.4	7.9	7.9	7.9			

EC (uS/cm)

0	362	362	363	2220	2250	2260			
2	375	372	375	2180	2230	2270			

DO (mg/L) (40-100% saturation at test temp.)

0	9.6	9.6	9.6	9.6	9.6	9.5			
2	9.6	9.6	9.6	9.6	9.6	9.6			

Temperature (°C) (range: 17.5-22.5 °C)

0	10.5	10.6	10.6	10.6	10.5	10.6			
2	10.6	10.5	10.5	10.4	10.5	10.4			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10(I)	10	9(I)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar E2 Jar(s) mortality 7 days prior to test (must be ≤25%) 7%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 32.0
 Were test treatments randomized on test tray? Yes / No Yes / No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 969 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date D:09/22 Weekly water hardness (mg/L) 80

Comments:
 24 Hour Updates at 0hrs: no ppt
 In glass jars at 48hrs: some ppt; daphnia coated in dark debris

APPENDIX C – Chain-of-custody form

Teck

COC ID: **20170925-AcuteToxicity** TURNAROUND TIME: **REGULAR** RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job# WLC AWTF				Lab Name Nautilus Environmental				Report Delivery Formats				
Project Manager Thomas Davidson				Lab Contact Jacklyn Pool				Email 1:	thomas.davidson@teck.com	X	X	X
Email Thomas.Davidson@teck.com				Email Jacklyn@NautilusEnvironmental.ca				Email 2:	teckcoal@equisonline.com	X	X	X
Address 15 Km North HWY 43				Address #4, 6125 - 12 Street SE				Email 3:	teckwclab@epcor.com	X	X	X
City Sparwood Province BC				City Calgary Province AB				Email 4:	Marty.Hafke@teck.com	X	X	X
Postal Code V0B 2G0 Country Canada				Postal Code T2H 2K1 Country Canada				Email 5:	colin.lynych@teck.com	X	X	X
Phone Number 250.603.9417				Phone Number +1.403.253.7121				Email 6:	michael.moore@teck.com	X	X	X
								Email 7:	jocelyn.traverse@teck.com	X	X	X
								VPO 00473572				

SAMPLE DETAILS								ANALYSIS REQUESTED										
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	PH	N	N	N	N						
								PRESERV.	N	N	N	N						
								ANALYSIS	NAUT_96hr_RT_Single Concentration_Toxicity Test	NAUT_48hr_DM_Single Concentration_Toxicity Test @ 10C	NAUT_48hr_DM_Single Concentration_Toxicity Test @ 20C	EXTRA						
<i>2017/09/26 FP 0930 Monitor lin 5x20L cartboys, 6x1L bottles No I/S good condition</i>																		
LC_WTF_IN_20170925_NP	LC_WTF_IN	WS	N	25-Sep-17	9:00	G	3		X	X	X		7.3°C					1718-0200-01
WL_BFWB_OUT_SP21_20170925_N	WL_BFWB_OUT_SP21	WS	N	25-Sep-17	9:00	G	8		X	X	X	X	7.6°C					1718-0200-02

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Blair Peebles	Mobile #	Date/Time	September 25, 2017
Regular (default) X Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency <1 Day, ASAP or Weekend - Contact ALS					

END OF REPORT



Acute Toxicity Test Results

Samples collected September 25, 2017

Final Report – Revision 1

October 19, 2017

Submitted to: **Teck Coal Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP 21_20170925_N/ 1718-0200-02	25-Sep-17 at 0900h	26-Sep-17 at 0930h	27-Sep-17 at 1445h	26-Sep-17 at 1445h	26-Sep-17 at 1430h	7.6°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20170925_N	14.8°C	1024	313

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170925_N	80	100	93

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20170925_N	0	20

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20170925 _NP	Rainbow Trout	None	None
	<i>Daphnia magna</i>	Precipitate observed on the bottom of test vessel in 10°C and 20°C test	Precipitate observed on carapace in 10°C test

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	2.9 (2.4-3.3) g/L KCl ¹	5.9 (5.4-6.4) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.3-3.8) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	8.4%	6.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date September 1, 2017; ² Test date September 11, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR5 Client TEC164 Reference 1718-0200-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/09/27	1445 *	SS	1	H5
1	2017/09/28	1400	ca	-	H5
2	2017/09/29	0400	cl	-	H5
3	2017/09/30	1345	EP	XFD	SS
4	2017/10/01	1130	FR	1	LC

Sample Information

Initial pH: 7.6
 Initial EC (µS/cm): 2030
 Initial DO (mg/L): 9.0
 Initial Temp (°C): 14.8
 Salinity (ppt): 1
 Nets used: yes / no

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 9.0

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.9</u>	<u>7.9</u>					
Day 4	<u>8.0</u>	<u>7.9</u>					

EC (uS/cm)

Day 0	<u>443</u>	<u>2380</u>					
Day 4	<u>445</u>	<u>2240</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.8</u>	<u>9.0</u>					
Day 4	<u>8.8</u>	<u>8.8</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.0</u>	<u>14.5</u>					
Day 4	<u>14.9</u>	<u>14.5</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>3.0</u>	<u>0.3</u>	<u>20170218TR</u>	
2	<u>2.9</u>	<u>0.3</u>	Source	<u>LSL</u>
3	<u>3.0</u>	<u>0.3</u>	Mean Length (cm):	<u>3.0</u>
4	<u>3.1</u>	<u>0.3</u>	Length Range (cm):	<u>2.9-3.2</u>
5	<u>3.1</u>	<u>0.3</u>	Mean Weight (g):	<u>0.3</u>
6	<u>3.0</u>	<u>0.3</u>	Weight Range (g):	<u>0.2-0.3</u>
7	<u>2.9</u>	<u>0.3</u>	Days Held	<u>40</u>
8	<u>3.2</u>	<u>0.3</u>	Percent stock mortality	<u>0</u>
9	<u>2.9</u>	<u>0.2</u>	(7 days prior to test, must be ≤2%)	
10	<u>3.1</u>	<u>0.3</u>	Test Volume (L)	<u>15</u>

Comments :

Method DAS @ 10 deg

Client TEC164

Reference 1718-0200-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/09/26	1445	JWISS	3	HS	7.6	3030	9.2	14.8	1
1	2017/09/27	0939	CBISS	-	JW					
2	2017/09/28	0900	AP/SW	3	HS					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	7.6	7.6	7.6	7.5	7.4	7.5			
2	7.5	7.4	7.4	7.9	7.9	7.9			

EC (uS/cm)

0	362	362	363	2280	2280	2290			
2	375	377	375	2220	2250	2270			

DO (mg/L) (40-100% saturation at test temp.)

0	9.6	9.6	9.6	9.6	9.6	9.5			
2	9.6	9.6	9.6	9.5	9.6	9.6			

Temperature (°C) (range: 17.5-22.5 °C)

0	10.5	10.6	10.6	10.9	10.9	11.0			
2	10.6	10.5	10.5	10.5	10.4	10.4			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10 (4D)	10 (3D)	10 (3D)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	
Young jar <u>E2</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>7.1</u>
QA (previous month)	
Days to first brood (≤12 days) <u>8.0</u>	
Average number of young produced (≥15 young) <u>32.0</u>	
Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	
DO % of sample prior to aeration: <u>100</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110um screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
Hardness (mg CaCO3/L) of 100%: <u>1024</u>	Is hardness adjustment required (<25 mg CaCO3/L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) <u>-</u>	
Dilution Water	
Pail label / preparation date <u>D: 09122</u>	Weekly water hardness (mg/L) <u>80</u>
Comments:	
24 Hour Updates In glass jars	at 0hrs: <u>no ppt</u> at 48hrs: <u>no ppt, debris hanging from apical spines of DA</u>

Method DAS @ 20 deg

 Client TEC164

 Reference 1718-0200-02
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	2017/09/26	1430	SW/KS	3	HS	Initial pH:	7.6
1	2017/09/27	0939	CB/KS	-	SW	Initial EC (µS/cm):	2020
2	2017/09/28	0900	AE/SW	3	HS	Initial DO (mg/L):	9.2
						Initial Temp (°C):	14.8
						Salinity (ppt):	1

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C			

day

	pH (units) (range: 6.0-8.5)						
0	7.3	7.2	7.2	7.7	7.6	7.7	
2	7.3	7.3	7.4	7.8	7.8	7.8	

	EC (µS/cm)						
0	360	368	361	2090	2250	2270	
2	350	357	378	2100	2150	2170	

A: 357

	DO (mg/L) (40-100% saturation at test temp.)						
0	8.0	8.0	8.0	8.2	8.2	8.3	
2	7.8	7.7	7.7	7.8	7.8	7.9	

	Temperature (°C) (range: 17.5-22.5 °C)						
0	19.8	19.8	19.8	19.1	19.1	19.0	
2	20.3	20.3	20.1	20.1	20.1	20.1	

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)						
0	10	10	10	10	10	10	
1	10	10	60	10	10	10	
2	10	10	10	10(I)	10(I)	8(2I)	

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>E32</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>78%</u>
QA (previous month)	Days to first brood (≤12 days) <u>39 8.0</u>	Average number of young produced (≥15 young) <u>20 320</u>
	Were test treatments randomized on test tray? Yes / No <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>114%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>20 mins</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>1024</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input type="radio"/> Yes or <input checked="" type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>D: 09/22</u>	Weekly water hardness (mg/L) <u>80</u>
Comments:	24 Hour Updates In glass jars	at 0hrs: <u>no ppt</u> at 48hrs: <u>small layer of suspended ppt, some debris on DA under scope</u>

APPENDIX C – Chain-of-custody form

Teck

COC ID: **20170925-AcuteToxicity** TURNAROUND TIME: **REGULAR** RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO			
Facility Name / Job# WLC AWTF				Lab Name Nautilus Environmental				Report Delivery Formats			
Project Manager Thomas Davidson				Lab Contact Jacklyn Pool				Excel <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EDD <input checked="" type="checkbox"/>			
Email Thomas.Davidson@teck.com				Email Jacklyn@NautilusEnvironmental.ca				Email 1: thomas.davidson@teck.com <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>			
Address 15 Km North HWY 43				Address #4, 6125 - 12 Street SE				Email 2: teckcoal@equisonline.com <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>			
City Sparwood Province BC				City Calgary Province AB				Email 3: teckwclab@epcor.com <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>			
Postal Code V0B 2G0 Country Canada				Postal Code T2H 2K1 Country Canada				Email 4: Marty.Hafke@teck.com <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>			
Phone Number 250.603.9417				Phone Number +1.403.253.7121				Email 5: colin.lynych@teck.com <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>			
								Email 6: michael.moore@teck.com <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>			
								Email 7: jocelyn.traverse@teck.com <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>			
								VPO 00473572			

SAMPLE DETAILS								ANALYSIS REQUESTED													
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	PH	PRESERV.	ANALYSIS	TEMP	LAB	LAB	LAB	LAB						
<p><i>2017/09/26 FP 0950 Monitor in 5x20L cartboys, 6x1L bottles No I/S good condition</i></p>																					
LC_WTF_IN_20170925_NP	LC_WTF_IN	WS	N	25-Sep-17	9:00	G	3			NAUT_96hr_RT_Single Concentration_Toxicity Test	7.3°C										
WL_BFWB_OUT_SP21_20170925_N	WL_BFWB_OUT_SP21	WS	N	25-Sep-17	9:00	G	8			NAUT_48hr_DM_Single Concentration_Toxicity Test @ 10C	7.6°C										
										NAUT_48hr_DM_Single Concentration_Toxicity Test @ 20C											
										EXTRA											

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #	Date/Time
Regular (default) <input checked="" type="checkbox"/>	Blair Peebles		
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge			
For Emergency <1 Day, ASAP or Weekend - Contact ALS			
			September 25, 2017

END OF REPORT



Acute Toxicity Test Results

Sample collected October 2, 2017

Final Report – Revision 1

November 9, 2017

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
LC_WTF_IN_20171002_NP / 1718-0250-01	2-Oct-17 at 0900h	3-Oct-17 at 1030h	4-Oct-17 at 1200h	3-Oct-17 at 1400h	3-Oct-17 at 1410h	10°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20171002_NP	10°C	1136	302

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20171002_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20171002_NP	0	7

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20171002_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the 20°C test	Precipitate observed in the 20°C test

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.9-3.6) g/L KCl ¹	4.4 (4.3-4.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2-4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.1%	6.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, October 1, 2017; ² Test Date October 10, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In House
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test, 1 per treatment for LC50 test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS Client TEC 164 Reference 1718-0250-01

Test Log						Sample Information	
Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:	
0	2017/10/04	1200	AP	1	JW	Initial EC (µS/cm):	7.8
1	2017/10/05	1045	AP	-	HS	Initial DO (mg/L):	2160
2	2017/10/06	0900	AP	-	JW	Initial Temp (°C):	9.2
3	2017/10/07	1430	AP	-	LC	Salinity (ppt):	17.7
4	2017/10/08	1250	AP	1	SS	Nets used: yes / (no)	3

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time	0.5 hours	1 hour	1.5 hours	2 hours
DO(mg/L) of 100%	8.9			

Test Chemistry and Biology

Conc.	CTL	LOG					
-------	-----	-----	--	--	--	--	--

pH (units) (range: 5.5-8.5)

Day 0	7.8	8.0					
Day 4	7.9	8.1					

EC (µS/cm)

Day 0	452	2250					
Day 4	469	2269					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	AP	14.29	8.9				
Day 4	AP	8.9	8.9				

Temperature (°C) (range: 14-16°C)

Day 0	14.1AP	14.4	14.2				
Day 4	AP	14.2	14.1				

Number Alive (In brackets number stressed)

Day 0	10	10					
Day 1	10	10					
Day 2	10	10					
Day 3	10	10					
Day 4	10	10					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control

Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	3.2	0.4	201708TR	
2	3.1	0.3	Source	In house (NE)
3	3.1	0.3	Mean Length (cm):	3.0
4	3.0	0.3	Length Range (cm):	2.7-3.2
5	3.0	0.3	Mean Weight (g):	0.3
6	2.9	0.3	Weight Range (g):	0.2-0.4
7	3.0	0.3	Days Held	32
8	2.7	0.2	Percent stock mortality	0
9	3.0	0.3	(7 days prior to test, must be ≤2%)	
10	2.8	0.2	Test Volume (L)	20

Comments:

Reviewed By: JA

Date Reviewed: Oct 12/2017

Method DAS 10°C

Client TEC164

Reference 1718-0250-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/03	1400	JW/AP	3	ED	7.8	2160	9.2	17.7	3
1	2017/10/04	0945	ED/CIS	-	FW					
2	2017/10/05	1056	JW/AP	3	TD					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	7.6	7.6	7.6	7.6	7.6	7.7
2	7.7	7.8	7.8	8.1	8.1	8.1

EC (uS/cm)

0	356	353	352	2210	2250	2280
2	348	367	364	2260	2250	2270

DO (mg/L) (40-100% saturation at test temp.)

0	9.6	9.6	9.5	9.6	9.6	9.6
2	9.6	9.5	9.5	9.5	9.5	9.6

Temperature (°C) (range: 18-22°C) FW

0	10.8	10.8	10.8	10.6	10.7	10.7
2	10.6	10.6	10.6	10.7	10.6	10.6

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 0.7% JW

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 41.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 136 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G:09/30 Weekly water hardness (mg/L) 117

Comments:
 *In glass jars Observations at 0h: no ppt
 *24 Hour Updates 48h: no ppt

Reviewed By: TA

Date Reviewed: Oct 12, 2017

Method DAS 20°C

Client TEC164

Reference 1718- 0250-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/10/03	1410	JW/AP	3	FD	7.8
1	2017/10/04	0945	FP/CS	-	JW	Initial EC (µS/cm): 2160
2	2017/10/05	1100	JW/AP	3	JA	Initial DO (mg/L): 9.52 nd
						Initial Temp (°C): 17.7
						Salinity (ppt): 3

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

pH (units) (range: 6.0-8.5)

day						
0	7.5	7.6	7.5	7.7	7.7	7.7
2	7.9	7.9	7.9	7.9	7.9	7.9

EC (uS/cm)

0	361	352	355	2720	2740	2360
2	266	354	375	2130	2080	2190

DO (mg/L) (40-100% saturation at test temp.)

0	8.0	8.0	8.0	7.9	7.9	7.9
2	7.9	7.9	7.9	7.9	7.9	7.9

Temperature (°C) (range: 18-22°C)

0	19.9	19.9	19.9	20.0	20.0	20.1
2	20.0	20.0	20.0	20.1	20.0	20.1

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10(I)	10(I)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 7%

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 41.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 118% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1136 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G: 09/30 Weekly water hardness (mg/L) 117

Comments:
 *In glass jars Observations at 0h: no ppt
 *24 Hour Updates 48h: some ppt

Reviewed By: JA Date Reviewed: Oct 12, 2017

APPENDIX C – Chain-of-custody form

Teck

COC ID:	20171002-AcuteToxicity	TURNAROUND TIME:	REGULAR	RUSH:	
PROJECT/CLIENT INFO		LABORATORY		OTHER INFO	
Facility Name / Job#	WLC AWTF	Lab Name	Nautilus Environmental	Report Delivery Formats	Excel PDF EDD
Project Manager	Thomas Davidson	Lab Contact	Jacklyn Pool	Email 1:	thomas.davidson@teck.com X X X
Email	Thomas.Davidson@teck.com	Email	Jacklyn@NautilusEnvironmental.ca	Email 2:	teckcoal@equisonline.com X
Address	15 Km North HWY 43	Address	#4, 6125 - 12 Street SE	Email 3:	teckwclab@epcor.com X X X
				Email 4:	Marty.Hafke@teck.com X X X
City	Sparwood	Province	BC	City	Calgary
Postal Code	V0B 2G0	Country	Canada	Province	AB
				Postal Code	T2H 2K1
				Country	Canada
Phone Number	250.603.9417	Phone Number	+1.403.253.7121	Email 5:	colin.lynch@teck.com X X X
				Email 6:	michael.moore@teck.com X X X
				Email 7:	jocelyn.traverse@teck.com X X X

SAMPLE DETAILS								ANALYSIS REQUESTED				
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT 96Hr RT Single Concentration Toxicity Test	NAUT 48Hr DM Single Concentration Toxicity Test @ 10C	NAUT 48Hr DM Single Concentration Toxicity Test @ 20C	EXTRA	Filtered - F: Field, L: Lab, FL: Field & Lab, N: None
LC_WTF_IN_20171002_NP	LC_WTF_IN	WS	N	2-Oct-17	9:00	G	3	X	X	X		1718-0250-01
WL_BFWB_OUT_SP21_20171002_N	WL_BFWB_OUT_SP21	WS	N	2-Oct-17	9:00	G	8	X	X	X	X	1718-0250-02

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #	Date/Time	October 2, 2017
Regular (default) X	Rekda Akkerman			
Priority (2-3 business days) - 50% surcharge	Sampler's Signature			
Emergency (1 Business Day) - 100% surcharge				
For Emergency <1 Day, ASAP or Weekend - Contact ALS				

2017/10/03 AP
 1030 10°C maintained
 NYS good condition

END OF REPORT



Acute Toxicity Test Results

Sample collected October 2, 2017

Final Report – Revision 1

November 9, 2017

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
WL_BFWB_OUT_SP21_20171002_N / 1718-0250-02	2-Oct-17 at 0900h	3-Oct-17 at 1030h	4-Oct-17 at 1200h	3-Oct-17 at 1400h	3-Oct-17 at 1410h	10°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20171002_N	10°C	1139	270

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20171002_N	100	100	57

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20171002_N	0	83

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20171002_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the 20°C test	Precipitate observed in the 20°C test

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.9-3.6) g/L KCl ¹	4.4 (4.3-4.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2-4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.1%	6.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, October 1, 2017; ² Test Date October 10, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In House
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test, 1 per treatment for LC50 test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS

Client TEC164

Reference 1718-0250-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/10/04	1200 *	AP	1	JA
1	2017/10/05	1045	CA	-	HS
2	2017/10/06	0900	CA	-	JW
3	2017/10/07	1430	EP	-	LC
4	2017/10/08	1230	AP	1	SS

Sample Information

Initial pH: 7.7
 Initial EC (µS/cm): 2230
 Initial DO (mg/L): 9.4
 Initial Temp (°C): 18.0
 Salinity (ppt): 3
 Nets used: yes / (no) 3

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100% 8.8

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0 7.8 7.8
 Day 4 7.9 8.0

EC (uS/cm)

Day 0 452 2340
 Day 4 469 2352

DO (mg/L) (70-100% saturation at test temp.)

Day 0 8.8 8.8
 Day 4 8.9 8.9

Temperature (°C) (range: 14-16°C)

Day 0 14.6 14.3
 Day 4 14.2 14.1

Number Alive (In brackets number stressed)

Day 0 10 10
 Day 1 10 10
 Day 2 10 10
 Day 3 10 10
 Day 4 10 10

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	3.2	0.4	<u>20170817TR</u>	Source <u>In house (NE)</u>
2	3.1	0.3		
3	3.1	0.3		
4	3.0	0.3		
5	3.0	0.3		
6	2.9	0.3		
7	3.0	0.3		
8	2.7	0.2		
9	3.0	0.3		
10	2.8	0.2		
Loading Density (g/L): <u>0.145</u>			Days Held <u>32</u>	Percent stock mortality <u>0</u> (7 days prior to test, must be ≤ 2%)
Mean Length (cm): <u>3.0</u>			Test Volume (L) <u>20</u>	
Length Range (cm): <u>2.7-3.2</u>				
Mean Weight (g): <u>0.3</u> (Must be ≥ 0.3g)				
Weight Range (g): <u>0.2-0.4</u>				
Comments :				

Reviewed By: JA

Date Reviewed: Oct 22 2017

Method DAS 10 °C

Client TEC164

Reference 1718-0250-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/03	1100	JW/AP	3		7.7	2230	9.4	18.0	3
1	2017/10/04	0945	ED/CB	-						
2	2017/10/05	1050	JW/AP	3						

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

Day	CTL A	CTL B	CTL C	100 A	100 B	100 C
0	7.6	7.6	7.6	7.3	7.4	7.4
2	7.7	7.8	7.8	8.0	8.0	8.0

EC (uS/cm)

Day	CTL A	CTL B	CTL C	100 A	100 B	100 C
0	356	353	352	2290	2310	2330
2	348	367	364	2300	2280	2310

DO (mg/L) (40-100% saturation at test temp.)

Day	CTL A	CTL B	CTL C	100 A	100 B	100 C
0	9.6	9.6	9.5	9.6	9.5	9.5
2	9.6	9.5	9.5	9.6	9.6	9.6

Temperature (°C) (range: 18-22°C) JW

Day	CTL A	CTL B	CTL C	100 A	100 B	100 C
0	10.8	10.8	10.8	10.5	10.6	10.5
2	10.6	10.6	10.6	10.4	10.5	10.5

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

Day	CTL A	CTL B	CTL C	100 A	100 B	100 C
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 7%

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 41.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 99% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 113.9 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G: 09/30 Weekly water hardness (mg/L) 117

Comments:
 *In glass jars Observations at 0h: no ppt
 *24 Hour Updates 48h: no ppt

Reviewed By: JA

Date Reviewed: Oct 12/2017

Method DAS 20°C

Client TEC164

Reference 1718- 0250-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/10/03	1410	JW/AP	3	FD	7.7
1	2017/10/04	0945	EP/CK	-	FW	Initial EC (µS/cm): 2730
2	2017/10/05	1100	JW/AP	3	TA	Initial DO (mg/L): 7.9
						Initial Temp (°C): 18.0
						Salinity (ppt): 2

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day

	pH (units) (range: 6.0-8.5)					
0	7.5	7.6	7.5	7.7	7.7	7.7
2	7.9	7.9	7.9	7.9	7.9	7.9

	EC (uS/cm)					
0	361	352	355	2780	2780	2300
2	366	354	375	2150	2140	2000

	DO (mg/L) (40-100% saturation at test temp.)					
0	8.0	8.0	8.0	7.9	7.9	7.9
2	7.9	7.9	7.9	7.9	7.9	7.9

	Temperature (°C) (range: 18-22°C)					
0	19.9	19.9	19.9	20.1	20.1	20.1
2	20.0	20.0	20.0	20.1	20.1	19.9

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

	10	10	10	10	10	10
0	10	10	10	10(I)	10(I, B)	10(I)
1	10	10	10	7(I)	3(I, B)	7(I)
2	10	10	10	7(I)	3(I, B)	7(I)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 7%

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 41.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 113% Is aeration required (<40% or >100%)? Yes / No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes / No
 Hardness (mg CaCO3/L) of 100%: 1139 Is hardness adjustment required (<25 mg CaCO3/L)? Yes / No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date G:09/30 Weekly water hardness (mg/L) 117

Comments:
 *In glass jars Observations at 0h: no ppt
 *24 Hour Updates 48h: white ppt on surface, debris covering DA

Reviewed By: TA

Date Reviewed: Oct 10 2017

APPENDIX C – Chain-of-custody form

Teck

COC ID: **20171002-AcuteToxicity** TURNAROUND TIME: **REGULAR** RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job#	WLC AWTF			Lab Name	Nautilus Environmental			Report Delivery Formats		Excel	PDF	EDD
Project Manager	Thomas Davidson			Lab Contact	Jacklyn Pool			Email 1:	thomas.davidson@teck.com	X	X	X
Email	Thomas.Davidson@teck.com			Email	Jacklyn@NautilusEnvironmental.ca			Email 2:	teckcoal@equisonline.com			X
Address	15 Km North HWY 43			Address	#4, 6125 - 12 Street SE			Email 3:	teckwclab@epcor.com	X	X	X
City	Sparwood	Province	BC	City	Calgary	Province	AB	Email 4:	Marty.Hafke@teck.com	X	X	X
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada	Email 5:	colin.lynch@teck.com			X
Phone Number	250.603.9417			Phone Number	+1.403.253.7121			Email 6:	michael.moore@teck.com	X	X	X
								Email 7:	jocelyn.traverse@teck.com	X	X	X
												VPO 00473572

SAMPLE DETAILS								ANALYSIS REQUESTED				
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	NAUT 96Hr RT Single Concentration Toxicity Test	NAUT 48Hr DM Single Concentration Toxicity Test @ 10C	NAUT 48Hr DM Single Concentration Toxicity Test @ 20C	EXTRA	Filtered - F: Field, L: Lab, FL: Field & Lab, N: None
LC_WTF_IN_20171002_NP	LC_WTF_IN	WS	N	2-Oct-17	9:00	G	3	X	X	X		1718-0250-01
WL_BFWB_OUT_SP21_20171002_N	WL_BFWB_OUT_SP21	WS	N	2-Oct-17	9:00	G	8	X	X	X	X	1718-0250-02

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #	Date/Time
Regular (default) X	Rekda Akkerman		October 2, 2017
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge			
For Emergency <1 Day, ASAP or Weekend - Contact ALS			

2017/10/03 AP
1030 10°C maintained
NYS good condition

END OF REPORT



Acute Toxicity Test Results

Sample collected October 2, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
LC_WTF_IN_20171002_NP / 1718-0251-01	2-Oct-17 at 0900h	3-Oct-17 at 1030h	3-Oct-17 at 1410h	10°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20171002_NP	10°C	1136	302

TEST TYPES

- Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20171002_NP	100

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20171002_NP	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20171002_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	4.4 (4.3-4.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.2%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date October 10, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS - AS

Client TEC164

Reference 1718-0251-G1

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/10/03	1410	JW/AP	3		7.8
1	2017/10/04	0945	FP/CB	-	FP TM	Initial EC (µS/cm): 2160
2	2017/10/05	1050	JW/AP	3		Initial DO (mg/L): 9.2
						Initial Temp (°C): 17.7
						Salinity (ppt): 3

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	7.7	7.6	7.6	7.7	7.7	7.7
2	7.8	7.8	7.8	8.3	8.3	8.3

EC (µS/cm)

0	369	365	363	2200	2230	2266
2	376	368	380	2200	2200	2280

DO (mg/L) (40-100% saturation at test temp.)

0	8.0	8.0	8.0	7.8	7.8	7.8
2	8.0	7.9	7.9	7.9	7.9	7.9

Temperature (°C) (range: 18-22°C)

0	19.8	19.8	19.8	20.0	20.0	20.0
2	19.9	20.1	20.0	20.0	20.0	20.1

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 77.

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 41.3
 Were test treatments randomized on test tray? Yes No

Sample
 DO % of sample prior to aeration: 118% Is aeration required (<40% or >100%)? Yes No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes No
 Hardness (mg CaCO3/L) of 100%: 113.6 Is hardness adjustment required (<25 mg CaCO3/L)? Yes No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date G:09/30 Weekly water hardness (mg/L) 117

Comments:
 *In glass jars Observations at 0h: no ppt
 *24 Hour Updates 48h: no ppt

Reviewed By: 2017TM TM

Date Reviewed: 2017/10/10

APPENDIX C – Chain-of-custody form



COC ID:	20171002-AcuteToxicity-antiscalant	TURNAROUND TIME:	REGULAR	RUSH:	
PROJECT/CLIENT INFO			LABORATORY	OTHER INFO	
Facility Name / Job#	WLC AWTF	Lab Name	Nautilus Environmental	Report Delivery Formats	Excel PDF EDD
Project Manager	Thomas Davidson	Lab Contact	Jacklyn Pool	Email 1:	thomas.davidson@teck.com X X X
Email	Thomas.Davidson@teck.com	Email	Jacklyn@NautilusEnvironmental.ca	Email 2:	teckcoal@equisonline.com X X X
Address	15 Km North HWY 43	Address	#4, 6125 - 12 Street SE	Email 3:	teckwclab@epcor.com X X X
				Email 4:	Marty.Hafke@teck.com X X X
City	Sparwood	Province	BC	City	Calgary
Postal Code	V0B 2G0	Country	Canada	Province	AB
				Postal Code	T2H 2K1
Phone Number	250.603.9417			Country	Canada
		Phone Number	+1.403.253.7121	Email 5:	colin.lynch@teck.com X X X
				Email 6:	michael.moore@teck.com X X X
				Email 7:	jocelyn.traverse@teck.com X X X
					VPO 00473572

SAMPLE DETAILS **ANALYSIS REQUESTED** Filtered - F: Field, L: Lab, FL: Field & Lab, N: None

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS REQUESTED											
								NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C + Antiscalant											
LC_WTF_IN_20171002_NP	LC_WTF_IN	WS	N	02-Oct-17	9:00	G	1	X											
WL_BFWB_OUT_SP21_20171002_N	WL_BFWB_OUT_SP21	WS	N	02-Oct-17	9:00	G	1	X											
							#NAM E?												
							#NAM E?												
							#NAM E?												
							#NAM E?												
							#NAM E?												
							#NAM E?												
							#NAM E?												
							#NAM E?												

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #	Date/Time
Regular (default) X	Relda Akkerman		
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge			
For Emergency <1 Day, ASAP or Weekend - Contact ALS	Sampler's Signature		October 2, 2017

END OF REPORT



Acute Toxicity Test Results

Sample collected October 2, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
WL_BFWB_OUT_SP21_20171002_N / 1718-0251-02	2-Oct-17 at 0900h	3-Oct-17 at 1030h	3-Oct-17 at 1410h	10°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20171002_N	10°C	1139	270

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample
	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20171002_N	100

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20171002_N	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20171002_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	4.4 (4.3-4.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.2%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date October 10, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS - AS

Client TEC164

Reference 1718-0251-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/10/03	1410	JW/AP	3	FD	7.7
1	2017/10/04	0945	JW/AP	-	FW	Initial EC (µS/cm): 2230
2	2017/10/05	1050	JW/AP	3	TM	Initial DO (mg/L): 9.4
						Initial Temp (°C): 18.0
						Salinity (ppt): 3

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day

	pH (units) (range: 6.0-8.5)					
0	7.7	7.6	7.6	7.7	7.7	7.7
2	7.8	7.8	7.8	8.3	8.3	8.3

	EC (µS/cm)					
0	369	365	363	2280	2280	2290
2	376	368	366	2250	2270	2260

	DO (mg/L) (40-100% saturation at test temp.)					
0	8.0	8.0	8.0	7.9	7.8	7.8
2	8.0	7.9	7.9	7.9	8.0	7.9

	Temperature (°C) (range: 18-22°C)					
0	19.8	19.8	19.8	20.1	20.1	20.0
2	19.9	20.1	20.0	19.9	19.9	19.8

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar DJ Jar(s) mortality 7 days prior to test (must be ≤25%) 71.

QA (previous month)
 Days to first brood (≤12 days) 10
 Average number of young produced (≥15 young) 41.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 113% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1139 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G:09/30 Weekly water hardness (mg/L) 117

Comments:
 *In glass jars Observations at 0h: no ppt
 *24 Hour Updates 48h: no ppt

Reviewed By: TM

Date Reviewed: 2017/10/10

APPENDIX C – Chain-of-custody form

COC ID:	20171002-AcuteToxicity-antiscalant	TURNAROUND TIME:	REGULAR	RUSH:	
PROJECT/CLIENT INFO		LABORATORY		OTHER INFO	
Facility Name / Job#	WLC AWTF	Lab Name	Nautilus Environmental	Report Delivery Formats	Excel PDF EDD
Project Manager	Thomas Davidson	Lab Contact	Jacklyn Pool	Email 1:	thomas.davidson@teck.com X X X
Email	Thomas.Davidson@teck.com	Email	Jacklyn@NautilusEnvironmental.ca	Email 2:	teckcoal@equisonline.com X X X
Address	15 Km North HWY 43	Address	#4, 6125 - 12 Street SE	Email 3:	teckwclab@epcor.com X X X
				Email 4:	Marty.Hafke@teck.com X X X
City	Sparwood	Province	BC	City	Calgary
Postal Code	V0B 2G0	Country	Canada	Province	AB
				Country	Canada
Phone Number	250.603.9417	Postal Code	T2H 2K1	Email 5:	colin.lynch@teck.com X X X
				Email 6:	michael.moore@teck.com X X X
		Phone Number	+1.403.253.7121	Email 7:	jocelyn.traverse@teck.com X X X
					VPO 00473572

SAMPLE DETAILS								ANALYSIS REQUESTED												
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	PHI	PRESERV.	ANALYSIS										
										NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C + Antiscalant										
LC_WTF_IN_20171002_NP	LC_WTF_IN	WS	N	02-Oct-17	9:00	G	1			X										
WL_BFWB_OUT_SP21_20171002_N	WL_BFWB_OUT_SP21	WS	N	02-Oct-17	9:00	G	1			X										
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS			RELINQUISHED BY/AFFILIATION					DATE/TIME	ACCEPTED BY/AFFILIATION			DATE/TIME								
NB OF BOTTLES RETURNED/DESCRIPTION																				
Regular (default) X			Sampler's Name		Relda Akkerman			Mobile #												
Priority (2-3 business days) - 50% surcharge			Sampler's Signature					Date/Time		October 2, 2017										
Emergency (1 Business Day) - 100% surcharge																				
For Emergency <1 Day, ASAP or Weekend - Contact ALS																				

END OF REPORT



Acute Toxicity Test Results

Samples collected October 10, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
LC_WTF_IN_20171010_NP / 1718-0305-01	10-Oct-17 at 0900h	11-Oct-17 at 1030h	12-Oct-17 at 1430h	11-Oct-17 at 1415h	11-Oct-17 at 1415h	1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20171010_NP	1°C	1105	265

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20171010_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_20171010_NP	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20171010_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the 20°C test	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.9-3.6) g/L KCl ¹	4.4 (4.3-4.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2-4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.1%	6.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	See Below	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, October 1, 2017; ² Test Date October 10, 2017
 LC = Lethal Concentration; CL = Confidence Limit

The mean weight of the control fish were less than the 0.3 gram per fish weight requirement. This should not affect the outcome of the toxicity tests.



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In house
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test, 1 per treatment for LC50 test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method JRS Client JEC 164 Reference ^{AP}~~305~~ 1718-305-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/10/13	1430*	AP	1	JW	Initial pH: <u>7.9</u>
1	2017/10/14	0815	PB	-	HS	Initial EC (µS/cm): <u>1829</u>
2	2017/10/14	0945	EP	-	SS	Initial DO (mg/L): <u>10.4</u>
3	2017/10/15	1100	JW	-	HS	Initial Temp (°C): <u>13.8</u>
4	2017/10/16	0930	SS	1	JW	Salinity (ppt): <u>5</u>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L yes/no
 Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100% 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0 7.7 7.9
 Day 4 8.1 8.1

EC (uS/cm)

Day 0 410 1813
 Day 4 492 1720

DO (mg/L) (70-100% saturation at test temp.)

Day 0 8.9 8.9
 Day 4 9.0 9.1

Temperature (°C) (range: 14-16°C)

Day 0 14.6 14.0
 Day 4 13.9 13.7

Number Alive (In brackets number stressed)

Day 0 10 10
 Day 1 10 10
 Day 2 10 10
 Day 3 10 10
 Day 4 10 10

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>2.2</u>	<u>0.1</u>	20170831JR ^{AP} <u>20170831JR</u>	
2	<u>2.5</u>	<u>0.2</u>		
3	<u>2.6</u>	<u>0.2</u>		
4	<u>2.6</u>	<u>0.2</u>		
5	<u>2.6</u>	<u>0.2</u>		
6	<u>2.6</u>	<u>0.2</u>		
7	<u>2.6</u>	<u>0.2</u>		
8	<u>2.6</u>	<u>0.2</u>		
9	<u>2.7</u>	<u>0.2</u>		
10	<u>2.7</u>	<u>0.2</u>		
Loading Density (g/L): <u>0.095</u>			Source: <u>(NE) in house</u>	
Mean Length (cm): <u>2.6</u>			Days Held: <u>41</u>	
Length Range (cm): <u>2.2-2.7</u>			Percent stock mortality (7 days prior to test, must be ≤2%): <u>0</u>	
Mean Weight (g): <u>0.2</u>			Test Volume (L): <u>75</u>	
(Must be ≥0.3g)				
Weight Range (g): <u>0.1-0.2</u>				
Comments :				

Reviewed By: JA Date Reviewed: 2017/10/20

Method DAS209C

Client TELIMU

Reference 1718-0305-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	7.9
0	2017/10/11	1415	JW/AP	3	HS	Initial EC (µS/cm):	1829
1	2017/10/12	1125	CB	-	JW	Initial DO (mg/L):	10.4
2	2017/10/13	0710	JW	3	JW	Initial Temp (°C):	13.8
						Salinity (ppt):	5

Lab Code	CTVA	CTVB	CA1	100A	100B	100C			
----------	------	------	-----	------	------	------	--	--	--

day pH (units) (range: 6.0-8.5)

0	8.0	8.0	8.0	8.3	8.3	8.3			
2	7.9	7.9	7.9	8.4	8.4	8.4			

EC (uS/cm)

0	336	321	321	1876	1884	1897			
2	382	349	359	1877	1889	1847			

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	8.1	8.1	8.1			
2	7.7	7.8	7.8	7.9	7.9	7.9			

Temperature (°C) (range: 18-22°C)

0	20.4	20.4	20.4	18.5	18.5	18.4			
2	19.2	19.5	19.5	19.8	19.8	19.8			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 47.4
 Were test treatments randomized on test tray? Yes / No Yes

Sample
 DO % of sample prior to aeration: 115% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1105 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date G:10/04 Weekly water hardness (mg/L) 81

Comments:
in glass jars, 24 hr updates @0hr = no ppt
 @48hr = very minor sulfidic ppt

Reviewed By: JA

Date Reviewed: 2017/10/20

Method DAS 10°C

Client FECLM

Reference 1718-0305-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/11	1415	JW/AP	3	HS	7.9	1829	10.4	13.8	5
1	2017/10/12	1130	CB	-	JW					
2	2017/10/13	0720	JW	3	EP					

Lab Code	C1A	C1B	C1C	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	8.1	8.1	8.1	8.0	8.0	8.0			
2	7.8	7.8	7.8	8.1	8.2	8.1			

EC (µS/cm)

0	339	326	322	1930	1936	1955			
2	323	324	330	1928	1923	1940			

DO (mg/L) (40-100% saturation at test temp.)

0	9.6	9.6	9.6	9.5	9.5	9.5			
2	9.6	9.6	9.6	9.6	9.6	9.6			

Temperature (°C) (range: ~~18-22°C~~ ^{7W})

0	10.7	10.7	10.7	10.6	10.5	10.5			
2	10.9	11.0	11.0	10.9 11.0 ^{7W}	10.9	10.9			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 47.4
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1105 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date G: 10/04 Weekly water hardness (mg/L) 81

Comments:
in glass jars, 24hr updates
@ 0hr = no ppt
@ 48hr = no ppt

Reviewed By: JA

Date Reviewed: 2017/10/2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected October 10, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
WL_BFWB_OUT_SP21_2017 1010_N / 1718-0305-02	10-Oct-17 at 0900h	11-Oct-17 at 1030h	12-Oct-17 at 1430h	11-Oct-17 at 1415h	11-Oct-17 at 1415h	1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20171010_N	1°C	1123	291

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20171010_N	100	100	93

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20171010_N	3	100

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20171010_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the 20°C test	Precipitate observed in the 20°C test

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.9-3.6) g/L KCl ¹	4.4 (4.3-4.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2-4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.1%	6.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	See Below	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, October 1, 2017; ² Test Date October 10, 2017
 LC = Lethal Concentration; CL = Confidence Limit

The mean weight of the control fish were less than the 0.3 gram per fish weight requirement. This should not affect the outcome of the toxicity tests.



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In house
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test, 1 per treatment for LC50 test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method JRS Client TBC164 Reference 1718-305-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/10/12	1430 *	AP	1	JW
1	2017/10/13	0815	LR	-	HS
2	2017/10/14	0945	LR	-	SS
3	2017/10/15	1000	JW	-	HS
4	2017/10/16	0930	SS	1	JW

Sample Information

Initial pH: 7.9 7.8
 Initial EC (µS/cm): 1870 1359
 Initial DO (mg/L): 10.4 10.2
 Initial Temp (°C): 13.5 14.2
 Salinity (ppt): 3
 Nets used: yes / no

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L yes/no
 Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100% 8.9

Test Chemistry and Biology

Conc. CTL 1.50

pH (units) (range: 5.5-8.5)

Day 0 7.7 7.7
 Day 4 8.1 8.1

EC (uS/cm)

Day 0 450 1870
 Day 4 492 18240

DO (mg/L) (70-100% saturation at test temp.)

Day 0 8.9 8.9
 Day 4 9.0 9.1

Temperature (°C) (range: 14-16°C)

Day 0 14.0 14.0
 Day 4 13.9 13.7

Number Alive (In brackets number stressed)

Day 0 10 10
 Day 1 10 10
 Day 2 10 10
 Day 3 10 10
 Day 4 10 10

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.7</u>	<u>0.1</u>	Loading Density (g/L): <u>0.095</u>	Batch <u>20170831TR</u>
2	<u>2.5</u>	<u>0.2</u>		Source <u>In house (NE)</u>
3	<u>2.6</u>	<u>0.2</u>	Mean Length (cm): <u>2.6</u>	Days Held <u>41</u>
4	<u>2.6</u>	<u>0.2</u>		Percent stock mortality (7 days prior to test, must be ≤2%) <u>0</u>
5	<u>2.6</u>	<u>0.2</u>	Mean Weight (g): <u>0.2</u>	
6	<u>2.6</u>	<u>0.2</u>		
7	<u>2.6</u>	<u>0.2</u>	Weight Range: (g): <u>0.1-0.2</u>	
8	<u>2.6</u>	<u>0.2</u>		
9	<u>2.7</u>	<u>0.2</u>		
10	<u>2.7</u>	<u>0.2</u>		

Comments :

Reviewed By: TA Date Reviewed: 2017-10-20

Method DMS200C

Client TECLBY

Reference 1718-0305-02

Test Log

Sample Information #5

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/11 ^{AM}	1115	JW/HP	3	HS	7.9	1829	10.4	13.8	5
1	2017/10/12	1125	CB	-	JW					
2	2017/10/13	0710	JW	3	SP					

7.8
1359
10.2
14.2
3

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	8.0	8.0	8.0	8.2	8.2	8.2
2	7.9	7.9	7.9	7.9	7.9	7.9

EC (µS/cm)

0	336	321	321	1945	1926	1917
2	382	349	359	1941	1906	1914

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	8.0	8.0	8.0
2	7.9	7.8	7.7	7.9	7.9	7.9

Temperature (°C) (range: 18-22°C)

0	20.4	20.4	20.4	19.6	19.6	19.6
2	19.4	19.5	19.5	19.5	19.6	19.6

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	0	10	10	10(6I,3F)	10(5I,2F)	10(6I)
2	10	10	10	9(9I)	9(9I)	10(10I)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 7
Average number of young produced (≥15 young) 47.4
Were test treatments randomized on test tray? (Yes) / No

Sample
DO % of sample prior to aeration: 112.1 Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20min Filtered with 110µm screen prior to testing Yes or No
Hardness (mg CaCO3/L) of 100%: 4105 1123 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
Pail label / preparation date G: 10/10/14 Weekly water hardness (mg/L) 81

Comments:
In glass jars, 24 hr updates
@ 0hr = no ppt
@ 4hr = some superficial ppt, build-up slightly on jar sides so that noticeable when scratched w/ pipette. film of brown debris on DA under scope.

Reviewed By: TJA

Date Reviewed: 2017-10-20

Method DAS10°C

 Client TECBY

 Reference 1718-0305-02
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/11	1415	JW/AP	3	NS	7.8	1359	10.2	14.2	3
1	2017/10/12	1130	CS	-	JW					
2	2017/10/13	0720	JW	3	FD					

Lab Code	CL1A	CL1B	CL1C	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	8.1	8.1	8.1	7.7	7.7	7.7
2	7.8	7.8	7.8	8.1	8.1	8.1

	EC (uS/cm)					
0	339	321	322	1989	1983	1946
2	323	324	320	2060	2080	2100

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.6	9.6	9.6	9.5	9.4	9.4
2	9.6	9.6	9.6	9.6	9.5	9.6

	Temperature (°C) (range: 18-22°C) JW					
0	10.7	10.7	10.8	10.4	10.4	10.4
2	10.9	11.0	11.0	11.0	10.9	10.8

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10 (I)	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C1</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>7</u>	Average number of young produced (≥15 young) <u>47.4</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>99%</u>	Is aeration required (<40% or >100%)? Yes or <input checked="" type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing Yes or <input checked="" type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>1123</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? Yes or <input checked="" type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>G: 10/10/14</u>	Weekly water hardness (mg/L) <u>81</u>
Comments:	<u>In glass jars 24 hr updates</u> <u>@ 0hr : no ppt</u> <u>@ 48hr no ppt</u>	

 Reviewed By: TA

 Date Reviewed: 2017-10-20

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected October 2, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
LC_WTF_IN_20171010_NP / 1718-0306-01	10-Oct-17 at 0900h	11-Oct-17 at 1030h	11-Oct-17 at 1420h	1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_20171010_NP	1°C	1105	265

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	<i>Daphnia magna</i> 20°C	
LC_WTF_IN_20171010_NP	100	

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 20°C	
LC_WTF_IN_20171010_NP	0	

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_20171010_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	4.4 (4.3-4.5) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.2%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date October 10, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DPS-AS

Client TECIBU

Reference 1718-0306-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/11	1420	JW/APP	3	HS	7.9	1829	10.4	13.8	5
1	2017/10/12	1115	CB	-	JW					
2	2017/10/13	0710	JW	3	ED					

Lab Code	CTUA	CTUB	CTC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	8.0	8.0	8.0	8.3	8.3	8.3
2	7.9	7.9	7.9	8.4	8.4	8.4

EC (µS/cm)

0	331	329	337	1819	1850	1860
2	332	344	354	1801	1849	1901

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	8.4	8.4	8.4
2	7.7	7.8	7.8	7.8	7.8	7.9

Temperature (°C) (range: 18-22°C)

0	19.9	19.8	19.8	18.4	18.4	18.4
2	19.2	19.5	19.5	19.1	19.2	19.1

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)

Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 47.4
 Were test treatments randomized on test tray? Yes / No

Sample

DO % of sample prior to aeration: 115% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 1105 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water

Pail label / preparation date G:10/10/14 Weekly water hardness (mg/L) 8

Comments:

@0hr = no ppt
 @48hr = no ppt

Reviewed By: JA

Date Reviewed: 27-10-19

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected October 2, 2017

Final Report

February 26, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
WL_BFWB_OUT_SP21_20171010 _N / 1718-0306-02	10-Oct-17 at 0900h	11-Oct-17 at 1030h	11-Oct-17 at 1420h	1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_20171010_N	1°C	1123	291

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample
	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20171010_N	100

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_20171010_N	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_20171010_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	4.4 (4.3-4.5) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.2%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date October 10, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS' AS

Client TECBM

Reference 1718-0306-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/11	1420	JW/DP	3	HS	7.8	1359	10.2	14.2	3
1	2017/10/12	1115	CB	-	JW					
2	2017/10/13	0710	JW	3	EP					

Lab Code	CTVA	CTUR	CTL	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	8.0	8.0	8.0	8.3	8.2	8.3			
2	7.9	7.9	7.9	8.4	8.4	8.4			

EC (µS/cm)

0	331	329	327	1934	1933	1951			
2	332	344	354	1887	1950	2000			

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	8.3	8.2	8.3			
2	7.7	7.7	7.8	7.8	7.8	7.8			

Temperature (°C) (range: 18-22°C)

0	19.9	19.8	19.8	18.4	18.2	18.2			
2	19.2	19.5	19.5	19.1	19.2	19.2			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 47.4
 Were test treatments randomized on test tray? (Yes) / No

Sample
 DO % of sample prior to aeration: 112% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20min Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1123 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date G:10/04 Weekly water hardness (mg/L) 81

Comments:
 @ 0hr = nuppi
 @ 4hr = nuppt

Reviewed By: TA

Date Reviewed: 2017-10-19

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected October 16, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
WL_BFWB_OUT_SP21_2017-10-16_N / 1718-0334-02	16-Oct-17 at 0900h	17-Oct-17 at 0930h	18-Oct-17 at 1200h	17-Oct-17 at 1405h	17-Oct-17 at 1405h	3.2°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-10-16_N	3.2°C	1169	300

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-10-16_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-10-16_N	0	3

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
	Rainbow trout	None	None
WL_BFWB_OUT_SP21_2017-10-16_N	<i>Daphnia magna</i>	Precipitate observed in the 20°C test	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.9-3.6) g/L KCl ¹	5.1 (4.7-5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2-4.0) g/L KCl	4.9 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.1%	6.3%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, October 1, 2017; ² Test Date October 26, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In House
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test, 1 per treatment for LC50 test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS 20°C

 Client TEC164

 Reference 1712-0384-02
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information		
0	2017/10/17	1405	SS/AP	3	JW	Initial pH:	<u>7.9</u>	
1	2017/10/18	0930	AP/EP	-	JW	Initial EC (µS/cm):	<u>1915</u>	
2	2017/10/19	0950	SS/CP	3	PW	Initial DO (mg/L):	<u>8.9</u>	
						Initial Temp (°C):	<u>13.8</u>	
						Salinity (ppt):	<u>4</u>	
Lab Code	<u>CTLA</u>	<u>CTLB</u>	<u>CTLC</u>	<u>160A</u>	<u>160B</u>	<u>160C</u>		

day	pH (units) (range: 6.0-8.5)								
0	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>8.3</u>	<u>8.3</u>	<u>8.3</u>			
2	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>			

day	EC (µS/cm)								
0	<u>327</u>	<u>321</u>	<u>328</u>	<u>1923</u>	<u>1933</u>	<u>1937</u>			
2	<u>336</u>	<u>336</u>	<u>346</u>	<u>1919</u>	<u>1913</u>	<u>1973</u>			

day	DO (mg/L) (40-100% saturation at test temp.)								
0	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>8.2</u>	<u>8.2</u>	<u>18.2</u>			
2	<u>7.7</u>	<u>7.6</u>	<u>7.6</u>	<u>7.7</u>	<u>7.7</u>	<u>7.6</u>			

day	Temperature (°C) (range: 18-22°C)								
0	<u>20.3</u>	<u>19.9</u>	<u>19.9</u>	<u>18.1</u>	<u>18.0</u>	<u>18.0</u>			
2	<u>20.1</u>	<u>20.2</u>	<u>19.9</u>	<u>20.0</u>	<u>20.0</u>	<u>19.7</u>			

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10 (9F, 1D, 2B)</u>	<u>10 (10F)</u>	<u>10 (10F)</u>			
2	<u>9 (6F)</u>	<u>10 (5F)</u>	<u>10 (4F)</u>	<u>10 (13, 2F)</u>	<u>10 (6F)</u>	<u>10</u>			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>E4</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0</u>
QA (previous month)	Days to first brood (≤12 days) <u>6</u>	Average number of young produced (≥15 young) <u>22.3</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>113</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>20 min</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>1169</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) _____	
Dilution Water	Pail label / preparation date <u>D: 10/11</u>	Weekly water hardness (mg/L) <u>81</u>
Comments:	<u>observations Oh: No ppt 48h: some surface ppt formed</u>	

 Reviewed By: ca

 Date Reviewed: 2017/10/25

Method DAS 10°C

Client TECIBU

Reference 1718-0334-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/17	1405	SS/AP	3	JW	7.9	1915	9.9	13.8	4
1	2017/10/18	0930	AP/EP	-	JW					
2	2017/10/19	0950	SS/CB	3	PW					

Lab Code	CTLA	CTLB	CTLC	IWA	IWB	IWC

day	pH (units) (range: 6.0-8.5)					
0	8.1	8.1	8.1	7.9	7.9	7.9
2	7.8	7.8	7.8	8.1	8.0	8.1

day	EC (uS/cm)					
0	336	327	326	1989	1985	1984
2	330	331	339	1947	1975	2060

day	DO (mg/L) (40-100% saturation at test temp.)					
0	9.6	9.6	9.7	9.6	9.6	9.6
2	9.7	9.7	9.7	9.7	9.7	9.6

day	Temperature (°C) (range: 18-22°C)					
0	10.6	10.5	10.5	11.2	11.2	11.3
2	10.4	10.3	10.3	10.4	10.4	10.5

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10(10)	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 34.4
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1169 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date P:10/11 Weekly water hardness (mg/L) 81

Comments:
Observations Ch: Moppt
 48h: Moppt

Reviewed By: ca

Date Reviewed: 20.7/10/25

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20171016-Acute Toxicity		TURNAROUND TIME: REGULAR	RUSH:
PROJECT/CLIENT INFO		LABORATORY	OTHER INFO
Facility Name / Job# WLC AWTF	Nautilus Environmental	Report Delivery Formats	Excel
Project Manager Thomas Davidson	Lab Contact Jacklyn Pool	Email 1:	thomas.davidson@teck.com
Email Thomas.Davidson@teck.com	Email Jacklyn@NautilusEnvironmental.ca	Email 2:	teckcoal@equisonline.com
Address 15 Km North HWY 43	Address #4: 6125 - 12 Street SE	Email 3:	teckwclab@epcor.com
City Sparwood	Province BC	Email 4:	Mary.Hafke@teck.com
Postal Code V0B 2G0	Country Canada	Email 5:	colin.lynch@teck.com
Phone Number 250.603.9417	City Category T2H 2K1	Email 6:	michael.moore@teck.com
	Postal Code	Email 7:	jocelyn.traverse@teck.com
	Phone Number +1.403.253.7121	VPO 00473572	
SAMPLE DETAILS			
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)
LC_WTF_IN_20171016_NP	LC_WTF_IN	WS	N
WL_BFWB_OUT_SF21_20171016_N	WL_BFWB_OUT_SF21	WS	N
<p>2017/10/17 FA 0930 5x 200cc carboys 6 x 1L bottles No ILS good condition</p>			
ANALYSIS REQUESTED			
ANALYSIS	PRESERV.	FR.	CONC.
NAUT_96hr_RT_Single Concentration_Toxicity	N	N	N
NAUT_48hr_DM_Single Concentration_Toxicity	N	N	N
NAUT_48hr_DM_Single Concentration_Toxicity Test @ 10C	N	N	N
NAUT_48hr_DM_Single Concentration_Toxicity Test @ 20C	N	N	N
EXTRA			
			3.6 ^B C
			3.8 ^B D
			1718-0334-01
			1718-0334-01
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS			
<p>RELINQUISHED BY/AFFILIATION</p>			
DATE/TIME			
ACCEPTED BY/AFFILIATION			
DATE/TIME			
NB OF BOTTLES RETURNED/DESCRIPTION			
Regular (default) X			
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge			
For Emergency < 1 Day, ASAP or Weekend - Contact ALS			
Sampler's Name		Mobile #	Date/Time
Relda Akkerman			October 16, 2017
Sampler's Signature			

END OF REPORT



Acute Toxicity Test Results

Sample collected October 16, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
LC_WTF_IN_2017-10-16_NP / 1718-0334-01	16-Oct-17 at 0900h	17-Oct-17 at 0930h	17-Oct-17 at 1435h	3.6°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-10-16_NP	3.6°C	1118	269

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample
	<i>Daphnia magna</i>
LC_WTF_IN_2017-10-16_NP	100

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i>
LC_WTF_IN_2017-10-16_NP	3

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-10-16_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.1 (4.7-5.4) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.3%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date October 26, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DPS-AS

Client TECIBU

Reference 1718-0306-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/11	1420	JW/APP	3	HS	7.9	1829	10.4	13.8	5
1	2017/10/12	1115	CB	-	JW					
2	2017/10/13	0710	JW	3	ED					

Lab Code	CTUA	CTUB	CTC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	8.0	8.0	8.0	8.3	8.3	8.3
2	7.9	7.9	7.9	8.4	8.4	8.4

EC (µS/cm)

0	331	329	337	1819	1850	1860
2	332	344	354	1801	1849	1901

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	8.4	8.4	8.4
2	7.7	7.8	7.8	7.8	7.8	7.9

Temperature (°C) (range: 18-22°C)

0	19.9	19.8	19.8	18.4	18.4	18.4
2	19.2	19.5	19.5	19.1	19.2	19.1

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 47.4
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 115% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1105 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date G:10/04 Weekly water hardness (mg/L) 8

Comments:
@0hr = no ppt
@4hr = no ppt

Reviewed By: JA

Date Reviewed: 27-10-19

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected October 16, 2017

Final Report

February 26, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
WL_BFWB_OUT_SP21_2017- 10-16_N / 1718-0334-02	16-Oct-17 at 0900h	17-Oct-17 at 0930h	17-Oct-17 at 1435h	3.2°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-10-16_N	3.2°C	1169	300

TEST TYPES

- Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	<i>Daphnia magna</i>	
WL_BFWB_OUT_SP21_2017-10-16_N	100	

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i>	
WL_BFWB_OUT_SP21_2017-10-16_N	0	

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-10- 16_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.1 (4.7-5.4) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.3%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date October 26, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS AS

Client TECIB4

Reference 1718-0335-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/17	1435	SS/AP	3	JW	7.9	1915	8.9	13.8	4
1	2017/10/18	0915	AP/EP	-	JW					
2	2017/10/19	1000	SS/CB	3	JW					

Lab Code	CTLA	CTLB	CTLC	IWA	IWB	IWC			
----------	------	------	------	-----	-----	-----	--	--	--

day	pH (units) (range: 6.0-8.5)					
0	7.9	7.9	7.9	8.0	8.0	8.0
2	7.8	7.8	7.9	8.4	8.5	8.5

	EC (µS/cm)					
0	332	330	329	1863	1866	1867
2	356	356	365	1987	2130	2160

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.7	7.7	7.7	8.1	8.2	8.2
2	7.8	7.8	7.7	7.78	7.7	7.7

	Temperature (°C) (range: 18-22°C)					
0	20.0	20.0	20.0	18.3	18.2	18.2
2	19.7	19.7	19.8	19.9	19.9	20.0

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10(1F)	10	10	10	10(1F)	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar E4 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 6
 Average number of young produced (≥15 young) 20.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 113 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 116.9 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date D:10/11 Weekly water hardness (mg/L) 81

Comments:
 Observations: oh: noppt
 ush: noppt

Reviewed By: [Signature]

Date Reviewed: Oct 24/2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected October 23, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
LC_WTF_IN_2017-10-23_NP / 1718-0381-01	23-Oct-17 at 0900h	24-Oct-17 at 1030h	25-Oct-17 at 1145h	24-Oct-17 at 1500h	24-Oct-17 at 1600h	6.4°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-10-23_NP	6.4°C	669	260

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-10-23_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-10-23_NP	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-10-23_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.9-3.6) g/L KCl ¹	5.1 (4.7-5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2-4.0) g/L KCl	4.9 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.1%	6.3%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, October 1, 2017; ² Test Date October 26, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In House
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test, 1 per treatment for LC50 test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS 20°C

Client TEC 164

Reference 1718-0381-01

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information
0	<u>2017/10/24</u>	<u>1500</u>	<u>CB/AP</u>	<u>3</u>	<u>EP</u>	Initial pH: <u>7.9</u>
1	<u>2017/10/25</u>	<u>1030</u>	<u>JW/LE</u>	-	<u>AP</u>	Initial EC (µS/cm): <u>1291</u>
2	<u>2017/10/26</u>	<u>1030</u>	<u>AP/LE</u>	<u>3</u>	<u>10 Nautilus</u>	Initial DO (mg/L): <u>9.0</u>
						Initial Temp (°C): <u>16.4</u>
						Salinity (ppt): <u>1-</u>

Lab Code	<u>CTLA</u>	<u>CTLB</u>	<u>CTLC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>
----------	-------------	-------------	-------------	-------------	-------------	-------------

day

	pH (units) (range: 6.0-8.5)					
0	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>8.1</u>	<u>8.1</u>	<u>8.1</u>
2	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>8.1</u>	<u>8.2</u>	<u>8.2</u>

	EC (µS/cm)					
0	<u>330</u>	<u>332</u>	<u>335</u>	<u>1195</u>	<u>1214</u>	<u>1217</u>
2	<u>335</u>	<u>333</u>	<u>335</u>	<u>1137</u>	<u>1154</u>	<u>1181</u>

	DO (mg/L) (40-100% saturation at test temp.)					
0	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>8.1</u>	<u>8.1</u>	<u>8.3</u>
2	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>

	Temperature (°C) (range: 18-22°C)					
0	<u>20.0</u>	<u>20.0</u>	<u>20.1</u>	<u>19.5</u>	<u>18.5</u>	<u>19.2</u>
2	<u>19.8</u>	<u>19.8</u>	<u>19.8</u>	<u>19.7</u>	<u>19.8</u>	<u>19.7</u>

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar C2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 9
Average number of young produced (≥15 young) 35.6
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 122% Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20mins Filtered with 110um screen prior to testing Yes or No
Hardness (mg CaCO3/L) of 100%: 669 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
Pail label / preparation date X: 10/18 Weekly water hardness (mg/L) 80

Comments:
ATE DOMS: no ppt
@ 48 hrs: no ppt

Reviewed By: W

Date Reviewed: 2017/10/26

Method DAS10°C

Client TEC164

Reference 1718-0381-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	7.9
0	2017/10/24	1600	CB/AP	3	AP	Initial EC (µS/cm):	1291
1	2017/10/25	1030	JW/LE	-	AP	Initial DO (mg/L):	9.0
2	2017/10/26	1030	AE/LE	3	10 2017/10/26	Initial Temp (°C):	16.4
						Salinity (ppt):	14.

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C			
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day	pH (units) (range: 6.0-8.5)					
0	8.0	8.6	8.6	7.9	7.9	7.9
2	7.8	7.8	7.8	8.2	8.2	8.2

day	EC (µS/cm)					
0	333	336	336	1185	1226	1032
2	335 329	329	335	1185	1193	1069

day	DO (mg/L) (40-100% saturation at test temp.)					
0	9.8	9.7	9.7	9.8	9.8	9.8
2	9.8	9.8	9.8	9.5	9.7	9.7

day	Temperature (°C) (range: 18-22°C)					
0	10.0	10.6	10.0	10.0	10.0	10.0
2	10.5	10.5	10.5	10.8	11.0	11.0

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10(B)	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C5 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 35.6
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 122% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 669 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date X:10/18 Weekly water hardness (mg/L) 80

Comments:
control: no ppt
@48hrs: no ppt

Reviewed By: 10

Date Reviewed: 2017/10/21

Method DAS-AS

Client TEC164

Reference 1718-0380-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/10/24	1630	CB/AP	3	AP	7.9
1	2017/10/25	1030	JW/LF	-	AP	Initial EC (µS/cm): 1291
2	2017/10/26	1000	AP/LF	3	LO 2017/10/30	Initial DO (mg/L): 9.0
						Initial Temp (°C): 16.4
						Salinity (ppt): 17.

Lab Code	CTLA	CTLB	CTLB	100A	100B	100C
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day	pH (units) (range: 6.0-8.5)					
0	8.0	8.0	8.0	8.2	8.2	8.3
2	7.8	7.9	7.9	8.3	8.3	8.3

	EC (µS/cm)					
0	341	337	339	1205	1210	1217
2	332	332	334	1176	1182	1190

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.9	7.9	7.9	8.2	8.2	8.2
2	7.9	7.8	7.9	7.9	7.9	7.9

	Temperature (°C) (range: 18-22°C)					
0	20.0	19.9	20.1	19.6	19.5	19.5
2	19.9	20.0	20.0	19.9	19.9	19.9

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10 (1F)	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D5 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 31.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 120% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 669 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date X:10/18 Weekly water hardness (mg/L) 80

Comments:
 @ 0hr = no ppt
 @ 4hr = no ppt

Reviewed By: LD

Date Reviewed: 2017/10/30

Method JRS Client TECIBU Reference 1718-0381-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/10/25	1145 *	AP	1	JW
1	2017/10/26	0800	AP	-	SS
2	2017/10/27	0800	AP	-	SS
3	2017/10/28	0815	LC	-	SS
4	2017/10/29	1200	HS/JW	1	HJ

Sample Information

Initial pH:	<u>7.9</u>
Initial EC (µS/cm):	<u>1291</u>
Initial DO (mg/L):	<u>8.0</u>
Initial Temp (°C):	<u>16.4</u>
Salinity (ppt):	<u>3</u>
Nets used: yes / (no)	<u>(no)</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100%: 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.9</u>	<u>8.0</u>					
Day 4	<u>8.1</u>	<u>8.1</u>					

EC (uS/cm)

Day 0	<u>553</u>	<u>1167</u>					
Day 4	<u>480</u>	<u>1123</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.9</u>	<u>8.9</u>					
Day 4	<u>8.9</u>	<u>8.9</u>					

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.5</u>	<u>14.0</u>					
Day 4	<u>14.0</u>	<u>14.0</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>3.0</u>	<u>0.3</u>	<u>10170831JR</u>	
2	<u>3.1</u>	<u>0.3</u>	Source	<u>in house (NE)</u>
3	<u>3.0</u>	<u>0.2</u>	Mean Length (cm):	<u>2.9</u>
4	<u>2.9</u>	<u>0.2</u>	Length Range (cm):	<u>2.8-3.1</u>
5	<u>2.8</u>	<u>0.2</u>	Mean Weight (g):	<u>0.3</u>
6	<u>2.8</u>	<u>0.2</u>	Weight Range (g):	<u>0.2-0.3</u>
7	<u>2.9</u>	<u>0.3</u>	Days Held	<u>SS</u>
8	<u>3.0</u>	<u>0.3</u>	Percent stock mortality	<u>0.06</u>
9	<u>2.9</u>	<u>0.3</u>	(7 days prior to test, must be ≤2%)	
10	<u>2.9</u>	<u>0.3</u>	Test Volume (L)	<u>20</u>

Comments :

Reviewed By: W

Date Reviewed: 2017/11/01

APPENDIX C – Chain-of-custody form

Teck

COC ID: 2017-10-23_AcuteToxicity		TURNAROUND TIME: REGULAR		RUSH:	
PROJECT/CLIENT INFO		LABORATORY		OTHER INFO	
Facility Name / Job# Project Manager Email Address	WLC AWTF Thomas Davidson Thomas.Davidson@teck.com 15 Km North HWY 43	Lab Name Lab Contact Email Address	Nautilus Environmental Jacklyn Pool jacklyn@NautilusEnvironmental.ca #4, 6125 - 12 Street SE	Report Delivery Formats	Excel PDF EDD
City Postal Code	Sparwood V0B 2G0	City Postal Code	Calgary T2H 2K1	Email 1: Email 2: Email 3: Email 4: Email 5: Email 6: Email 7:	thomas.davidson@teck.com teckcoal@equisonline.com teckwclab@epcor.com Marty.Hafke@teck.com collin.lynych@teck.com michael.moore@teck.com jocelyn.traverse@teck.com
Province Country	BC Canada	Province Country	AB Canada	VPO 00473572	
Phone Number	250.603.9417	Phone Number	+1.403.253.7121		

SAMPLE DETAILS		ANALYSIS REQUESTED		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Time (24hr)	Date	G-Grab	C-Comp	# Of Cont.	ANALYSIS
LC_WTF_IN_2017-10-23_NP	LC_WTF_IN	WS	N	9:00	23-Oct-17	G		3	NAUT_96HR_RT_Single Concentration_Toxicity
WL_BFWB_OUT_SP21_2017-10-23_N	WL_BFWB_OUT_SP21	WS	N	9:00	23-Oct-17	G		8	NAUT_48HR_DM_Single Concentration_Toxicity
									NAUT_48HR_DM_Single Concentration_Toxicity
									NAUT_48HR_DM_Single Concentration_Toxicity
									Test @ 10C
									Test @ 20C
									EXTRA

17/10/2017-01
17/10/2017-02

030
Non-toxicity
5 x 200 carbons, for 12 bottles
8000 condition
No TLs

9017/10/17 02

6-7-17
7-7-17

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION		Blair Peebles	Mobile #
Regular (default)	X		
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge			
For Emergency < 1 Day, ASAP or Weekend - Contact ALS			
Sampler's Name	Sampler's Signature	Date/Time	October 23, 2017

END OF REPORT



Acute Toxicity Test Results

Sample collected October 23, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
WL_BFWB_OUT_SP21 _2017-10-23_N / 1718-0381-02	23-Oct-17 at 0900h	24-Oct-17 at 1030h	25-Oct-17 at 1200h	24-Oct-17 at 1630h	24-Oct-17 at 1600h	7.7°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-10- 23_N	7.7°C	613	249

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-10-23_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-10-23_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-10-23_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.9-3.6) g/L KCl ¹	5.1 (4.7-5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2-4.0) g/L KCl	4.9 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.1%	6.3%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, October 1, 2017; ² Test Date October 26, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In House
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test, 1 per treatment for LC50 test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS 20°C

Client TEC 164

Reference 1718-0381-02

Test Log						Sample Information	
Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	7.9
0	2017/10/24	1630	CA/AP	3	FR	Initial EC (µS/cm):	1339
1	2017/10/25	1030	JW/LF	-	AP	Initial DO (mg/L):	9.4
2	2017/10/26	1030	AP/LF	3	LD 2017/10/24	Initial Temp (°C):	15.9
						Salinity (ppt):	11

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C
day	pH (units) (range: 6.0-8.5)					
0	8.0	8.0	8.0	8.2	8.2	8.2
2				8.1	8.1	8.1
	EC (µS/cm)					
0	330	332	335	1340	1349	1362
2	331	332	335	1324	1319	1367
	DO (mg/L) (40-100% saturation at test temp.)					
0	7.9	7.9	7.9	8.2	8.3	8.3
2	7.9	7.9	7.9	8.1	8.0	7.9
	Temperature (°C) (range: 18-22°C)					
0	20.0	19.9	20.1	19.5	19.4	19.4
2	19.8	19.8	19.8	19.7	19.7	19.7
	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10 (IF)	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 35.6
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 122.1 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 30 mins Filtered with 110µm screen prior to testing? Yes or No
 Hardness (mg CaCO3/L) of 100%: 0.13 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date X:10/18 Weekly water hardness (mg/L) 80

Comments:
 @OMRS: no ppt
 @USMRS: no ppt

Date Reviewed: 2017/10/24

Reviewed By: W

Method DAS 10°C

Client TEC164

Reference 1718-0381-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/10/24	1630	CB/AP	3	50	7.9
1	2017/10/25	1030	JW/LF	-	AP	Initial EC (µS/cm): 1339
2	2017/10/26	1030	AP/LF	3	LO 2017/10/26	Initial DO (mg/L): 9.4
						Initial Temp (°C): 15.4
						Salinity (ppt): 14.

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	8.0	8.0	8.0	7.9	7.9	7.9			
2	7.8	7.8	7.8	8.2	8.2	8.2			

EC (µS/cm)

0	333	336	336	1381	1390	1395			
2	333	336	335	1374	1354	1353			
	329	329		1373					

DO (mg/L) (40-100% saturation at test temp.)

0	9.5	9.7	9.7	9.6	9.8	9.8			
2	9.8	9.8	9.8	9.8	9.8	9.0			
				9.8					

Temperature (°C) (range: 18-22°C)

0	10.0	10.0	10.0	10.0	10.0	10.0			
2	10.5	10.5	10.5	10.0	10.5	10.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar C5 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 9
Average number of young produced (≥15 young) 35.6
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes or No
Hardness (mg CaCO₃/L) of 100%: 1613 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
Pail label / preparation date X:10/18 Weekly water hardness (mg/L) 80

Comments:
no hrs: no ppt
@48 hrs: no ppt.

Reviewed By: LO

Date Reviewed: 2017/11/01

Method DAS-AS

Client TEC164

Reference 1718-0380-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/24	1630	CB/AP	3	AP	7.9	1339	9.4	15.4	17.
1	2017/10/25	1030	JW/LF	-	AP					
2	2017/10/26	1030	AP/LF	3	LO 2017/10/30					

Lab Code	<u>CTLA</u>	<u>CTLB</u>	<u>CTLC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>
----------	-------------	-------------	-------------	-------------	-------------	-------------

day

	pH (units) (range: 6.0-8.5)					
0	8.0	8.0	8.0	8.2	8.2	8.2
2	7.8	7.9	7.9	8.3	8.3	8.3

	EC (uS/cm)					
0	341	337	339	1341	1353	1359
2	332	332	344	1176 LF	1182 LF	1180 LF

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.9	7.9	7.9	8.2	8.2	8.2
2	7.9	7.8	7.9	7.9	7.9	7.9

	Temperature (°C) (range: 18-22°C)					
0	20.0	19.9	20.1	19.6	19.5	19.5
2	19.9	20.0	20.0	19.9	19.9	19.9

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10 (1F)	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar DS/1C2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)

Days to first brood (≤12 days) 8/9
 Average number of young produced (≥15 young) 31.3 / 35.6
 Were test treatments randomized on test tray? Yes No

Sample

DO % of sample prior to aeration: 119% Is aeration required (<40% or >100%)? Yes No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes No
 Hardness (mg CaCO₃/L) of 100%: 613 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water

Pail label / preparation date X:10/18 Weekly water hardness (mg/L) 80

Comments:

@ 0hr = no ppt
 @ 4hr = no ppt

Method TRS Client TE0164 Reference 1718-0385-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/10/25	1200 *	AP	1	JW
1	2017/10/26	0800	AP	-	SS
2	2017/10/27	0800	AP	-	SS
3	2017/10/28	0810	LC	-	SS
4	2017/10/29	1200	HS/JW	1	HS

Sample Information

Initial pH:	<u>7.9</u>
Initial EC (µS/cm):	<u>1339</u>
Initial DO (mg/L):	<u>8.9</u>
Initial Temp (°C):	<u>14.0</u>
Salinity (ppt):	<u>3</u>
Nets used: yes / (no)	<u>no</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time	0.5 hours	1 hour	1.5 hours	2 hours
DO(mg/L) of 100%	<u>8.9</u>			

Test Chemistry and Biology

Conc.	CTL	10G				

pH (units) (range: 5.5-8.5)

Day 0	<u>7.9</u>	<u>8.0</u>				
Day 4	<u>8.1</u>	<u>8.1</u>				

EC (uS/cm)

Day 0	<u>477</u>	<u>1301</u>				
Day 4	<u>490</u>	<u>1254</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.9</u>	<u>8.9</u>				
Day 4	<u>8.8</u>	<u>8.9</u>				

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.0</u>	<u>14.0</u>				
Day 4	<u>14.0</u>	<u>14.0</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	<u>20170831JR</u>
1	<u>2.7</u>	<u>0.2</u>	Source	<u>SS in trays (NE)</u>
2	<u>2.9</u>	<u>0.2</u>	Days Held	<u>SS</u>
3	<u>3.1</u>	<u>0.2</u>	Percent stock mortality (7 days prior to test, must be ≤2%)	<u>0.11</u>
4	<u>3.0</u>	<u>0.3</u>	Test Volume (L)	<u>20</u>
5	<u>3.0</u>	<u>0.3</u>		
6	<u>2.7</u>	<u>0.2</u>		
7	<u>2.8</u>	<u>0.2</u>		
8	<u>2.8</u>	<u>0.2</u>		
9	<u>2.9</u>	<u>0.2</u>		
10	<u>2.8</u>	<u>0.2</u>		
Loading Density (g/L): <u>0.11</u>				
Mean Length (cm): <u>2.7-2.9</u>				
Length Range (cm): <u>2.7-3.1</u>				
Mean Weight (g): <u>0.2</u>				
(Must be ≥0.3g)				
Weight Range (g): <u>0.2-0.3</u>				
Comments :				

Reviewed By: W

Date Reviewed: 20171101

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected October 30, 2017

Final Report – Revision 1

February 27, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
LC_WTF_IN_2017-10-30_NP / 1718-0404-01	30-Oct-17 at 0900h	31-Oct-17 at 1125h	31-Oct-17 at 1420h	1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-10-30_NP	1°C	617	236

TEST TYPES

- Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-10-30_NP	100

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-10-30_NP	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-10-30_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.1 (4.7-5.4) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.3%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date October 26, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS-AS

Client TECIBV

Reference 1718-0404-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/11/03	1450	JW/LB	3	HS	7.9
1	2017/11/03	0900	HS/JW	-	SS	11.2
2	2017/11/02	1100	JW/SS	3	HS	9.5
						Initial Temp (°C):
						17.8
						Salinity (ppt):
						0

Lab Code	CTVA	CTVB	CTVC	100A	100B	100C

day

pH (units) (range: 6.0-8.5)

0	7.7	7.7	7.7	8.0	8.0	8.0			
2	8.0	8.0	8.0	8.4	8.4	8.5			

EC (uS/cm)

0	316	318	319	1140	1154	1155			
2	288	306	301	1061	1077	1074			

DO (mg/L) (40-100% saturation at test temp.)

0	8.1	8.1	8.0	8.1	8.1	8.1			
2	7.7	7.7	7.7	7.8	7.7	7.8			

Temperature (°C) (range: 18-22°C)

0	19.6	19.6	19.5	18.5	18.6	18.0			
2	20.5	20.5	20.5	20.5	20.5	20.5			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar D3, D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 01.

QA (previous month)
Days to first brood (≤12 days) 9
Average number of young produced (≥15 young) 56.8
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 122% Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110um screen prior to testing Yes or No
Hardness (mg CaCO3/L) of 100%: 590 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
Pail label / preparation date G:10/30 Weekly water hardness (mg/L) 90

Comments: @ 0hr : no ppt
@ 48 hr : no ppt

Reviewed By: CA

Date Reviewed: 2017/11/06

APPENDIX C – Chain-of-custody form

Teck

COC ID: 2017-10-30_AcuteToxicity-antiscalant

TURNAROUND TIME:

REGULAR

RUSH:

PROJECT/CLIENT INFO

LABORATORY

OTHER INFO

Facility Name / Job#	WLC AWTF			Lab Name	Nautilus Environmental			Report Delivery Formats	Excel	PDF	EDD	
Project Manager	Thomas Davidson			Lab Contact	Jacklyn Pool			Email 1:	thomas.davidson@teck.com	X	X	X
Email	Thomas.Davidson@teck.com			Email	Jacklyn@NautilusEnvironmental.ca			Email 2:	teckcoal@equisonline.com			X
Address	15 Km North HWY 43			Address	#4, 6125 - 12 Street SE			Email 3:	teckwclab@epcor.com	X	X	X
								Email 4:	Marty.Hafke@teck.com	X	X	X
City	Sparwood	Province	BC	City	Calgary	Province	AB	Email 5:	colin.lynch@teck.com			X
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada	Email 6:	michael.moore@teck.com	X	X	X
Phone Number	250.603.9417			Phone Number	+1.403.253.7121			Email 7:	jocelyn.traverse@teck.com	X	X	X
												VPO 00473572

SAMPLE DETAILS

ANALYSIS REQUESTED

Filtered - F: Field, L: Lab, FL: Field & Lab, N: None

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS	PHIL	PRESERV.								
1718-0404-01 LC_WTF_IN_2017-10-30_NP	LC_WTF_IN	WS	N	30-Oct-17	9:00	G	1	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C + Antiscalant	X	N								
1718-0404-02 WL_BFWB_OUT_SP21_2017-10-30_N	WL_BFWB_OUT_SP21	WS	N	30-Oct-17	9:00	G	1		X	N								

CO/DO
2017/10/31
1125
No S #
Hamilton Transport
2x 1L bottles
good condition

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS

RELINQUISHED BY/AFFILIATION

DATE/TIME

ACCEPTED BY/AFFILIATION

DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION

Regular (default)	X	Sampler's Name	Relda Akkerman	Mobile #	
Priority (2-3 business days) - 50% surcharge		Sampler's Signature		Date/Time	October 30, 2017
Emergency (1 Business Day) - 100% surcharge					
For Emergency <1 Day, ASAP or Weekend - Contact ALS					

END OF REPORT



Acute Toxicity Test Results

Sample collected October 30, 2017

Final Report – Revision 1

February 27, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
WL_BFWB_OUT_SP21_2017- 10-30_N / 1718-0404-02	30-Oct-17 at 0900h	31-Oct-17 at 1125h	31-Oct-17 at 1450h	3°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-10- 30_N	3°C	654	216

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample <i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-10-30_N	100

Sample ID	Percent Immobility in 100 (% v/v) <i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-10-30_N	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-10- 30_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.1 (4.7-5.4) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.3%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date October 26, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

x24 hr update

Method DAS-1A5

Client TEL164

Reference 1711-0404-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	8.0
0	2017/11/03	14:50	JW/LB	3	45	Initial EC (µS/cm):	1201
1	2017/11/01	0900	JW/H5	-	55	Initial DO (mg/L):	7.7
2	2017/11/02	1100	JW/H5	3	45	Initial Temp (°C):	17.8
						Salinity (ppt):	0

Lab Code	<u>CCLA</u>	<u>CCLB</u>	<u>CCLC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>			
----------	-------------	-------------	-------------	-------------	-------------	-------------	--	--	--

day	pH (units) (range: 6.0-8.5)								
0	7.7	7.7	7.7	8.0	8.0	8.0			
2	8.0	8.0	8.0	8.4	8.4	8.4			

day	EC (µS/cm)								
0	316	318	319	1214	1234	1230			
2	288	306	301	1135	1152	1167			

day	DO (mg/L) (40-100% saturation at test temp.)								
0	8.1	8.1	8.0	8.2	8.3	8.3			
2	7.7	7.7	7.7	7.9	7.8	7.8			

day	Temperature (°C) (range: 18-22°C)								
0	19.0	19.0	19.5	18.0	18.0	18.0			
2	20.5	20.5	20.5	20.0 20.0	20.0	20.0			

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar D3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 9
Average number of young produced (≥15 young) 56.8
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 111% Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110um screen prior to testing Yes or No
Hardness (mg CaCO3/L) of 100%: 451 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
Pail label / preparation date Q: 10/30 Weekly water hardness (mg/L) 90

Comments: @ 0 hr: no ppt
@ 48 hr: no ppt

Reviewed By: ca

Date Reviewed: 2017/11/06

APPENDIX C – Chain-of-custody form

Teck

COC ID: 2017-10-30_AcuteToxicity-antiscalant

TURNAROUND TIME:

REGULAR

RUSH:

PROJECT/CLIENT INFO

LABORATORY

OTHER INFO

Facility Name / Job#	WLC AWTF			Lab Name	Nautilus Environmental			Report Delivery Formats	Excel	PDF	EDD	
Project Manager	Thomas Davidson			Lab Contact	Jacklyn Pool			Email 1:	thomas.davidson@teck.com	X	X	X
Email	Thomas.Davidson@teck.com			Email	Jacklyn@NautilusEnvironmental.ca			Email 2:	teckcoal@equisonline.com			X
Address	15 Km North HWY 43			Address	#4, 6125 - 12 Street SE			Email 3:	teckwclab@epcor.com	X	X	X
								Email 4:	Marty.Hafke@teck.com	X	X	X
City	Sparwood	Province	BC	City	Calgary	Province	AB	Email 5:	colin.lynch@teck.com			X
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada	Email 6:	michael.moore@teck.com	X	X	X
Phone Number	250.603.9417			Phone Number	+1.403.253.7121			Email 7:	jocelyn.traverse@teck.com	X	X	X
												VPO 00473572

SAMPLE DETAILS

ANALYSIS REQUESTED

Filtered - F: Field, L: Lab, FL: Field & Lab, N: None

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS	PHIL	PRESERV.								
1718-0404-01 LC_WTF_IN_2017-10-30_NP	LC_WTF_IN	WS	N	30-Oct-17	9:00	G	1	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C + Antiscalant	X	N	10C							
1718-0404-02 WL_BFWB_OUT_SP21_2017-10-30_N	WL_BFWB_OUT_SP21	WS	N	30-Oct-17	9:00	G	1		X	N	30C							

CO/DO
2017/10/31
1125
No S #
Hamilton Transport
2x 1L bottles
good condition

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS

RELINQUISHED BY/AFFILIATION

DATE/TIME

ACCEPTED BY/AFFILIATION

DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION

Regular (default)	X	Sampler's Name	Relda Akkerman	Mobile #	
Priority (2-3 business days) - 50% surcharge		Sampler's Signature		Date/Time	October 30, 2017
Emergency (1 Business Day) - 100% surcharge					
For Emergency <1 Day, ASAP or Weekend - Contact ALS					

END OF REPORT



Acute Toxicity Test Results

Sample collected November 6, 2017

Final Report – Revision 1

February 27, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_2017-11-06_NP / 1718-0433-01	6-Nov-17 at 0900h	7-Nov-17 at 0900h	7-Nov-17 at 1445h	1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-11-06_NP	1°C	553	267

TEST TYPES

- Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample <i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-11-06_NP	100

Sample ID	Percent Immobility in 100 (% v/v) <i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-11-06_NP	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-11-06_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.1 (4.7-5.4) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.2%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date October 26, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

1718-0433-01

Method DAS AS

Client TEC164

Reference ~~1718-0432-01~~ LF

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	8.1
0	2017/11/07	1445	AP/LF	3	SS	Initial EC (µS/cm):	1080
1	2017/11/08	1030	HS/LE	-	HS	Initial DO (mg/L):	8.4
2	2017/11/09	0915	EP/LB	3	SS	Initial Temp (°C):	19.5
						Salinity (ppt):	2
Lab Code	CTLA	CTLB	CTLC	100A	100B	100C	

day	pH (units) (range: 6.0-8.5)					
0	7.7	7.8	7.8	7.9	7.9	7.9
2	7.7	7.7	7.7	7.8	7.8	7.8

	EC (µS/cm)					
0	303	306	300	1093	1094	1093
2	338	340	340	1188	1195	1199

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.7	7.7	7.8	7.9	7.8	7.8
2	7.7	7.7	7.7	7.8	7.8	7.8

	Temperature (°C) (range: 18-22°C)					
0	20.0	20.0	20.0	19.5	19.0	19.0
2	20.0	20.0	20.0	20.0	20.0	20.0

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C2/C5 Jar(s) mortality 7 days prior to test (must be ≤25%) 0/1

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 32.3
 Were test treatments randomized on test tray? Yes No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing? Yes No
 Hardness (mg CaCO3/L) of 100%: SS3 Is hardness adjustment required (<25 mg CaCO3/L)? Yes No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date H: 11/03 Weekly water hardness (mg/L) 95

Comments:
Oh - no ppt
1/8/1 - no ppt

Reviewed By: W

Date Reviewed: 2017/11/10

APPENDIX C – Chain-of-custody form



COC ID: 2017-11-06_AcuteToxicity-antiscalant

TURNAROUND TIME:

REGULAR

RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO										
Facility Name / Job# WLC AWTF				Lab Name Nautilus Environmental				Report Delivery Formats										
Project Manager Thomas Davidson				Lab Contact Jacklyn Pool				Email 1:	thomas.davidson@teck.com	X	X	X						
Email Thomas.Davidson@teck.com				Email Jacklyn@NautilusEnvironmental.ca				Email 2:	teckcoal@equisonline.com			X						
Address 15 Km North HWY 43				Address #4, 6125 - 12 Street SE				Email 3:	teckwclab@epcor.com	X	X	X						
City Sparwood Province BC				City Calgary Province AB				Email 4:	Marty.Hafke@teck.com	X	X	X						
Postal Code V0B 2G0 Country Canada				Postal Code T2H 2K1 Country Canada				Email 5:	colin.lynch@teck.com			X						
Phone Number 250.603.9417				Phone Number +1.403.253.7121				Email 6:	michael.moore@teck.com	X	X	X						
								Email 7:	jocelyn.traverse@teck.com	X	X	X						
								VPO 00473572										
SAMPLE DETAILS				ANALYSIS REQUESTED				Filtered - F: Field, L: Lab, FL: Field & Lab, N: None										
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS	PRESERV.	FIL.								
								NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C + Antiscalant										
LC_WTF_IN_2017-11-06_NP	LC_WTF_IN	WS	N	6-Nov-17	9:00	G	1	X		N								
WL_BFWB_OUT_SP21_2017-11-06_N	WL_BFWB_OUT_SP21	WS	N	6-Nov-17	9:00	G	1	X		N								
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION				DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME						
NB OF BOTTLES RETURNED/DESCRIPTION																		
Regular (default) X				Sampler's Name				Grant Fleming		Mobile #								
Priority (2-3 business days) - 50% surcharge				Sampler's Signature						Date/Time		November 6, 2017						
Emergency (1 Business Day) - 100% surcharge																		
For Emergency <1 Day, ASAP or Weekend - Contact ALS																		

END OF REPORT



Acute Toxicity Test Results

Sample collected November 6, 2017

Final Report – Revision 1

February 27, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_2017- 11-06_N / 1718-0433-02	6-Nov-17 at 0900h	7-Nov-17 at 0900h	7-Nov-17 at 1445h	1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-11- 06_N	1°C	481	252

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample <i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-11-06_N	100

Sample ID	Percent Immobility in 100 (% v/v) <i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-11-06_N	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-11- 06_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.1 (4.7-5.4) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	4.9 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.2%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date October 26, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS AS

Client TEC 164

Reference 1718-043307
~~1718-043202~~ LF

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/11/07	1445	AP/LF	3	SS	8.1
1	2017/11/08	1030	HS/LF	-	HS	1080
2	2017/11/09	0915	EA/LJ	7	SS	8.4
						Initial DO (mg/L):
						Initial Temp (°C):
						Salinity (ppt):
Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

AP
8.2
11.04
8.4
19.5
3

day pH (units) (range: 6.0-8.5)

0	7.7	7.8	7.8	8.0	8.0	8.0
2	7.7	7.7	7.7	7.9	7.9	8.0

EC (uS/cm)

0	303	300	300	1124	1122	1126
2	332	340	340	1195	1201	1209

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.7	7.8	7.9	7.9	7.8
2	7.7	7.7	7.7	7.8	7.8	7.8

Temperature (°C) (range: 18-22°C)

0	20.0	20.0	20.0	19.0	19.0	19.0
2	20.0	20.0	20.0	20.0	20.0	20.0

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar C2/C5 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 7
Average number of young produced (≥15 young) 32.3
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
Hardness (mg CaCO3/L) of 100%: 553 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
Pail label / preparation date H:11/03 Weekly water hardness (mg/L) 95

Comments:
Observations: Oh - no ppt
48h - no ppt

Reviewed By: _____ Date Reviewed: _____

APPENDIX C – Chain-of-custody form



COC ID: **2017-11-06_AcuteToxicity-antiscalant** TURNAROUND TIME: **REGULAR** RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job#	WLC AWTF			Lab Name	Nautilus Environmental			Report Delivery Formats		Excel	PDF	EDD
Project Manager	Thomas Davidson			Lab Contact	Jacklyn Pool			Email 1:	thomas.davidson@teck.com	X	X	X
Email	Thomas.Davidson@teck.com			Email	Jacklyn@NautilusEnvironmental.ca			Email 2:	teckcoal@equisonline.com			X
Address	15 Km North HWY 43			Address	#4, 6125 - 12 Street SE			Email 3:	teckwclab@epcor.com	X	X	X
City	Sparwood	Province	BC	City	Calgary	Province	AB	Email 4:	Marty.Hafke@teck.com	X	X	X
Postal Code	V0B 2G0	Country	Canada	Postal Code	T2H 2K1	Country	Canada	Email 5:	colin.lynch@teck.com			X
Phone Number	250.603.9417			Phone Number	+1.403.253.7121			Email 6:	michael.moore@teck.com	X	X	X
								Email 7:	jocelyn.traverse@teck.com	X	X	X

SAMPLE DETAILS								ANALYSIS REQUESTED															
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS	PH	PRESERV.	ANALYSIS												
								NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C + Antiscalant															
LC_WTF_IN_2017-11-06_NP	LC_WTF_IN	WS	N	6-Nov-17	9:00	G	1	X															
WL_BFWB_OUT_SP21_2017-11-06_N	WL_BFWB_OUT_SP21	WS	N	6-Nov-17	9:00	G	1	X															

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name	Grant Fleming	Mobile #
Regular (default)	X			
Priority (2-3 business days) - 50% surcharge				
Emergency (1 Business Day) - 100% surcharge				
For Emergency <1 Day, ASAP or Weekend - Contact ALS				
		Sampler's Signature	Date/Time	November 6, 2017

END OF REPORT



Acute Toxicity Test Results

Samples collected November 14, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
LC_WTF_IN_2017-11-14_NP / 1718-0452-01	14-Nov-17 at 1340h	15-Nov-17 at 1150h	16-Nov-17 at 1230h	15-Nov-17 at 1430h	15-Nov-17 at 1430h	5°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-11-14_NP	5°C	594	281

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-11-14_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-11-14_NP	3	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-11-14_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.5 (3.1-3.9) g/L KCl ¹	5.7 (5.3-6.1) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2-4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.3%	6.3%
Organism health history	Acceptable	Acceptable
Protocol deviations	See Below	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, November 14, 2017; ² Test Date November 8, 2017
 LC = Lethal Concentration; CL = Confidence Limit

The mean weight of the control fish was less than the 0.3 gram requirement.



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In-house
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Daphnia Bench Sheet

Method DAS200deg

Client TEC 164

Reference 1718-0452-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/11/15	1430	AP/LF	3	SS	7.9	1149	10.6	16.5	3
1	2017/11/16	0920	SS/LF	-	AP					
2	2017/11/17	1015	AP/LF	3	TM					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.7	7.7	7.7	8.0	8.0	8.1
2	7.7	7.8	7.8	8.2	8.2	8.2

	EC (µS/cm)					
0	312	322	321	1160	1171	1185
2	330	329	333	1129	1149	1151

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.7	7.7	7.8	7.9	7.9	7.9
2	7.8	7.8	7.8	7.8	7.8	7.8

	Temperature (°C) (range: 18-22°C)					
0	19.5	19.5	19.5	19.0	19.0	19.0
2	20.0	20.0	20.0	20.0	20.0	20.0

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10(3B)	10(1B)	10(2B)
2	10	10	10	10(1B)	10(1B)	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 27.9
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 281 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) <

Dilution Water
 Pail label / preparation date D:11/10 Weekly water hardness (mg/L) 95

Comments: Glass Jars Observations
 at 0 hrs: NO PPT
 at 48 hrs: NO PPT

Reviewed By: TM

Date Reviewed: 2017/11/21

Daphnia Bench Sheet

Method DAS10DEG

Client TEC 164

Reference 17J8-0452-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/11/15	1430	AP/LF	3	SS	7.9	1149	10.6	16.5	3
1	2017/11/16	0900	SS/LF	-	FP					
2	2017/11/17	0950	AP/LF	3	TM					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.7	7.7	7.8	8.1	8.1	8.1			
2	7.8	7.9	7.9	8.1	8.2	8.1			

EC (uS/cm)

0	300	319	321	1187	1173	1189			
2	324	327	331	1172	1174	1189			

DO (mg/L) (40-100% saturation at test temp.)

0	9.8	9.8	9.7	9.8	9.8	9.7			
2	9.7	9.8	9.8	9.6	9.7	9.6			

Temperature (°C) (range: 18-22°C)

0	10.0	10.0	10.0	10.0	10.0	10.0			
2	10.0	10.0	10.0	10.0	10.0	10.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10(F, I)	10	10(F)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 27.9
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing? Yes or No
 Hardness (mg CaCO₃/L) of 100%: 281 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date D:11/10 Weekly water hardness (mg/L) 95

Comments: Glass Jars Observations at 0 hrs: No ppt
 at 48 hrs: No ppt

Reviewed By: TM

Date Reviewed: 2017/11/21

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected November 14, 2017

Final Report – Revision 1

February 26, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 10°C test initiation	<i>Daphnia magna</i> 20°C test initiation	
WL_BFWB_OUT_SP21_2017- 11-14_N / 1718-0452-02	14-Nov-17 at 1340h	15-Nov-17 at 1150h	16-Nov-17 at 1230h	15-Nov-17 at 1430h	15-Nov-17 at 1430h	5°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-11-14_N	5°C	598	201

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-11-14_N	100	100	97

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-11-14_N	0	3

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-11-14_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.5 (3.1-3.9) g/L KCl ¹	5.7 (5.3-6.1) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2-4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.3%	6.3%
Organism health history	Acceptable	Acceptable
Protocol deviations	See Below	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, November 14, 2017; ² Test Date November 8, 2017

LC = Lethal Concentration; CL = Confidence Limit

The mean weight of the control fish was less than the 0.3 gram requirement.



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In-house
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRIS Client TEG 164 Reference 1718-0452-02

Test Log						Sample Information	
Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:	
0	2017/11/16	1230*	AP	1	SS	8	
1	2017/11/17	1000	Ca	-	AP	Initial EC (µS/cm):	1206
2	2017/11/18	0730	Ca	-	TM	Initial DO (mg/L):	9.6
3	2017/11/19	1100	HS	-	SS	Initial Temp (°C):	17.2
4	2017/11/20	1030	AP	1	SS	Salinity (ppt):	2
						Nets used: yes /	(0)

run updates

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: **yes/no**

Preaeration time

0.5 hours	1 hour	1.5 hours	2 hours
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DO(mg/L) of 100%

--	--	--	--

Test Chemistry and Biology

Conc.

CTL	100					
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pH (units) (range: 5.5-8.5)

Day 0	7.6	8.3				
Day 4	7.8	8.4				

EC (µS/cm)

Day 0	457	1213				
Day 4	453	1180				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.8	8.8				
Day 4	8.9	8.9				

Temperature (°C) (range: 14-16°C)

Day 0	14.0	14.0				
Day 4	14.0	14.0				

Number Alive (In brackets number stressed)

Day 0	10	10				
Day 1	10	10				
Day 2	10	10				
Day 3	10	10				
Day 4	10	10(1)				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	2.6	0.2	Loading Density (g/L):	0.119
2	2.7	0.2		
3	2.5	0.2	Mean Length (cm):	2.7
4	2.5	0.1		
5	2.6	0.2	Length Range (cm):	2.5-2.8
6	2.6	0.2		
7	2.7	0.2	Mean Weight (g): (Must be ≥0.3g)	0.2
8	2.7	0.2		
9	2.8	0.2	Weight Range (g):	0.1-0.2
10	2.8	0.2		
			Batch	20171023TR
			Source	LSL
			Days Held	24
			Percent stock mortality (7 days prior to test, must be ≤2%)	1
			Test Volume (L)	16
Comments:				

Reviewed By: TM

Date Reviewed: 2017/11/21

Daphnia Bench Sheet

Method DAS 2008g

Client TEC 164

Reference 1718-0452-02

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information		
0	2017/11/15	1430	AP/LF	3	SS	Initial pH:	8.0	
1	2017/11/16	0920	SS/LF	-	AP	Initial EC (µS/cm):	1206	
2	2017/11/17	1015	AP/LF	3	TM	Initial DO (mg/L):	9.6	
						Initial Temp (°C):	17.2	
						Salinity (ppt):	2	

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C			

day

	pH (units) (range: 6.0-8.5)								
0	7.7	7.7	7.7	8.1	8.2	8.2			
2	7.7	7.8	7.8	8.2	8.2	8.2			

	EC (uS/cm)								
0	312	322	321	1221	1215	1219			
2	330	329	333	1217	1201	1205			

	DO (mg/L) (40-100% saturation at test temp.)								
0	7.7	7.7	7.8	8.1	8.2	8.2			
2	7.8	7.8	7.8	7.8	7.8	7.7			

	Temperature (°C) (range: 18-22°C)								
0	19.5	19.5	19.5	19.0	19.0	19.0			
2	20.0	20.0	20.0	20.0	20.0	20.0			

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10(38)	10	10			
2	10	10	10	10	9	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 27.9
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 115 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20min Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 201 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date D:11/10 Weekly water hardness (mg/L) 95

Comments: Glass Jars Observations at 0 hrs: No ppt
 at 48 hrs: no ppt

Reviewed By: TM

Date Reviewed: 2017/11/21

Daphnia Bench Sheet

Method DAS 10 NEG

Client TEC 164

Reference 1718-2452-02

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information
0	2017/11/15	1430	AP/LF	3	SS	Initial pH: <u>7.9</u>
1	2017/11/16	0900	SS/LF	-	AP	Initial EC (µS/cm): <u>1199</u>
2	2017/11/17	0950	AP/LF	3	TM	Initial DO (mg/L): <u>10.6</u>
						Initial Temp (°C): <u>16.5</u>
						Salinity (ppt): <u>3</u>

8.0
1206
9.6
17.2
2

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)					
0	7.7	7.7	7.7	8.1	8.1	8.1
2	7.8	7.9	7.9	8.2	8.1	8.2

	EC (µS/cm)					
0	300	319	321	1222	1224	1234
2	324	327	331	1237	1224	1236

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.8	9.8	9.7	9.7	9.8	9.7
2	9.7	9.8	9.8	9.7	9.7	9.7

	Temperature (°C) (range: 18-22°C)					
0	10.0	10.0	10.0	10.0	10.0	10.0
2	10.0	10.0	10.0	10.0	10.0	10.0

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10 (IF)	10
2	10	10	10	10	10 (IF)	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 7
Average number of young produced (≥15 young) 27.9
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 100 ¹¹⁵ Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
Hardness (mg CaCO₃/L) of 100%: 128 201 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
Pail label / preparation date D:11/10 Weekly water hardness (mg/L) 95

Comments: Glass Jars Observations at 0 hrs: NO PPT
at 48 hrs: NO PPT

Reviewed By: TM

Date Reviewed: 2017/11/21

APPENDIX C – Chain-of-custody form

Teck

COC ID: 2017-11-14_AcuteToxicity		TURNAROUND TIME: REGULAR		RUSH:				
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO		
Facility Name / Job#: WLC AWTF		Lab Name: Nautilus Environmental		Report Delivery Formats		Excel	PDF	EDD
Project Manager: Thomas Davidson		Lab Contact: Jacklyn Pool		Email 1:	thomas.davidson@teck.com	X	X	X
Email: Thomas.Davidson@teck.com		Email: Jacklyn@NautilusEnvironmental.ca		Email 2:	teckcoal@equisonline.com			X
Address: 15 Km North HWY 43		Address: #4, 6125 - 12 Street SE		Email 3:	teckwclab@epcor.com	X	X	X
City: Sparwood Province: BC		City: Calgary Province: AB		Email 4:	Marty.Hafke@teck.com	X	X	X
Postal Code: V0B 2G0 Country: Canada		Postal Code: T2H 2K1 Country: Canada		Email 5:	colin.lynch@teck.com			X
Phone Number: 250.603.9417		Phone Number: +1.403.253.7121		Email 6:	jocelyn.traverse@teck.com	X	X	X
				VPO 00473572				

SAMPLE DETAILS ANALYSIS REQUESTED Filtered - F: Field, L: Lab, FL: Field & Lab, N: None

-01
-02

1718-0452

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS REQUESTED											
								PHL	PRELIM	ANALYSIS	EXTRA								
LC_WTF_IN_2017-11-14_NP	LC_WTF_IN	WS	N	14-Nov-17	9:00	G	3	X	X	X	X								
WL_BFWB_OUT_SP21_2017-11-14_N	WL_BFWB_OUT_SP21	WS	N	14-Nov-17	9:00	G	8	X	X	X	X								

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Blair Peebles	Mobile #	Date/Time
Regular (default) X Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency <1 Day, ASAP or Weekend - Contact ALS				November 14, 2017

2017/11/15 50
11:50
Du
Manitoulin
NOS/I
good condition

END OF REPORT



Acute Toxicity Test Results

Sample collected November 14, 2017

Final Report – Revision 1

February 27, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
LC_WTF_IN_2017-11-14_NP / 1718-0453-01	14-Nov-17 at 1340h	15-Nov-17 at 1150h	16-Nov-17 at 1430h	4°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-11-14_NP	4°C	594	281

TEST TYPES

- Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-11-14_NP	100

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-11-14_NP	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-11-14_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.7 (5.3-6.1) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.3%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date November 8, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data



Daphnia Bench Sheet

Method DAS-AS

Client TEC 164

Reference 1718-0453-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/11/16	1400	CB/SS	3	AP	7.9	1149	10.6	16.5°C	3+
1	2017/11/17	0930	UF/AP	-	LC					
2	2017/11/18	0930	AP	3						

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.78	7.9	7.9	8.2	8.2	8.2
2	7.9	7.9	7.9	8.3	8.4	8.4

	EC (µS/cm)					
0	310	311	314	1171	1178	1177
2	329	321	318	1203	1213	1199

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.5	7.6	7.6	7.7	7.7	7.7
2	7.7	7.7	7.7	7.8	7.7	7.8

	Temperature (°C) (range: 18-22°C)					
0	20.0	20.0	20.0	20.5	20.5	20.5
2	20.0	20.0	20.0	20.0	20.0	20.0

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10 (10F)	10	10	10	10	10
2	10 (10F)	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)

Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 30.7
 Were test treatments randomized on test tray? Yes / No

Sample

DO % of sample prior to aeration: 112% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20mins Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 5984 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water

Pail label / preparation date 6:11/15 Weekly water hardness (mg/L) 105

Comments:

Oh - no ppt

Reviewed By: _____ Date Reviewed: _____

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected November 14, 2017

Final Report – Revision 1

February 27, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
WL_BFWB_OUT_SP21_2017-11-14_N / 1718-0453-02	14-Nov-17 at 1340h	15-Nov-17 at 1150h	16-Nov-17 at 1430h	4°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-11-14_N	4°C	598	201

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample <i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-11-14_N	100

Sample ID	Percent Immobility in 100 (% v/v) <i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-11-14_N	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-11-14_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.7 (5.3-6.1) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.3%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date November 8, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Daphnia Bench Sheet

Method DAS-AS

Client TEC 16H

Reference 1718-0453-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	8.0
0	2017/11/16	1400	CB/SS	3	AP	Initial EC (µS/cm):	1200
1	2017/11/17	0930	LF/AP	-	LC	Initial DO (mg/L):	9.6
2	2017/11/18	0900	AP	3		Initial Temp (°C):	17.2°C
						Salinity (ppt):	2.1

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C			
----------	------	------	------	------	------	------	--	--	--

day pH (units) (range: 6.0-8.5)

0	7.8	7.9	7.9	8.1	8.1	8.1			
2	7.9	7.9	7.9	8.3	8.3	8.3			

EC (µS/cm)

0	310	311	314	1213	1221	1217			
2	329	321	318	1202	1227	1215			

DO (mg/L) (40-100% saturation at test temp.)

0	7.5	7.6	7.6	7.8	7.8	7.8			
2	7.7	7.7	7.7	7.8	7.8	7.8			

Temperature (°C) (range: 18-22°C)

0	20.0	20.0	20.0	20.5	20.5	20.5			
2	20.0	20.0	20.0	20.0	20.0	20.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10 (10F)	10	10	10	10	10			
2	10 (10F)	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)

Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 30.7
 Were test treatments randomized on test tray? Yes / No

Sample

DO % of sample prior to aeration: 115.7 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20mins Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 598 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water

Pail label / preparation date G:1115 Weekly water hardness (mg/L) 105

Comments:

Oh - no ppt

Reviewed By: _____ Date Reviewed: _____

APPENDIX C – Chain-of-custody form

Teck

COC ID: 2017-11-14_AcuteToxicity-antiscalant

TURNAROUND TIME:

REGULAR

RUSH:

PROJECT/CLIENT INFO

LABORATORY

OTHER INFO

Facility Name / Job# WLC AWTF

Lab Name Nautilus Environmental

Report Delivery Formats

Excel PDF EDD

Project Manager Thomas Davidson

Lab Contact Jacklyn Pool

Email 1: thomas.davidson@teck.com

X X X

Email Thomas.Davidson@teck.com

Email Jacklyn@NautilusEnvironmental.ca

Email 2: teckcoal@equisonline.com

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Province AB

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Country Canada

Email 6: jocelyn.traverse@teck.com

X X X

Phone Number 250.603.9417

Phone Number +1.403.253.7121

VPO 00473572

SAMPLE DETAILS

ANALYSIS REQUESTED

Filtered - F: Field, L: Lab, FL: Field & Lab, N: None

1718-0453

-01
-02

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS	PHIL	PRESERV.
LC_WTF_IN_2017-11-14_NP	LC_WTF_IN	WS	N	14-Nov-17	9:00	G	1	NAUT_48hr_DM_Single Concentration Toxicity Test @ 20C + Antiscalant	N	N
WL_BFWB_OUT_SP21_2017-11-14_N	WL_BFWB_OUT_SP21	WS	N	14-Nov-17	9:00	G	1			

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS

RELINQUISHED BY/AFFILIATION

DATE/TIME

ACCEPTED BY/AFFILIATION

DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION

Regular (default) X

Priority (2-3 business days) - 50% surcharge

Emergency (1 Business Day) - 100% surcharge

For Emergency <1 Day, ASAP or Weekend - Contact ALS

Sampler's Name

Blair Peebles

Mobile #

Sampler's Signature

Date/Time

November 14, 2017

2017/11/15 40
11:50
D4
Manitoulin
NOS/I
good condition

END OF REPORT



Acute Toxicity Test Results

Samples collected November 20, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
LC_WTF_IN_2017-11-20_NP / 1718-0472-01	20-Nov-17 at 0900h	21-Nov-17 at 0855h	22-Nov-17 at 1515h	21-Nov-17 at 1410h	21-Nov-17 at 1430h	1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-11-20_NP	1°C	545	202

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-11-20_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-11-20_NP	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-11-20_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.5 (3.1-3.9) g/L KCl ¹	5.7 (5.3-6.1) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2-4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.3%	6.3%
Organism health history	Acceptable	Acceptable
Protocol deviations	See Below	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, November 14, 2017; ² Test Date November 8, 2017
 LC = Lethal Concentration; CL = Confidence Limit

The final pH, DO, and temperature were not recorded at test termination.



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In House
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test, 1 per treatment for LC50 test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR5 Client TECUB4 Reference 1778-0472-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/11/22	1515 *	FS	1	FS
1	2017/11/23	0800	LF	-	HS
2	2017/11/24	1000	LF	-	HS
3	2017/11/25	1100	HS	-	CS
4	2017/11/26	0900	FS	1	TM

Sample Information

Initial pH: 8.0
 Initial EC (µS/cm): 1206
 Initial DO (mg/L): 8.1
 Initial Temp (°C): 16.8
 Salinity (ppt): 3
 Nets used: yes / no

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0 7.2 7.8
 Day 4

EC (uS/cm)

Day 0 414 1206
 Day 4

DO (mg/L) (70-100% saturation at test temp.)

Day 0 8.9 8.4
 Day 4

Temperature (°C) (range: 14-16°C)

Day 0 14.0 14.1
 Day 4

Number Alive (In brackets number stressed)

Day 0 10 10
 Day 1 10 10
 Day 2 10 10
 Day 3 10 10
 Day 4 10 10

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.7</u>	<u>0.3</u>	Loading Density (g/L): <u>0.139</u> Mean Length (cm): <u>2.6</u> Length Range (cm): <u>2.4-2.7</u> Mean Weight (g): <u>0.3</u> (Must be ≥0.3g) Weight Range (g): <u>0.2-0.3</u>	Batch <u>20171023 TR</u>
2	<u>2.6</u>	<u>0.2</u>		Source <u>CSL</u>
3	<u>2.7</u>	<u>0.3</u>		Days Held <u>29</u>
4	<u>2.7</u>	<u>0.3</u>		Percent stock mortality <u>0%</u> (7 days prior to test, must be ≤2%)
5	<u>2.7</u>	<u>0.3</u>		Test Volume (L) <u>18L</u>
6	<u>2.7</u>	<u>0.3</u>		
7	<u>2.7</u>	<u>0.2</u>		
8	<u>2.6</u>	<u>0.2</u>		
9	<u>2.6</u>	<u>0.2</u>		
10	<u>2.6</u>	<u>0.2</u>		

Comments :

Reviewed By: TM

Date Reviewed: 2017/11/30

Method D15 @ 10°C

Client TEC164

Reference 1718-0472-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/11/21	1430	HS/CB	3	AF	8.0	1203	8.1	16.8	3
1	2017/11/22	0800	CB	-	HS					
2	2017/11/23	0908	AP/HP	3	HS					

Lab Code	CTLA	CTLB	CTLC	100 A	100B	100C

day

pH (units) (range: 6.0-8.5)

0	8.0	8.0	8.0	8.2	8.2	8.2			
2	7.9	7.8	7.8	8.2	8.3	8.3			

EC (uS/cm)

0	321	318	321	1210	1220	1220			
2	287	322	327	1201	1209	1229			

DO (mg/L) (40-100% saturation at test temp.)

0	9.3	9.7	9.8	9.7	9.7	9.7			
2	9.6	9.7	9.7	9.7	9.7	9.8			

Temperature (°C) (range: 18-22°C)

0	10.0	10.0	10.0	10.5	10.5	10.5			
2	10.0	10.0	10.0	10.0	10.0	10.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 37
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 116% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110um screen prior to testing? Yes or No
 Hardness (mg CaCO3/L) of 100%: 845 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date D 11/17 Weekly water hardness (mg/L) 94

Comments:
 no ppt @ 0 hrs
 no ppt @ 48 hrs

Reviewed By: TM

Date Reviewed: 2017/11/28

Method DAS@20°C

 Client TEC164

 Reference 1718-0472-01
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/11/21	1410	H51CB	3	AS	8.0	1203	8.1	16.8	3
1	2017/11/22	0800	CB	-	AS					
2	2017/11/23	0900	AP/LF	3	AS					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	8.1	8.1	8.1	8.1	8.1	8.1
2	8.3	8.2	8.2	8.2	8.2	8.2

	EC (uS/cm)					
0	317	314	319	1196	1196	1196
2	312	325	320	1135	1149	1156

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.8	7.8	7.8	8.5	8.5	8.5
2	7.7	7.6	7.7	7.7	7.7	7.7

	Temperature (°C) (range: 18-22°C)					
0	20.5	20.5	20.5	19.0	19.0	19.0
2	20.0	20.5	20.5	20.0	20.0	20.0

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C1</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0</u>
QA (previous month)	Days to first brood (≤12 days) <u>7</u>	Average number of young produced (≥15 young) <u>37</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>1167.</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>20 mins</u>	Filtered with 110um screen prior to testing? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>545</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>0 11/13</u>	Weekly water hardness (mg/L) <u>94</u>
Comments:	<u>no ppt @ 0 hrs</u> <u>no ppt @ 48 hrs</u>	

 Reviewed By: JM

 Date Reviewed: 2017/11/28

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected November 20, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
WL_BFWB_OUT_SP21_2017-11-20_N / 1718-0472-02	20-Nov-17 at 0900h	21-Nov-17 at 0855h	22-Nov-17 at 1515h	21-Nov-17 at 1410h	21-Nov-17 at 1430h	1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-11-20_N	1°C	578	198

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-11-20_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-11-20_N	0	10

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-11-20_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.5 (3.1-3.9) g/L KCl ¹	5.7 (5.3-6.1) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2-4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.3%	6.3%
Organism health history	Acceptable	Acceptable
Protocol deviations	See Below	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, November 14, 2017; ² Test Date November 8, 2017
 LC = Lethal Concentration; CL = Confidence Limit

The mean weight of the control fish were less than the 0.3 gram per fish weight requirement. This should not affect the outcome of the toxicity tests. The final pH, DO, and temperature were not recorded at test termination.



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In House
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test, 1 per treatment for LC50 test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR5

Client TEC164

Reference 1718-0472-02

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:
0	2017/11/20	1375*	EP	1	EP	8.1
1	2017/11/23	0805	LF	-	HS	Initial EC (µS/cm): 1277
2	2017/11/24	1000	LF	-	HS	Initial DO (mg/L): 8.9
3	2017/11/25	1100	HS	-	CB	Initial Temp (°C): 17.0
4	2017/11/26	0900	EP	1	TM	Salinity (ppt): 3

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L : yes / no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100%

8.9			
-----	--	--	--

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.7</u>	<u>7.9</u>				
Day 4						

EC (uS/cm)

Day 0	<u>421</u>	<u>1245</u>				
Day 4						

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.9</u>	<u>8.9</u>				
Day 4						

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.0</u>	<u>14.0</u>				
Day 4						

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control

Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.7</u>	<u>0.2</u>	Loading Density (g/L): <u>0.128</u> Mean Length (cm): <u>2.7</u> Length Range (cm): <u>2.6-2.8</u> Mean Weight (g): <u>0.2</u> (Must be ≥0.3g) Weight Range (g): <u>0.2-0.3</u>	Batch <u>20171023 TR</u>
2	<u>2.6</u>	<u>0.2</u>		Source <u>LSC</u>
3	<u>2.7</u>	<u>0.2</u>		Days Held <u>201</u>
4	<u>2.7</u>	<u>0.2</u>		Percent stock mortality <u>0%</u> (7 days prior to test, must be ≤2%)
5	<u>2.7</u>	<u>0.2</u>		Test Volume (L) <u>18L</u>
6	<u>2.6</u>	<u>0.2</u>		
7	<u>2.8</u>	<u>0.3</u>		
8	<u>2.8</u>	<u>0.3</u>		
9	<u>2.8</u>	<u>0.3</u>		
10	<u>2.7</u>	<u>0.2</u>		

Comments :

Reviewed By: TM

Date Reviewed: 2017/11/30

Method DAS@10°C

 Client TEC164

 Reference 1718-0472-02
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/11/21	1430	HS/CB	3	AF	8.1	1277	8.9	17.0	3
1	2017/11/22	0800	CB	-	HS					
2	2017/11/23	0900	HP/LE	3	HS					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C			

day	pH (units) (range: 6.0-8.5)								
0	8.0	8.0	8.0	8.2	8.2	8.2			
2	7.9	7.8	7.8	8.3	8.3	8.0			

	EC (uS/cm)								
0	321	318	321	1257	1264	1270			
2	287	322	327	1320	1299	1317			

	DO (mg/L) (40-100% saturation at test temp.)								
0	9.7	9.7	9.8	9.6	9.7	9.7			
2	9.6	9.7	9.7	9.8	9.7	9.7			

	Temperature (°C) (range: 18-22°C)								
0	10.0	10.0	10.0	10.5	10.5	10.5			
2	10.0	10.0	10.0	10.0	10.0	10.0			

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C1</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0</u>
QA (previous month)	Days to first brood (≤12 days) <u>7</u>	Average number of young produced (≥15 young) <u>37</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>117.1</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>20mins</u>	Filtered with 110um screen prior to testing? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO3/L) of 100%: <u>578</u>	Is hardness adjustment required (<25 mg CaCO3/L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>0 11/17</u>	Weekly water hardness (mg/L) <u>94</u>
Comments:	<u>no ppt @0 hrs</u> <u>no ppt @48 hrs</u>	

 Reviewed By: JM

 Date Reviewed: 2017/11/28

Method DAS@20°C

Client TEC164

Reference 1718-0472-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/11/21	1410	HS/CB	3	AF	8.1	1277	8.9	17.0	3
1	2017/11/22	0600	CB	-	HS					
2	2017/11/23	0900	HS/LP	3	HS					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C			

day

	pH (units) (range: 6.0-8.5)								
0	8.01	8.1	8.1	8.4	8.4	8.4			
2	8.3	8.2	8.2	8.2	8.3	8.2			

	EC (uS/cm)								
0	317	314	319	1216	1233	1236			
2	312	325	320	1203	1202	1204			

	DO (mg/L) (40-100% saturation at test temp.)								
0	7.8	7.8	7.8	7.9	8.1	8.1			
2	7.7	7.6	7.7	7.7	7.7	7.7			

	Temperature (°C) (range: 18-22°C)								
0	20.5	20.5	20.5	20.0	19.5	19.5			
2	20.0	20.5	20.5	20.5	20.5	20.5			

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10(2I)	10(1I)			
2	10	10	10	10	10(2I)	10(1I)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 37
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 117% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20mins Filtered with 110um screen prior to testing? Yes or No
 Hardness (mg CaCO3/L) of 100%: 878 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date P 11/17 Weekly water hardness (mg/L) 94

Comments:
 no ppt @ 0 hrs
 no ppt @ 48 hrs

Reviewed By: JM Date Reviewed: 2017/11/28

APPENDIX C – Chain-of-custody form

Teck

COC ID: 2017-11-20_AcuteToxicity

TURNAROUND TIME:

REGULAR

RUSH:

PROJECT/CLIENT INFO

LABORATORY

OTHER INFO

Facility Name / Job# **WLC AWTF**
 Project Manager Thomas Davidson
 Email Thomas.Davidson@teck.com
 Address 15 Km North HWY 43
 City Sparwood Province BC
 Postal Code V0B 2G0 Country Canada
 Phone Number 250.603.9417

Lab Name Nautilus Environmental
 Lab Contact Jacklyn Pool
 Email Jacklyn@NautilusEnvironmental.ca
 Address #4, 6125 - 12 Street SE
 City Calgary Province AB
 Postal Code T2H 2K1 Country Canada
 Phone Number +1.403.253.7121

Report Delivery Formats
 Email 1: thomas.davidson@teck.com X X X
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 Email 3: teckwclab@epcor.com X X X
 Email 4: Marty.Hafke@teck.com X X X
 Email 5: colin.lynch@teck.com X X X
 Email 6: michael.moore@teck.com X X X
 Email 7: jocelyn.traverse@teck.com X X X
 VPO 00473572

SAMPLE DETAILS

ANALYSIS REQUESTED

Filtered - F: Field, L: Lab, FL: Field & Lab, N: None

1718-0472
 -01
 -02

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS REQUESTED			
								NAUT_96hr_RT_Single Concentration_Toxicity Test	NAUT_48hr_DM_Single Concentration_Toxicity Test @ 10C	NAUT_48hr_DM_Single Concentration_Toxicity Test @ 20C	EXTRA
LC_WTF_IN_2017-11-20_NP Red	LC_WTF_IN	WS	N	20-Nov-17	9:00	G	3	X	X	X	
WL_BFWB_OUT_SP21_2017-11-20_N P&SP	WL_BFWB_OUT_SP21	WS	N	20-Nov-17	9:00	G	8	X	X	X	X

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS

RELINQUISHED BY/AFFILIATION

DATE/TIME

ACCEPTED BY/AFFILIATION

DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION

Regular (default) X
 Priority (2-3 business days) - 50% surcharge
 Emergency (1 Business Day) - 100% surcharge
 For Emergency <1 Day, ASAP or Weekend - Contact ALS

Sampler's Name

Blair Peebles

Mobile #

Sampler's Signature

Date/Time

November 20, 2017

Manitowin

2017/11/21

8:55am

Du

3X 2L Bottles

1X 20L carboy good condition

Manitowin Du
 NO S/I

END OF REPORT



Acute Toxicity Test Results

Sample collected November 20, 2017

Final Report – Revision 1

February 27, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
LC_WTF_IN_2017-11-20_NP / 1718-0473-01	20-Nov-17 at 0900h	21-Nov-17 at 0855h	21-Nov-17 at 1430h	1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-11-20_NP	1°C	545	202

TEST TYPES

- Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-11-20_NP	100

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-11-20_NP	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-11-20_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.7(5.3-6.1) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.3%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, November 8, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method PAS + AS

Client TECL64

Reference 1718-0473-01

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	2017/11/21	1430	HS/CB	3	AP	Initial pH:	8.0
1	2017/11/22	0800	CB	-	HS	Initial EC (µS/cm):	1203
2	2017/11/23	0900	PR/LF	3	HS	Initial DO (mg/L):	8.1
						Initial Temp (°C):	16.8
						Salinity (ppt):	3
Lab Code	CTLA	CTLB	CTLC	100A	100B	100C	

day

	pH (units) (range: 6.0-8.5)								
0	8.0	8.0	7.9	8.3	8.3	8.3			
2	8.0	8.0	8.0	8.4	8.4	8.4			

	EC (uS/cm)								
0	312	319	319	1187	1195	1199			
2	339	347	347	1214	1220	1258			

	DO (mg/L) (40-100% saturation at test temp.)								
0	7.7	7.7	7.7	8.0	8.0	8.1			
2	7.7	7.7	7.7	7.9	7.9	8.0			

	Temperature (°C) (range: 18-22°C)								
0	20.5	20.5	20.5	18.5	18.5	18.5			
2	20.0	20.0	20.0	20.0	20.0	20.0			

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D2 Jar(s) mortality 7 days prior to test (must be ≤25%) G

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 55
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 116.7 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 545 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date D 11/17 Weekly water hardness (mg/L) 94

Comments:
 no ppt @ 0 hrs
 no ppt @ 48 hrs

Reviewed By: TM

Date Reviewed: 2017/11/24

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected November 20, 2017

Final Report – Revision 1

February 27, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
WL_BFWB_OUT_SP21_2017-11-20_N / 1718-0473-02	20-Nov-17 at 0900h	21-Nov-17 at 0855h	21-Nov-17 at 1430h	1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-11-20_N	1°C	578	198

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample <i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-11-20_N	100

Sample ID	Percent Immobility in 100 (% v/v) <i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-11-20_N	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-11-20_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.7(5.3-6.1) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.3%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, November 8, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS + AS

Client TEC164

Reference 1718-0473-02

Test Log						Sample Information	
Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	
0	2017/11/21	1430	H6/CB	3	AP	8.1	
1	2017/11/22	0800	CB	-	HS	1277	
2	2017/11/23	0900	WF/AP	3	HS	8.9	
						Initial Temp (°C):	17.0
						Salinity (ppt):	3

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C			
----------	------	------	------	------	------	------	--	--	--

pH (units) (range: 6.0-8.5)

day									
0	8.0	8.0	7.9	8.3	8.2	8.3			
2	8.0	8.0	8.0	8.4	8.4	8.4			

EC (uS/cm)

0	319	319	319	1279	1239	1252			
2	339	347	347	1253	1253	1277			

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.7	7.7	8.1	8.1	8.1			
2	7.7	7.7	7.7	7.6	7.7	7.6			

Temperature (°C) (range: 18-22°C)

0	20.5	20.5	20.5	18.0	18.0	18.0			
2	20.0	20.0	20.0	20.0	20.0	20.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar P2 Jar(s) mortality 7 days prior to test (must be ≤25%) C

QA (previous month)
Days to first brood (≤12 days) 8
Average number of young produced (≥15 young) 55
Were test treatments randomized on test tray? Yes No

Sample
DO % of sample prior to aeration: 117% Is aeration required (<40% or >100%)? Yes No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110um screen prior to testing Yes No
Hardness (mg CaCO3/L) of 100%: 578 Is hardness adjustment required (<25 mg CaCO3/L)? Yes No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
Pail label / preparation date P 11/12 Weekly water hardness (mg/L) 94

Comments:
no ppt @ 0 hrs
no ppt @ 48 hrs

Reviewed By: JM

Date Reviewed: 2017/11/24

APPENDIX C – Chain-of-custody form

Teck

COC ID: 2017-11-20_AcuteToxicity-antiscalant

TURNAROUND TIME:

REGULAR

RUSH:

PROJECT/CLIENT INFO

LABORATORY

OTHER INFO

Facility Name / Job# WLC AWTF

Lab Name Nautilus Environmental

Report Delivery Formats

Excel PDF EDD

Project Manager Thomas Davidson

Lab Contact Jacklyn Pool

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X X X

VPO 00473572

SAMPLE DETAILS

ANALYSIS REQUESTED

Filtered - F: Field, L: Lab, FL: Field & Lab, N: None

1718-0472-0473
-01
-02

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS REQUESTED	FL	PRESERV.
LC_WTF_IN_2017-11-20_NP	LC_WTF_IN	WS	N	20-Nov-17	9:00	G	1	NAUT_48Hz_DM_Single Concentration_Toxicity Test @ 20C + Antiscalant	N	N
WL_BFWB_OUT_SP21_2017-11-20_N	WL_BFWB_OUT_SP21	WS	N	20-Nov-17	9:00	G	1			

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS

RELINQUISHED BY/AFFILIATION

DATE/TIME

ACCEPTED BY/AFFILIATION

DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION

Regular (default) X
Priority (2-3 business days) - 50% surcharge
Emergency (1 Business Day) - 100% surcharge
For Emergency <1 Day, ASAP or Weekend - Contact ALS

Sampler's Name

Blair Peebles

Mobile #

Sampler's Signature

Date/Time

November 20, 2017

manitowlin 2017/11/21 8:55am DU
6X2L Bottles NO S/I
4X20L Carboys good condition

END OF REPORT



Acute Toxicity Test Results

Samples collected November 28, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
LC_WTF_IN_2017-11-28_NP / 1718-0489-01	28-Nov-17 at 0900h	29-Nov-17 at 1015h	1-Dec-17 at 1315h	29-Nov-17 at 1430h	29-Nov-17 at 1430h	8°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-11-28_NP	8°C	638	280

TEST TYPES

- Rainbow trout 96-h single concentration screening test, conducted by Burnaby, BC
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-11-28_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-11-28_NP	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-11-28_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	66.4 (50.9 – 82.0) g/L Zn ¹	5.3 (4.8-5.7) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	103.9 (56.5 – 190.9) g/L Zn	5.0 (4.1-6.1) g/L NaCl
Reference toxicant CV	36%	6.6%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, November 30, 2017; ² Test Date November 23, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test organism	<i>Oncorhynchus mykiss</i>
Test organism source	Aqua Farms
Test organism age	Juveniles
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (v/v) plus laboratory control
Test replicates	1 test replicate per treatment
No. of organisms	10 per replicate
Control/dilution water	Municipal dechlorinated water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Sample filtration	None
Aeration	6.5 ± 1 mL/min/L
pH adjustment	None
Test protocol	Environment Canada (2000), EPS 1/RM/13
Statistical software	CETIS (2013)
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Zinc

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test, 1 per treatment for LC50 test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Nautilus Calgary

Start Date/Time: December 1, 2017 @ 1315h

Work Order No.: 171471

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: 1718-0489-01
Sample Date: November 28, 2017
Date Received: December 1, 2017
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 10
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 111617
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 33 ± 1
Mean Weight ± SD (g): 0.26 ± 0.02

Range: 31 - 35
Range: 0.21 - 0.28

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn100
Stock Solution ID: 17Zn05
Date Initiated: November 30, 2017
96-h LC50 (95% CL): 66.4 (50.9 - 82.0) µg/L Zn

Reference Toxicant Mean and Historical Range: 103.9 (56.5 - 190.9) µg/L Zn
Reference Toxicant CV (%): 36

Test Results: 100% survival at 96h TA the 100% (10) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Dec. 12, 2017

Rainbow trout (*Oncorhynchus mykiss*) Length and Weight Sheet

Client: Nautilus Calgary
 Sample ID: 1718-0489-01
 W.O. #: 171471

Balance ID: Bal - 3
 Date Measured: 05 Dec 17
 Batch #: 111617

	Length (mm)	Weight (g)
1	<u>34</u>	<u>0.27</u>
2	<u>34</u>	<u>0.28</u>
3	<u>34</u>	<u>0.26</u>
4	<u>34</u>	<u>0.27</u>
5	<u>33</u>	<u>0.26</u>
6	<u>34</u>	<u>0.27</u>
7	<u>32</u>	<u>0.22</u>
8	<u>31</u>	<u>0.21</u>
9	<u>33</u>	<u>0.25</u>
10	<u>35</u>	<u>0.28</u>

Total	<u>334</u>	<u>2.57</u>
Mean	<u>33</u>	<u>0.26</u>
Std. Dev.	<u>1</u>	<u>0.02</u>
Low	<u>31</u>	<u>0.21</u>
High	<u>35</u>	<u>0.28</u>

Loading Density (g/L) 0.26

Initials pc

Reviewed by: 

Date Reviewed: Dec - 11, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Nautilus Cargary
 Sample I.D.: 1718-0489-0
 W.O. #: 171471
 RBT Batch #: 41519
 Date Collected/Time: Nov 28 / 17:00 (not available)
 Date Setup/Time: Dec 11 / 13:15h
 CER #: 12
 Sample Setup By: YKL

Number Fish/Volume: 10/10L
 7-d % Mortality: 0% 1.5%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Yes

Parameters	Undiluted Sample WQ	
	Initial WQ	Adjustment
Temp °C	14.0	14.0
D.O. (mg/L)	10.3	10.2
pH	8.0	8.1
Cond. (µS/cm)	1156	1157
Salinity (ppt)	0.6	0.6

Thermometer: CERT
 D.O. meter/probe: 212
 Cond./Salinity meter/probe: 212
 pH meter/probe: 515

Concentration	# Survivors						Temperature (°C)						Dissolved Oxygen (mg/L)						pH						Conductivity (µS/cm)				
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
(% V/V)																													
Control				10	10	10	10	14.0	15.0	15.0	15.0	15.0	10.1	9.8	9.9	9.1	9.4	7.0	7.0	7.1	7.4	7.3	3.4	3.4	3.4	3.4	3.4	40	40
100				10	10	10	10	14.8	15.0	15.0	15.0	15.0	10.2	9.8	9.9	9.3	9.3	8.1	8.6	8.7	8.6	8.6	11.57	11.57	11.57	11.57	11.57	1157	1157
Initials																													

Sample Description/Comments: Clear no color, no odor, no particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: _____

Reviewed by: YKL Date Reviewed: Dec 12, 2017

Method DAS 20

Client TECLV

Reference H18-0489-01

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information
0	2017/11/29	1430	ARTEP	3	HS	Initial pH: _____
1	2017/11/20	0900	BRAP	-	HS	Initial EC (µS/cm): _____
2	2017/12/01	0930	CRAP	3	HS	Initial DO (mg/L): _____
Lab Code						Salinity (ppt): _____
CTLA						CTLB
CTLC						100A
						100B
						100C

7.9
1133
9.5
17.3
2

day	pH (units) (range: 6.0-8.5)					
0	7.3	7.3	7.4	7.9	7.9	8.0
2	7.3	7.3	7.5	8.0	8.1	8.1

day	EC (µS/cm)					
0	289	292	295	1115	1139	1140
2	309	318	320	1114	1122	1126

day	DO (mg/L) (40-100% saturation at test temp.)					
0	7.7	7.7	7.7	7.8	7.8	7.7
2	7.8	7.8	7.8	8.0	8.0	8.0

day	Temperature (°C) (range: 18-22°C)					
0	20.0	20.0	20.0	20.0	20.0	20.0
2	19.0	19.0	19.0	19.5	19.5	19.5

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar C3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 7
Average number of young produced (≥15 young) 51.2
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): -- Filtered with 110µm screen prior to testing Yes or No
Hardness (mg CaCO3/L) of 100%: 638 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) --

Dilution Water
Pail label / preparation date E: 11/24 Weekly water hardness (mg/L) 82

Comments:
Observations on OHRS: no ppt
Aug HFS: no ppt

Reviewed By: _____

Date Reviewed: _____

Daphnia Bench Sheet

Method DAS
10 DEG

Client TEC 164

Reference 1718-0489-01

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information
0	2017/11/29	1430	AP/EP	3	HS	Initial pH: <u>8.0</u>
1	2017/11/30	0900	Ed/AP	-	HS	Initial EC (µS/cm): <u>1148</u>
2	2017/12/01	0930	CB/AP	3	HS	Initial DO (mg/L): <u>9.3</u>
						Initial Temp (°C): <u>17.6</u>
						Salinity (ppt): <u>1</u>

7.9
1133
9.5
17.3
2

Lab Code	CTA	CTB	CTC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	8.2	8.2	8.2	8.0	8.0	8.0
2	7.7	7.6	7.6	8.1	8.1	8.2

EC (µS/cm)

0	292	293	294	1122	1144	1146
2	286	283	285	1109	1117	1128

DO (mg/L) (40-100% saturation at test temp.)

0	9.3	9.3	9.3	9.4	9.4	9.4
2	9.6	9.7	9.6	9.7	9.7	9.7

Temperature (°C) (range: 18-22°C)

0	11.6	11.0	11.0	11.0	11.6	11.0
2	10.0	10.0	10.0	10.5	10.5	10.0

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 7
Average number of young produced (≥15 young) 51.2
Were test treatments randomized on test tray? Yes No

Sample
DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes No
Duration of aeration (37.5 +/- 12.5 mL/min/L): -- Filtered with 110µm screen prior to testing Yes No
Hardness (mg CaCO₃/L) of 100%: 638 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) --

Dilution Water
Pail label / preparation date E: 11/24 Weekly water hardness (mg/L) 82

Comments:
observers: no ppt
@ 48 hrs: no ppt

Reviewed By: _____

Date Reviewed: _____

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected November 28, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
WL_BFWB_OUT_SP21_2017- 11-28_N / 1718-0489-02	28-Nov-17 at 0900h	29-Nov-17 at 1015h	1-Dec-17 at 1315h	29-Nov-17 at 1430h	29-Nov-17 at 1430h	8°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-11-28_N	8°C	632	240

TEST TYPES

- Rainbow trout 96-h single concentration screening test, conducted by Burnaby, BC
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-11-28_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-11-28_N	0	7

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-11-28_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	66.4 (50.9 – 82.0) g/L Zn ¹	5.3 (4.8-5.7) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	103.9 (56.5 – 190.9) g/L Zn	5.0 (4.1-6.1) g/L NaCl
Reference toxicant CV	36%	6.6%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, November 30, 2017; ² Test Date November 23, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test organism	<i>Oncorhynchus mykiss</i>
Test organism source	Aqua Farms
Test organism age	Juveniles
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (v/v) plus laboratory control
Test replicates	1 test replicate per treatment
No. of organisms	10 per replicate
Control/dilution water	Municipal dechlorinated water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Sample filtration	None
Aeration	6.5 ± 1 mL/min/L
pH adjustment	None
Test protocol	Environment Canada (2000), EPS 1/RM/13
Statistical software	CETIS (2013)
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Zinc

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test, 1 per treatment for LC50 test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Nautilus Calgary

Start Date/Time: December 1, 2017 @ 1315h

Work Order No.: 171471

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: 1718-0489-02
Sample Date: November 28, 2017
Date Received: December 1, 2017
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 10
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 111617
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 33 ± 1 Range: 31 - 35
Mean Weight ± SD (g): 0.26 ± 0.03 Range: 0.21 - 0.32

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn100
Stock Solution ID: 17Zn05
Date Initiated: November 30, 2017
96-h LC50 (95% CL): 66.4 (50.9 - 82.0) µg/L Zn

Reference Toxicant Mean and Historical Range: 103.9 (56.5 - 190.9) µg/L Zn
Reference Toxicant CV (%): 36

Test Results: 100% survival at 96h TN the 100% (10) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Dec 12, 2017

Rainbow trout (*Oncorhynchus mykiss*) Length and Weight Sheet

Client: Nautilus Calgary
 Sample ID: 1718-0489-02
 W.O. #: 171471

Balance ID: Bal - 3
 Date Measured: 05 Dec 17
 Batch #: 111617

	Length (mm)	Weight (g)
1	<u>33</u>	<u>0.26</u>
2	<u>32</u>	<u>0.23</u>
3	<u>35</u>	<u>0.32</u>
4	<u>34</u>	<u>0.26</u>
5	<u>34</u>	<u>0.26</u>
6	<u>31</u>	<u>0.21</u>
7	<u>34</u>	<u>0.29</u>
8	<u>33</u>	<u>0.24</u>
9	<u>32</u>	<u>0.25</u>
10	<u>35</u>	<u>0.29</u>

Total	<u>333</u>	<u>2.61</u>
Mean	<u>33</u>	<u>0.26</u>
Std. Dev.	<u>1</u>	<u>0.03</u>
Low	<u>31</u>	<u>0.21</u>
High	<u>35</u>	<u>0.32</u>

Loading Density (g/L) 0.26

Initials RC

Reviewed by: 

Date Reviewed: Dec 11, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Nautilus Co/Gen
 Sample I.D.: 1718-048902
 W.O. #: 171471
 RBT Batch #: 11579
 Date Collected/Time: Nov 28 / 170 (not available)
 Date Setup/Time: Dec 11 / 13:58
 CER #: 12
 Sample Setup By: YLC

Number Fish/Volume: 10/10L
 7-d % Mortality: 0%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Yes

Parameters	Undiluted Sample WQ	
	Initial WQ	Adjustment
Temp °C	14.0	14.0
D.O. (mg/L)	10.0	10.2
pH	8.0	8.2
Cond. (µS/cm)	1251	1256
Salinity (ppt)	0.6	0.6

Thermometer: CERR
 D.O. meter/probe: 212
 Cond./Salinity meter/probe: 212
 pH meter/probe: 515

Concentration	# Survivors						Temperature (°C)						Dissolved Oxygen (mg/L)						pH						Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96		
(% V/V)																										
Control	10	10	10	10	10	10	10	14.0	15.0	15.0	15.0	15.0	9.3	9.5	9.9	9.3	9.3	7.0	7.1	7.4	7.3	7.3	3.4	4.0		
100	10	10	10	10	10	10	10	14.2	15.0	15.0	15.0	15.0	9.5	9.8	9.9	9.3	9.3	8.2	8.9	8.6	8.5	8.5	1256	1226		
Initials																										

Sample Description/Comments: Clear, no colour, no odour, no particulates
 Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0
 Other Observations: _____
 Reviewed by: [Signature] Date Reviewed: Dec. 12, 2017

Method DAS 20

Client TEC 164

Reference 1718-0489-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/11/29	1430	AP/EP	3	HS	8.0	122.8	9.6	17.5	2
1	2017/11/30	0900	EP/AP	-	HS					
2	2017/12/01	0930	CB/AP	3	HS					

Lab Code	CTLA	ULB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.3	7.3	7.4	7.9	8.0	8.0
2	7.3	7.3	7.5	8.1	8.2	8.2

	EC (uS/cm)					
0	289	292	295	1162	1205	1204
2	304	318	320	1201	1185	1174

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.7	7.7	7.7	7.7	7.8	7.8
2	7.8	7.8	7.8	7.9	8.0	7.9

	Temperature (°C) (range: 18-22°C)					
0	20.0	20.0	20.0	20.0	20.0	20.0
2	19.0	19.0	19.0	19.5	20.0	20.0

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10(I)	10	10(I)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 51.2
 Were test treatments randomized on test tray? Yes No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? **Yes or No** No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): -- Filtered with 110um screen prior to testing **Yes or No** No
 Hardness (mg CaCO3/L) of 100%: 632 Is hardness adjustment required (<25 mg CaCO3/L)? **Yes or No** No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) --

Dilution Water
 Pail label / preparation date E:11/24 Weekly water hardness (mg/L) 82

Comments:
observations at 0hrs: no ppt
at 48hrs: no ppt

Reviewed By: _____

Date Reviewed: _____

Method DAS 10 DEG

Client TEC164

Reference 1718-0489-02

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review
0	2017/11/29	1430	AP/AP	3	15
1	2017/11/30	0900	EP/AP	-	15
2	2017/12/01	0930	CE/AP	3	15

Sample Information

Initial pH:	<u>5.1</u>	PR 8.6 1228 9.6 17.5 2
Initial EC (µS/cm):	<u>1315</u>	
Initial DO (mg/L):	<u>8.6</u>	
Initial Temp (°C):	<u>17.3</u>	
Salinity (ppt):	<u>0</u>	

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	8.2	8.2	8.2	8.0	8.1	8.1			
2	7.7	7.6	7.6	8.3	8.4	8.3			

EC (µS/cm)

0	292	293	294	1145	1209	1220			
2	286	283	285	1198	1207	1209			

DO (mg/L) (40-100% saturation at test temp.)

0	9.3	9.3	9.3	9.5	9.4	9.5			
2	9.6	9.7	9.6	9.6	9.6	9.6			

Temperature (°C) (range: 18-22°C)

0	11.0	11.0	11.0	11.0	11.0	11.0			
2	10.0	10.0	10.0	11.0	11.0	11.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar C2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 7
Average number of young produced (≥15 young) 51.2
Were test treatments randomized on test tray? Yes No

Sample
DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes No
Duration of aeration (37.5 +/- 12.5 mL/min/L): -- Filtered with 110µm screen prior to testing Yes No
Hardness (mg CaCO3/L) of 100%: 632 Is hardness adjustment required (<25 mg CaCO3/L)? Yes No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) --

Dilution Water
Pail label / preparation date E:11/24 Weekly water hardness (mg/L) 82

Comments:
observations 04hrs: no ppt
04hrs: no ppt

Reviewed By: _____ Date Reviewed: _____

APPENDIX C – Chain-of-custody form

Teck

COA ID: 2017-11-28_AcuteToxicity

TURNAROUND TIME:

REGULAR

RUSH:

PROJECT/CLIENT INFO

Facility Name / Job# W/C AWTF
 Project Manager Thomas Davidson
 Email thomas.davidson@teck.com
 Address 15 Km North Hwy 43
 City Sparwood
 Postal Code V0B 2G0
 Phone Number 250 603 9417

LABORATORY

Lab Name Nantius Environmental
 Lab Contact Jacklyn Pool
 Email jacklyn@nantiusenvironmental.ca
 Address #4 6125 - 12 Street SE
 City Calgary
 Postal Code T2H 2K1
 Province BC
 Country Canada
 Phone Number +1 403 255 7121

OTHER INFO

Report Delivery Formats
 Email 1: thomas.davidson@teck.com
 Email 2: teckonline@teck.com
 Email 3: teckwclab@teck.com
 Email 4: Mary.Hartford@teck.com
 Email 5: colin.lyndell@teck.com
 Email 6: joeclyn.traverso@teck.com
 Excel X X X X
 PDF X X X X
 EDD X X X X
 VPO 00473572

SAMPLE DETAILS

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Con P	# Of Con.
1718-0489	LC_WTF_IN_2017-11-28 NP	WS	N	28-Nov-17	9:00	G	3
01	WL_BFWB_OUT_SF21_2017-11-28 N	WS	N	28-Nov-17	9:00	G	8

ANALYSIS REQUESTED

ANALYSIS	PRESERV.	Vol.
NAUT_96hr_RT_Single Concentration Toxicity Test	N	N
NAUT_48hr_DM_Single Concentration Toxicity Test @ 10C	N	N
NAUT_48hr_DM_Single Concentration Toxicity Test @ 20C	N	N
EXTRA	N	N

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS

RELINQUISHED BY/AFFILIATION

DATE/TIME

DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION

Regular (default) X
 Priority (2-3 business days) - 50% surcharge
 Emergency (1 business day) - 100% surcharge
 For Emergency < 1 Day, ASAP or Weekend - Contact ALS

Sampler's Name
 Sampler's Signature

Grant Fleming

Mobile #
 Date/Time

November 28, 2017

2017/11/29 10:15
 DU
 Manitoulin
 No S/I
 80
 10X 20L cart boxes / 1L bottles
 good condition

END OF REPORT



Acute Toxicity Test Results

Samples collected November 28, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
LC_WTF_IN_2017-11-28_NP / 1718-0490-01	28-Nov-17 at 0900h	29-Nov-17 at 1015h	29-Nov-17 at 1430h	4°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-11-28_NP	4°C	586	254

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	<i>Daphnia magna</i> 20°C	
LC_WTF_IN_2017-11-28_NP	100	

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 20°C	
LC_WTF_IN_2017-11-28_NP	0	

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-11-28_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.3 (4.8-5.7) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.1) g/L NaCl
Reference toxicant CV	6.6%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, November 23, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Courtney Bogstie, BSc
Biologist



Reviewed By:
Jacklyn Poole, BSc
Laboratory Supervisor

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS AC

Client TECIBY

Reference 1718-0490-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/11/29	1430	AP/EP	3	HS	<u>7.9</u>
1	2017/11/30	0900	EP/AP	-	HS	Initial EC (µS/cm): <u>1131</u>
2	2017/12/01	0930	AP/CO	3	HS	Initial DO (mg/L): <u>9.4</u>
						Initial Temp (°C): <u>17.1</u>
						Salinity (ppt): <u>3</u>

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)					
0	<u>7.9</u>	<u>8.0</u>	<u>8.1</u>	<u>8.0</u>	<u>8.0</u>	<u>8.1</u>
2	<u>8.2</u>	<u>8.2</u>	<u>8.1</u>	<u>8.2</u>	<u>8.3</u>	<u>8.3</u>

	EC (µS/cm)					
0	<u>283</u>	<u>291</u>	<u>291</u>	<u>1124</u>	<u>1139</u>	<u>1140</u>
2	<u>313</u>	<u>309</u>	<u>305</u>	<u>1122</u>	<u>1119</u>	<u>1113</u>

	DO (mg/L) (40-100% saturation at test temp.)					
0	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>
2	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>7.9</u>

	Temperature (°C) (range: 18-22°C)					
0	<u>19.0</u>	<u>19.0</u>	<u>19.0</u>	<u>19.0</u>	<u>19.0</u>	<u>19.0</u>
2	<u>19.0</u>	<u>19.0</u>	<u>19.0</u>	<u>19.5</u>	<u>19.5</u>	<u>19.5</u>

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 31.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): -- Filtered with 110µm screen prior to testing? Yes or No
 Hardness (mg CaCO3/L) of 100%: 586 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) --

Dilution Water
 Pail label / preparation date E: 11/24 Weekly water hardness (mg/L) 82

Comments:
Observations: @ 0 hrs: no ppt
@ 48 hrs: no ppt

Reviewed By: TM

Date Reviewed: 2017/12/01

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected November 28, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
WL_BFWB_OUT_SP21_2017-11-28_N / 1718-0490-02	28-Nov-17 at 0900h	29-Nov-17 at 1015h	29-Nov-17 at 1430h	4°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-11-28_N	4°C	633	239

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	<i>Daphnia magna</i> 20°C	
WL_BFWB_OUT_SP21_2017-11-28_N	100	

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 20°C	
WL_BFWB_OUT_SP21_2017-11-28_N	0	

Precipitate observations

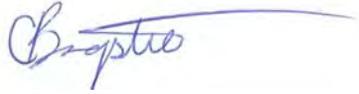
Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-11- 28_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	5.3 (4.8-5.7) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.1) g/L NaCl
Reference toxicant CV	6.6%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, November 23, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Courtney Bogstie, BSc
Biologist



Reviewed By:
Jacklyn Poole, BSc
Laboratory Supervisor

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS AS

Client TEC 164

Reference 1718-0490-02

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information		
0	2017/11/29	1430	AR/EP	3	HS	Initial pH:	8.0	
1	2017/11/30	0900	EP/AP	-	HS	Initial EC (µS/cm):	1202	
2	2017/12/01	0930	CB/AP	3	HS	Initial DO (mg/L):	9.6	
						Initial Temp (°C):	17.4	
						Salinity (ppt):	3	
Lab Code	CTLA	CTLB	CTLC	100A	100B	100C		

day

pH (units) (range: 6.0-8.5)

0	7.9	8.0	8.1	8.0	8.1	8.1		
2	8.2	8.2	8.1	8.4	8.4	8.4		

EC (uS/cm)

0	283	291	291	1173	1214	1224		
2	313	309	305	1258	1236	1249		

DO (mg/L) (40-100% saturation at test temp.)

0	8.0	8.0	8.0	7.9	7.9	7.9		
2	8.0	8.0	8.0	7.9	8.0	8.0		

Temperature (°C) (range: 18-22°C)

0	19.0	19.0	19.0	19.0	19.0	20.0		
2	19.0	19.0	19.0	19.0	19.0	19.5		

Number Alive

(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10		
1	10	10	10	10	10	10		
2	10	10	10	10	10	10		

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar 43 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)

Days to first brood (≤12 days) 7
Average number of young produced (≥15 young) 5.2
Were test treatments randomized on test tray? Yes / No

Sample

DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? **Yes or No**
Duration of aeration (37.5 +/- 12.5 mL/min/L): -- Filtered with 110um screen prior to testing **Yes or No**
Hardness (mg CaCO₃/L) of 100%: 633 Is hardness adjustment required (<25 mg CaCO₃/L)? **Yes or No**
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) --

Dilution Water

Pail label / preparation date E:11/24 Weekly water hardness (mg/L) 80

Comments:

observations 10 hrs: no ppt
14 hrs: no ppt

Reviewed By: TM

Date Reviewed: 2017/12/01

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected December 4, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
LC_WTF_IN_2017-12-04_NP / 1718-0499-01	04-Dec-17 at 0800h	05-Dec-17 at 1400h	08-Dec-17 at 1620h	05-Dec-17 at 1430h	05-Dec-17 at 1430h	5.0°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-12-04_NP	5.0°C	589	262

TEST TYPES

- Rainbow trout 96-h single concentration screening test, conducted at Nautilus Environmental in Burnaby, BC
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-12-04_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-12-04_NP	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-12-04_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	93.8 (67.6-125.0) µg /L Zn ¹	5.3 (4.8-5.7) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	100.7 (53.5-189.7) µg /L Zn	5.0 (4.1-6.1) g/L NaCl
Reference toxicant CV	37 %	6.6%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, December 8, 2017; ² Test Date November 23, 2017
 LC = Lethal Concentration; CL = Confidence Limit

Harjot Sandhu

Report By:
Harjot Sandhu, BSc
Biologist

Claudio Quinteros

Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test organism	<i>Oncorhynchus mykiss</i>
Test organism source	Vancouver Island Trout Hatchery
Test organism age	Juveniles
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (v/v) plus laboratory control for screening test
Test replicates	1 test replicate per treatment
No. of organisms	10 per replicate
Control/dilution water	Municipal dechlorinated water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Sample filtration	None
Aeration	6.5 ± 1 mL/min/L
pH adjustment	None
Test protocol	Environment Canada (2000), EPS 1/RM/13
Statistical software	CETIS (2013)
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test, 1 per treatment for LC50 test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Nautilus Calgary
171510
Work Order No.: ~~1718-0499-01~~ CW

Start Date/Time: 08 Dec 17 @ 1620h
Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: 1718-0499-01
Sample Date: 04 Dec 17
Date Received: 07 Dec 17
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 10

Test Organism Information:

Batch No.: 112117
Source: Vancouver Island Trout Hatchery
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.39
Mean Length ± SD (mm): 38 ± 2 Range: 34 - 40
Mean Weight ± SD (g): 0.39 ± 0.06 Range: 0.25 - 0.46

Zinc Reference Toxicant Results:

Reference Toxicant ID: RT2n101
Stock Solution ID: 17Zn05
Date Initiated: 08 Dec 17
96-h LC50 (95% CL): 93.8 (67.6 - 125.0) µg/l
Reference Toxicant Mean and Historical Range: 100.7 (53.45 - 189.7) µg/l
Reference Toxicant CV (%): 37%

Test Results: 100% survival at 96h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Dec-15, 2017

Rainbow trout (*Oncorhynchus mykiss*) Length and Weight Sheet

Client: Nautilus Calgary
 Sample ID: 1718-0499-01
 W.O. #: 171510

Balance ID: Bal - 3
 Date Measured: 12 Dec 17
 Batch #: TT16TF 112117

	Length (mm)	Weight (g)
1	<u>37</u>	^u 0.48 0.36
2	<u>39</u>	<u>0.44</u>
3	<u>38</u>	<u>0.42</u>
4	<u>37</u>	<u>0.39</u>
5	<u>39</u>	<u>0.42</u>
6	<u>34</u>	<u>0.25</u>
7	<u>35</u>	<u>0.33</u>
8	<u>37</u>	<u>0.40</u>
9	<u>39</u>	<u>0.40</u>
10	<u>40</u>	<u>0.46</u>

Total	<u>375</u>	<u>3.87</u>
Mean	<u>38</u>	<u>0.39</u>
Std. Dev.	<u>2</u>	<u>0.06</u>
Low	<u>34</u>	<u>0.25</u>
High	<u>40</u>	<u>0.46</u>

Loading Density (g/L) 0.39

Initials RC

Reviewed by: 

Date Reviewed: Dec 15, 2017

Method DAS @ 20°C

Client TEC164

Reference 1718-0499-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/12/05	1430	CD/AP	3	NS	7.7	1103	10.0	13.8°C	17.
1	2017/12/06	0930	CB/IF	-	AP					
2	2017/12/07	0910	CB/IF	3	NS					

Lab Code	CTLA	CTHB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.6	7.6	7.7	7.7	7.7	7.7
2	7.6	7.6	7.7	8.1	8.1	8.1

EC (uS/cm)

0	284	284	287	1112	1115	1119
2	310	304	310	1101	1116	1112

DO (mg/L) (40-100% saturation at test temp.)

0	8.0	8.0	8.0	7.9	7.9	8.0
2	8.0	8.0	8.0	7.9	7.9	7.9

Temperature (°C) (range: 18-22°C)

0	19.5	19.5	19.5	20.0	20.0	20.0
2	20.0	20.0	20.0	20.0	20.0	20.0

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10 (8F)	10 (10F)	10 (10F)	10 (7F)	10 (2F)	10
2	9 (3F)	9 (3F)	10 (7F)	10 (1F)	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar DL Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 7
Average number of young produced (≥15 young) 43.2
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
Hardness (mg CaCO3/L) of 100%: 589 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
Pail label / preparation date E: 12/01 Weekly water hardness (mg/L) 93

Comments:
0hrs: no ppt
24hrs: Small amount of ppt formed (only on 100A & 100B)

Reviewed By: JP

Date Reviewed: 2017/12/11

Method DAS 10°C

Client TEC164

Reference 1715-0499-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/12/05	1430	CB/AP	3	NS	7.7	1103	10.0	13.8°C	1.4
1	2017/12/06	0930	CB/UF	-	AF					
2	2017/12/07	0940	CB/UF	3	NS					

Lab Code	CTLA	CTLB	CTC	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)					
0	7.5	7.6	7.6	7.7	7.7	7.8
2	7.7	7.7	7.8	8.2	8.3	8.5

	EC (µS/cm)					
0	284	286	286	1105	1117	1123
2	303	301	305	1095	1136	1133

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.7	9.7	9.7	9.9	10.1	10.1
2	9.7	9.7	9.7	9.6	9.7	9.8

	Temperature (°C) (range: 18-22°C)					
0	10.0	10.0	10.0	10.0	10.0	10.0
2	10.0	10.0	10.0	10.0	10.0	10.0

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 43.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? **Yes or No** No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing **Yes or No** No
 Hardness (mg CaCO₃/L) of 100%: 589 Is hardness adjustment required (<25 mg CaCO₃/L)? **Yes or No** No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date E:12101 Weekly water hardness (mg/L) 93

Comments:
 no ppt @ 0h
 no ppt @ 24h

Reviewed By: JP

Date Reviewed: 2017/12/11

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected December 4, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
WL_BFWB_OUT_SP21_2017- 12-04_N / 1718-0499-02	04-Dec-17 at 0800h	05-Dec-17 at 1400h	08-Dec-17 at 1620h	05-Dec-17 at 1430h	05-Dec-17 at 1430h	5.0°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-12-04_N	5.0°C	591	208

TEST TYPES

- Rainbow trout 96-h single concentration screening test, conducted at Nautilus Environmental in Burnaby, BC
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-12-04_N	100	100	97

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-12-04_N	0	20

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-12-04_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	Present	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	93.8 (67.6-125.0) µg /L Zn ¹	5.3 (4.8-5.7) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	100.7 (53.5-189.7) µg /L Zn	5.0 (4.1-6.1) g/L NaCl
Reference toxicant CV	37 %	6.6%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, December 8, 2017; ² Test Date November 23, 2017
 LC = Lethal Concentration; CL = Confidence Limit

Harjot Sandhu

Report By:
Harjot Sandhu, BSc
Biologist

Claudio Quinteros

Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test organism	<i>Oncorhynchus mykiss</i>
Test organism source	Vancouver Island Trout Hatchery
Test organism age	Juveniles
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (v/v) plus laboratory control for screening test
Test replicates	1 test replicate per treatment
No. of organisms	10 per replicate
Control/dilution water	Municipal dechlorinated water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Sample filtration	None
Aeration	6.5 ± 1 mL/min/L
pH adjustment	None
Test protocol	Environment Canada (2000), EPS 1/RM/13
Statistical software	CETIS (2013)
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test, 1 per treatment for LC50 test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Nautilus Calgary

Start Date/Time: 08 Dec 17 @ 1620h

Work Order No.: 171510

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: 1718-0499-02

Sample Date: 04 Dec 17

Date Received: 07 Dec 17

Sample Volume: 1x 20L

Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water

Hardness (mg/L CaCO₃): 11

Alkalinity (mg/L CaCO₃): 10

Test Organism Information:

Batch No.: 112117

Source: Vancouver Island Trout Hatchery

No. Fish/Volume (L): 10/10L

Loading Density (g/L): 0.39

Mean Length ± SD (mm): 38 ± 1

Range: 35 - 40

Mean Weight ± SD (g): 0.39 ± 0.06

Range: 0.31 - 0.50

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn101

Stock Solution ID: 17Zn05

Date Initiated: 08 Dec 17

96-h LC50 (95% CL): 93.8 (67.6 - 125.0) µg/L

Reference Toxicant Mean and Historical Range: 100.7 (53.45 - 189.7) µg/L

Reference Toxicant CV (%): 37%

Test Results: 100% survival at 96 h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Dec-15, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Nautilus Calgary
 Sample I.D.: 1718-0499-02
 W.O. #: 171510
 RBT Batch #: 11117 m 112117
 Date Collected/Time: 04 Dec 17 @ not available
 Date Setup/Time: 08 Dec 17 @ 1620 h
 CER #: 3
 Sample Setup By: RC

Number Fish/Volume: 10 / 10L
 7-d % Mortality: 0%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cer 3
 D.O. meter/probe: 2 / D2
 Cond./Salinity meter/probe: 2 / CP2
 pH meter/probe: 5 / PS

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.4	/	10.0
pH	8.0	/	8.0
Cond. (µS/cm)	1225	/	1225
Salinity (ppt)	0.6	/	0.6

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)		
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
CHI				10	10	10	10	14.5	15.0	15.0	15.0	14.8	9.4	9.9	9.6	9.7	9.7	7.5	7.1	7.2	7.3	7.3	36	41	
100				10	10	10	10	14.0	15.0	15.0	15.0	14.8	10.0	9.8	9.7	9.7	9.6	8.0	8.3	8.4	8.4	8.4	1225	1226	
Initials				R	R	M	M	R	R	M	M	R	R	M	M	R	R	M	M	R	R	M	M	R	R

Sample Description/Comments: Clear, colourless liquid, no odour, no particulates

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: _____

Reviewed by: [Signature]

Date Reviewed: Dec. 15, 2017

Rainbow trout (Oncorhynchus mykiss) Length and Weight Sheet

Client: Nautilus Calvary
 Sample ID: 1718-0499-62
 W.O. #: 171510

Balance ID: Bal - 3
 Date Measured: 12 Dec 17
 Batch #: ~~111617~~ 112117

	Length (mm)	Weight (g)
1	<u>38</u>	<u>0.39</u>
2	<u>40</u>	<u>0.48</u>
3	<u>37</u>	<u>0.39</u>
4	<u>38</u>	<u>0.35</u>
5	<u>37</u>	<u>0.36</u>
6	<u>35</u>	<u>0.31</u>
7	<u>40</u>	<u>0.50</u>
8	<u>37</u>	<u>0.34</u>
9	<u>38</u>	<u>0.35</u>
10	<u>38</u>	<u>0.40</u>

Total	<u>378</u>	<u>3.87</u>
Mean	<u>38</u>	<u>0.39</u>
Std. Dev.	<u>1</u>	<u>0.06</u>
Low	<u>35</u>	<u>0.31</u>
High	<u>40</u>	<u>0.50</u>

Loading Density (g/L) 0.39

Initials RC

Reviewed by: 

Date Reviewed: Dec-15, 2017

Method DAS 10°C

Client TEC 164

Reference 1718-2499-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	7.8
0	2017/12/05	1430	CB/PP	3	HS	Initial EC (µS/cm):	1116
1	2017/12/06	0930	LF/LB	-	AP	Initial DO (mg/L):	10.5
2	2017/12/09	0955	CB/LE	3	HS	Initial Temp (°C):	14.3°C
						Salinity (ppt):	14

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C			
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day	pH (units) (range: 6.0-8.5)								
0	7.75	7.6	7.6	7.7	7.8	7.8			
2	7.7	7.7	7.8	8.3	8.3	8.3			

day	EC (µS/cm)								
0	284	286	286	1191	1186	1191			
2	303	301	305	1212	1207	1203			

day	DO (mg/L) (40-100% saturation at test temp.)								
0	9.7	9.7	9.7	10.0	10.0	10.0			
2	9.7	9.7	9.7	9.6	9.6	9.7			

day	Temperature (°C) (range: 18-22°C)								
0	10.0	10.0	10.0	10.0	10.0	10.0			
2	10.0	10.6	10.0	10.0	10.0	10.0			

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	16	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 43.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 110% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20mins Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 591 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date E: 12/01 Weekly water hardness (mg/L) 93

Comments:
 no ppt @ 0h
 no ppt @ 48h

Reviewed By: JP

Date Reviewed: 2017/12/11

Method DAS @ 20°C

Client TEC164

Reference 1718-0499-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/12/05	1430	CB/AP	3	HS	7.8	1516	10.5	14.3°C	1%
1	2017/12/06	0930	CB/LE	-	AP					
2	2017/12/07	0925	CB/LE	3	HS					

Lab Code	<u>CTLA</u>	<u>CTLB</u>	<u>CTLC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>				
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day pH (units) (range: 6.0-8.5)

0	7.6	7.6	7.7	7.7	7.8	7.8				
2	7.6	7.6	7.7	8.2	8.1	8.1				

EC (uS/cm)

0	284	284	287	1179	1183	1183				
2	310	304	310	1166	1171	1184				

DO (mg/L) (40-100% saturation at test temp.)

0	8.0	8.0	8.0	9.6	9.7	9.7				
2	8.0	8.0	8.0	7.8	7.9	7.9				

Temperature (°C) (range: 18-22°C)

0	19.5	19.5	19.5	20.0	20.0	20.0				
2	20.0	20.0	20.0	20.0	20.0	20.0				

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10				
1	10(8F)	10(10F)	10(10F)	10(7F)	10(10F)	10(8F)				
2	9(3F)	9(3F)	10(7F)	10(2I)	10(10,3I,5F)	9(6F,2B)				

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 43.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 110% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20mins Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 591 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date E:12/01 Weekly water hardness (mg/L) 93

Comments:
24 hrs: No ppt
48 hrs: small amount of ppt formed

Reviewed By: JP Date Reviewed: 2017/12/11

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected December 4, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
LC_WTF_IN_2017-12-04_NP / 1718-0500-01	04-Dec-17 at 0800h	05-Dec-17 at 1400h	05-Dec-17 at 1430h	5.0°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-12-04_NP	5.0°C	589	262

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-12-04_NP	100

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-12-04_NP	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-12-04_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	4.7 (4.3-5.2) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.3%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, December 7, 2017

LC = Lethal Concentration; CL = Confidence Limit

Harjot Sandhu

Report By:
Harjot Sandhu, BSc
Biologist

Jacklyn Poole

Reviewed By:
Jacklyn Poole, BSc
Laboratory Supervisor

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS AS

Client TEC164

Reference 1718-0500-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/12/05	14:30	CB/AP	3	HS	7.7	1103	10.0	13.8°C	14.001
1	2017/12/06	0900	CB/LF	-	AB					
2	2017/12/07	0955	CB/LF	3	HS					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C
----------	------	------	------	------	------	------

day	pH (units) (range: 6.0-8.5)					
0	7.7	7.8	7.8	7.7	7.8	7.8
2	7.8	7.8	7.8	8.4	8.4	8.4

day	EC (µS/cm)					
0	293	291	291	1113	1120	1118
2	310	305	303	1100	1114	1125

day	DO (mg/L) (40-100% saturation at test temp.)					
0	4.79	7.9	7.9	7.7	7.8	7.7
2	7.8	7.8	7.8	7.9	7.9	7.9

day	Temperature (°C) (range: 18-22°C)					
0	20.0	20.0	20.0	21.0	21.0	21.0
2	20.0	20.0	20.0	20.0	20.0	20.0

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10(1F)	10(1OF)	10(1OF)	10	10	10
2	10(1OF)	9(5F)	10(7F)	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 43.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 589 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date E: 12/01 Weekly water hardness (mg/L) 93

Comments:
 0 hrs: no ppt
 48 hrs: no ppt

Reviewed By: JP

Date Reviewed: 2017/12/11

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected December 4, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
WL_BFWB_OUT_SP21_2017-12-04_N / 1718-0500-02	04-Dec-17 at 1030h	05-Dec-17 at 1400h	05-Dec-17 at 1430h	5.0°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-12-04_N	5.0°C	591	208

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	<i>Daphnia magna</i> 20°C	
WL_BFWB_OUT_SP21_2017-12-04_N	97	

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 20°C	
WL_BFWB_OUT_SP21_2017-12-04_N	3	

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-12- 04_N	<i>Daphnia magna</i>	Present	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	4.7 (4.3-5.2) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.3%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, December 7, 2017

LC = Lethal Concentration; CL = Confidence Limit

Harjot Sandhu

Report By:
Harjot Sandhu, BSc
Biologist

Jacklyn Poole

Reviewed By:
Jacklyn Poole, BSc
Laboratory Supervisor

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS AS

Client TEC164

Reference 1718-0500-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/12/05	1430	CB/AP	3	HS	7.8
1	2017/12/06	0900	CB/IF	-	AP	Initial EC (µS/cm): 116
2	2017/12/07	0935	CB/IF	3	HS	Initial DO (mg/L): 10.5
						Initial Temp (°C): 14.3°C
						Salinity (ppt): 0 ppt

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)					
0	7.7	7.8	7.8	7.8	7.8	7.9
2	7.8	7.8	7.8	8.4	8.4	8.4

	EC (µS/cm)					
0	293	291	291	1176	1199	1181
2	310	305	303	1202	1197	1194

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.9	7.9	7.9	9.6	9.7	9.7
2	7.8	7.8	7.8	7.9	7.9	7.9

	Temperature (°C) (range: 18-22°C)					
0	20.0	20.0	20.0	20.5	20.5	20.5
2	20.0	20.0	20.0	20.0	20.0	20.0

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10(9F)	10(10F)	10(10F)	10(4F)	10(7F)	10(8F)
2	9(10)	9(5F)	10(7F)	10(11F)	10	9(3F)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 43.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 110% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 591 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date E: 12/01 Weekly water hardness (mg/L) 93

Comments:
 0 hrs: no ppt
 48 hrs: v. small amt of ppt in 100A & 100C.

Reviewed By: JP

Date Reviewed: 2017/12/11

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected December 11, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
LC_WTF_IN_2017-12-11_NP / 1718-0518-01	11-Dec-17 at 0800h	12-Dec-17 at 1045h	13-Dec-17 at 1300h	12-Dec-17 at 1450h	12-Dec-17 at 1500h	4°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-12-11_NP	4°C	566	217

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-12-11_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-12-11_NP	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-12-11_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	Small amount

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.5-3.9) g/L KCl ¹	4.7 (4.3-5.2) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2 – 4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.6%	6.3%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, December 12, 2017; ² Test Date December 7, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Courtney Bogstie, BSc
Biologist



Reviewed By:
Jacklyn Poole, BSc
Laboratory Supervisor

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control for single concentration test
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival for single concentration test
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS Client TECIBY Reference 1718-0518-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/12/13	1300 *	SS	1	HS	Initial pH: <u>7.8</u>
1	2017/12/14	0810	SS	-	HS	Initial EC (µS/cm): <u>1059</u>
2	2017/12/15	0830	SS	-	HS	Initial DO (mg/L): <u>10.5</u>
3	2017/12/16	0930	SS	-	HS	Initial Temp (°C): <u>13.3</u>
4	2017/12/17	1200	LF	1	AR	Salinity (ppt): <u>1</u>
						Nets used: yes / <u>no</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100% 9.1 9.1 9.1 9.1

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>8.0</u>	<u>8.1</u>					
Day 4	<u>8.2</u>	<u>8.2</u>					

EC (uS/cm)

Day 0	<u>485</u>	<u>1259</u>					
Day 4	<u>459</u>	<u>1237</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>9.0</u>	<u>9.1</u>					
Day 4	<u>9.0</u>	<u>8.9</u>					

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.0</u>	<u>14.0</u>					
Day 4	<u>14.0</u>	<u>14.0</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>2.8</u>	<u>0.3</u>	<u>20171128TR</u>	
2	<u>3.0</u>	<u>0.3</u>	<u>LSL</u>	
3	<u>2.7</u>	<u>0.2</u>		
4	<u>2.7</u>	<u>0.2</u>		
5	<u>2.7</u>	<u>0.2</u>		
6	<u>2.9</u>	<u>0.3</u>		
7	<u>2.8</u>	<u>0.3</u>		
8	<u>2.9</u>	<u>0.3</u>		
9	<u>2.7</u>	<u>0.2</u>		
10	<u>2.7</u>	<u>0.2</u>		
Loading Density (g/L): <u>0.125</u>			Source	<u>LSL</u>
Mean Length (cm): <u>2.8</u>			Days Held	<u>15</u>
Length Range (cm): <u>2.7-3.0</u>			Percent stock mortality (7 days prior to test, must be ≤2%)	<u>0</u>
Mean Weight (g): <u>0.3</u> (Must be ≥0.3g)			Test Volume (L)	<u>20</u>
Weight Range (g): <u>0.2-0.3</u>				
Comments :				

Reviewed By: TM Date Reviewed: 2017/12/28

Method DAS@20%

Client TEC164

Reference 1718-0518-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/12/12	1450	LF/SS	3	CB	7.8	1059	10.5	13.3	1
1	2017/12/13	0930	HS	-	HS					
2	2017/12/14	0900	CB/LF	3	FB					

Lab Code	CTLA	GLB	CTL C	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.9	7.9	8.0	8.1	8.2	8.2
2	8.0	7.9	8.0	8.1	8.1	8.1

	EC (µS/cm)					
0	283	290	289	1040	1043	1042
2	331	330	336	1138	1147	1148

	DO (mg/L) (40-100% saturation at test temp.)					
0	8.0	8.0	8.0	8.3	8.3	8.4
2	7.8	7.8	7.8	8.0	8.0	8.0

	Temperature (°C) (range: 18-22°C)					
0	20.0	20.0	20.0	18.0	18.0	18.0
2	20.0	20.0	20.0	20.5	20.5	20.0

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10 (3F)	10 (2F)	10 (4F)
2	10	10	10	10	10	10 (5F)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar E1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 31.7
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 113 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 566 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G: 12/06 Weekly water hardness (mg/L) 103

Comments: ppt @ 0h: none
 48h: small amt ppt

Reviewed By: TM

Date Reviewed: 2017/12/28

Method DASE 20°C LF

Client TEC164

Reference 1718-0518 01 LF

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/12/12	1500	LE/SS	3	CS	TM 7.7	TM 113	TM 10.3	13.3	1
1	2017/12/13	0930	HS/CB	-	HS					
2	2017/12/14	0910	LE/CB	3	SP					

7-8
1059
10.5

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	8.0	8.0	8.0	8.1	8.2	8.2			
2	7.9	7.9	7.9	8.2	8.3	8.3			

EC (µS/cm)

0	287	289	285	995	1040	1042			
2	333	327	332	1190	1208	1219			

DO (mg/L) (40-100% saturation at test temp.)

0	9.7	9.7	9.8	9.7	9.7	9.7			
2	9.7	9.7	9.7	9.7	9.8	9.9			

Temperature (°C) (range: 18-22°C)

0	10.5	10.5	10.5	10.5	10.5	10.5			
2	10.0	10.0	10.0	10.0	10.0	10.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar E1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
Days to first brood (≤12 days) 7
Average number of young produced (≥15 young) 31.7
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 112 Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 Filtered with 110um screen prior to testing Yes or No
Hardness (mg CaCO3/L) of 100%: 566 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) _____

Dilution Water
Pail label / preparation date 6:12106 Weekly water hardness (mg/L) 102

Comments:
ppt @ 0h: none
48h: none

Reviewed By: TM

Date Reviewed: 2017/12/28

APPENDIX C – Chain-of-custody form

Teck

COC ID: 2017-12-11_AcuteToxicity

TURNAROUND TIME:

REGULAR

RUSH:

PROJECT/CLIENT INFO		LABORATORY		OTHER INFO	
Facility Name / Job#	WLC_AWTF	Lab Name	Nautlius Environmental	Report Delivery Formats	Excel PDF EDD
Project Manager	Thomas Davidson	Lab Contact	Jacklyn Pool	Email 1:	thomas.davidson@teck.com X X X
Email	Thomas.Davidson@teck.com	Email	jacklyn@nautliusenvironmental.ca	Email 2:	teckcoal@equisonline.com X X X
Address	15 Km North HWY 43	Address	#4, 6125 - 12 Street SE	Email 3:	teckwclab@epcor.com X X X
City	Sparwood	City	Calgary	Email 4:	Mary.Harke@teck.com X X X
Postal Code	V0B 2G0	Postal Code	T2H 2K1	Email 5:	colin.lynych@teck.com X X X
Province	BC	Province	AB	Email 6:	jocelyn.traverse@teck.com X X X
Country	Canada	Country	Canada		
Phone Number	250.603.9417	Phone Number	+1.403.253.7121		

SAMPLE DETAILS

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp Cont.	# OF	ANALYSIS REQUESTED		DATE/TIME	DATE/TIME	
								PRESERV.	PHL			
1718-0518	LC_WTF_IN_2017-12-11_NP	WS	N	11-Dec-17	8:00	G	3	NAUT_96Hr_RT_Single Concentration_Toxicity Test	N	X		
	LC_WTF_IN	WS	N	11-Dec-17	8:00	G	3	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 10C	N	X		
	LC_WTF_IN	WS	N	11-Dec-17	8:00	G	3	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C	N	X		
	WL_BWVB_OUT_SP21_2017-12-11_N	WS	N	11-Dec-17	9:00	G	8	EXTRA	N	X		

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION		REGULAR (default) X	
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge			
For Emergency <1 Day, ASAP or Weekend - Contact ALS			

2017/12/12 4P
 10:45
 Du
 13X1L/20L carbonyl
 main/tow/in
 Nos/I
 good
 condition

END OF REPORT



Acute Toxicity Test Results

Samples collected December 11, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
WL_BFWB_OUT_SP21_2017- 12-11_N / 1718-0518-02	11-Dec-17 at 0900h	12-Dec-17 at 1045h	13-Dec-17 at 1300h	12-Dec-17 at 1450h	12-Dec-17 at 1500h	4°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-12-11_N	4°C	506	170

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-12-11_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-12-11_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-12-11_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.5-3.9) g/L KCl ¹	4.7 (4.3-5.2) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2 – 4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.6%	6.3%
Organism health history	Acceptable	Acceptable
Protocol deviations	See below	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, December 12, 2017; ² Test Date December 7, 2017
 LC = Lethal Concentration; CL = Confidence Limit

The mean weight of the control fish was less than the 0.3 grams per fish. This should not affect the outcome of the toxicity tests.



Report By:
Courtney Bogstie, BSc
Biologist



Reviewed By:
Jacklyn Poole, BSc
Laboratory Supervisor

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control for single concentration test
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival for single concentration test
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS Client TECIB4 Reference 1718-0584-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/12/13	1300 *	SS	1	HS	Initial pH: <u>7.7</u> Initial EC (µS/cm): <u>1113</u>
1	2017/12/14	0810	SS	-	HS	Initial DO (mg/L): <u>10.3</u>
2	2017/12/15	0840	SS	-	HS	Initial Temp (°C): <u>13.3</u>
3	2017/12/16	0930	SS	-	ED	Salinity (ppt): <u>1</u>
4	2017/12/17	1200	LF	1	AS	Nets used: yes / <u>(no)</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L (yes/no)

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours
DO(mg/L) of 100% 9.1 9.1 9.1 9.1

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.8</u>	<u>8.0</u>					
Day 4	<u>8.3</u>	<u>8.2</u>					

EC (uS/cm)

Day 0	<u>455</u>	<u>1312</u>					
Day 4	<u>496</u>	<u>1270</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>9.0</u>	<u>9.1</u>					
Day 4	<u>9.0</u>	<u>9.0</u>					

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.0</u>	<u>14.0</u>					
Day 4	<u>14.0</u>	<u>14.0</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>2.8</u>	<u>0.3</u>	<u>20171128 TR</u>	
2	<u>2.7</u>	<u>0.2</u>	<u>LSL</u>	
3	<u>2.8</u>	<u>0.3</u>		
4	<u>2.6</u>	<u>0.2</u>		
5	<u>2.6</u>	<u>0.2</u>		
6	<u>2.5</u>	<u>0.2</u>		
7	<u>2.6</u>	<u>0.2</u>		
8	<u>2.7</u>	<u>0.2</u>		
9	<u>2.7</u>	<u>0.2</u>		
10	<u>2.7</u>	<u>0.3</u>		
Loading Density (g/L): <u>0.115</u>			Source	<u>LSL</u>
Mean Length (cm): <u>2.7</u>			Days Held	<u>15</u>
Length Range (cm): <u>2.5-2.8</u>			Percent stock mortality (7 days prior to test, must be ≤2%)	<u>0</u>
Mean Weight (g): <u>0.2</u>			Test Volume (L)	<u>20</u>
(Must be ≥0.3g)				
Weight Range (g): <u>0.2-0.3</u>				
Comments :				

Reviewed By: TM

Date Reviewed: 2017/12/28

Method DAS@20°C

Client TEC164

Reference 1718-0518-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/12/12	1450	LF/LSS	3	CS	<u>TM 7.8</u> 7.7
1	2017/12/13	0930	HS	-	HS	<u>TM 10.59</u> 11.3
2	2017/12/14	0855	LF/LR	3	EP	<u>TM 10.5</u> 10.3
						Initial Temp (°C): <u>13.3</u>
						Salinity (ppt): <u>1</u>

Lab Code	CTL A	CTLB	CTLC	100A	100B	100C

day

pH (units) (range: 6.0-8.5)

0	7.9	7.9	8.0	8.0	8.0	8.0
2	8.0	7.9	8.0	8.1	8.2	8.2

EC (uS/cm)

0	283	290	289	1099	1100	1096
2	331	330	336	1225	1224	1222

DO (mg/L) (40-100% saturation at test temp.)

0	8.0	8.0	8.0	8.3	8.4	8.3
2	7.8	7.8	7.8	8.0	8.0	8.0

Temperature (°C) (range: 18-22°C)

0	20.0	20.0	20.0	18.0	18.0	18.0
2	20.0	20.0	20.0	20.5	20.5	20.5

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar E1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
Days to first brood (≤12 days) 7
Average number of young produced (≥15 young) 31.7
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 113 Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 Filtered with 110um screen prior to testing Yes or No
Hardness (mg CaCO₃/L) of 100%: 506 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) —

Dilution Water
Pail label / preparation date G: 12/06 Weekly water hardness (mg/L) 102

Comments:
ppt@0h: none
48h: no ppt

Reviewed By: TM

Date Reviewed: 2017/12/28

Method DASA@10°C

Client TEC164

Reference 1718-0518-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/12/12	1500	LF/SS	3	CB	7.7	1113	10.3	13.3	1
1	2017/12/13	0930	HS/CB	-	HS					
2	2017/12/14	0910	LF/CB	3	EP					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

pH (units) (range: 6.0-8.5)

day	0	1	2	3	4	5
0	8.0	8.0	8.0	8.2	8.2	8.2
2	7.9	7.9	7.9	8.2	8.2	8.2

EC (µS/cm)

day	0	1	2	3	4	5
0	287	289	285	1099	1104	1106
2	333	327	332	1270	1271	1271

DO (mg/L) (40-100% saturation at test temp.)

day	0	1	2	3	4	5
0	9.7	9.7	9.8	9.6	9.6	9.7
2	9.7	9.7	9.7	9.7	9.8	9.9

Temperature (°C) (range: 18-22°C)

day	0	1	2	3	4	5
0	10.5	10.5	10.5	10.0	10.0	10.5
2	10.0	10.0	10.0	10.0	10.0	10.0

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

day	0	1	2	3	4	5
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar E1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 31.7
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 112 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 506 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G: 12106 Weekly water hardness (mg/L) 102

Comments: ppt @ 0h: none
 48h: none

Reviewed By: TM Date Reviewed: 2017/12/28

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected December 11, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> test initiation	
LC_WTF_IN_2017-12-11_NP / 1718-0519-01	11-Dec-17 at 0800h	12-Dec-17 at 1045h	12-Dec-17 at 1500h	4°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-12-11_NP	4°C	504	210

TEST TYPES

- Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-12-11_NP	100

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-12-11_NP	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-12-11_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	4.7 (4.3-5.2) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.3%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, December 07, 2017;
 LC = Lethal Concentration; CL = Confidence Limit

Harjot Sandhu

Report By:
Harjot Sandhu, BSc
Biologist

Jacklyn Poole

Reviewed By:
Jacklyn Poole, BSc
Laboratory Supervisor

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS-AS

Client TECL64

Reference 1718-0519-01

Test Log

1500

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	7.8
0	2017/12/12	1500	LF/ISS	3	CB	Initial EC (µS/cm):	1060
1	2017/12/13	0930	HS/CB	-	HS	Initial DO (mg/L):	10.5
2	2017/12/14	0900	LF/CB	3	TM	Initial Temp (°C):	13.4
						Salinity (ppt):	1

Lab Code	<u>CTLA</u>	<u>CTLB</u>	<u>CTLC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>			
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day	pH (units) (range: 6.0-8.5)								
0	7.9	7.9	7.9	8.2	8.2	8.2			
2	8.0	8.0	7.9	8.4	8.4	8.4			

day	EC (uS/cm)								
0	287	289	289	1036	1043	1039			
2	342	348	349	1211	1208	1224			

day	DO (mg/L) (40-100% saturation at test temp.)								
0	7.9	7.9	7.9	8.2	8.2	8.3			
2	7.9	7.9	8.0	8.2	8.1	8.2			

day	Temperature (°C) (range: 18-22°C)								
0	20.0	20.0	20.0	18.0	18.0	18.0			
2	19.5	19.0	19.0	19.0	19.5	19.0			

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10	10 (SF)			
2	10	10	10	10	10	10 (9F)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 6
 Average number of young produced (≥15 young) 34.8
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 111 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 504 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G:12/06 Weekly water hardness (mg/L) 102

Comments:
 ppt @ 0h: none
 48h: none in 100A&B, some present in 100c (very small amount)

Reviewed By: TM

Date Reviewed: 2017/12/22

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected December 11, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> test initiation	
WL_BFWB_OUT_SP21_2017-12-11_N / 1718-0519-02	11-Dec-17 at 0900h	12-Dec-17 at 1045h	12-Dec-17 at 1500h	4°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-12-11_N	4°C	523	179

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	<i>Daphnia magna</i> 20°C	
WL_BFWB_OUT_SP21_2017-12-11_N	100	

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 20°C	
WL_BFWB_OUT_SP21_2017-12-11_N	0	

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-12- 11_N	<i>Daphnia magna</i>	Small amount present	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	4.7 (4.3-5.2) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.3%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, December 07, 2017;
 LC = Lethal Concentration; CL = Confidence Limit

Harjot Sandhu

Report By:
Harjot Sandhu, BSc
Biologist

Jacklyn Poole

Reviewed By:
Jacklyn Poole, BSc
Laboratory Supervisor

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS-AS

Client TEC164

Reference 118-0519-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/12/12	1500	LF/SS	3	CB	7.87	1121	10.4	13.0	1
1	2017/12/13	0930	HS/CB	-	HS					
2	2017/12/14	0900	LF/CB	3	TM					

Lab Code	CCLA	CTLB	CTLL	100A	100B	100C				
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day pH (units) (range: 6.0-8.5)

0	7.9	7.9	7.9	8.2	8.2	8.2			
2	8.0	8.0	7.9	8.4	8.4	8.4			

EC (µS/cm)

0	287	289	289	1106	1106	1104			
2	342	348	349	1263	1268	1310			

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	8.3	8.3	8.3			
2	7.9	7.9	8.0	8.1	8.1	8.0			

Temperature (°C) (range: 18-22°C)

0	20.0	20.0	20.0	18.0	18.0	18.0			
2	19.5	19.0	19.0	20.0	17.5	19.5			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10 (5F)	10 (2F)	10			
2	10	10	10	10 (9F)	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 6
 Average number of young produced (≥15 young) 34.8
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 109 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 504 523 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date G:12/00 Weekly water hardness (mg/L) 102

Comments:
ppt@ oh: none
48h: none

Reviewed By: TM

Date Reviewed: 2017/12/22

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected December 18, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
LC_WTF_IN_2017-12-18_NP / 1718-0551-01	18-Dec-17 at 0800h	19-Dec-17 at 0845h	20-Dec-17 at 0900h	19-Dec-17 at 1445h	19-Dec-17 at 1445h	1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-12-18_NP	1°C	737	265

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-12-18_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-12-18_NP	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2018-12-18_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.5 – 3.9) g/L KCl ¹	4.7 (4.3-5.2) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2 – 4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.6%	6.3%
Organism health history	Acceptable	Acceptable
Protocol deviations	See Below	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, December 12, 2017; ² Test Date December 7, 2017

LC = Lethal Concentration; CL = Confidence Limit

The mean weight of the control fish was less than the 0.3 gram per fish for sample LC_WTF_IN_2018-12-18_NP. This should not affect the outcome of the toxicity tests.



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Jacklyn Poole, BSc
Laboratory Supervisor

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In House
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	16 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test, 1 per treatment for LC50 test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR5 Client TEC164 Reference 1718-0551-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/12/20	0900 *	AP	1	SS	Initial pH: <u>8.0</u>
1	2017/12/21	0900	CB	-	HS	Initial EC (µS/cm): <u>1314</u>
2	2017/12/22	0830	CB	-	HS	Initial DO (mg/L): <u>8.6</u>
3	2017/12/23	0945	CB	-	LC	Initial Temp (°C): <u>16.6</u>
4	2017/12/24	0955	LF	1	AP	Salinity (ppt): <u>2</u>
						Nets used: yes / <u>no</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100% 8.7

Test Chemistry and Biology

Conc. CTL 106

pH (units) (range: 5.5-8.5)

Day 0	<u>8.1</u>	<u>8.1</u>				
Day 4	<u>8.4</u>	<u>8.3</u>				

EC (uS/cm)

Day 0	<u>530</u>	<u>1277</u>				
Day 4	<u>537</u>	<u>1219</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.7</u>	<u>8.8</u>				
Day 4	<u>9.0</u>	<u>9.1</u>				

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.0</u>	<u>14.6</u>				
Day 4	<u>14.0</u>	<u>14.0</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.8</u>	<u>0.3</u>	Loading Density (g/L): <u>0.15</u> Mean Length (cm): <u>2.7</u> Length Range (cm): <u>2.5-3.0</u> Mean Weight (g): <u>0.2</u> (Must be ≥0.3g) Weight Range (g): <u>0.2-0.3</u>	Batch <u>2017112812</u>
2	<u>3.0</u>	<u>0.3</u>		Source <u>LSL</u>
3	<u>2.5</u>	<u>0.2</u>		Days Held <u>22</u>
4	<u>2.6</u>	<u>0.2</u>		Percent stock mortality <u>0.08</u> (7 days prior to test, must be ≤2%)
5	<u>2.8</u>	<u>0.3</u>		Test Volume (L) <u>16</u>
6	<u>2.6</u>	<u>0.2</u>		
7	<u>2.8</u>	<u>0.3</u>		
8	<u>2.7</u>	<u>0.2</u>		
9	<u>2.6</u>	<u>0.2</u>		
10	<u>2.6</u>	<u>0.2</u>		
Comments :				

Reviewed By: TP

Date Reviewed: 2017/12/27

Method DAS @ 20°C

Client TEC164

Reference 1718-0551-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/12/19	1445	EP/LF	3	SS	8.0
1	2017/12/20	0930	LF/CB	-	SS	1314
2	2017/12/20 th 21	0940	LF	3	115	8.6
						Initial Temp (°C):
						Salinity (ppt):
						2

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	8.1	8.1	8.1	7.9	8.0	8.0
2	8.1	8.0	8.0	8.1	8.1	8.1

	EC (uS/cm)					
0	352	357	356	1305	1335	1358
2	348	350	354	1252	1251	1288

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.9	7.9	7.9	7.9	7.9	7.9
2	7.9	7.8	7.9	7.8	7.7	7.7

	Temperature (°C) (range: 18-22°C)					
0	20.0	20.0	20.0	19.5	19.0	19.0
2	20.5	20.5	20.5	20.0	20.0	20.0

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10 (1F)	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>D4</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>6</u>	Average number of young produced (≥15 young) <u>40.4</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>100</u>	Is aeration required (<40% or >100%)? Yes or No <input checked="" type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110um screen prior to testing Yes or No <input checked="" type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>737</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? Yes or No <input checked="" type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) _____	
Dilution Water	Pail label / preparation date <u>D: 12/13</u>	Weekly water hardness (mg/L) <u>88</u>
Comments:	<u>Oh: no ppt</u> <u>48h: no ppt</u>	

Reviewed By: DP

Date Reviewed: 2017/12/27

Method DASE@10°C

Client TEC164

Reference 1718-0551-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/12/19	1445	EP/LE	3	SS	8.0
1	2017/12/20	0945	TE/CB	-	SS	13.4
2	2017/12/21	0945	LF	3	HS	8.6

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C	Initial Temp (°C):	Salinity (ppt):
							16.6	2

day	pH (units) (range: 6.0-8.5)					
0	8.1	8.1	8.1	8.0	8.0	8.0
2	8.0	8.0	8.0	8.3	8.3	8.2

	EC (uS/cm)					
0	348	351	356	1350	1335	1313
2	349	347	348	1322	1325	1306

	DO (mg/L) (40-100% saturation at test temp.)					
0	9.3	9.3	9.3	9.3	9.3	9.4
2	9.2	9.3	9.2	9.3	9.3	9.2

	Temperature (°C) (range: 18-22°C)					
0	11.0	11.0	10.5	11.0	11.0	10.5
2	12.0	12.0	11.5	11.5	11.5	11.5

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 6
 Average number of young produced (≥15 young) 40.4
 Were test treatments randomized on test tray? Yes No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? **Yes or No** No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing **Yes or No** No
 Hardness (mg CaCO3/L) of 100%: 737 Is hardness adjustment required (<25 mg CaCO3/L)? **Yes or No** No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date D:12/13 Weekly water hardness (mg/L) 88

Comments:
 0h: no ppt
 48h: no ppt

Reviewed By: JP

Date Reviewed: 2017/12/27

APPENDIX C – Chain-of-custody form

Teck

PROJECT/ELEMENT INFO		LABORATORY		OTHER INFO	
COC ID:	2017-12-18_AcuteToxicity	TURNAROUND TIME:		REGULAR	RUSH:
Facility Name / Job#	WLC AVT#	Lab Name	Neutrin Environmental	Report Delivery Formats	Excel PDF EHD
Project Manager	Thomas Davidson	Lab Contact	Jacklyn Pool	Email 1:	thomas.davidson@teck.com
Email	Thomas.Davidson@teck.com	Email	Jacklyn.Pool@neutrinenvironmental.ca	Email 2:	teckcoal@equisonline.com
Address	15 Km North Hwy 43	Address	#4, 6125 - 12 Street SE	Email 3:	teckwclab@epcor.com
City	Sparwood	City	Calgary	Email 4:	Mary.Hatke@teck.com
Postal Code	V0B 2G0	Postal Code	T2H 2K1	Email 5:	colin.lynnh@teck.com
Province	BC	Province	AB	Email 6:	jocelyn.traverse@teck.com
Country	Canada	Country	Canada		
Phone Number	250.603.9417	Phone Number	+1.403.253.7121		
SAMPLE DETAILS		ANALYSIS REQUESTED		VPO 00472572	

Sample ID	Sample Location	Field Matrix	Date	Time (24hr)	G=Grab C=Com P	# Of Cntrl.	ANALYSIS			PRESERV.	FIL.
							NAUT_96Hr_RT_Single Concentration_Toxicity Test	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 10C	NAUT_48Hr_DM_Single Concentration_Toxicity Test @ 20C		
LC_WTF_IN_2017-12-18_NP	LC_WTF_IN	WS	18-Dec-17	8:00	G	3	X	X	X		
WL_BRWB_OUT_SPT1_2017-12-18_N	WL_BRWB_OUT_SPT1	WS	18-Dec-17	9:00	G	8	X	X	X		
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS							DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME		
RELINQUISHED BY/AFFILIATION							DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME		

2017/12/19 Manitoba
8:45am
Du
NOS/ good condition
8x11 Bottles/ 1x20L carboy

NB OF BOTTLES RETURNED/DESCRIPTION

Regular (defmt) X
 Priority (2-3 business days) - 50% surcharge
 Emergency (1 Business Day) - 100% surcharge
 For Emergency < 1 Day, ASAP or Weekend - Contact ALS

Sampler's Name
 Sampler's Signature

Blair Peebles
 Date/Time

Mobile #
 Date/Time

December 18, 2017

END OF REPORT



Acute Toxicity Test Results

Samples collected December 18, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
WL_BFWB_OUT_SP21_2017- 12-18_N / 1718-0551-02	18-Dec-17 at 0900h	19-Dec-17 at 0845h	20-Dec-17 at 0900h	19-Dec-17 at 1500h	19-Dec-17 at 1450h	1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-12-18_N	1°C	590	225

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-12-18_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-12-18_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-12-18_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.5 – 3.9) g/L KCl ¹	4.7 (4.3-5.2) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2 – 4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.6%	6.3%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, December 12, 2017; ² Test Date December 7, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Jacklyn Poole, BSc
Laboratory Supervisor

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In House
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	16 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment for single concentration test, 1 per treatment for LC50 test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS Client TEC164 Reference 1718-0551-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/12/20	0900 *	AF	1	SS	Initial pH: <u>8.0</u>
1	2017/12/21	0900	CB	-	HS	Initial EC (µS/cm): <u>1314</u>
2	2017/12/22	0840	CB	-	HS	Initial DO (mg/L): <u>9.6</u>
3	2017/12/23	0945	FD	-	LC	Initial Temp (°C): <u>18.3</u>
4	2017/12/24	0950	LF	1	AF	Salinity (ppt): <u>0</u>
						Nets used: yes / (no)

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.7

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>8.0</u>	<u>8.0</u>					
Day 4	<u>8.2</u>	<u>8.2</u>					

EC (uS/cm)

Day 0	<u>522</u>	<u>1247</u>					
Day 4	<u>569</u>	<u>1223</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.7</u>	<u>8.8</u>					
Day 4	<u>8.9</u>	<u>9.0</u>					

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.0</u>	<u>14.0</u>					
Day 4	<u>14.0</u>	<u>14.0</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	<u>20171128TR</u>
1	<u>2.7</u>	<u>0.2</u>	Source	<u>USL</u>
2	<u>3.1</u>	<u>0.4</u>	Days Held	<u>22</u>
3	<u>2.6</u>	<u>0.2</u>	Percent stock mortality (7 days prior to test, must be ≤2%)	<u>0.08</u>
4	<u>3.0</u>	<u>0.3</u>	Test Volume (L)	<u>16</u>
5	<u>3.0</u>	<u>0.3</u>		
6	<u>3.0</u>	<u>0.3</u>		
7	<u>3.0</u>	<u>0.3</u>		
8	<u>2.7</u>	<u>0.2</u>		
9	<u>2.6</u>	<u>0.2</u>		
10	<u>2.6</u>	<u>0.2</u>		
Loading Density (g/L): <u>0.10</u>				
Mean Length (cm): <u>2.8</u>				
Length Range (cm): <u>2.6-3.1</u>				
Mean Weight (g): <u>0.3</u>				
(Must be ≥0.3g)				
Weight Range: (g): <u>0.2-0.4</u>				
Comments:				

Reviewed By: SP

Date Reviewed: 2017/12/27

Method DAS@20°C

Client TEC164

Reference 1718-0551-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/12/19	1500	LELEP	3	SS	8.0	1314	9.6	18.3	
1	2017/12/20	0930	LELEP	-	SS					
2	2017/12/21	0940	LF	3	115					

Lab Code	<u>CTLA</u>	<u>CTLB</u>	<u>CTLC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>				
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day	pH (units) (range: 6.0-8.5)								
0	8.1	8.1	8.1	8.1	8.1	8.1			
2	8.1	8.0	8.0	8.2	8.2	8.2			

day	EC (µS/cm)								
0	352	354	356	1315	1333	1332			
2	348	350	354	1245	1269	1282			

day	DO (mg/L) (40-100% saturation at test temp.)								
0	7.9	7.9	7.9	8.1	8.1	8.1			
2	7.9	7.8	7.9	7.8	7.9	7.9			

day	Temperature (°C) (range: 18-22°C)								
0	20.0	20.0	20.0	18.5	18.5	18.5			
2	20.5	20.5	20.5	20.0	20.0	20.0			

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar DA Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
Days to first brood (≤12 days) 6
Average number of young produced (≥15 young) 40.4
Were test treatments randomized on test tray? Yes No

Sample
DO % of sample prior to aeration: 116 Is aeration required (<40% or >100%)? Yes No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 Filtered with 110µm screen prior to testing Yes No
Hardness (mg CaCO₃/L) of 100%: 596 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
Pail label / preparation date D: 12/13 Weekly water hardness (mg/L) 88

Comments: Oh: no ppt
48 h: no ppt

Reviewed By: JJP

Date Reviewed: 2017/12/27

Method DAB @ 10°C

Client TEU64

Reference 1718-0551-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/12/19	1450	EP/LE	3	SS	8.0	1314	9.6	18.3	0
1	2017/12/20	0940	LE/LB	-	SS					
2	2017/12/21	0940	LF	3	HS					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	8.1	8.1	8.1	8.0	8.1	8.1
2	8.0	8.0	8.0	8.2	8.2	8.2

day	EC (uS/cm)					
0	348	351	356	1274	1323	1334
2	349	347	348	1301	1315	1305

day	DO (mg/L) (40-100% saturation at test temp.)					
0	9.3	9.3	9.3	9.4	9.3	9.3
2	9.2	9.3	9.2	9.4	9.4	9.3

day	Temperature (°C) (range: 18-22°C)					
0	11.0	11.0	10.5	10.5	11.0	11.0
2	12.0	12.6	11.5	11.0	11.0	11.0

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10 LF
1	10	10	10	10	10	10
2	10	10	10	10	0 *	10 LF

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 6
 Average number of young produced (≥15 young) 40.4
 Were test treatments randomized on test tray? Yes No

Sample
 DO % of sample prior to aeration: 116 Is aeration required (<40% or >100%)? Yes No LF
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 Filtered with 110um screen prior to testing Yes No
 Hardness (mg CaCO3/L) of 100%: 590 Is hardness adjustment required (<25 mg CaCO3/L)? Yes No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date D: 12/13 Weekly water hardness (mg/L) 88

Comments: Oh: no ppt
 48h: no ppt
 *B replicate potentially contaminated, all daphnia immobile, do not use for mortality % - CR

Reviewed By: JP

Date Reviewed: 2017/12/27

APPENDIX C – Chain-of-custody form

Teck

PROJECT/ELEMENT INFO		LABORATORY		OTHER INFO	
COC ID:	2017-12-18_AcuteToxicity	TURNAROUND TIME:	REGULAR	RUSH:	
Facility Name / Job#	WLC AVT#	Lab Name	Neutrin Environmental	Report Delivery Formats	Excel PDF EHD
Project Manager	Thomas Davidson	Lab Contact	Jacklyn Pool	Email 1:	thomas.davidson@teck.com
Email	Thomas.Davidson@teck.com	Email	Jacklyn.Pool@neutrinenvironmental.ca	Email 2:	teckcoal@equisonline.com
Address	15 Km North Hwy 43	Address	#4, 6125 - 12 Street SE	Email 3:	teckwclab@epcor.com
City	Sparwood	City	Calgary	Email 4:	Mary.Hatke@teck.com
Postal Code	V0B 2G0	Postal Code	T2H 2K1	Email 5:	colin.lynnh@teck.com
Province	BC	Province	AB	Email 6:	jocelyn.traverse@teck.com
Country	Canada	Country	Canada		
Phone Number	250.603.9417	Phone Number	+1.403.253.7121		

Sample ID	Sample Location	Field Matrix	Date	Time (24hr)	G=Grab C=Com P	# Of Cntrl.	ANALYSIS REQUESTED					
							PRESERV.	REL.	ANALYSIS			
LC_WTF_IN_2017-12-18_NP	LC_WTF_IN	WS	18-Dec-17	8:00	G	3	X	X	X			
WL_BRWB_OUT_SPT1_2017-12-18_N	WL_BRWB_OUT_SPT1	WS	18-Dec-17	9:00	G	8	X	X	X	X		

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION
 Regular (defmt) X
 Priority (2-3 business days) - 50% surcharge
 Emergency (1 Business Day) - 100% surcharge
 For Emergency < 1 Day, ASAP or Weekend - Contact ALS

2017/12/19 Manitoba
 8:45am
 Du
 NOS/ good condition
 8x11 Bottles/1x20L carboy

END OF REPORT



Acute Toxicity Test Results

Samples collected December 17, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> test initiation	
LC_WTF_IN_2017-12-18_NP / 1718-0552-01	18-Dec-17 at 0800h	19-Dec-17 at 0845h	19-Dec-17 at 1500h	1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-12-18_NP	1°C	>425	265

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-12-18_NP	100

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-12-18_NP	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-12-18_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	4.7 (4.3-5.2) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.0)g/L NaCl
Reference toxicant CV	6.3%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date December 7, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Jacklyn Poole, BSc
Laboratory Supervisor

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DASA

Client TEC164

Reference 1718-0552-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/12/19	1500	EP/IF	3	SS	8.0
1	2017/12/20	0920	IF/OS	-	SS	Initial EC (µS/cm): <u>1314</u>
2	2017/12/21	0930	IF	3	HS	Initial DO (mg/L): <u>8.6</u>
						Initial Temp (°C): <u>16.6</u>
						Salinity (ppt): <u>2</u>

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	8.2	8.2	8.2	7.9	8.1	8.0
2	8.0	8.1	8.1	8.3	8.3	8.3

	EC (µS/cm)					
0	351	367	367	1320	1340	1354
2	349	351	350	1279	1277	1274

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.9	7.9	7.9	8.0	8.0	8.1
2	7.8	7.8	7.8	7.9	7.8	7.9

	Temperature (°C) (range: 18-22°C)					
0	20.0	19.0	20.0	19.0	19.0	19.0
2	20.0	20.0	20.0	20.5	20.0	20.0

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 6
 Average number of young produced (≥15 young) 40.4
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? **Yes or No** No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing **Yes or No** No
 Hardness (mg CaCO₃/L) of 100%: >425 Is hardness adjustment required (<25 mg CaCO₃/L)? **Yes or No** No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date D:12/13 Weekly water hardness (mg/L) 88

Comments:
0h: no ppt
48h: no ppt

Reviewed By: TM

Date Reviewed: 2017/12/22

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected December 17, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> test initiation	
WL_BFWB_OUT_SP21_2017-12-18_N / 1718-0552-02	18-Dec-17 at 0900h	19-Dec-17 at 0845h	19-Dec-17 at 1500h	1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-12-18_N	1°C	>425	225

TEST TYPES

- Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	<i>Daphnia magna</i> 20°C	
WL_BFWB_OUT_SP21_2017-12-18_N	100	

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 20°C	
WL_BFWB_OUT_SP21_2017-12-18_N	0	

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-12- 18_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	4.7 (4.3-5.2) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.0)g/L NaCl
Reference toxicant CV	6.3%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date December 7, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Jacklyn Poole, BSc
Laboratory Supervisor

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS-AJ

Client TELL64

Reference 1718-0552-07

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/12/19	1500	LF/EP	3	SS	8.0
1	2017/12/20	0935	LF/UB	-	SS	Initial EC (µS/cm): <u>1314</u>
2	2017/12/21	0930	LF	3	175	Initial DO (mg/L): <u>9.6</u>
						Initial Temp (°C): <u>18.3</u>
						Salinity (ppt): <u>0</u>

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	8.2	8.2	8.2	8.0	8.0	8.0
2	8.0	8.1	8.1	8.3	8.3	8.3

EC (uS/cm)

0	351	362	362	1337	1343	1342
2	349	350	351	1272	1267	1269

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	8.0	8.0	8.1
2	7.8	7.8	7.8	8.4	7.8	7.9

Temperature (°C) (range: 18-22°C)

0	20.0	19.0	20.0	18.5	18.5	18.5
2	20.0	20.0	20.0	20.0	20.0	20.0

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 6
 Average number of young produced (≥15 young) 40.4
 Were test treatments randomized on test tray? Yes No

Sample
 DO % of sample prior to aeration: 116 Is aeration required (<40% or >100%)? Yes No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 Filtered with 110um screen prior to testing Yes No
 Hardness (mg CaCO3/L) of 100%: >425 Is hardness adjustment required (<25 mg CaCO3/L)? Yes No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date D:12/13 Weekly water hardness (mg/L) 88

Comments: 0h: no ppt
4h: no ppt

Reviewed By: TM

Date Reviewed: 2017/12/22

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected December 27, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
LC_WTF_IN_2017-12-27_NP / 1718-0585-01	27-Dec-17 at 0800h	28-Dec-17 at 1030h	29-Dec-17 at 1345h	28-Dec-17 at 1400h	28-Dec-17 at 1430h	3°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-12-27_NP	3°C	550	200

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-12-27_NP	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-12-27_NP	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-12-27_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.5 – 3.9) g/L KCl ¹	4.8 (4.3-5.3) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2 – 4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.6%	6.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, December 12, 2017; ² Test Date January 2, 2018
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Jacklyn Poole, BSc
Laboratory Supervisor

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In House
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS Client TEC164 Reference 1718-0585-01

Test Log						Sample Information	
Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:	
0	2017/12/09	1345 *	SP	1	SS	7.8	
1	2017/12/30	1100	SS	-	FD	Initial EC (µS/cm):	1236
2	2017/12/21	1050	GA	-	LC	Initial DO (mg/L):	10.6
3	2018/01/01	1000	FD	-	AF	Initial Temp (°C):	13.8
4	2018/01/02	1000	AF	1	HS	Salinity (ppt):	1
						Nets used: yes / no	(no)

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time	0.5 hours	1 hour	1.5 hours	2 hours
DO(mg/L) of 100%	8.7			

Test Chemistry and Biology

Conc.	CTL	100					
-------	-----	-----	--	--	--	--	--

pH (units) (range: 5.5-8.5)

Day 0	8.0	8.0					
Day 4	8.1	8.0					

EC (µS/cm)

Day 0	476	1260					
Day 4	499	1220					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.7	8.7					
Day 4	8.8	8.8					

Temperature (°C) (range: 14-16°C)

Day 0	14.0	14.0					
Day 4	14.0	14.6					

Number Alive (In brackets number stressed)

Day 0	10	10					
Day 1	10	10					
Day 2	10	10					
Day 3	10	10					
Day 4	10	10					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	3.2	0.4	2017/11/8 TRC	
2	3.3	0.5	Source	LSC
3	3.0	0.3	Days Held	31
4	2.8	0.3	Percent stock mortality	0.8%
5	3.2	0.4	(7 days prior to test, must be ≤ 2%)	
6	3.0	0.3	Test Volume (L)	20L
7	2.9	0.3		
8	3.1	0.3		
9	2.8	0.3		
10	2.6	0.25		
Loading Density (g/L):			0.16	
Mean Length (cm):			3.0	
Length Range (cm):			2.8-3.3	
Mean Weight (g):			0.3	
(Must be ≥ 0.3g)				
Weight Range (g):			0.2-0.5	

Comments :

Reviewed By: TM

Date Reviewed: 2017/11/03

Method DAS @ 20°C Client TEC164 Reference 1718-0585-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/12/28	1400	AR/CB	1	HS	7.8	1236	10.6	13.8	1
1	2017/12/29	0845	SP	-	SS					
2	2017/12/30	0930	SP	3	SS					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	7.0	7.3	7.4	8.0	8.1	8.0			
2	7.4	7.5	7.6	8.0	8.0	8.0			

EC (µS/cm)

0	333	336	336	1234	1254	1260			
2	340	345	344	1256	1272	1275			

DO (mg/L) (40-100% saturation at test temp.)

0	7.5	7.7	7.7	8.0	8.0	8.0			
2	7.5	7.6	7.6	7.9	7.9	7.9			

Temperature (°C) (range: 18-22°C)

0	18.0	18.0	18.0	18.0	18.0	18.0			
2	20.0	20.0	20.0	20.0	20.0	20.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar PS Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 7
Average number of young produced (≥15 young) 38.3
Were test treatments randomized on test tray? (Yes) No

Sample
DO % of sample prior to aeration: 110 Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes or No
Hardness (mg CaCO₃/L) of 100%: 550 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
Pail label / preparation date G:12/24 Weekly water hardness (mg/L) 88

Comments:
@ 0 hrs: no ppt
@ 48 hrs: no ppt

Reviewed By: TJM

Date Reviewed: 201810/103

Method DAS @ 10°C

 Client TEC164

 Reference 1718-0585-01
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information
0	2017/12/28	1430	AR/LB	3	HS	Initial pH: <u>7.8</u>
1	2017/12/29	0845	FD	-	SS	Initial EC (µS/cm): <u>1236</u>
2	2017/12/30	0930	FD	3	SS	Initial DO (mg/L): <u>10.6</u>
						Initial Temp (°C): <u>13.8</u>
						Salinity (ppt): <u>1</u>

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	<u>7.7</u>	<u>7.8</u>	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>			
2	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>			

EC (µS/cm)

0	<u>332</u>	<u>334</u>	<u>334</u>	<u>1256</u>	<u>1276</u>	<u>1284</u>			
2	<u>340</u>	<u>342</u>	<u>350</u>	<u>1272</u>	<u>1288</u>	<u>1266</u>			

DO (mg/L) (40-100% saturation at test temp.)

0	<u>9.7</u>	<u>9.7</u>	<u>9.7</u>	<u>9.7</u>	<u>9.6</u>	<u>9.6</u>			
2	<u>9.6</u>	<u>9.6</u>	<u>9.6</u>	<u>9.7</u>	<u>9.7</u>	<u>9.7</u>			

Temperature (°C) (range: 18-22°C)

0	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>			
2	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C1</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0</u>
QA (previous month)	Days to first brood (≤12 days) <u>9</u>	Average number of young produced (≥15 young) <u>34.3</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>100</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>--</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>550</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>--</u>	
Dilution Water	Pail label / preparation date <u>G:12/24</u>	Weekly water hardness (mg/L) <u>.88</u>
Comments:	<u>@ 0 hrs: no ppt</u> <u>@ 48 hours: no ppt</u>	

 Reviewed By: TM

 Date Reviewed: 2018/01/03

APPENDIX C – Chain-of-custody form

Teck

PROJECT/CLIENT INFO		2017-12-27 Acute Toxicity		TURNAROUND TIME:		LABORATORY		REGULAR		RUSH:		OTHER INFO																						
Facility Name / Job#		WLC AWTF		Lab Name		Nautilus Environmental		Report Delivery Formats		Excel		PDF		EDD																				
Project Manager		Thomas Davidson		Lab Contact		Jacklyn Pool		Email 1:		thomas.davidson@teck.com		X		X																				
Email		Thomas.Davidson@teck.com		Email		Jacklyn@NautilusEnvironmental.ca		Email 2:		teckcoal@equisonline.com		X		X																				
Address		15 Km North HWY 43		Address		#4, 6125 - 12 Street SE		Email 3:		teckw/lab@epcor.com		X		X																				
City		Sparwood		City/Catery		Calgary		Email 4:		Marty.Hake@teck.com		X		X																				
Postal Code		V0B 2G0		Province		BC		Email 5:		colin_lynch@teck.com		X		X																				
Country		Canada		Postal Code		T2H 2K1		Country		Canada		X		X																				
Phone Number 250.603.9417				Phone Number +1.403.253.7121				VPO 00473572				Printed - 81 Pages, 13 Pages 91 - 99 and 6 Lab N. Sites																						
SAMPLE DETAILS																																		
Sample ID		1718-0585		Sample Location		LC_WTF_IN		Field Matrix		Hazardous Material (Yes/No)		Date		Time (24hr)		G-Grab # OF C-Comp Cont.		ANALYSIS REQ/TESTED																
WL_WTF_IN_2017-12-27_NP		LC_WTF_IN		WS		N		27-Dec-17		8:00		G		3		<table border="1"> <thead> <tr> <th>ANALYSIS</th> <th>PRESERV.</th> <th>PHI</th> </tr> </thead> <tbody> <tr> <td>NAUT_96Hr_RT_Single Concentration Toxicity Test</td> <td>N</td> <td>N</td> </tr> <tr> <td>NAUT_48Hr_DM_Single Concentration Toxicity Test @ 10C</td> <td>N</td> <td>N</td> </tr> <tr> <td>NAUT_48Hr_DM_Single Concentration Toxicity Test @ 20C</td> <td>N</td> <td>N</td> </tr> <tr> <td>EXTRA</td> <td>N</td> <td>N</td> </tr> </tbody> </table>				ANALYSIS	PRESERV.	PHI	NAUT_96Hr_RT_Single Concentration Toxicity Test	N	N	NAUT_48Hr_DM_Single Concentration Toxicity Test @ 10C	N	N	NAUT_48Hr_DM_Single Concentration Toxicity Test @ 20C	N	N	EXTRA	N	N
ANALYSIS	PRESERV.	PHI																																
NAUT_96Hr_RT_Single Concentration Toxicity Test	N	N																																
NAUT_48Hr_DM_Single Concentration Toxicity Test @ 10C	N	N																																
NAUT_48Hr_DM_Single Concentration Toxicity Test @ 20C	N	N																																
EXTRA	N	N																																
WL_BFWB_OUT_2017-12-27_N		WL_BFWB_OUT_SP21		WS		N		27-Dec-17		9:00		G		8																				
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS																																		
REINQUISHED BY/AFFILIATION																																		
DATE/TIME																																		
ACCEPTED BY/AFFILIATION																																		
DATE/TIME																																		
NB OF BOTTLES RETURNED/DESCRIPTION																																		
Regular (default) X																																		
Priority (2-3 business days) - 50% surcharge																																		
Emergency (1 Business Day) - 100% surcharge																																		
For Emergency < 1 Day, ASAP or Weekend - Contact ALS																																		
Sampler's Name				Erik McArthur				Mobile #				December 27, 2017																						
Sampler's Signature																																		

2017/12/28 Manitoba
 10:30am 36 good condition
 DU NOS/IT
 5x1L Bottle / 13x20L Carboys

END OF REPORT



Acute Toxicity Test Results

Samples collected December 27, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates					Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> 20°C test initiation	<i>Daphnia magna</i> 10°C test initiation	
WL_BFWB_OUT_SP21_2017-12-27_N / 1718-0585-02	27-Dec-17 at 0900h	28-Dec-17 at 1030h	29-Dec-17 at 1345h	28-Dec-17 at 1400h	28-Dec-17 at 1430h	3°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO3)	Alkalinity (mg/L CaCO3)
WL_BFWB_OUT_SP21_2017-12-27_N	3°C	659	197

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test (conducted at 10°C)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample		
	Rainbow trout	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-12-27_N	100	100	100

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 10°C	<i>Daphnia magna</i> 20°C
WL_BFWB_OUT_SP21_2017-12-27_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-12-27_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.5 – 3.9) g/L KCl ¹	4.8 (4.3-5.3) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2 – 4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.6%	6.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, December 12, 2017; ² Test Date January 2, 2018
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Jacklyn Poole, BSc
Laboratory Supervisor

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In House
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

Table 3. Summary of test conditions: 48-h *Daphnia magna* survival test at 10°C

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR5 Client TEC164 Reference 1718-0585-02

Test Log						Sample Information	
Day	Date	Time	Initial	Chem. Cart	Daily Data Review		
0	2017/12/29	1345 *	EP	1	SS	Initial pH:	7.8
1	2017/12/30	1100	SS	-	EP	Initial EC (µS/cm):	1289
2	2017/12/31	1050	AP	-	LC	Initial DO (mg/L):	11.3
3	2018/01/01	1015	EA	-	AP	Initial Temp (°C):	12.8
4	2018/01/02	1000	FE	1	HS	Salinity (ppt):	1
						Nets used: yes /	<input checked="" type="radio"/> no

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100%: 8.8

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	8.7	8.1					
Day 4	8.1	8.1					

EC (µS/cm)

Day 0	498	1307					
Day 4	503	1234					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.8	8.8					
Day 4	8.8	8.8					

Temperature (°C) (range: 14-16°C)

Day 0	14.0	14.0					
Day 4	14.0	14.0					

Number Alive (In brackets number stressed)

Day 0	10	10					
Day 1	10	10					
Day 2	10	10					
Day 3	10	10					
Day 4	10	10					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	3.1	0.4	20171128TR	Source <u>LSC</u>
2	3.1	0.4		Days Held <u>31</u>
3	2.9	0.3		Percent stock mortality <u>0.8%</u> (7 days prior to test, must be ≤2%)
4	3.0	0.3		Test Volume (L) <u>20L</u>
5	3.1	0.3		
6	3.1	0.3		
7	3.2	0.4		
8	2.8	0.2		
9	3.0	0.3		
10	2.9	0.2		
Loading Density (g/L):			0.155	
Mean Length (cm):			3.0	
Length Range (cm):			2.8-3.2	
Mean Weight (g): (Must be ≥0.3g)			0.3	
Weight Range (g):			0.2-0.4	
Comments :				

Reviewed By: TM Date Reviewed: 2018/01/03

Method DAS@20°C

 Client TEC164

 Reference 1718-0585-02
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/12/28	1400	AP/GB	1	45	7.8	1289	11.3	12.8	1
1	2017/12/29	0845	SP	-	SS					
2	2017/12/30	0930	SP	3	SS					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day	pH (units) (range: 6.0-8.5)					
0	7.0	7.3	7.4	8.2	8.3	8.3
2	7.5	7.6	7.6	8.3	8.3	8.5

day	EC (µS/cm)					
0	333	336	336	1295	1305	1306
2	340	345	347	1315	1326	1339

day	DO (mg/L) (40-100% saturation at test temp.)					
0	7.5	7.7	7.7	8.2	8.1	8.1
2	7.6	7.7	7.7	7.8	7.8	7.8

day	Temperature (°C) (range: 18-22°C)					
0	18.0	18.0	18.0	18.0	18.0	18.0
2	20.0	20.0	20.0	20.0	20.0	20.0

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
	10	10	10	10	10	10
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>03</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>7</u>	Average number of young produced (≥15 young) <u>38.3</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>106</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>20 min</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>659</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>G:12/24</u>	Weekly water hardness (mg/L) <u>88</u>
Comments:	<u>@0hrs: no ppt</u> <u>@48hrs: no ppt</u>	

 Reviewed By: TM

 Date Reviewed: 2018/01/03

Method DAS @ 10°C

Client TEC164

Reference 1718-0585-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/12/28	11:30	AR/LB	3	HS	7.8	1259	11.3	12.3	1
1	2017/12/29	08:45	ED	-	SS					
2	2017/12/30	09:30	ED	3	SS					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day	pH (units) (range: 6.0-8.5)					
0	7.7	7.8	7.8	7.9	7.9	7.9
2	7.8	7.8	7.8	8.0	8.0	8.1

day	EC (µS/cm)					
0	332	334	334	1319	1337	1228
2	345	348	350	1325	1338	1342

day	DO (mg/L) (40-100% saturation at test temp.)					
0	9.7	9.7	9.7	9.7	9.7	9.8
2	9.5	9.5	9.5	9.5	9.5	9.6

day	Temperature (°C) (range: 18-22°C)					
0	10.0	10.0	10.0	10.0	10.0	10.0
2	10.0	10.0	10.0	10.0	10.0	10.0

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
 Days to first brood (≤12 days) 9
 Average number of young produced (≥15 young) 34.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): -- Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 639 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) --

Dilution Water
 Pail label / preparation date G:12/24 Weekly water hardness (mg/L) 88

Comments:
@0hrs: no ppt
@48hrs: no ppt

Reviewed By: TM

Date Reviewed: 2018/01/03

APPENDIX C – Chain-of-custody form

Teck

PROJECT/CLIENT INFO		2017-12-27 Acute Toxicity		TURNAROUND TIME:		LABORATORY		REGULAR		RUSH:		OTHER INFO			
Facility Name / Job#		WLC AWTF		Lab Name		Nautilus Environmental		Report Delivery Formats		Excel		PDF		EDD	
Project Manager		Thomas Davidson		Lab Contact		Jacklyn Pool		Email 1:		thomas.davidson@teck.com		X		X	
Email		Thomas.Davidson@teck.com		Email		Jacklyn@NautilusEnvironmental.ca		Email 2:		teckcoal@equisonline.com		X		X	
Address		15 Km North HWY 43		Address		#4, 6125 - 12 Street SE		Email 3:		teckw/lab@epcor.com		X		X	
City		Sparwood		City/Catery		Calgary		Email 4:		Marty.Harke@teck.com		X		X	
Postal Code		V0B 2G0		Province		BC		Email 5:		colin_lynch@teck.com		X		X	
Country		Canada		Postal Code		T2H 2K1		Country		Canada		X		X	
Phone Number 250.603.9417				Phone Number +1.403.253.7121				VPO 00473572				Printed - 81 Pages, 13 Pages 91 - 99 and 6 Lab N. Sites			
SAMPLE DETAILS															
Sample ID		Sample Location		Field Matrix		Hazardous Material (Yes/No)		Date		Time (24hr)		G-Grab C-Comp		# OF Cont.	
1718-0585		LC_WTF_IN		WS		N		27-Dec-17		8:00		G		3	
-01		WL_BFWB_OUT_SP21		WS		N		27-Dec-17		9:00		G		8	
ANALYSIS REQUESTED															
NAUT_96Hr_RT_Single Concentration Toxicity Test		PRESERV.		PHI		N		N		N		N		N	
NAUT_48Hr_DM_Single Concentration Toxicity Test @ 10C		N		N		N		X		X		X		X	
NAUT_48Hr_DM_Single Concentration Toxicity Test @ 20C		N		N		N		X		X		X		X	
EXTRA		N		N		N		X		X		X		X	
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS															
REINQUISHED BY/AFFILIATION															
DATE/TIME															
ACCEPTED BY/AFFILIATION															
DATE/TIME															
NB OF BOTTLES RETURNED/DESCRIPTION															
Regular (default) X															
Priority (2-3 business days) - 50% surcharge															
Emergency (1 Business Day) - 100% surcharge															
For Emergency < 1 Day, ASAP or Weekend - Contact ALS															
Sampler's Name				Erik McArthur				Mobile #				December 27, 2017			
Sampler's Signature															

2017/12/28 Manitoba
 10:30am 36 good condition
 DU NOS/IT
 5x1L Bottle / 13x20L Carboys

END OF REPORT



Acute Toxicity Test Results

Samples collected December 27, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> test initiation	
LC_WTF_IN_2017-12-27_NP / 1718-0586-01	27-Dec-17 at 0800h	28-Dec-17 at 1030h	28-Dec-17 at 1430h	3.0°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
LC_WTF_IN_2017-12-27_NP	3.0°C	550	200

TEST TYPES

- *Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-12-27_NP	100

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i> 20°C
LC_WTF_IN_2017-12-27_NP	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
LC_WTF_IN_2017-12-27_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	4.8 (4.3-5.3) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.2%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, January 2, 2018;
 LC = Lethal Concentration; CL = Confidence Limit

Stephanie Schiffer

Report By:
Stephanie Schiffer, MSc, BSc
Biologist

Jacklyn Poole

Reviewed By:
Jacklyn Poole, BSc
Laboratory Supervisor

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS - AS

Client TEC164

Reference 1718-0586-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/12/28	1430	AP/LB	3	HS	7.8	1236	10.6	13.8	1
1	2017/12/29	0845	ES	-	SS					
2	2017/12/30	0930	ES	3	SS					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	8.1	8.1	8.0	8.3	8.3	8.3
2	8.0	8.0	8.0	8.2	8.2	8.2

EC (uS/cm)

0	342	342	341	1243	1250	1248
2	345	348	350	1266	1269	1272

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.8	7.8	8.0	8.1	8.1
2	7.8	7.8	7.8	7.8	7.9	7.9

Temperature (°C) (range: 18-22°C)

0	20.0	20.0	20.0	18.0	18.0	18.0
2	20.0	20.0	20.0	20.0	20.0	20.0

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 6%

QA (previous month)
 Days to first brood (≤12 days) 7
 Average number of young produced (≥15 young) 38.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 110 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20min Filtered with 110um screen prior to testing? Yes or No
 Hardness (mg CaCO3/L) of 100%: 550 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date G:12/24 Weekly water hardness (mg/L) 88

Comments:
@ 24 hrs: no ppt
@ 48 hrs: no ppt

Reviewed By: JP

Date Reviewed: 2018/01/03

APPENDIX C – Chain-of-custody form

Teck

COC ID: 2017-12-27_AcuteToxicity-antiscalent

TURNAROUND TIME:

RUSH:

PROJECT/CLIENT INFO

Facility Name / Job# WLC AWTE
 Project Manager Thomas Davidson
 Email Thomas.Davidson@teck.com
 Address 15 Km North HWY 43
 City Sparwood
 Postal Code V0B 2G0
 Province BC
 Country Canada
 Phone Number 250.603.9417

LABORATORY

Lab Name Nautilus Environmental
 Lab Contact Jacklyn Pool
 Email Jacklyn@NautilusEnvironmental.ca
 Address #4, 6125 - 12 Street SE
 City Calgary
 Postal Code T2H 2K1
 Province AB
 Country Canada
 Phone Number +1.403.253.7121

REGULAR

Report Delivery Formats
 Email 1: thomas.davidson@teck.com
 Email 2: teckcoal@equisonline.com
 Email 3: teckwclab@epcor.com
 Email 4: Marty.Hatke@teck.com
 Email 5: colin.lyndell@teck.com
 Email 6: joceelyn.traverse@teck.com

OTHER INFO

Excel
 PDF
 EDD

SAMPLE DETAILS

1718-0586

Sample ID
 LC_WTE_IN_2017-12-27_NP
 WL_BPRV_OUT_SF21_2017-12-27_N

Sample Location
 LC_WTE_IN
 WL_BPRV_OUT_SF21

Field Matrix
 WS WS
 N N

Hazardous Material (Yes/No)
 N N

Date
 27-Dec-17
 27-Dec-17

Time (24hr)
 8:00
 9:00

G-Grab # OF
 C-Comp Cont.
 G 1
 G 1

ANALYSIS REQUESTED
 ANALYSIS PRESERV. MR.
 NAUT_48Hr_DM_Single
 Concentration Toxicity
 Test @ 20C + Antiscalent
 X N

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS

REINQUISHED BY/AFFILIATION

DATE/TIME

ACCEPTED BY/AFFILIATION

DATE/TIME

NB OF BOTTLES RETURNED/DESCRIPTION

Regular (default)
 Priority (2-3 business days) - 50% surcharge
 Emergency (1 Business Day) - 100% surcharge
 For Emergency < 1 Day, ASAP or Weekend - Contact ALS

Sampler's Name
 Sampler's Signature

Erik McArthur

Mobile #
 Date/Time

December 27, 2017

2017/12/28 maintailin
 10:30am 30 good condition
 DU NOS/IF
 4X1L Bottles / 2X2 OLCARBOYS

END OF REPORT



Acute Toxicity Test Results

Samples collected December 27, 2017

Final Report – Revision 1

February 23, 2018

Submitted to: **Teck Resources Ltd.** WLC AWTF
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates			Receipt temperature
	Collected	Received	<i>Daphnia magna</i> test initiation	
WL_BFWB_OUT_SP21_2017-12-27_N / 1718-0586-02	27-Dec-17 at 0900h	28-Dec-17 at 1030h	28-Dec-17 at 1460h	3.0°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
WL_BFWB_OUT_SP21_2017-12-27_N	3.0°C	659	197

TEST TYPES

- Daphnia magna* 48-h single concentration screening test (Antiscalant 5 mg/L)

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	<i>Daphnia magna</i> 20°C	
WL_BFWB_OUT_SP21_2017-12-27_N	100	

Sample ID	Percent Immobility in 100 (% v/v)	
	<i>Daphnia magna</i> 20°C	
WL_BFWB_OUT_SP21_2017-12-27_N	0	

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
WL_BFWB_OUT_SP21_2017-12- 27_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	4.8 (4.3-5.3) g/L NaCl ¹
Reference toxicant historical mean (2 SD Range)	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	6.2%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date, January 2, 2018;
 LC = Lethal Concentration; CL = Confidence Limit

Stephanie Schiffer

Report By:
Stephanie Schiffer, MSc, BSc
Biologist

Jacklyn Poole

Reviewed By:
Jacklyn Poole, BSc
Laboratory Supervisor

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L), 5 mg/L antiscalant
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method DAS-AS

Client TEC164

Reference 1718-0586-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/12/28	1430	AP/GB	3	AS	7.8	1289	11.3	12.8	1
1	2017/12/29	0845	SP	-	SS					
2	2017/12/30	0930	AP	3	SS					

Lab Code	CTL A	CTL B	CTL C	100 A	100 B	100 C

day pH (units) (range: 6.0-8.5)

0	8.1	8.1	8.0	8.3	8.3	8.3
2	8.0	8.0	8.0	8.3	8.4	8.4

EC (uS/cm)

0	347	348	341	1290	1303	1307
2	345	345	346	1275	1315	1310

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.8	7.8	8.1	8.2	8.2
2	7.6	7.7	7.7	7.7	7.8	7.5

Temperature (°C) (range: 18-22°C)

0	20.0	20.0	20.0	18.6	18.0	18.6
2	20.0	20.0	20.0	20.0	20.0	20.0

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 0

QA (previous month)
Days to first brood (≤12 days) 7
Average number of young produced (≥15 young) 38.3
Were test treatments randomized on test tray? Yes No

Sample
DO % of sample prior to aeration: 106 Is aeration required (<40% or >100%)? Yes No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes No
Hardness (mg CaCO3/L) of 100%: 65 Is hardness adjustment required (<25 mg CaCO3/L)? Yes No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
Pail label / preparation date G:12/24 Weekly water hardness (mg/L) 88

Comments:
@24 hrs no ppt
@48 hrs: no ppt

Reviewed By: JP

Date Reviewed: 2018/01/03

APPENDIX C – Chain-of-custody form

Teck

COC ID: 2017-12-27_AcuteToxicity-antiscalcant		TURNAROUND TIME:		RUSH:	
PROJECT/CLIENT INFO					
Facility Name / Job# WLC AWTE Project Manager Thomas Davidson Email Thomas.Davidson@teck.com Address 15 Km North HWY 43 City Sparwood Postal Code V0B 2G0			Lab Name Nautilus Environmental Lab Contact Jacklyn Pool Email Jacklyn@NautilusEnvironmental.ca Address #4, 6125 - 12 Street SE City Calgary Postal Code T2H 2K1		
Province BC Country Canada			Province AB Country Canada		
Phone Number 250.603.9417			Phone Number +1.403.253.7121		
LABORATORY					
REGULAR					
REPORT DELIVERY FORMATS			OTHER INFO		
Email 1: thomas.davidson@teck.com Email 2: teckcoal@equisonline.com Email 3: teckwclab@epcor.com Email 4: Marty.Hatke@teck.com Email 5: colin.lyndell@teck.com Email 6: joceelyn.traverse@teck.com			Report Delivery Formats Excel PDF EDD		
ANALYSIS REQUESTED					
ANALYSIS PRESERV. # OF NAUT_48Hr_DM_Single Concentration Toxicity Test @ 20C + Antiscalcant X N 1					
SAFETY INFORMATION					
Sample ID 1718-0586 Sample Location LC_WTE_IN Field Matrix Hazardous Material (Yes/No) N Date 27-Dec-17 Time (24hr) 8:00 G-Grab # OF Cont. G 1 C-Comp G 1					
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS					
REINQUISHED BY/AFFILIATION					
DATE/TIME					
ACCEPTED BY/AFFILIATION					
DATE/TIME					
NB OF BOTTLES RETURNED/DESCRIPTION					
Regular (default) X Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency < 1 Day, ASAP or Weekend - Contact ALSI					
Sampler's Name Erik McArthur Sampler's Signature			Mobile # Date/Time December 27, 2017		

2017/12/28 maintailin
 10:30am 30 good condition
 PU NOS/IF
 4X1L Bottles / 2X2 OLCARBOYS

END OF REPORT

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: WLC AWTF

Job Number: B6A9165
Sample Number: QE9860-01

Test Result:

48 hrs Mortality % 0 Statistical Method:

Mean percent mortality:	<u>Sample</u>	0	<u>Control</u>	0
Sample Name :	WL_BFWB_OUT_SP21_20161205_N			Sample Matrix : Water
Description:	clear			<u>Sample Prior to Analysis:</u>
Sample Collected:	Dec 05, 2016 09:00 AM	Sampling Method :	N/A	pH: 7.5
Sample Collected By:	JT	Site Collection:	N/A	Temperature : 8 °C
Sample Received:	Dec 06, 2016 09:15 AM	Volume Received:	1 L	Dissolved Oxygen: 10.8 mg/L
Analysis Start :	Dec 07, 2016 10:58 AM	Temp.Upon Arrival:	0 °C	Sample Conductance: 1315 µS/cm
End :	Dec 09, 2016 10:22 AM	Storage:	2-6°C	Hardness: 1000 mg CaCO ₃ /L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	21	7.9	364	7.7	0	0	0	0	20	8.0	358	7.7
0	21	8.0	365	7.7	0	0	0	0	20	8.0	357	7.7
0	21	8.0	364	7.7	0	0	0	0	20	8.1	363	7.8
100	21	7.5	1767	8.4	0	0	0	0	20	8.1	1662	7.7
100	21	7.6	1778	8.5	0	0	0	0	20	8.2	1686	7.8
100	21	7.6	1778	8.4	0	0	1	10.0	20	8.1	1691	7.7

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	0	0	0	0
100	0	0	0	0
100	0	0	0	0

Comments : None

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water
Hardness: 160 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)
 Organisms per Vessel : 10 Pre-aeration Time : 30 min Rate of Pre-aeration : 25-50 mL/min/L
 Total # of Organisms Used : 60 Test Temperature : 20 ± 2 °C Test Hardness Adjusted : No
 Test Volume : 150 mL Vessel Volume : 225 mL Test pH Adjusted: No
 Loading Density : 15.0 mL/Daphnia Photoperiod : 16:8 (light: dark)

Test Organism : *Daphnia magna* Source : In House Culture
 Age at Test Initiation : <24 hrs Average Brood Size : 26.4
 Culture Photoperiod : 16:8 (light: dark) % Mortality within 7 days : 0
 Culture Temperature : 20 ± 2 °C Time To First Brood : 10 Days
 Culture Diet Pseudokirchneriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: WLC AWTF

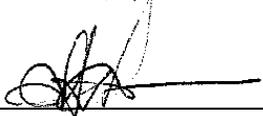
Job Number: B6A9165
Sample Number: QE9860-01

Reference chemical: Sodium Chloride
Test Date: Dec 01, 2016
Test Endpoint 48 hrs LC50 (95% confidence interval) : 6.60 (5.78, 7.52)g/L
Statistical Method : Untrimmed Spearman-Kärber
Historical Mean LC50 (warning limits) : 6.45 (4.58, 9.10) g/L
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Andrea Rowe, Aynura Rakhmangulova, Chelsea Tessier, Natasha Mouck

Verified By : 
Michelle Hospedales, Senior Analyst

Date: Dec 19, 2016 11:54 AM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B705167
Sample Number: QL1907-01

Test Result:

48 hrs Mortality % 0 Statistical Method:

Mean percent mortality: Sample 0 Control 0

Sample Name : WL_BFWB_OUT_SP21_20170123_N_MAX
Description: clear
Sample Collected: Jan 23, 2017 09:00 AM **Sampling Method :** N/A
Sample Collected By: JT **Site Collection:** N/A
Sample Received: Jan 23, 2017 11:21 AM **Volume Received:** 1 L
Analysis Start : Jan 26, 2017 01:42 PM **Temp.Upon Arrival:** 4 °C
End : Jan 28, 2017 01:11 PM **Storage:** 2-6°C

Sample Matrix : Water
Sample Prior to Analysis:
pH: 7.4
Temperature : 21 °C
Dissolved Oxygen: 9.1 mg/L
Sample Conductance: 1711 µS/cm
Hardness: 800 mg CaCO₃/L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	20	7.8	348	7.7	0	0	0	0	19	8.1	356	8.0
0	20	7.9	351	7.7	0	0	0	0	20	8.0	353	7.9
0	20	7.9	350	7.8	0	0	0	0	20	8.0	356	7.9
100	20	7.6	1683	8.1	0	0	0	0	19	8.0	1635	7.5
100	20	7.6	1692	8.1	0	0	0	0	20	8.0	1624	7.8
100	20	7.7	1689	8.1	0	0	0	0	20	8.0	1621	7.8

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	0	0	0	0
100	0	0	0	0
100	0	0	0	0

Comments : None

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water
Hardness: 180 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)
Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L
Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No
Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No
Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture
Age at Test Initiation : <24 hrs **Average Brood Size :** 30.2
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 1.6
Culture Temperature : 20 ± 2 °C **Time To First Brood :** 8 Days
Culture Diet Pseudokirchneriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B705167
Sample Number: QL1907-01

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.72 (5.81, 7.78) g/L
Test Date: Jan 19, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Aynura Rakhmangulova, Natasha Mouck, Sharon Gyalog



Verified By : Joshua Baker, Team Lead, Bioassay

Date: Feb 03, 2017 03:54 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B710746
Sample Number: QO1128-01

Test Result:

48 hrs Mortality % 0 Statistical Method:

Mean percent mortality: Sample 0 Control 0

Sample Name : WL_BFWB_OUT_SP21_20170214_N_MAX
Description: colourless
Sample Collected: Feb 14, 2017 09:00 AM **Sampling Method :** N/A
Sample Collected By: JT **Site Collection:** N/A
Sample Received: Feb 15, 2017 09:25 AM **Volume Received:** 1 L
Analysis Start : Feb 15, 2017 12:43 PM **Temp.Upon Arrival:** 5 °C
End : Feb 17, 2017 11:54 AM **Storage:** 2-6°C

Sample Matrix : Water
Sample Prior to Analysis:
pH: 7.3
Temperature : 14 °C
Dissolved Oxygen: 9.9 mg/L
Sample Conductance: 1411 µS/cm
Hardness: 600 mg CaCO₃/L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	20	8.0	371	7.8	0	0	0	0	19	8.3	397	8.6
0	20	8.0	374	7.8	0	0	0	0	19	7.9	385	8.2
0	20	8.0	374	7.8	0	0	0	0	19	8.0	393	8.3
100	19	7.4	1572	9.0	0	0	0	0	20	8.0	1606	7.9
100	19	7.5	1584	9.0	0	0	3	30.0	20	8.0	1589	8.2
100	18	7.5	1581	9.0	0	0	1	10.0	19	8.0	1610	8.3

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	0	0	1	10.0
100	0	0	2	20.0
100	0	0	0	0

Comments : None

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water
Hardness: 180 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)
Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L
Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No
Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No
Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture
Age at Test Initiation : <24 hrs **Average Brood Size :** 31.5
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0
Culture Temperature : 20 ± 2 °C **Time To First Brood :** 9 Days
Culture Diet Pseudokirchneriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B710746
Sample Number: QO1128-01

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.72 (5.81, 7.78) g/L
Test Date: Feb 07, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Aynura Rakhmangulova, Chelsea Tessier, Natasha Mouck



Verified By : Joshua Baker, Team Lead, Bioassay

Date: Mar 01, 2017 04:35 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B726642
Sample Number: QW1852-01

Test Result:

48 hrs Mortality % 0% Statistical Method:

Mean percent mortality: Sample 0 Control 0

Sample Name : WL_BFWB_OUT_SP21_20170410_N_MAX

Sample Matrix : Water

Description: Colourless, clear

Sample Prior to Analysis:

Sample Collected: Apr 10, 2017 09:00 AM

Sampling Method : Grab

pH: 7.6

Sample Collected By: GF

Site Collection: N/A

Temperature : 17 °C

Sample Received: Apr 11, 2017 12:06 PM

Volume Received: 1 L

Dissolved Oxygen: 10.3 mg/L

Analysis Start : Apr 12, 2017 08:36 AM

Temp.Upon Arrival: 3 °C

Sample Conductance: 1533 µS/cm

End : Apr 14, 2017 09:12 AM

Storage: 2-6°C

Hardness: 400 mg CaCO₃/L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	20	8.2	368	8.1	0	0	0	0	20	8.1	369	7.5
0	20	8.2	369	8.1	0	0	0	0	20	8.2	373	7.6
0	20	8.2	369	8.1	0	0	0	0	20	8.2	376	7.7
100	18	7.8	1562	9.2	0	0	0	0	20	8.2	1562	7.6
100	18	7.7	1575	9.2	0	0	0	0	20	8.2	1585	7.5
100	18	7.8	1570	9.3	0	0	0	0	20	8.2	1585	7.6

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	0	0	0	0
100	0	0	0	0
100	0	0	0	0

Comments : Brown fibrous material adhering to daphnia affecting movement. Daphnid movement impeded by bubbles in test vessels.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water

Hardness: 140 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)

Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L

Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No

Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No

Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture

Age at Test Initiation : <24 hrs **Average Brood Size :** 22.0

Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0

Culture Temperature : 20 ± 2 °C **Time To First Brood :** 8 Days

Culture Diet Pseudokirchneriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B726642
Sample Number: QW1852-01

Reference chemical: Sodium Chloride
Test Date: Apr 09, 2017
Test Endpoint 48 hrs LC50 (95% confidence interval) : 6.60 (5.78, 7.52)g/L
Statistical Method : Untrimmed Spearman-Kärber
Historical Mean LC50 (warning limits) : 6.81 (6.02, 7.70) g/L
Concentration : 0,1,25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Arthur Juan Mathias, Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Analyst II

Date: Apr 25, 2017 08:08 AM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B728234
Sample Number: QW9456-01

Test Result:

48 hrs Mortality % 0 Statistical Method:

Mean percent mortality: Sample 0 Control 0

Sample Name : WL_BFWB_OUT_SP21_20170317_N_MAX

Sample Matrix : Water

Description: Colourless, clear

Sample Prior to Analysis:

Sample Collected: Apr 17, 2017

Sampling Method : Grab

pH: 7.7

Sample Collected By: KA

Site Collection: N/A

Temperature : 19 °C

Sample Received: Apr 18, 2017 10:52 AM

Volume Received: 1 L

Dissolved Oxygen: 9.4 mg/L

Analysis Start : Apr 19, 2017 09:17 AM

Temp.Upon Arrival: 0 °C

Sample Conductance: 1603 µS/cm

End : Apr 21, 2017 11:06 AM

Storage: 2-6°C

Hardness: 800 mg CaCO₃/L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	21	8.2	359	7.7	0	0	0	0	20	8.1	359	7.6
0	21	8.2	360	7.7	0	0	0	0	20	8.2	365	7.7
0	21	8.2	361	7.7	0	0	0	0	20	8.4	368	7.7
100	22	7.8	1705	7.9	0	0	2	20.0	20	8.2	1573	7.6
100	22	7.9	1720	8.0	0	0	0	0	20	8.1	1636	7.5
100	22	7.8	1719	8.0	0	0	0	0	20	8.1	1601	7.4

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	0	0	0	0
100	0	0	0	0
100	0	0	0	0

Comments : Dark fibrous material adhering to daphnids. Dark settled solids visible in test vessels at 24 and 48 hour observations.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water

Hardness: 140 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)

Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L

Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No

Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No

Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture

Age at Test Initiation : <24 hrs **Average Brood Size :** 22.8

Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0

Culture Temperature : 20 ± 2 °C **Time To First Brood :** 8 Days

Culture Diet Pseudokirchneriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B728234
Sample Number: QW9456-01

Reference chemical: Sodium Chloride
Test Date: Apr 09, 2017
Test Endpoint 48 hrs LC50 (95% confidence interval) : 6.60 (5.78, 7.52)g/L
Statistical Method : Untrimmed Spearman-Kärber
Historical Mean LC50 (warning limits) : 6.81 (6.02, 7.70) g/L
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Arthur Juan Mathias, Chelsea Tessier, Sharon Gyalog



Verified By : Chelsea Tessier, Analyst II

Date: May 01, 2017 04:20 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B730254
Sample Number: QX9137-01

Test Result:

48 hrs Mortality % 0% Statistical Method:

Mean percent mortality:	<u>Sample</u> 0	<u>Control</u> 0	
Sample Name :	WL_BFWB_OUT_SP21_20170424_N_MAX	Sample Matrix :	SURFACE WATER
Description:	Clear, colourless	Sample Prior to Analysis:	
Sample Collected:	Apr 24, 2017 09:00 AM	Sampling Method :	Grab
Sample Collected By:	TW	Site Collection:	N/A
Sample Received:	Apr 25, 2017 09:16 AM	Volume Received:	1 L
Analysis Start :	Apr 25, 2017 01:54 PM	Temp.Upon Arrival:	2 °C
End :	Apr 27, 2017 01:26 PM	Storage:	2-6°C
		Hardness:	800 mg CaCO ₃ /L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	20	8.0	397	7.8	0	0	0	0	20	8.2	411	7.6
0	19	8.0	398	7.8	0	0	0	0	20	8.2	412	7.6
0	19	8.1	398	7.8	0	0	0	0	20	8.2	412	7.5
100	20	7.7	1658	8.5	0	0	0	0	20	8.2	1615	7.5
100	20	7.7	1668	8.5	0	0	1	10.0	20	8.2	1629	7.5
100	20	7.7	1669	8.5	0	0	0	0	19	8.2	1671	7.5

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	0	0	0	0
100	0	0	0	0
100	0	0	0	0

Comments : Red-brown material adhering to daphnia. Daphnia movement impaired by bubbles.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water
Hardness: 140 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)
 Organisms per Vessel : 10 Pre-aeration Time : 30 min Rate of Pre-aeration : 25-50 mL/min/L
 Total # of Organisms Used : 60 Test Temperature : 20 ± 2 °C Test Hardness Adjusted : No
 Test Volume : 150 mL Vessel Volume : 225 mL Test pH Adjusted: No
 Loading Density : 15.0 mL/Daphnia Photoperiod : 16:8 (light: dark)

Test Organism : *Daphnia magna* Source : In House Culture
 Age at Test Initiation : <24 hrs Average Brood Size : 22.5
 Culture Photoperiod : 16:8 (light: dark) % Mortality within 7 days : 0
 Culture Temperature : 20 ± 2 °C Time To First Brood : 8 Days
 Culture Diet Pseudokirchnriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B730254
Sample Number: QX9137-01

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.83 (6.09, 7.66) g/L
Test Date: Apr 24, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Chelsea Tessier, Natasha Mouck, Sharon Gyalog



Verified By : Chelsea Tessier, Analyst II

Date: May 03, 2017 08:15 AM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B732521
Sample Number: QZ0396-01

Test Result:

48 hrs Mortality % 0% Statistical Method:

Mean percent mortality: Sample 0 Control 3.333

Sample Name : WL_BFWB_OUT_SP21_20170501_N_MAX

Sample Matrix : Water

Description: Colourless, clear

Sample Prior to Analysis:

Sample Collected: May 01, 2017 09:00 AM

Sampling Method : N/A

pH: 7.5

Sample Collected By: NG

Site Collection: N/A

Temperature : 18 °C

Sample Received: May 02, 2017 09:39 AM

Volume Received: 1 L

Dissolved Oxygen: 9.1 mg/L

Analysis Start : May 02, 2017 02:00 PM

Temp.Upon Arrival: 2 °C

Sample Conductance: 1558 µS/cm

End : May 04, 2017 01:47 PM

Storage: 2-6°C

Hardness: 800 mg CaCO₃/L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	21	8.1	416	7.9	0	0	0	0	20	8.2	428	7.7
0	21	8.1	417	7.9	0	0	0	0	20	8.3	423	7.7
0	21	8.1	417	7.8	0	0	0	0	20	8.2	422	7.7
100	20	7.7	1634	8.4	0	0	0	0	20	8.1	1649	7.6
100	20	7.7	1636	8.5	0	0	0	0	20	8.1	1653	7.6
100	20	7.7	1634	8.5	0	0	0	0	20	8.1	1650	7.7

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	1	10.0	0	0
0	0	0	0	0
100	0	0	0	0
100	0	0	0	0
100	0	0	0	0

Comments : Brown fibrous material visibly adhering to daphnia at 24 hour observations. No visible brown fibrous material adhering to daphnia at 48 hour observations. Dark coloured settled solids and floating crystal-like material visible at 48 hour observations.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water

Hardness: 140 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)

Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L

Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No

Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No

Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture

Age at Test Initiation : <24 hrs **Average Brood Size :** 24.7

Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0

Culture Temperature : 20 ± 2 °C **Time To First Brood :** 8 Days

Culture Diet Pseudokirchriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B732521
Sample Number: QZ0396-01

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.83 (6.09, 7.66) g/L
Test Date: Apr 24, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Arthur Juan Mathias, Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Analyst II

Date: May 08, 2017 07:22 AM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B744268
Sample Number: RF4236-01

Test Result:

48 hrs Mortality % 0% Statistical Method:

Mean percent mortality: Sample 0 Control 0

Sample Name : WL_BFWB_OUT_SP21_20170605_N_MAX
Description: Clear, colourless
Sample Collected: Jun 05, 2017 09:00 AM **Sampling Method :** Grab
Sample Collected By: GF **Site Collection:** N/A
Sample Received: Jun 06, 2017 10:06 AM **Volume Received:** 1 L
Analysis Start : Jun 07, 2017 10:28 AM **Temp.Upon Arrival:** 6 °C
End : Jun 09, 2017 10:04 AM **Storage:** 2-6°C

Sample Matrix : Water
Sample Prior to Analysis:
pH: 7.5
Temperature : 19 °C
Dissolved Oxygen: 9.1 mg/L
Sample Conductance: 1128 µS/cm
Hardness: 400 mg CaCO₃/L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	21	8.2	378	7.7	0	0	0	0	20	8.1	372	7.4
0	21	8.2	380	7.6	0	0	0	0	20	8.2	375	7.5
0	21	8.2	380	7.6	0	0	0	0	20	8.1	375	7.4
100	20	7.7	1154	8.2	0	0	0	0	20	8.1	1094	7.4
100	20	7.7	1160	8.2	0	0	0	0	20	8.1	1101	7.4
100	20	7.8	1163	8.1	0	0	0	0	20	8.1	1098	7.4

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	0	0	0	0
100	0	0	0	0
100	0	0	0	0

Comments : Daphnia movement impeded by bubbles at 24 & 48 hour observations. Brown fibrous material adhering to daphnia at 24 & 48 hour observations.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water
Hardness: 180 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)
Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L
Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No
Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No
Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture
Age at Test Initiation : <24 hrs **Average Brood Size :** 24.5
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 1.6
Culture Temperature : 20 ± 2 °C **Time To First Brood :** 9 Days
Culture Diet Pseudokirchnriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B744268
Sample Number: RF4236-01

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.83 (6.09, 7.66) g/L
Test Date: Jun 09, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Chelsea Tessier, Natasha Mouck, Sharon Gyalog



Verified By : Chelsea Tessier, Senior Analyst

Date: Jun 13, 2017 07:54 AM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B746729
Sample Number: RG8414-01

Test Result:

48 hrs Mortality % 0 Statistical Method:

Mean percent mortality: Sample 0 Control 0

Sample Name : WL_BFWB_OUT_SP21_20170612_N_MAX

Sample Matrix : Water

Description: Clear, colourless

Sample Prior to Analysis:

Sample Collected: Jun 12, 2017 11:30 AM

Sampling Method : N/A

pH: 7.5

Sample Collected By: GF

Site Collection: N/A

Temperature : 19 °C

Sample Received: Jun 13, 2017 09:49 AM

Volume Received: 1 L

Dissolved Oxygen: 8.7 mg/L

Analysis Start : Jun 14, 2017 09:30 AM

Temp.Upon Arrival: 11 °C

Sample Conductance: 1166 µS/cm

End : Jun 16, 2017 09:44 AM

Storage: 2-6°C

Hardness: 400 mg CaCO₃/L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	21	8.1	358	7.6	0	0	0	0	20	8.3	393	7.6
0	21	8.2	360	7.6	0	0	0	0	20	8.2	396	7.5
0	21	8.2	360	7.6	0	0	0	0	20	8.3	395	7.5
100	20	7.7	1192	8.1	0	0	0	0	20	8.2	1247	7.5
100	20	7.7	1196	8.1	0	0	0	0	20	8.2	1265	7.6
100	20	7.7	1197	8.1	0	0	0	0	20	8.2	1261	7.6

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	0	0	0	0
100	0	0	0	0
100	0	0	0	0

Comments : Dark-coloured material adhering to daphnids at 24 hours. No material adhering to daphnids at 48 hours. Floating crystal-like material present in test vessels at 48 hours.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water

Hardness: 180 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)

Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L

Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No

Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No

Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture

Age at Test Initiation : <24 hrs **Average Brood Size :** 24.3

Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0

Culture Temperature : 20 ± 2 °C **Time To First Brood :** 8 Days

Culture Diet Pseudokirchnriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B746729
Sample Number: RG8414-01

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.83 (6.09, 7.66) g/L
Test Date: Jun 09, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Arthur Juan Mathias, Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jun 26, 2017 07:47 AM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B756477
Sample Number: RM1472-01

Test Result:

48 hrs Mortality % 100% Statistical Method:

Mean percent mortality: Sample 100 Control 6.667

Sample Name : WL_BFWB_OUT_SP21_20170710_N_MAX
Description: Clear, colourless
Sample Collected: Jul 10, 2017 **Sampling Method :** N/A
Sample Collected By: TD **Site Collection:** N/A
Sample Received: Jul 11, 2017 10:33 AM **Volume Received:** 1 L
Analysis Start : Jul 12, 2017 10:01 AM **Temp.Upon Arrival:** 10 °C
End : Jul 14, 2017 10:38 AM **Storage:** 2-6°C

Sample Matrix : Water
Sample Prior to Analysis:
pH: 7.5
Temperature : 15 °C
Dissolved Oxygen: 10.6 mg/L
Sample Conductance: 1410 µS/cm
Hardness: 400 mg CaCO₃/L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	20	8.0	349	8.5	0	0	0	0	20	8.1	351	8.6
0	21	8.1	351	8.4	0	0	0	0	20	8.1	357	8.6
0	20	8.1	351	8.5	0	0	0	0	20	8.1	355	8.8
100	20	7.7	1568	9.0	0	0	0	0	20	7.8	1490	8.5
100	20	7.8	1577	8.8	0	0	4	40.0	21	7.8	1515	8.6
100	20	7.8	1577	8.9	0	0	2	20.0	21	7.9	1518	8.6

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	2	20.0	0	0
0	0	0	0	0
100	10	100	0	0
100	10	100	0	0
100	10	100	0	0

Comments : Daphnia adhering to bottom of testing vessels.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water
Hardness: 180 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)
Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L
Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No
Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No
Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture
Age at Test Initiation : <24 hrs **Average Brood Size :** 30.4
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0
Culture Temperature : 20 ± 2 °C **Time To First Brood :** 8 Days
Culture Diet Pseudokirchneriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B756477
Sample Number: RM1472-01

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.90 (6.36, 7.49) g/L
Test Date: Jun 28, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 19, 2017 01:25 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B756477
Sample Number: RM1472-01

Test Result:

48 hrs LC50 % vol/vol (95% CL): 71 (50-100) Statistical Method: Binomial

Sample Name : WL_BFWB_OUT_SP21_20170710_N_MAX

Description:	Clear, colourless	Sampling Method :	N/A	Sample Prior to Analysis:	
Sample Collected:	Jul 10, 2017	Site Collection:	N/A	pH:	7.9
Sample Collected By:	TD	Volume Received:	1 L	Temperature :	21 °C
Sample Received:	Jul 11, 2017 10:33 AM	Temp. Upon Arrival:	10 °C	Dissolved Oxygen:	8.6 mg/L
Analysis Start :	Jul 15, 2017 11:20 PM	Storage:	2-6°C	Sample Conductance:	1714 µS/cm
End :	Jul 17, 2017 12:20 PM			Hardness:	400 mg CaCO ₃ /L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	21	8.1	363	7.7	0	0	0	0	20	8.1	367	8.4
6.25	21	8.1	455	7.7	0	0	0	0	20	8.2	459	8.3
12.5	21	8.1	554	7.8	0	0	0	0	20	8.2	556	8.4
25	21	8.1	751	7.7	0	0	0	0	20	8.3	747	8.2
50	21	8.0	1100	7.9	0	0	0	0	20	8.1	1069	8.3
100	21	7.9	1707	8.6	6	60	4	40	20	7.9	1622	8.3

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
6.25	0	0	0	0
12.5	0	0	0	0
25	0	0	0	0
50	0	0	0	0
100	10	100	0	0

Comments : Crystal like material on surface of testing vessels. Brown material adhering to daphnids. Bubbles adhering to testing vessels. Head space in bottle.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water
Hardness: 180 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,6.25,12.5,25,50,100 (% vol/vol)
Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L
Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No
Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No
Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture
Age at Test Initiation : <24 hrs **Average Brood Size :** 29.0
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0
Culture Temperature : 20 ± 2 °C **Time To First Brood :** 8 Days
Culture Diet Pseudokirchnriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B756477
Sample Number: RM1472-01

Reference chemical: Sodium Chloride
Test Date: Jul 17, 2017
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Statistical Method : Binomial
Historical Mean LC50 (warning limits) : 6.90 (6.36, 7.49) g/L
Concentration : 0,1,25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Arthur Juan Mathias, Chelsea Tessier, Natasha Mouck, Sharon Gyalog



Verified By : Marriah Grey, Laboratory Supervisor, Ecotoxicology

Date: Jul 25, 2017 03:16 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B758390
Sample Number: RN2431-02

Test Result:

48 hrs Mortality % 0% Statistical Method:

Mean percent mortality:	<u>Sample</u>	0	<u>Control</u>	0
Sample Name :	WL_LCI_SPO2_20170604_NP_M			Sample Matrix : Water
Description:	Clear, colourless			Sample Prior to Analysis:
Sample Collected:	Jul 14, 2017 07:00 PM	Sampling Method :	N/A	pH: 7.5
Sample Collected By:	TMK	Site Collection:	N/A	Temperature : 12 °C
Sample Received:	Jul 15, 2017 04:20 PM	Volume Received:	1 L	Dissolved Oxygen: 11.6 mg/L
Analysis Start :	Jul 16, 2017 08:39 AM	Temp.Upon Arrival:	9 °C	Sample Conductance: 1069 µS/cm
End :	Jul 18, 2017 07:47 AM	Storage:	2-6°C	Hardness: 600 mg CaCO ₃ /L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	21	8.1	362	8.6	0	0	0	0	20	8.1	334	8.8
0	21	8.1	364	8.6	0	0	0	0	20	8.1	331	8.6
0	21	8.1	364	8.6	0	0	0	0	20	8.1	336	8.6
100	18	7.7	1064	9.9	0	0	0	0	20	8.2	945	8.6
100	18	7.7	1077	10.0	0	0	0	0	20	8.2	961	8.4
100	18	7.7	1078	9.8	0	0	0	0	20	8.3	960	8.4

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	0	0	0	0
100	0	0	0	0
100	0	0	0	0

Comments : No visible solids. Daphnids adhering to surfaces of test vessel.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water
Hardness: 180 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)
Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L
Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No
Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No
Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture
Age at Test Initiation : <24 hrs **Average Brood Size :** 25.7
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 1.6
Culture Temperature : 20 ± 2 °C **Time To First Brood :** 9 Days
Culture Diet Pseudokirchneriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2431-02

Reference chemical: Sodium Chloride **Test Date:** Jul 17, 2017
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L **Statistical Method :** Binomial
Historical Mean LC50 (warning limits) : 6.90 (6.36, 7.49) g/L **Concentration :** 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 19, 2017 01:35 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B758390
Sample Number: RN2434-02

Test Result:

48 hrs Mortality % 83.3% Statistical Method:

Mean percent mortality: Sample 83.3 Control 0

Sample Name : WL_LCI_SP01_20170604_NP_M

Sample Matrix : Water

Description: Clear, colourless

Sample Prior to Analysis:

Sample Collected: Jul 14, 2017 07:00 PM

Sampling Method : N/A

pH: 7.6

Sample Collected By: TMK

Site Collection: N/A

Temperature : 19 °C

Sample Received: Jul 15, 2017 04:20 PM

Volume Received: 1 L

Dissolved Oxygen: 10.2 mg/L

Analysis Start : Jul 16, 2017 11:27 AM

Temp.Upon Arrival: 9 °C

Sample Conductance: 1787 µS/cm

End : Jul 18, 2017 10:30 AM

Storage: 2-6°C

Hardness: 600 mg CaCO₃/L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	21	8.2	365	8.2	0	0	0	0	20	8.0	330	8.9
0	21	8.2	366	8.2	0	0	0	0	20	8.1	333	8.7
0	21	8.2	366	8.2	0	0	0	0	20	8.1	334	8.8
100	20	7.7	1784	8.8	0	0	0	0	20	8.0	1522	8.6
100	20	7.7	1796	8.8	0	0	0	0	20	8.0	1537	8.7
100	20	7.7	1796	8.8	0	0	0	0	20	7.9	1519	8.7

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	7	70.0	3	30.0
100	8	80.0	2	20.0
100	10	100	0	0

Comments : No unusual observations at 24 hours. Crystal-like material on water surface and test vessel surfaces at 48 hours. Brown material adhering to daphnia at 48 hours.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water

Hardness: 180 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)

Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L

Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No

Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No

Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture

Age at Test Initiation : <24 hrs **Average Brood Size :** 28.0

Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0

Culture Temperature : 20 ± 2 °C **Time To First Brood :** 9 Days

Culture Diet Pseudokirchnriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2434-02

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.90 (6.36, 7.49) g/L
Test Date: Jul 17, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Arthur Juan Mathias, Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 19, 2017 01:38 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B758390
Sample Number: RN2432-02

Test Result:

48 hrs Mortality % 6.67% Statistical Method:

Mean percent mortality:	<u>Sample</u>	6.67	<u>Control</u>	0
Sample Name :	WL_BFWB_OUT_20170714_N_MA			Sample Matrix : Water
Description:	Pale yellow, clear			<u>Sample Prior to Analysis:</u>
Sample Collected:	Jul 14, 2017 07:00 PM	Sampling Method :	N/A	pH: 7.5
Sample Collected By:	TMK	Site Collection:	N/A	Temperature : 17 °C
Sample Received:	Jul 15, 2017 04:20 PM	Volume Received:	2 L	Dissolved Oxygen: 10.5 mg/L
Analysis Start :	Jul 16, 2017 11:25 AM	Temp.Upon Arrival:	9 °C	Sample Conductance: 1791 µS/cm
End :	Jul 18, 2017 10:30 AM	Storage:	2-6°C	Hardness: 1200 mg CaCO ₃ /L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	20	8.2	364	8.2	0	0	0	0	20	8.1	332	8.6
0	20	8.1	366	8.2	0	0	0	0	20	8.1	337	8.8
0	20	8.3	366	8.2	0	0	0	0	20	8.1	339	8.9
100	18	7.6	1798	9.4	0	0	0	0	20	7.8	1552	8.5
100	18	7.6	1808	9.4	0	0	0	0	20	7.9	1553	8.4
100	18	7.7	1807	9.4	0	0	0	0	20	7.8	1544	8.5

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	0	0	2	20.0
100	2	20.0	5	50.0
100	0	0	3	30.0

Comments : Crystal-like material on water surface and test vessel surfaces. Daphnia adhering to bubbles. Brown material adhering to daphnids. Small unidentified organisms visible under microscope view.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water
Hardness: 180 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)
Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L
Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No
Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No
Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture
Age at Test Initiation : <24 hrs **Average Brood Size :** 25.7
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 1.6
Culture Temperature : 20 ± 2 °C **Time To First Brood :** 9 Days
Culture Diet Pseudokirchnriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2432-02

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.90 (6.36, 7.49) g/L
Test Date: Jul 17, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Arthur Juan Mathias, Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 19, 2017 01:43 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B758390
Sample Number: RN2431-02

Test Result:

48 hrs Mortality % 0% Statistical Method:

Mean percent mortality: Sample 0 Control 0

Sample Name : WL_LCI_SPO2_20170604_NP_M Sample Matrix : Water
Description: Clear, colourless **Sample Prior to Analysis:**
Sample Collected: Jul 14, 2017 07:00 PM **Sampling Method :** N/A **pH:** 7.5
Sample Collected By: TMK **Site Collection:** N/A **Temperature :** 12 °C
Sample Received: Jul 15, 2017 04:20 PM **Volume Received:** 1 L **Dissolved Oxygen:** 11.6 mg/L
Analysis Start : Jul 16, 2017 08:39 AM **Temp.Upon Arrival:** 9 °C **Sample Conductance:** 1069 µS/cm
End : Jul 18, 2017 07:47 AM **Storage:** 2-6°C **Hardness:** 600 mg CaCO₃/L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	21	8.1	362	8.6	0	0	0	0	20	8.1	334	8.8
0	21	8.1	364	8.6	0	0	0	0	20	8.1	331	8.6
0	21	8.1	364	8.6	0	0	0	0	20	8.1	336	8.6
100	18	7.7	1064	9.9	0	0	0	0	20	8.2	945	8.6
100	18	7.7	1077	10.0	0	0	0	0	20	8.2	961	8.4
100	18	7.7	1078	9.8	0	0	0	0	20	8.3	960	8.4

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	0	0	0	0
100	0	0	0	0
100	0	0	0	0

Comments : No visible solids. Daphnids adhering to surfaces of test vessel.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water
Hardness: 180 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)
Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L
Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No
Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No
Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture
Age at Test Initiation : <24 hrs **Average Brood Size :** 25.7
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 1.6
Culture Temperature : 20 ± 2 °C **Time To First Brood :** 9 Days
Culture Diet Pseudokirchneriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2431-02

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.90 (6.36, 7.49) g/L
Test Date: Jul 17, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 19, 2017 01:35 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B758390
Sample Number: RN2434-02

Test Result:

48 hrs Mortality % 83.3% Statistical Method:

Mean percent mortality: Sample 83.3 Control 0

Sample Name : WL_LCI_SP01_20170604_NP_M **Sample Matrix :** Water
Description: Clear, colourless **Sample Prior to Analysis:**
Sample Collected: Jul 14, 2017 07:00 PM **Sampling Method :** N/A **pH:** 7.6
Sample Collected By: TMK **Site Collection:** N/A **Temperature :** 19 °C
Sample Received: Jul 15, 2017 04:20 PM **Volume Received:** 1 L **Dissolved Oxygen:** 10.2 mg/L
Analysis Start : Jul 16, 2017 11:27 AM **Temp.Upon Arrival:** 9 °C **Sample Conductance:** 1787 µS/cm
End : Jul 18, 2017 10:30 AM **Storage:** 2-6°C **Hardness:** 600 mg CaCO₃/L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	21	8.2	365	8.2	0	0	0	0	20	8.0	330	8.9
0	21	8.2	366	8.2	0	0	0	0	20	8.1	333	8.7
0	21	8.2	366	8.2	0	0	0	0	20	8.1	334	8.8
100	20	7.7	1784	8.8	0	0	0	0	20	8.0	1522	8.6
100	20	7.7	1796	8.8	0	0	0	0	20	8.0	1537	8.7
100	20	7.7	1796	8.8	0	0	0	0	20	7.9	1519	8.7

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	7	70.0	3	30.0
100	8	80.0	2	20.0
100	10	100	0	0

Comments : No unusual observations at 24 hours. Crystal-like material on water surface and test vessel surfaces at 48 hours. Brown material adhering to daphnia at 48 hours.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water
Hardness: 180 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)
Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L
Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No
Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No
Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture
Age at Test Initiation : <24 hrs **Average Brood Size :** 28.0
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0
Culture Temperature : 20 ± 2 °C **Time To First Brood :** 9 Days
Culture Diet Pseudokirchnriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2434-02

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.90 (6.36, 7.49) g/L
Test Date: Jul 17, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Arthur Juan Mathias, Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 19, 2017 01:38 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B758390
Sample Number: RN2432-02

Test Result:

48 hrs Mortality % 6.67% Statistical Method:

Mean percent mortality: Sample 6.67 Control 0

Sample Name : WL_BFWB_OUT_20170714_N_MA

Sample Matrix : Water

Description: Pale yellow, clear

Sample Prior to Analysis:

Sample Collected: Jul 14, 2017 07:00 PM

Sampling Method : N/A

pH: 7.5

Sample Collected By: TMK

Site Collection: N/A

Temperature : 17 °C

Sample Received: Jul 15, 2017 04:20 PM

Volume Received: 2 L

Dissolved Oxygen: 10.5 mg/L

Analysis Start : Jul 16, 2017 11:25 AM

Temp.Upon Arrival: 9 °C

Sample Conductance: 1791 µS/cm

End : Jul 18, 2017 10:30 AM

Storage: 2-6°C

Hardness: 1200 mg CaCO₃/L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	20	8.2	364	8.2	0	0	0	0	20	8.1	332	8.6
0	20	8.1	366	8.2	0	0	0	0	20	8.1	337	8.8
0	20	8.3	366	8.2	0	0	0	0	20	8.1	339	8.9
100	18	7.6	1798	9.4	0	0	0	0	20	7.8	1552	8.5
100	18	7.6	1808	9.4	0	0	0	0	20	7.9	1553	8.4
100	18	7.7	1807	9.4	0	0	0	0	20	7.8	1544	8.5

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	0	0	2	20.0
100	2	20.0	5	50.0
100	0	0	3	30.0

Comments : Crystal-like material on water surface and test vessel surfaces. Daphnia adhering to bubbles. Brown material adhering to daphnids. Small unidentified organisms visible under microscope view.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water

Hardness: 180 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)

Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L

Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No

Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No

Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture

Age at Test Initiation : <24 hrs **Average Brood Size :** 25.7

Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 1.6

Culture Temperature : 20 ± 2 °C **Time To First Brood :** 9 Days

Culture Diet Pseudokirchnriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2432-02

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.90 (6.36, 7.49) g/L
Test Date: Jul 17, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Arthur Juan Mathias, Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 19, 2017 01:43 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B758390

Test Result:

96 hrs LC50 % vol/vol (95% CL): >100% (N/A) Statistical Method: Visual

Sample Name : WL_LCI_SPO2_20170604_NP_M
Description: clear, colourless
Sample Collected: Jul 14, 2017 07:00 PM **Sampling Method :** N/A
Sample Collected By: TMK **Volume Received:** 40 L
Sample Received: Jul 15, 2017 04:20 PM **pH:** 7.5
Analysis Start : Jul 16, 2017 11:05 AM **Temperature :** 15 °C

Sample Matrix : Water
Sample Number: RN2431-01
Site Collection: N/A
Temp. Upon Arrival: 9 °C **Storage:** 2-6°C
Dissolved Oxygen: 10.6 mg/L
Sample Conductance: 1074 µS/cm

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hrs	48 hrs	48 hrs
0	15	7.9	366	9.8	0	0	0	0	0	0	0	0
6.25	15	7.9	411	9.8	0	0	0	0	0	0	0	0
12.5	15	7.8	465	9.8	0	0	0	0	0	0	0	0
25	15	7.8	558	9.8	0	0	0	0	0	0	0	0
50	15	7.8	737	9.8	0	0	0	0	0	0	0	0
100	15	7.6	1073	10.1	0	0	0	0	0	0	0	0

Concentration	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)
% vol/vol	72 hrs	72 hrs	72 hrs	72 hrs	96 hrs	96 hr	96 hrs	96 hrs	96 hrs	96 hrs	96 hrs	96 hrs
0	0	0	0	0	14	7.7	373	8.7	0	0	0	0
6.25	0	0	0	0	14	7.5	418	8.4	0	0	0	0
12.5	0	0	0	0	14	7.7	472	8.9	0	0	0	0
25	0	0	0	0	14	7.9	564	9.3	0	0	0	0
50	0	0	0	0	14	8.0	740	9.3	0	0	0	0
100	0	0	0	0	14	8.2	1075	9.0	0	0	0	0

Comments : None

Culture/Control/Dilution Water

City of Edmonton dechlorinated tap water

Hardness:

180 mg/L CaCO₃

Other parameters available on request.

Test Conditions

Test concentration : 0,6.25,12.5,25,50,100 (% vol/vol)

Organisms per Vessel : 10 **Test Temperature :** 15 ± 1 °C **Solution Depth :** >15 cm
Total # of Organisms Used : 60 **Pre-aeration Time :** 120 min. **Rate of Aeration :** 6.5±1 mL/min/L
Test Volume : 20 L **Vessel Volume :** 38L **Test pH Adjusted:** No
Loading Density : 0.4 g/L **Photoperiod :** 16:8 (light: dark)

Test Organism :

Rainbow Trout (*Oncorhynchus mykiss*) Source : Spring Valley Trout Hatchery

Culture Temperature : 15 ± 2 °C **Weight (Mean) +- SD :** 0.7 ± 0.4 g **Length (Mean) +- SD :** 4.30 ± 0.65 cm
Culture Water Renewal : ≥ 1.0 L/min/kg fish **Weight (Range) :** 0.3 ± 1.6 g **Length (Range) :** 3.60 – 5.70 cm
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0%
Feeding rate and frequency : daily: 1-5% biomass of trout. **Acclimation Time:** >14 days

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2431-01

Reference chemical: Phenol
Test Date: Jun 17, 2017
Test Endpoint 96 hrs LC50 (95% confidence interval) : 11.3 (10.2, 12.4)mg/L
Statistical Method : Probit
Historical Mean LC50 (warning limits) : 9.83 (6.09, 15.9) mg/L
Concentration : 0,8,10,12,15,20 mg/L

Test Method EPS 1/RM/13
Method Deviations : None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 20, 2017 02:40 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B758390

Test Result:

96 hrs LC50 % vol/vol (95% CL): >100% (N/A) Statistical Method: Visual

Sample Name : WL_BFWB_OUT_20170714_N_MA
Description: clear, pale yellow
Sample Collected: Jul 14, 2017 07:00 PM **Sampling Method :** N/A
Sample Collected By: TMK **Volume Received:** 40 L
Sample Received: Jul 15, 2017 04:20 PM **pH:** 7.5
Analysis Start : Jul 16, 2017 09:35 AM **Temperature :** 15 °C
Sample Matrix : Water
Sample Number: RN2432-01
Site Collection: N/A
Temp. Upon Arrival: 9 °C **Storage:** 2-6°C
Dissolved Oxygen: 9.9 mg/L
Sample Conductance: 1809 µS/cm

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hrs	48 hrs	48 hrs
0	15	8.1	366	9.9	0	0	0	0	0	0	0	0
6.25	16	7.9	462	9.7	0	0	0	0	0	0	0	0
12.5	16	7.9	579	9.7	0	0	0	0	0	0	0	0
25	16	7.8	770	9.7	0	0	0	0	0	0	0	0
50	16	7.7	1143	9.7	0	0	0	0	0	0	0	0
100	15	7.6	1807	9.8	0	0	0	0	0	0	0	0

Concentration	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)
% vol/vol	72 hrs	72 hrs	72 hrs	72 hrs	96 hrs	96 hr	96 hrs	96 hrs	96 hrs	96 hrs	96 hrs	96 hrs
0	0	0	0	0	14	7.9	371	9.1	0	0	0	0
6.25	0	0	0	0	15	7.9	470	7.9	0	0	0	0
12.5	0	0	0	0	15	7.9	587	7.7	0	0	0	0
25	0	0	0	0	15	8.2	777	8.8	0	0	0	0
50	0	0	0	0	14	8.1	1129	9.3	0	0	0	0
100	0	0	0	0	14	8.0	1700	9.2	0	0	0	0

Comments : None

Culture/Control/Dilution Water

City of Edmonton dechlorinated tap water

Hardness:

180 mg/L CaCO₃

Other parameters available on request.

Test Conditions

Test concentration : 0,6.25,12.5,25,50,100 (% vol/vol)

Organisms per Vessel : 10 Test Temperature : 15 ± 1 °C Solution Depth : >15 cm
Total # of Organisms Used : 60 Pre-aeration Time : 30 min. Rate of Aeration : 6.5±1 mL/min/L
Test Volume : 20 L Vessel Volume : 38L Test pH Adjusted: No
Loading Density : 0.3 g/L Photoperiod : 16:8 (light: dark)

Test Organism :

Rainbow Trout (*Oncorhynchus mykiss*) Source : Spring Valley Trout Hatchery

Culture Temperature : 15 ± 2 °C Weight (Mean) +- SD : 0.5 ± 0.1 g Length (Mean) +- SD : 3.89 ± 0.14 cm
Culture Water Renewal : ≥ 1.0 L/min/kg fish Weight (Range) : 0.4 ± 0.6 g Length (Range) : 3.70 – 4.10 cm
Culture Photoperiod : 16:8 (light: dark) % Mortality within 7 days : 0%
Feeding rate and frequency : daily: 1-5% biomass of trout. Acclimation Time: >14 days

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2432-01

Reference chemical: Phenol
Test Date: Jun 17, 2017
Test Endpoint 96 hrs LC50 (95% confidence interval) : 11.3 (10.2, 12.4)mg/L
Statistical Method : Probit
Historical Mean LC50 (warning limits) : 9.83 (6.09, 15.9) mg/L
Concentration : 0,8,10,12,15,20 mg/L

Test Method EPS 1/RM/13
Method Deviations : None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 20, 2017 02:41 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B758390

Test Result:

96 hrs LC50 % vol/vol (95% CL): >100% (N/A) **Statistical Method:** Visual

Sample Name : WL_LCI_SP01_20170604_NP_M **Sample Matrix :** Water
Description: clear, colourless **Sample Number:** RN2434-01
Sample Collected: Jul 14, 2017 07:00 PM **Sampling Method :** N/A **Site Collection:** N/A
Sample Collected By: TMK **Volume Received:** 40 L **Temp. Upon Arrival:** 9 °C **Storage:** 2-6°C
Sample Received: Jul 15, 2017 04:20 PM **pH:** 7.6 **Dissolved Oxygen:** 10.4 mg/L
Analysis Start : Jul 16, 2017 11:05 AM **Temperature :** 15 °C **Sample Conductance:** 1801 µS/cm

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hrs	48 hrs	48 hrs
0	16	8.0	364	9.7	0	0	0	0	0	0	0	0
6.25	15	7.9	473	9.7	0	0	0	0	0	0	0	0
12.5	15	7.9	577	9.7	0	0	0	0	0	0	0	0
25	15	7.9	770	9.7	0	0	0	0	0	0	0	0
50	16	7.8	1137	9.8	0	0	0	0	0	0	0	0
100	15	7.7	1798	10.1	0	0	0	0	0	0	0	0

Concentration	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)
% vol/vol	72 hrs	72 hrs	72 hrs	72 hrs	96 hrs	96 hr	96 hrs	96 hrs	96 hrs	96 hrs	96 hrs	96 hrs
0	0	0	0	0	15	8.0	370	9.1	0	0	0	0
6.25	0	0	0	0	14	7.9	482	8.7	0	0	0	0
12.5	0	0	0	0	14	7.9	587	8.8	0	0	0	0
25	0	0	0	0	14	8.0	781	8.8	0	0	0	0
50	0	0	0	0	16	8.1	1152	8.0	0	0	0	0
100	0	0	0	0	16	8.0	1807	7.5	0	0	0	0

Comments : None

Culture/Control/Dilution Water

City of Edmonton dechlorinated tap water

Hardness:

180 mg/L CaCO₃

Other parameters available on request.

Test Conditions

Test concentration : 0,6.25,12.5,25,50,100 (% vol/vol)

Organisms per Vessel : 10 **Test Temperature :** 15 ± 1 °C **Solution Depth :** >15 cm
Total # of Organisms Used : 60 **Pre-aeration Time :** 120 min. **Rate of Aeration :** 6.5±1 mL/min/L
Test Volume : 20 L **Vessel Volume :** 38L **Test pH Adjusted:** No
Loading Density : 0.4 g/L **Photoperiod :** 16:8 (light: dark)

Test Organism :

Rainbow Trout (*Oncorhynchus mykiss*) **Source :** Spring Valley Trout Hatchery

Culture Temperature : 15 ± 2 °C **Weight (Mean) +- SD :** 0.7 ± 0.3 g **Length (Mean) +- SD :** 4.35 ± 0.50 cm
Culture Water Renewal : ≥ 1.0 L/min/kg fish **Weight (Range) :** 0.4 ± 1.2 g **Length (Range) :** 3.80 – 5.10 cm
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0%
Feeding rate and frequency : daily: 1-5% biomass of trout. **Acclimation Time:** >14 days

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2434-01

Reference chemical: Phenol
Test Date: Jun 17, 2017
Test Endpoint 96 hrs LC50 (95% confidence interval) : 11.3 (10.2, 12.4)mg/L
Statistical Method : Probit
Historical Mean LC50 (warning limits) : 9.83 (6.09, 15.9) mg/L
Concentration : 0,8,10,12,15,20 mg/L

Test Method EPS 1/RM/13
Method Deviations : None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 20, 2017 02:43 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2431-02

Test Result:

48 hrs Mortality % 0% Statistical Method:

Mean percent mortality: Sample 0 Control 0

Sample Name : WL_LCI_SPO2_20170604_NP_M Sample Matrix : Water
Description: Clear, colourless **Sample Prior to Analysis:**
Sample Collected: Jul 14, 2017 07:00 PM **Sampling Method :** N/A **pH:** 7.5
Sample Collected By: TMK **Site Collection:** N/A **Temperature :** 12 °C
Sample Received: Jul 15, 2017 04:20 PM **Volume Received:** 1 L **Dissolved Oxygen:** 11.6 mg/L
Analysis Start : Jul 16, 2017 08:39 AM **Temp.Upon Arrival:** 9 °C **Sample Conductance:** 1069 µS/cm
End : Jul 18, 2017 07:47 AM **Storage:** 2-6°C **Hardness:** 600 mg CaCO₃/L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	21	8.1	362	8.6	0	0	0	0	20	8.1	334	8.8
0	21	8.1	364	8.6	0	0	0	0	20	8.1	331	8.6
0	21	8.1	364	8.6	0	0	0	0	20	8.1	336	8.6
100	18	7.7	1064	9.9	0	0	0	0	20	8.2	945	8.6
100	18	7.7	1077	10.0	0	0	0	0	20	8.2	961	8.4
100	18	7.7	1078	9.8	0	0	0	0	20	8.3	960	8.4

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	0	0	0	0
100	0	0	0	0
100	0	0	0	0

Comments : No visible solids. Daphnids adhering to surfaces of test vessel.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water
Hardness: 180 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)
Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L
Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No
Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No
Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture
Age at Test Initiation : <24 hrs **Average Brood Size :** 25.7
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 1.6
Culture Temperature : 20 ± 2 °C **Time To First Brood :** 9 Days
Culture Diet Pseudokirchneriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2431-02

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.90 (6.36, 7.49) g/L
Test Date: Jul 17, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 19, 2017 01:35 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B758390
Sample Number: RN2433-02

Test Result:

48 hrs Mortality % 0% Statistical Method:

Mean percent mortality:	<u>Sample</u>	0	<u>Control</u>	0
Sample Name :	LC_LC3_SP22_20170604_NP_M			Sample Matrix : Water
Description:	Clear, Colourless			Sample Prior to Analysis:
Sample Collected:	Jul 14, 2017 07:00 PM	Sampling Method :	N/A	pH: 7.6
Sample Collected By:	TMK	Site Collection:	N/A	Temperature : 12 °C
Sample Received:	Jul 15, 2017 04:20 PM	Volume Received:	1 L	Dissolved Oxygen: 11.3 mg/L
Analysis Start :	Jul 16, 2017 08:36 AM	Temp.Upon Arrival:	9 °C	Sample Conductance: 957 µS/cm
End :	Jul 18, 2017 07:46 AM	Storage:	2-6°C	Hardness: 400 mg CaCO ₃ /L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	21	8.1	362	8.6	0	0	0	0	20	8.0	329	8.5
0	21	8.1	364	8.6	0	0	0	0	20	8.1	333	8.6
0	21	8.1	364	8.6	0	0	0	0	20	8.1	334	8.6
100	18	7.7	960	9.8	0	0	0	0	20	8.2	848	8.6
100	18	7.8	963	9.8	0	0	0	0	20	8.2	859	8.6
100	18	7.8	963	9.6	0	0	0	0	20	8.2	859	8.5

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	0	0	0	0
100	0	0	0	0
100	0	0	0	0

Comments : Daphnia adhering to bubbles and test vessel surfaces. No visible solids.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water
Hardness: 180 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)
Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L
Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No
Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No
Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture
Age at Test Initiation : <24 hrs **Average Brood Size :** 29.0
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0
Culture Temperature : 20 ± 2 °C **Time To First Brood :** 8 Days
Culture Diet Pseudokirchnriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2433-02

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.90 (6.36, 7.49) g/L
Test Date: Jul 17, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Arthur Juan Mathias, Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 19, 2017 01:37 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B758390
Sample Number: RN2434-02

Test Result:

48 hrs Mortality % 83.3% Statistical Method:

Mean percent mortality: Sample 83.3 Control 0

Sample Name : WL_LCI_SP01_20170604_NP_M

Sample Matrix : Water

Description: Clear, colourless

Sample Prior to Analysis:

Sample Collected: Jul 14, 2017 07:00 PM

Sampling Method : N/A

pH: 7.6

Sample Collected By: TMK

Site Collection: N/A

Temperature : 19 °C

Sample Received: Jul 15, 2017 04:20 PM

Volume Received: 1 L

Dissolved Oxygen: 10.2 mg/L

Analysis Start : Jul 16, 2017 11:27 AM

Temp.Upon Arrival: 9 °C

Sample Conductance: 1787 µS/cm

End : Jul 18, 2017 10:30 AM

Storage: 2-6°C

Hardness: 600 mg CaCO₃/L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	21	8.2	365	8.2	0	0	0	0	20	8.0	330	8.9
0	21	8.2	366	8.2	0	0	0	0	20	8.1	333	8.7
0	21	8.2	366	8.2	0	0	0	0	20	8.1	334	8.8
100	20	7.7	1784	8.8	0	0	0	0	20	8.0	1522	8.6
100	20	7.7	1796	8.8	0	0	0	0	20	8.0	1537	8.7
100	20	7.7	1796	8.8	0	0	0	0	20	7.9	1519	8.7

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	7	70.0	3	30.0
100	8	80.0	2	20.0
100	10	100	0	0

Comments : No unusual observations at 24 hours. Crystal-like material on water surface and test vessel surfaces at 48 hours. Brown material adhering to daphnia at 48 hours.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water

Hardness: 180 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)

Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L

Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No

Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No

Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture

Age at Test Initiation : <24 hrs **Average Brood Size :** 28.0

Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0

Culture Temperature : 20 ± 2 °C **Time To First Brood :** 9 Days

Culture Diet Pseudokirchnriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2434-02

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.90 (6.36, 7.49) g/L
Test Date: Jul 17, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Arthur Juan Mathias, Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 19, 2017 01:38 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B758390
Sample Number: RN2432-02

Test Result:

48 hrs Mortality % 6.67% Statistical Method:

Mean percent mortality: Sample 6.67 Control 0

Sample Name : WL_BFWB_OUT_20170714_N_MA

Sample Matrix : Water

Description: Pale yellow, clear

Sample Prior to Analysis:

Sample Collected: Jul 14, 2017 07:00 PM

Sampling Method : N/A

pH: 7.5

Sample Collected By: TMK

Site Collection: N/A

Temperature : 17 °C

Sample Received: Jul 15, 2017 04:20 PM

Volume Received: 2 L

Dissolved Oxygen: 10.5 mg/L

Analysis Start : Jul 16, 2017 11:25 AM

Temp.Upon Arrival: 9 °C

Sample Conductance: 1791 µS/cm

End : Jul 18, 2017 10:30 AM

Storage: 2-6°C

Hardness: 1200 mg CaCO₃/L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	20	8.2	364	8.2	0	0	0	0	20	8.1	332	8.6
0	20	8.1	366	8.2	0	0	0	0	20	8.1	337	8.8
0	20	8.3	366	8.2	0	0	0	0	20	8.1	339	8.9
100	18	7.6	1798	9.4	0	0	0	0	20	7.8	1552	8.5
100	18	7.6	1808	9.4	0	0	0	0	20	7.9	1553	8.4
100	18	7.7	1807	9.4	0	0	0	0	20	7.8	1544	8.5

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	0	0	2	20.0
100	2	20.0	5	50.0
100	0	0	3	30.0

Comments : Crystal-like material on water surface and test vessel surfaces. Daphnia adhering to bubbles. Brown material adhering to daphnids. Small unidentified organisms visible under microscope view.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water

Hardness: 180 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)

Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L

Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No

Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No

Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture

Age at Test Initiation : <24 hrs **Average Brood Size :** 25.7

Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 1.6

Culture Temperature : 20 ± 2 °C **Time To First Brood :** 9 Days

Culture Diet Pseudokirchnriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2432-02

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.90 (6.36, 7.49) g/L
Test Date: Jul 17, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Arthur Juan Mathias, Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 19, 2017 01:43 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B758390

Test Result:

96 hrs LC50 % vol/vol (95% CL): >100% (N/A) **Statistical Method:** Visual

Sample Name : WL_LCI_SPO2_20170604_NP_M **Sample Matrix :** Water
Description: clear, colourless **Sample Number:** RN2431-01
Sample Collected: Jul 14, 2017 07:00 PM **Sampling Method :** N/A **Site Collection:** N/A
Sample Collected By: TMK **Volume Received:** 40 L **Temp.Upon Arrival:** 9 °C **Storage:** 2-6°C
Sample Received: Jul 15, 2017 04:20 PM **pH:** 7.5 **Dissolved Oxygen:** 10.6 mg/L
Analysis Start : Jul 16, 2017 11:05 AM **Temperature :** 15 °C **Sample Conductance:** 1074 µS/cm

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hrs	48 hrs	48 hrs
0	15	7.9	366	9.8	0	0	0	0	0	0	0	0
6.25	15	7.9	411	9.8	0	0	0	0	0	0	0	0
12.5	15	7.8	465	9.8	0	0	0	0	0	0	0	0
25	15	7.8	558	9.8	0	0	0	0	0	0	0	0
50	15	7.8	737	9.8	0	0	0	0	0	0	0	0
100	15	7.6	1073	10.1	0	0	0	0	0	0	0	0

Concentration	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)
% vol/vol	72 hrs	72 hrs	72 hrs	72 hrs	96 hrs	96 hr	96 hrs	96 hrs	96 hrs	96 hrs	96 hrs	96 hrs
0	0	0	0	0	14	7.7	373	8.7	0	0	0	0
6.25	0	0	0	0	14	7.5	418	8.4	0	0	0	0
12.5	0	0	0	0	14	7.7	472	8.9	0	0	0	0
25	0	0	0	0	14	7.9	564	9.3	0	0	0	0
50	0	0	0	0	14	8.0	740	9.3	0	0	0	0
100	0	0	0	0	14	8.2	1075	9.0	0	0	0	0

Comments : None

Culture/Control/Dilution Water

City of Edmonton dechlorinated tap water

Hardness:

180 mg/L CaCO₃

Other parameters available on request.

Test Conditions

Test concentration : 0,6.25,12.5,25,50,100 (% vol/vol)

Organisms per Vessel : 10 **Test Temperature :** 15 ± 1 °C **Solution Depth :** >15 cm
Total # of Organisms Used : 60 **Pre-aeration Time :** 120 min. **Rate of Aeration :** 6.5±1 mL/min/L
Test Volume : 20 L **Vessel Volume :** 38L **Test pH Adjusted:** No
Loading Density : 0.4 g/L **Photoperiod :** 16:8 (light: dark)

Test Organism :

Rainbow Trout (*Oncorhynchus mykiss*) **Source :** Spring Valley Trout Hatchery

Culture Temperature : 15 ± 2 °C **Weight (Mean) +- SD :** 0.7 ± 0.4 g **Length (Mean) +- SD :** 4.30 ± 0.65 cm
Culture Water Renewal : ≥ 1.0 L/min/kg fish **Weight (Range) :** 0.3 ± 1.6 g **Length (Range) :** 3.60 – 5.70 cm
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0%
Feeding rate and frequency : daily: 1-5% biomass of trout. **Acclimation Time:** >14 days

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2431-01

Reference chemical: Phenol
Test Date: Jun 17, 2017
Test Endpoint 96 hrs LC50 (95% confidence interval) : 11.3 (10.2, 12.4)mg/L
Statistical Method : Probit
Historical Mean LC50 (warning limits) : 9.83 (6.09, 15.9) mg/L
Concentration : 0,8,10,12,15,20 mg/L

Test Method EPS 1/RM/13
Method Deviations : None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 20, 2017 02:40 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B758390

Test Result:

96 hrs LC50 % vol/vol (95% CL): >100% (N/A) Statistical Method: Visual

Sample Name : WL_BFWB_OUT_20170714_N_MA
Description: clear, pale yellow
Sample Collected: Jul 14, 2017 07:00 PM **Sampling Method :** N/A
Sample Collected By: TMK **Volume Received:** 40 L
Sample Received: Jul 15, 2017 04:20 PM **pH:** 7.5
Analysis Start : Jul 16, 2017 09:35 AM **Temperature :** 15 °C

Sample Matrix : Water
Sample Number: RN2432-01
Site Collection: N/A
Temp. Upon Arrival: 9 °C **Storage:** 2-6°C
Dissolved Oxygen: 9.9 mg/L
Sample Conductance: 1809 µS/cm

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hrs	48 hrs	48 hrs
0	15	8.1	366	9.9	0	0	0	0	0	0	0	0
6.25	16	7.9	462	9.7	0	0	0	0	0	0	0	0
12.5	16	7.9	579	9.7	0	0	0	0	0	0	0	0
25	16	7.8	770	9.7	0	0	0	0	0	0	0	0
50	16	7.7	1143	9.7	0	0	0	0	0	0	0	0
100	15	7.6	1807	9.8	0	0	0	0	0	0	0	0

Concentration	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)
% vol/vol	72 hrs	72 hrs	72 hrs	72 hrs	96 hrs	96 hr	96 hrs	96 hrs	96 hrs	96 hrs	96 hrs	96 hrs
0	0	0	0	0	14	7.9	371	9.1	0	0	0	0
6.25	0	0	0	0	15	7.9	470	7.9	0	0	0	0
12.5	0	0	0	0	15	7.9	587	7.7	0	0	0	0
25	0	0	0	0	15	8.2	777	8.8	0	0	0	0
50	0	0	0	0	14	8.1	1129	9.3	0	0	0	0
100	0	0	0	0	14	8.0	1700	9.2	0	0	0	0

Comments : None

Culture/Control/Dilution Water

City of Edmonton dechlorinated tap water

Hardness:

180 mg/L CaCO₃

Other parameters available on request.

Test Conditions

Test concentration : 0,6.25,12.5,25,50,100 (% vol/vol)

Organisms per Vessel : 10 **Test Temperature :** 15 ± 1 °C **Solution Depth :** >15 cm
Total # of Organisms Used : 60 **Pre-aeration Time :** 30 min. **Rate of Aeration :** 6.5±1 mL/min/L
Test Volume : 20 L **Vessel Volume :** 38L **Test pH Adjusted:** No
Loading Density : 0.3 g/L **Photoperiod :** 16:8 (light: dark)

Test Organism :

Rainbow Trout (*Oncorhynchus mykiss*) Source : Spring Valley Trout Hatchery

Culture Temperature : 15 ± 2 °C **Weight (Mean) +- SD :** 0.5 ± 0.1 g **Length (Mean) +- SD :** 3.89 ± 0.14 cm
Culture Water Renewal : ≥ 1.0 L/min/kg fish **Weight (Range) :** 0.4 ± 0.6 g **Length (Range) :** 3.70 – 4.10 cm
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0%
Feeding rate and frequency : daily: 1-5% biomass of trout. **Acclimation Time:** >14 days

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2432-01

Reference chemical: Phenol
Test Date: Jun 17, 2017
Test Endpoint 96 hrs LC50 (95% confidence interval) : 11.3 (10.2, 12.4)mg/L
Statistical Method : Probit
Historical Mean LC50 (warning limits) : 9.83 (6.09, 15.9) mg/L
Concentration : 0,8,10,12,15,20 mg/L

Test Method EPS 1/RM/13
Method Deviations : None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 20, 2017 02:41 PM

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B758390

Test Result:

96 hrs LC50 % vol/vol (95% CL): >100% (N/A) Statistical Method: Visual

Sample Name : LC_LC3_SP22_20170604_NP_M
Description: clear, colourless with black settled solids
Sample Collected: Jul 14, 2017 07:00 PM **Sampling Method :** N/A
Sample Collected By: TMK **Volume Received:** 40 L
Sample Received: Jul 15, 2017 04:20 PM **pH:** 7.5
Analysis Start : Jul 16, 2017 11:05 AM **Temperature :** 15 °C

Sample Matrix : Water
Sample Number: RN2433-01
Site Collection: N/A
Temp. Upon Arrival: 9 °C **Storage:** 2-6°C
Dissolved Oxygen: 10.5 mg/L
Sample Conductance: 973 µS/cm

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hrs	48 hrs	48 hrs
0	16	8.0	366	9.6	0	0	0	0	0	0	0	0
6.25	16	8.0	403	9.6	0	0	0	0	0	0	0	0
12.5	16	8.0	449	9.7	0	0	0	0	0	0	0	0
25	15	7.9	528	9.7	0	0	0	0	0	0	0	0
50	15	7.9	680	9.8	0	0	0	0	0	0	0	0
100	15	7.7	971	10.0	0	0	0	0	0	0	0	0

Concentration	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)
% vol/vol	72 hrs	72 hrs	72 hrs	72 hrs	96 hrs	96 hr	96 hrs	96 hrs	96 hrs	96 hrs	96 hrs	96 hrs
0	0	0	0	0	15	8.0	373	9.1	0	0	0	0
6.25	0	0	0	0	14	8.0	411	9.0	0	0	0	0
12.5	0	0	0	0	15	8.0	455	9.1	0	0	0	0
25	0	0	0	0	15	8.1	534	9.1	0	0	0	0
50	0	0	0	0	14	8.1	686	9.2	0	0	0	0
100	0	0	0	0	15	8.1	976	8.8	0	0	0	0

Comments : None

Culture/Control/Dilution Water

City of Edmonton dechlorinated tap water

Hardness:

180 mg/L CaCO₃

Other parameters available on request.

Test Conditions

Test concentration : 0,6.25,12.5,25,50,100 (% vol/vol)

Organisms per Vessel : 10 **Test Temperature :** 15 ± 1 °C **Solution Depth :** >15 cm
Total # of Organisms Used : 60 **Pre-aeration Time :** 120 min. **Rate of Aeration :** 6.5±1 mL/min/L
Test Volume : 20 L **Vessel Volume :** 38L **Test pH Adjusted:** No
Loading Density : 0.4 g/L **Photoperiod :** 16:8 (light: dark)

Test Organism :

Rainbow Trout (*Oncorhynchus mykiss*) Source : Spring Valley Trout Hatchery

Culture Temperature : 15 ± 2 °C **Weight (Mean) +- SD :** 0.8 ± 0.3 g **Length (Mean) +- SD :** 4.48 ± 0.66 cm
Culture Water Renewal : ≥ 1.0 L/min/kg fish **Weight (Range) :** 0.3 ± 1.2 g **Length (Range) :** 3.30 – 5.20 cm
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0%
Feeding rate and frequency : daily: 1-5% biomass of trout. **Acclimation Time:** >14 days

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758390
Sample Number: RN2433-01

Reference chemical: Phenol
Test Date: Jun 17, 2017
Test Endpoint 96 hrs LC50 (95% confidence interval) : 11.3 (10.2, 12.4)mg/L
Statistical Method : Probit
Historical Mean LC50 (warning limits) : 9.83 (6.09, 15.9) mg/L
Concentration : 0,8,10,12,15,20 mg/L

Test Method EPS 1/RM/13
Method Deviations : None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Chelsea Tessier, Natasha Mouck



Verified By : Chelsea Tessier, Senior Analyst

Date: Jul 20, 2017 02:43 PM



Acute Toxicity Test Results

Samples collected July 14, 2017

Final Report

August 1, 2017

Submitted to: **Maxxam Analytics**
Edmonton, AB

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates		<i>Daphnia magna</i> test initiation	Receipt temperature
	Collected	Received		
RN2431- WL_LC1_SP02_20170604_NP_M	14-Jul-17 at 1900h	19-Jul-17 at 1025h	19-Jul-17 at 1530h	4.6°C
RN2432- WL_BFWB_OUT_20170714_N_MA	14-Jul-17 at 1900h	19-Jul-17 at 1025h	19-Jul-17 at 1530h	7.4°C
RN2433- LC_LC3_SP22_20170604_NP_M	14-Jul-17 at 1900h	19-Jul-17 at 1025h	19-Jul-17 at 1530h	4.3°C
RN2434- WL_LC1_SP01_20170604_NP_M	14-Jul-17 at 1900h	19-Jul-17 at 1025h	19-Jul-17 at 1530h	4.7°C

TEST

- *Daphnia magna* 48-h LC50 test, conducted at 10°C

RESULTS

Toxicity test results

Sample ID	LC50 (%v/v)
RN2431-WL_LC1_SP02_20170604_NP_M	> 100
RN2432-WL_BFWB_OUT_20170714_N_MA	> 100
RN2433-LC_LC3_SP22_20170604_NP_M	> 100
RN2434-WL_LC1_SP01_20170604_NP_M	> 100

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	4.5 (3.8 – 5.4) g/L NaCl ¹
Reference toxicant historical mean (2 SD range)	4.1 (3.3 – 5.0) g/L NaCl
Reference toxicant CV	10%
Organism health history	Acceptable
Protocol deviations	Yes, see below
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date: July 19, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

Testing was conducted at 10°C instead of the standard 20°C, as requested by the client.



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* LC50 test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	Five concentrations, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	10 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Statistical software	CETIS Version 1.8.7
Test endpoints	Survival (48-hour LC50)
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Daphnia magna Summary Sheet

Client: Maxxam
Work Order No.: 170717

Start Date/Time: July 19, 2017 @ 1530h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: RN2431-WL-LC1-S102-20170604-^{NPLM}
Sample Date: July 14, 2017
Date Received: July 19, 2017
Sample Volume: 1 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 0628173
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 23
Mortality (%) in previous 7 d: 10
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS3
Stock Solution ID: 17Na01
Date Initiated: July 19, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3 - 5.0) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: The 48h LC50 is estimated to be >100% (v/v), tested at 10°C.

Reviewed by: [Signature]

Date reviewed: July 31, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: MAXXAM Start Date/Time: July 19, 2017 @ 1530h
 Sample ID: RN 2431-WL-LEL-SPO2-20170604-NP-M No. Organisms/volume: 10/200mL
 Work Order No.: 170717 Test Organism: D. magna
 Set up by: Yuc

Thermometer: CER#5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	11.5	10.5	11.0	9.6	10.4	10.7	7.8	7.8	7.9	331	344
	B														
	C														
	D														
6.25	A	10	10	0	11.5	10.5	11.0	10.0	10.6	10.4	7.8	7.8	7.9	370	384
	B														
	C														
	D														
12.5	A	10	10	0	11.0	10.5	11.0	9.9	10.5	10.6	7.8	7.9	7.9	392	426
	B														
	C														
	D														
25	A	10	10	0	11.0	10.5	11.0	10.0	10.6	10.6	7.8	7.9	8.0	521	546
	B														
	C														
	D														
50	A	10	10	0	10.5	10.5	11.0	10.1	10.6	10.7	7.7	8.0	8.1	642	660
	B														
	C														
	D														
100	A	10	10	0	10.5	10.5	11.0	10.7	10.6	10.6	7.6	8.1	8.1	1073	1082
	B														
	C														
	D														
Technician Initials	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc

	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Concentration		
Control (MHW)	90	64
Highest conc.	540	290
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	10.5		
DO (mg/L)	10.7		
pH	7.6		
Cond (µS/cm)	1073		
Salinity (ppt)	0.5		

Comments: _____ Mortality: Heartbeat checked under microscope ^{not} _{noted}

Sample Description: clear, no colour, no odour, no particulates

Batch#: 0628173 7-d previous # young/brood: 23 Previous 7-d Mortality (%): 10 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: July 31, 2017

Daphnia magna Summary Sheet

Client: Maxxam
Work Order No.: 170717

Start Date/Time: July 19, 2017 @ 1530h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: RN2432-WL-BFWB-097-20170714-N-MA
Sample Date: July 14, 2017
Date Received: July 19, 2017
Sample Volume: 1 x 2L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 062817B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 23
Mortality (%) in previous 7 d: 10
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC53
Stock Solution ID: 17Na01
Date Initiated: July 19, 2017
48-h LC50 (95% CL): 4.5 (3.8-5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: The 48h LC50 is estimated to be >100% (v/v), tested at 10°C.

Reviewed by: [Signature]

Date reviewed: July 31, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: MAXFAM Start Date/Time: July 19, 2017 @ 1530h
 Sample ID: RN2432-WL-BFWB-OUT-20170714-NMA No. Organisms/volume: 10/200mL
 Work Order No.: 17017 Test Organism: D.magna
 Set up by: YML
 Thermometer: CER#5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	11.0	10.5	11.0	9.6	10.6	10.4	7.8	7.8	7.9	331	339
	B														
	C														
	D														
6.25	A	10	10	0	11.0	10.5	11.0	9.6	10.6	10.5	7.8	7.8	7.9	389	411
	B														
	C														
	D													499	
12.5	A	10	10	0	11.0	10.5	11.0	9.8	10.5	10.5	7.8	7.9	8.0	375	525
	B														
	C														
	D														
25	A	10	10	0	11.0	10.5	11.0	9.8	10.6	10.5	7.8	7.9	8.0	719	734
	B														
	C														
	D														
50	A	10	10	0	11.0	10.5	11.0	9.9	10.5	10.4	7.7	8.0	8.0	1076	1079
	B														
	C														
	D														
100	A	10	10	0	11.0	10.5	11.0	10.3	10.5	10.4	7.6	8.0	8.0	1780	1747
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	90	64
Highest conc.	1010	460
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	11.0		
DO (mg/L)	10.3		
pH	7.6		
Cond (µS/cm)			
Salinity (ppt)	0.9		

Comments: _____ Mortality: Heartbeat checked under microscope not required
 Sample Description: clear, light yellow colour, no odour, some brown particles
 Batch#: 06281TB 7-d previous # young/brood: 23 Previous 7-d Mortality (%): 10 Day of 1st Brood: 10
 Reviewed by: [Signature] Date reviewed: July 31, 2017

Daphnia magna Summary Sheet

Client: Maxxam
Work Order No.: 170717

Start Date/Time: July 19, 2017 @ 1530h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: RN2433-LC-LC3-5/22-2017 ^{NPLM}
Sample Date: July 14, 2017
Date Received: July 19, 2017
Sample Volume: 1 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 062817B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 23
Mortality (%) in previous 7 d: 10
Days to first brood: 6

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC53
Stock Solution ID: 17NaCl
Date Initiated: July 19, 2017
48-h LC50 (95% CL): 4.5 (3.8-5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 10

Test Results:

The 48h LC50 is estimated to be >100% (v/v), tested at 10°C.

Reviewed by: [Signature]

Date reviewed: July 31, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: MARXAM
 Sample ID: RN 2433-LC-LC3-SP22-20170604-NP No. Organisms/volume: 10/200mL
 Work Order No.: 170717

Start Date/Time: July 19, 2017 @ 1530h
 Test Organism: D. magna
 Set up by: YUW

Thermometer: CER#5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	11.5	10.5	11.0	9.6	10.7	10.6	7.8	7.7	7.8	331	339
	B														
	C														
	D														
6.25	A	10	10	0	11.5	10.5	11.0	9.6	10.6	10.7	7.8	7.7	7.8	345	379
	B														
	C														
	D														
12.5	A	10	10	0	11.5	10.5	11.0	9.7	10.7	10.8	7.8	7.8	7.9	399	398
	B														
	C														
	D														
25	A	10	10	0	11.0	10.5	11.0	10.0	10.7	10.7	7.8	7.8	8.0	446	465
	B														
	C														
	D														
50	A	10	10	0	11.0	10.5	11.0	10.4	10.6	10.7	7.7	7.9	8.1	590	612
	B														
	C														
	D														
100	A	10	10	0	11.0	10.5	11.0	10.5	10.7	10.8	7.6	8.1	8.2	960	982
	B														
	C														
	D														
Technician Initials		YUW	YUW	YUW	YUW	YUW	YUW	YUW	YUW	YUW	YUW	YUW	YUW	YUW	YUW

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Control (MHW)	90	64
Highest conc.	620	290
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	11.0		
DO (mg/L)	10.5		
pH	7.6		
Cond (µS/cm)	960		
Salinity (ppt)	0.5		

Comments: _____ Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no colour, no odour, no particulates

Batch#: 062817B 7-d previous # young/brood: 23 Previous 7-d Mortality (%): 10 Day of 1st Brood: 10

Reviewed by: YUW Date reviewed: July 31, 2017

Daphnia magna Summary Sheet

Client: Maxxam
Work Order No.: 170717

Start Date/Time: July 19, 2017 @ 1530h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: RN2434-WLLCI-SP01-20170604-NP-M
Sample Date: July 14, 2017
Date Received: July 19, 2017
Sample Volume: 1 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 062817B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 23
Mortality (%) in previous 7 d: 10
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS3
Stock Solution ID: 17Na01
Date Initiated: July 19, 2017
48-h LC50 (95% CL): 4.5 (3.8-5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: The 48h LC50 is estimated to be >100% (v/v), tested at 10°C.

Reviewed by: [Signature]

Date reviewed: July 31, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: MAXXAM Start Date/Time: July 19, 2017 @ 1530h
 Sample ID: RN 2434-WL 2E1-SPO1-20170604-NP-M No. Organisms/volume: 10/200mL
 Work Order No.: 170717 Test Organism: D.magna
 Set up by: YUC

Thermometer: CER#5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	11.0	10.5	11.0	9.6	10.4	10.4	7.8	7.8	7.9	531	345
	B														
	C														
	D														
6.25	A	10	10	0	11.0	10.5	11.0	9.7	10.5	10.5	7.8	7.8	7.9	455	468
	B														
	C														
	D														
12.5	A	10	10	0	11.0	10.5	11.0	9.9	10.5	10.4	7.9	7.9	8.0	516	535
	B														
	C														
	D														
25	A	10	10	0	10.5	10.5	11.0	9.9	10.6	10.7	7.8	7.9	8.1	689	722
	B														
	C														
	D														
50	A	10	10	0	10.5	10.5	11.0	10.3	10.5	10.6	7.7	8.0	8.2	1097	1116
	B														
	C														
	D														
100	A	10	10	0	10.0	10.5	11.0	10.4	10.5	10.4	7.6	8.0	8.1	1787	1778
	B														
	C														
	D														
Technician Initials		YUC	YUC	YUC	YUC	YUC	YUC	YUC	YUC	YUC	YUC	YUC	YUC	YUC	YUC

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	90	64
Highest conc.	1310	480
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	10.0		
DO (mg/L)	10.4		
pH	7.6		
Cond (µS/cm)	1787		
Salinity (ppt)	0.9		

Comments: _____ Mortality: Heartbeat checked under microscope not negated

Sample Description: clear, no colour, no odour, no particulates

Batch#: 0628173 7-d previous # young/brood: 23 Previous 7-d Mortality (%): 10 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: July 31, 2017

Client: Maxxam

W.O.#: 170717

Hardness and Alkalinity Datasheet

Sample ID	Subsample Date	Date Measured	Alkalinity				Hardness			Technician
			Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/L CaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	
SP02-20170604-NP-M RN2431-WL-LC1	July 19/17	July 19/17	100 ⁰	3.1	3.3	290	100 ⁰	5.4	540	YML
OUT-20170714-N-MA RN2432-WL-BFW	July 19/17	July 19/17	100 ⁰	4.7	4.8	460	100 ⁰	9.8 ^m 10.1	980 ²¹ 1010	YML
3P22-20170604-NP-M RN2433-LC-LC3	July 19/17	July 19/17	100 ⁰	3.0	3.1	290	100 ⁰	6.2	620	YML
SP01-20170604-NP-M RN2434-WL-LC1	July 19/17	July 19/17	100 ⁰	5.0	5.2	480	100 ⁰	13.1	1310	YML
M(HW) (10°C)	July 19/17	July 19/17	50	3.3	3.4	64	50	4.5	90	YML

Notes: ① Diluted to 100 mL w/ DI water - measured at 10°C

Reviewed by:  Date Reviewed: July 31, 2017

APPENDIX C – Chain-of-custody form

WO # 170717

REPORT INFORMATION							ANALYSIS REQUESTED										ADDITIONAL SAMPLE INFORMATION										
Company: Maxxam							Daphnia, 48 hour LC50, EC50 - Subcontract Temp °C																				
Address: 9331 - 48th Street, Edmonton, Alberta, T6B 2R4																											
Contact Name: Robin Weaver																											
Email: RWeaver@maxxam.ca, edmenvirocs@maxxamalytics.com																											
Phone: (403) 735-2258																											
Maxxam Project #: B758390																											
#	SAMPLE ID	MATRIX	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	SAMPLER INITIALS	# CONT.																ADDITIONAL SAMPLE INFORMATION					
1	RN2431-WL_LCI_SP02_20170604_NP_M	W	2017/07/14	19:00	TMK	1	X	1L														no particulates					
2	RN2432-WL_BFWB_OUT_20170714_N_MA	W	2017/07/14	19:00	TMK	1	X	2L														clear, light yellow, no odour, brown particulates					
3	RN2433-LC_LC3_SP22_20170604_NP_M	W	2017/07/14	19:00	TMK	1	X	1L														clear, no colour, no odour, no particulates					
4	RN2434-WL_LCI_SP01_20170604_NP_M	W	2017/07/14	19:00	TMK	1	X	1L														clear, no colour, no odour, no particulates					
5																											
6																											
7																											
8																											
9																											
10																											
REGULATORY CRITERIA							SPECIAL INSTRUCTIONS										TURNAROUND TIME										
							Please inform Maxxam immediately if you are not accredited for the requested test(s). **Please return a copy of this form with the report.** Analyze at 10°C.										<input checked="" type="checkbox"/> Rush Required 2017/07/20 Date Required Please inform us if rush charges will be incurred.										
COOLER ID:							COOLER ID:							COOLER ID:													
Custody Seal Present		YES	NO	Temp: (°C)	1	2	3	Custody Seal Present		YES	NO	Temp: (°C)	1	2	3	Custody Seal Present		YES	NO	Temp: (°C)	1	2	3				
Custody Seal Intact					Custody Seal Intact				Custody Seal Intact					Custody Seal Intact				Custody Seal Intact					Custody Seal Intact				
Cooling Media Present					Cooling Media Present				Cooling Media Present					Cooling Media Present				Cooling Media Present					Cooling Media Present				
RELINQUISHED BY: (SIGN & PRINT)							DATE: (YYYY/MM/DD)			TIME: (HH:MM)			RECEIVED BY: (SIGN & PRINT)							DATE: (YYYY/MM/DD)			TIME: (HH:MM)				
1. Delaney Mckerricher							2017/07/18			11:45			1. Nautilus							2017/07/19			10:25h				
2.													2. Jaymie Buchanan														

END OF REPORT

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number : - WLC AWTF

Job Number: B758957
Sample Number: RN5684-01

Test Result:

48 hrs Mortality % 0% Statistical Method:

Mean percent mortality: Sample 0 Control 0

Sample Name : WL_BFWB_OUT_SP21_20170717_N_MAX

Description: Clear, colourless

Sample Prior to Analysis:

Sample Collected: Jul 17, 2017 09:00 AM	Sampling Method : Grab	pH: 7.8
Sample Collected By: TM	Site Collection: N/A	Temperature : 13 °C
Sample Received: Jul 18, 2017 10:21 AM	Volume Received: 1 L	Dissolved Oxygen: 11.3 mg/L
Analysis Start : Jul 18, 2017 01:51 PM	Temp.Upon Arrival: 7 °C	Sample Conductance: 1440 µS/cm
End : Jul 20, 2017 01:17 PM	Storage: 2-6°C	Hardness: 800 mg CaCO ₃ /L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	21	8.1	334	8.7	0	0	0	0	20	8.2	376	8.8
0	21	8.1	336	8.7	0	0	0	0	20	8.2	377	8.8
0	21	8.1	336	8.7	0	0	0	0	20	8.1	379	8.8
100	20	7.9	1689	9.2	0	0	0	0	20	7.7	1817	8.5
100	20	7.9	1697	9.2	0	0	0	0	20	8.1	1809	8.8
100	20	7.9	1698	9.1	0	0	0	0	20	7.9	1797	8.7

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
100	0	0	2	20.0
100	0	0	3	30.0
100	0	0	8	80.0

Comments : Crystal-like material on water surface and test vessel surfaces at 24 and 48 hours.

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water
Hardness: 160 mg/L CaCO₃ Other parameters available on request.

Test Conditions Test concentration : 0,0,0,100,100,100 (% vol/vol)
Organisms per Vessel : 10 **Pre-aeration Time :** 30 min **Rate of Pre-aeration :** 25-50 mL/min/L
Total # of Organisms Used : 60 **Test Temperature :** 20 ± 2 °C **Test Hardness Adjusted :** No
Test Volume : 150 mL **Vessel Volume :** 225 mL **Test pH Adjusted:** No
Loading Density : 15.0 mL/Daphnia **Photoperiod :** 16:8 (light: dark)

Test Organism : *Daphnia magna* **Source :** In House Culture
Age at Test Initiation : <24 hrs **Average Brood Size :** 27.7
Culture Photoperiod : 16:8 (light: dark) **% Mortality within 7 days :** 0
Culture Temperature : 20 ± 2 °C **Time To First Brood :** 8 Days
Culture Diet Pseudokirchnriella and YTC at a ratio of 2 mL/L of culture daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

Client : 3248 TECK COAL LIMITED, Sparwood
Client Project Name & Number: - WLC AWTF

Job Number: B758957
Sample Number: RN5684-01

Reference chemical: Sodium Chloride
Test Endpoint 48 hrs LC50 (95% confidence interval) : 7.07 (5.00, 10.0)g/L
Historical Mean LC50 (warning limits) : 6.90 (6.36, 7.49) g/L
Test Date: Jul 17, 2017
Statistical Method : Binomial
Concentration : 0,1.25,2.5,5,10,20 g/L

Test Method EPS 1/RM/14
Method Deviations: None

Note: The results contained in this report refer only to the testing of the sample submitted. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Chelsea Tessier, Natasha Mouck



Verified By : Marriah Grey, Laboratory Supervisor, Ecotoxicology

Date: Jul 21, 2017 03:55 PM

Elkview Operations (EVO) COAs



Acute Toxicity Test Results

Samples collected March 6, 2017

Final Report

March 24, 2017

Submitted to: **Teck Coal / Elkview Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
EV_SM1_WS_2017-03-06_N	06-Mar-17 at N/A	08-Mar-17 at 1250h	10-Mar-17 at 1100h	08-Mar-17 at 1445h
EV_DC1_WS_2017-03-06_N	06-Mar-17 at N/A	08-Mar-17 at 1250h	10-Mar-17 at 1100h	08-Mar-17 at 1445h
EV_GC2_WS_2017-03-06_N	06-Mar-17 at N/A	08-Mar-17 at 1250h	10-Mar-17 at 1100h	08-Mar-17 at 1445h
EV_OC1_WS_2017-03-06_N	06-Mar-17 at N/A	08-Mar-17 at 1250h	10-Mar-17 at 1100h	08-Mar-17 at 1445h

N/A = Not available

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_SM1_WS_2017-03-06_N	4.0/3.0°C	430	310
EV_DC1_WS_2017-03-06_N	5.3/3.0°C	1170	348
EV_GC2_WS_2017-03-06_N	4.0/3.0°C	600	222
EV_OC1_WS_2017-03-06_N	4.0/3.0°C	410	298

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
EV_SM1_WS_2017-03-06_N	0	0
EV_DC1_WS_2017-03-06_N	0	10
EV_GC2_WS_2017-03-06_N	0	0
EV_OC1_WS_2017-03-06_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_SM1_WS_2017-03-06_N	Rainbow trout	None	None
EV_SM1_WS_2017-03-06_N	<i>Daphnia magna</i>	None	None
EV_DC1_WS_2017-03-06_N	Rainbow trout	None	None
EV_DC1_WS_2017-03-06_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	Slight precipitate observed on carapace
EV_GC2_WS_2017-03-06_N	Rainbow trout	None	None
EV_GC2_WS_2017-03-06_N	<i>Daphnia magna</i>	None	None
EV_OC1_WS_2017-03-06_N	Rainbow trout	None	None
EV_OC1_WS_2017-03-06_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	87.1 (71.2 – 106.4) µg/L Zn ¹	3.7 (3.2 – 4.2) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	57.3 (22.5 – 146.4) µg/L Zn	4.2 (3.2 – 5.5) g/L NaCl
Reference toxicant CV	60%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: March 10, 2017; ² Test Date: February 22, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Julianna Kalocai, M.Sc., R.P.Bio
QA Officer

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal (EVO)

Start Date/Time: Mar 10 / 17 @ 11:50 h

Work Order No.: 170169

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV_SML_WS_2017-03-06-N
Sample Date: Mar 6 / 17
Date Received: Mar 8 / 17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 022217
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10
Loading Density (g/L): 0.32
Mean Length ± SD (mm): 30 ± 1
Mean Weight ± SD (g): 0.32 ± 0.03

Range: 27 - 32
Range: 0.26 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 65
Stock Solution ID: 16 Zn 02
Date Initiated: Mar 10 / 17
96-h LC50 (95% CL): 87.1 (71.2 - 106.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.3 (22.5 - 146.4) mg/L Zn
Reference Toxicant CV (%): 60

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: March 17, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal (EVO)

Start Date/Time: Mar 10 117 @ 1100 h

Work Order No.: 170169

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-DCL-WS-2017-03-06-N
Sample Date: Mar 6 117
Date Received: Mar 8 117
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 022217
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 31 ± 1
Mean Weight ± SD (g): 0.31 ± 0.02

Range: 29 - 32
Range: 0.27 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RIZn 65
Stock Solution ID: 16 Zn 02
Date Initiated: Mar 10/17
96-h LC50 (95% CL): 87.1 (71.2 - 106.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.3 (22.5 - 146.4) mg/L Zn
Reference Toxicant CV (%): 60

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: 

Date reviewed: March 17, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal (EVO)

Start Date/Time: Mar 10 / 17 @ 1100 h

Work Order No.: 170169

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-GC2-WS-2017-03-06-N
Sample Date: Mar 6 / 17
Date Received: Mar 8 / 17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 022217
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.31 ± 0.04

Range: 26 - 32
Range: 0.26 - 0.39

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 65
Stock Solution ID: 16 Zn 02
Date Initiated: Mar 10 / 17
96-h LC50 (95% CL): 87.1 (71.2 - 106.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.3 (22.5 - 146.4) mg/L Zn
Reference Toxicant CV (%): 60

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: March 17, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal (EVO)

Start Date/Time: Mar 10 / 17 @ 1100h

Work Order No.: 170169

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-001-WS-2017-03-06-N
Sample Date: Mar 6 / 17
Date Received: Mar 8 / 17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 022217
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.30
Mean Length ± SD (mm): 31 ± 1
Mean Weight ± SD (g): 0.30 ± 0.03

Range: 29 - 33
Range: 0.27 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RIZn 65
Stock Solution ID: 16 Zn 02
Date Initiated: Mar 10 / 17
96-h LC50 (95% CL): 87.1 (71.2 - 106.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.3 (22.5 - 146.4) mg/L Zn
Reference Toxicant CV (%): 60

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: 

Date reviewed: March 17, 2017

Daphnia magna Summary Sheet

Client: Teck (Evo)
Work Order No.: 170170

Start Date/Time: March 8, 2017 @ 1445h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: EV-SM1-WS-2017-03-06-N
Sample Date: March 6, 2017
Date Received: March 8, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 021517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 15
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC46
Stock Solution ID: 16Na02
Date Initiated: February 22, 2017
48-h LC50 (95% CL): 3.7 (3.2 - 4.2) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.2 - 5.5) g/L NaCl
Reference Toxicant CV (%): 14

Test Results:

0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by:

YML

Date reviewed:

March 17, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TECK
 Sample ID: EV-SM1-W3-2017-03-06-N
 Work Order No.: 170170

Start Date/Time: March 8, 2017 @ 1445h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	18.5	19.0	19.0	8.9	8.5	8.4	7.6	7.8	7.6	359	365
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	18.5	19.0	19.0	9.2	8.6	8.5	8.0	8.3	8.3	569	561
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	70
Highest conc.	430	310
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		18.5
DO (mg/L)	10.0	(10 min aeration)	9.2
pH	8.0		8.0
Cond (µS/cm)	576		569
Salinity (ppt)	0.3		0.3

Comments: no precipn @ 48h Mortality: Heartbeat checked under microscope not noted

Sample Description: slightly yellow, clear, no odour, no particulates

Batch#: 021517A 7-d previous # young/brood: 15 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: March 17, 2017

Daphnia magna Summary Sheet

Client: Teck (Evo)
Work Order No.: 170170

Start Date/Time: March 8, 2017 @ 1445h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: EV-DCI-WS-2017-03-06-N
Sample Date: March 6, 2017
Date Received: March 8, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 021517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 15
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC46
Stock Solution ID: 16NaO2
Date Initiated: February 22, 2017
48-h LC50 (95% CL): 3.7 (3.2 - 4.2) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.2 - 5.5) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 10% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: March 17, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TECK Start Date/Time: March 8, 2017 @ 14454
 Sample ID: EV-DC1-WS-2017-03-06-N No. Organisms/volume: 10/200mL
 Work Order No.: 170170 Test Organism: D. magna
 Set up by: YMC

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	No. Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
<u>Control</u>	A	<u>10</u>	<u>10</u>	<u>0</u>	<u>18.5</u>	<u>19.0</u>	<u>19.0</u>	<u>8.9</u>	<u>8.5</u>	<u>8.4</u>	<u>7.6</u>	<u>7.8</u>	<u>7.7</u>	<u>359</u>	<u>360</u>
	B	<u>10</u>	<u>10</u>	<u>0</u>											
	C	<u>10</u>	<u>10</u>	<u>0</u>											
	D														
<u>100</u>	A	<u>100</u>	<u>100</u>	<u>0</u>	<u>18.0</u>	<u>19.0</u>	<u>19.0</u>	<u>9.1</u>	<u>8.4</u>	<u>8.3</u>	<u>7.7</u>	<u>8.1</u>	<u>8.0</u>	<u>1778</u>	<u>1733</u>
	B	<u>100</u>	<u>80</u>	<u>0</u>											
	C	<u>100</u>	<u>90</u>	<u>1</u>											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		<u>YMC</u>	<u>YMC</u>	<u>YMC</u>	<u>YMC</u>	<u>YMC</u>	<u>YMC</u>	<u>YMC</u>	<u>YMC</u>	<u>YMC</u>	<u>YMC</u>	<u>YMC</u>	<u>YMC</u>	<u>YMC</u>	<u>YMC</u>

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCo3)	
Control (MHW)	<u>100</u>	<u>70</u>
Highest conc.	<u>1170</u>	<u>348</u>
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	<u>18.0</u>		<u>18.0</u>
DO (mg/L)	<u>9.9</u>	<u>(4 min aeration)</u>	<u>9.1</u>
pH	<u>7.7</u>		<u>7.7</u>
Cond (µS/cm)	<u>1775</u>		<u>1778</u>
Salinity (ppt)	<u>0.9</u>		<u>0.9</u>

Comments: 0 daphnids on surface, slight precipitate on surface + daphnids Mortality: Heartbeat checked under microscope Y5

Sample Description: clear, no colour, no odour, no precipitate

Batch#: 021517A 7-d previous # young/brood: 15 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: March 17, 2017

Daphnia magna Summary Sheet

Client: Teck (Evo)
Work Order No.: 170170

Start Date/Time: March 8, 2017 @ 1445h
Test Species: Daphnia magna
Set up by: ML

Sample Information:

Sample ID: EV-GC2-WS-2017-03-06-N
Sample Date: March 6, 2017
Date Received: March 8, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 021517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 15
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC46
Stock Solution ID: 16Na02
Date Initiated: February 22, 2017
48-h LC50 (95% CL): 3.7 (3.2 - 4.2) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2 - 5.5) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: March 17, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV-GC2-WS-2017-03-06-N
 Work Order No.: 170170

Start Date/Time: March 8, 2017 @ 14454
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YUC

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	18.5	19.0	19.0	8.9	8.6	8.4	7.6	7.8	7.6	359	361
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	19.0	8.9	8.5	8.4	8.0	8.0	7.9	997	950
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YUC	YUC	YUC	YUC	YUC	YUC	YUC	YUC	YUC	YUC	YUC	YUC	YUC	YUC

	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Concentration		
Control (MHW)	100	70
Highest conc.	600	222
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		19.0
DO (mg/L)	9.7	(5 min aeration)	8.9
pH	8.0		8.0
Cond (µS/cm)	995		997
Salinity (ppt)	0.5		0.5

Comments: no precipn at 48 hr Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no colour, no odour, no particulates

Batch#: 021517A 7-d previous # young/brood: 15 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: March 17, 2017

Daphnia magna Summary Sheet

Client: Teck (Evo)
Work Order No.: 170170

Start Date/Time: March 8, 2017 @ 1445h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: EV-OCI-WS-2017-03-06-N
Sample Date: March 6, 2017
Date Received: March 8, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 021517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 15
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC46
Stock Solution ID: 16Na02
Date Initiated: February 22, 2017
48-h LC50 (95% CL): 3.7 (3.2 - 4.2) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2 - 5.5) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: March 17, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TECK Start Date/Time: March 8, 2017 @ 1445h
 Sample ID: EV-2001-WS-2017-03-06-N No. Organisms/volume: 10/200mL
 Work Order No.: 170170 Test Organism: D. magna
 Set up by: MM

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	No. Immobilized			Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48	48	0	24	48	0	24	48	0	24	48	0	48
		<u>Control</u>	A	<u>10</u>	<u>10</u>	<u>0</u>	<u>18.5</u>	<u>19.0</u>	<u>19.0</u>	<u>8.9</u>	<u>8.4</u>	<u>8.3</u>	<u>7.6</u>	<u>7.8</u>	<u>7.6</u>
	B	<u>10</u>	<u>10</u>	<u>0</u>											
	C	<u>10</u>	<u>10</u>	<u>0</u>											
	D														
<u>100</u>	A	<u>10</u>	<u>10</u>	<u>0</u>	<u>18.5</u>	<u>19.0</u>	<u>19.0</u>	<u>9.0</u>	<u>8.5</u>	<u>8.4</u>	<u>7.6</u>	<u>8.1</u>	<u>7.9</u>	<u>693</u>	<u>676</u>
	B	<u>10</u>	<u>10</u>	<u>0</u>											
	C	<u>10</u>	<u>10</u>	<u>0</u>											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>	<u>MM</u>

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	<u>100</u>	<u>70</u>
Highest conc.	<u>410</u>	<u>298</u>
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	<u>18.5</u>		<u>18.5</u>
DO (mg/L)	<u>10.0</u>		<u>9.0</u>
pH	<u>8.975</u>	<u>(4 min aeration)</u>	<u>7.6</u>
Cond (µS/cm)	<u>1180</u>		<u>693</u>
Salinity (ppt)	<u>0.603</u>		<u>0.3</u>

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not resp'd

Sample Description: slightly yellow, clear, no odor, slight particulates

Batch#: 021517A 7-d previous # young/brood: 15 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: MM Date reviewed: March 17, 2017

Client: Teek

W.O.#: 170170

Hardness and Alkalinity Datasheet

Sample ID	Alkalinity						Hardness			Technician
	Subsample Date	Date Measured	Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/L CaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	
EV-SM1-WS 2017-03-06-N	Mar. 8/17	Mar. 8/17	50	15.7	15.9	310	100 [Ⓢ]	4.3	430	YML
EV-DCL-WS 2017-03-06-N	Mar. 8/17	Mar. 8/17	50	17.6	17.8	348	100	11.7	1170	YML
EV-GC2-WS 2017-03-06-N	Mar. 8/17	Mar. 8/17	50	11.3	11.5	222	100 [Ⓢ]	6.0	600	YML
EV-OCI-WS 2017-03-06-N	Mar. 8/17	Mar. 8/17	50	15.1	15.3	298	100 [Ⓢ]	4.1	410	YML
MFW	Mar. 8/17	Mar. 8/17	50	3.6	3.7	70	50	5.0	100	YML

Notes: [Ⓢ] Diluted to 100 mL w/ DI water.

Reviewed by: 

Date Reviewed: March 17, 2017

APPENDIX C – Chain-of-custody form

COC ID: **20170306** TURNAROUND TIME: RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO			
Facility Name / Job#	Elkview Operations			Lab Name	Nautilus Environmental			Report Format / Distribution	Excel	PDF	EDD
Job Description	Quarterly Toxicity Sampling			Lab Contact	Krysta Pearcy			Email 1:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Project Manager	Jeff Williams			Email	Krysta@nautilusenvironmental.ca			Email 2:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Email	Jeff.Williams@teck.com			Address	8664 Commerce Court			Email 3:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Address	RR#1 HWY# 1				Imperial Square Lake City			Email 4:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
								Email 5:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
City	Sparwood	Province	BC	City	Burnaby	Province	BC	PO number	475474		
Postal Code	VIC 4C3	Country	Canada	Postal Code	V5A 4N7	Country	Canada				
Phone Number	1-250-865-5289			Phone Number							

SAMPLE DETAILS								ANALYSIS REQUESTED						
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# Of Cont.	FILTERED PRESERVED		Toxicity 96-h rainbow trout (Pass/Fail)	Toxicity 48-h Daphnia magna	Temp °C	20L containers	
								No	Yes					
1) EV_SM1_WS_2017-03-06_N	EV_SM1	WS	N	2017/03/06		G	3			1	2		4.0	3.0
2) EV_DC1_WS_2017-03-06_N	EV_DC1	WS	N	2017/03/06		G	3			1	2		5.3	
3) EV_GC2_WS_2017-03-06_N	EV_GC2	WS	N	2017/03/06		G	3			1	2		4.0	
4) EV_OC1_WS_2017-03-06_N	EV_OC1	WS	N	2017/03/06		G	3			1	2		4.0	
Total							12							

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
Ultra-trace Mercury samples are unfiltered and unpreserved Total Methyl Mercury samples are preserved but unfiltered Total Selenium samples are preserved but unfiltered Dissolved Selenium samples are preserved and filtered			Nautilus Burnaby NY - Nari Yamamoto	Mar 08/17 @ 12:50

NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #	Date/Time
Regular (default) <input checked="" type="checkbox"/>	James Boldt		March 6, 2017
Priority (2-3 business days) - 50% surcharge			
Emergency (1 Business Day) - 100% surcharge			
For Emergency <1 Day, ASAP or Weekend - Contact ALS			

- ① Slightly yellow, clear, Odourless, no particulates.
- ② Clear, Colorless, Odourless, no particulates.
- ③ Clear, Colorless, No particulates, Odourless.
- ④ Yellow, Clear, Some particulates. Odourless.

END OF REPORT



Acute Toxicity Test Results

Samples collected March 7, 2017

Final Report

March 27, 2017

Submitted to: **Teck Coal / Elkview Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
EV_LC1_WS_2017-03-07_N	07-Mar-17 at 1120h	10-Mar-17 at 1050h	10-Mar-17 at 1545h	10-Mar-17 at 1240h
EV_GT1_WS_2017-03-07_N	07-Mar-17 at 0935h	10-Mar-17 at 1050h	10-Mar-17 at 1545h	10-Mar-17 at 1240h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_LC1_WS_2017-03-07_N	8.0/8.0°C	530	426
EV_GT1_WS_2017-03-07_N	8.0/6.5°C	1020	224

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
EV_LC1_WS_2017-03-07_N	0	0
EV_GT1_WS_2017-03-06_N	0	0

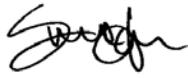
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_LC1_WS_2017-03-07_N	Rainbow trout	Slight precipitate observed on the bottom of test vessel	None
EV_LC1_WS_2017-03-07_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
EV_GT1_WS_2017-03-06_N	Rainbow trout	None	None
EV_GT1_WS_2017-03-06_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	87.1 (71.2 – 106.4) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	57.3 (22.5 – 146.4) µg/L Zn	4.2 (3.2 – 5.4) g/L NaCl
Reference toxicant CV	60%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: March 10, 2017; ² Test Date: March 15, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Mar 10 / 17 @ 1545 h

Work Order No.: 170179

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-LCI-WS-2017-03-07-N
Sample Date: Mar 07 / 17
Date Received: Mar 10 / 17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 022217
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.31 ± 0.03

Range: 27 - 32
Range: 0.27 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 65
Stock Solution ID: 16 Zn 02
Date Initiated: Mar 10 / 17
96-h LC50 (95% CL): 87.1 (71.2 - 106.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.3 (22.5 - 146.4) mg/L Zn
Reference Toxicant CV (%): 60

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: March 17, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: EV-L01-WS-2017-03-07-N
 W.O. #: 170179
 RBT Batch #: 022217
 Date Collected/Time: Mar 07/17 @ 1120h
 Date Setup/Time: Mar 10/17 @ 1545h
 Sample Setup By: EL

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER #2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.3	/	10.3
pH	7.9	/	7.9
Cond. (µS/cm)	901	/	902
Salinity (ppt)	0.4	/	0.4

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
CT1				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.2	9.8	9.9	9.9	9.8	6.8	6.9	6.9	6.9	6.9	26	29
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.6	9.7	9.7	9.7	7.9	8.2	8.1	8.2	8.3	902	949
Initials				AO	AO	EL	EL	EL	AO	AO	EL	EL	EL	AO	AO	EL	EL	EL	AO	AO	EL	EL	EL	EL

Sample Description/Comments: Slightly grey, Slightly turbid, Odourless, Some particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: (slight) Precipitation formed at the bottom of the tanks at 96h

Reviewed by: [Signature] Date Reviewed: March 17, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Mar 10 117 @ 1545 h

Work Order No.: 170179

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-GTI-WS-2017-03-07-N
Sample Date: Mar 07 117
Date Received: Mar 10 117
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 022217
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.32
Mean Length ± SD (mm): 30 ± 1
Mean Weight ± SD (g): 0.32 ± 0.05

Range: 28 - 32
Range: 0.27 - 0.40

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 65
Stock Solution ID: 16 Zn 02
Date Initiated: Mar 10/17
96-h LC50 (95% CL): 87.1 (71.2 - 106.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.3 (22.5 - 146.4) mg/L Zn
Reference Toxicant CV (%): 60

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: March 17, 2017

Daphnia magna Summary Sheet

Client: Teck (EVO)
Work Order No.: 170180

Start Date/Time: March 10, 2017 @ 1240h
Test Species: Daphnia magna
Set up by: YUC

Sample Information:

Sample ID: EV-LCI-WS-2017-0307N
Sample Date: March 7, 2017
Date Received: March 10, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 022217B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC47
Stock Solution ID: 16NA02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: March 17, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV-LCI-WS-2017-03-07-N
 Work Order No.: 170180

Start Date/Time: March 10, 2017 @ 12:40h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: Ym

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	18.5	19.0	19.0	8.5	8.7	8.2	7.5	8.0	8.18	357	364
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	19.0	19.0	8.7	8.8	8.0	7.8	8.1	8.1	915	833
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	Ym	Ym	Ym	A	Ym	Ym	A	Ym	Ym	A	Ym	Ym	Ym

	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Concentration		
Control (MHW)	100	70
Highest conc.	530	426
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.7		
pH	7.8		
Cond (µS/cm)	933		
Salinity (ppt)	0.4		

Comments: slight precipitation on container bottom at 48h Mortality: Heartbeat checked under microscope not noted

Sample Description: slight grey color, slightly turbid, no odour, some particulates

Batch#: 0222173 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: March 17, 2017

Daphnia magna Summary Sheet

Client: Teck (EVO)
Work Order No.: 170180

Start Date/Time: March 10, 2017 @ 1240h
Test Species: Daphnia magna
Set up by: YVL

Sample Information:

Sample ID: EV-GT1-WS-2017-0307-N
Sample Date: March 7, 2017
Date Received: March 10, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 022217B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC47
Stock Solution ID: 16Na02
Date Initiated: MARCH 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl

Reference Toxicant CV (%): 14

Test Results:

0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by:

[Signature]

Date reviewed:

March 17, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV-GT1-US-2017-03-07-N
 Work Order No.: 170180

Start Date/Time: March 10, 2017 @ 1240h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: VW

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	18.5	19.0	19.0	8.5	8.7	8.4	7.5	7.9	7.8	357	366
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	19.0	9.1	8.8	8.1	8.0	8.2	8.1	1665	1653
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	VW	VW	VW	VW	VW	VW	VW	VW	VW	VW	VW	VW	VW

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCo3)	
Control (MHW)	100	70
Highest conc.	1020	224
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		19.0
DO (mg/L)	9.7	(4 min aeration)	9.1
pH	8.0		8.0
Cond (µS/cm)	1661		1665
Salinity (ppt)	0.8		0.8

Comments: no precipitation at 48h Mortality: Heartbeat checked under microscope not reported

Sample Description: clear, no colour, no odour, no particulates

Batch#: 02227B 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: March 17, 2017

Client: Teck

W.O.#: 170180

Hardness and Alkalinity Datasheet

Sample ID	Alkalinity						Hardness			
	Subsample Date	Date Measured	Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/L CaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	Technician
EV_LCI-WS- 2017-03-07-N	Mar 10/17	Mar 10/17	50	21.5	21.7	426	100 ^①	5.3	530	YH
EV_GTI-WS- 2017-03-07-N	Mar 10/17	Mar 10/17	50	11.4	11.6	224	100 ^①	10.2	1020	YH
MHW	Mar 10/17	Mar 10/17	50	3.6	3.7	70	50	5.0	100	YH

Notes: ① Diluted to 100 mL w/ DI water.

Reviewed by:  Date Reviewed: March 17, 2017

APPENDIX C – Chain-of-custody form

COC ID: 20170308		TURNAROUND TIME:		RUSH:													
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO											
Facility Name / Job# Elkview Operations		Lab Name Nautilus Environmental		Report Format / Distribution		Excel	PDF	EDD									
Job Description Quarterly Toxicity Sampling		Lab Contact Krysta Pearcy		Email 1: Jeff.Williams@teck.com		X	X	X									
Project Manager Jeff Williams		Email Krysta@nautilusenvironmental.ca		Email 2: teckca@equisonline.com		X	X	X									
Email Jeff.Williams@teck.com		Address 8664 Commerce Court		Email 3: James.eg@teck.com		X	X	X									
Address RR#1 HWY#3		Imperial Square Lake City		Email 4: Cameron.Griffin@teck.com		X	X	X									
City Sparwood		Province BC	City Burnaby	Email 5: Teck.Lab.Results@shapoint.teck.com		X	X	X									
Postal Code V1C 4C3		Country Canada	Postal Code V5A 4N7	PO number 475474													
Phone Number 1-250-865-5289			Phone Number														
SAMPLE DETAILS				ANALYSIS REQUESTED													
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont	Filtered / Preserved	UN No	UN No							
① EV_LCI_WS_2017-03-07_N	EV_LCI	WS	N	2017/03/07	11:20	G	3		Toxicity 96-h rainbow trout (Pass/Fail)	Toxicity 48-h Daphnia magna P/F							
② EV_GT1_WS_2017-03-07_N	EV_GT1	WS	N	2017/03/07	9:35	G	3		1	2							
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS		RELINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME									
Toxicity 96-Hr/48-HR = 96 Hr Rainbow Trout pass/fail & 48 Hr Daphnia pass/fail (Daphnia testing to occur at 20 degrees)						Nautilus Burnaby NY - Nan Yamamoto		Mar 10/17 @ 10:50 NY 10:50									
NB OF BOTTLES RETURNED/DESCRIPTION		Regular (default) X		Priority (2-3 business days) - 50% surcharge		Emergency (1 Business Day) - 100% surcharge		For Emergency <1 Day, ASAP or Weekend - Contact ALS									
Sampler's Name		James Boldt		Mobile #													
Sampler's Signature				Date/Time		March 7, 2017											

- ① Slightly grey, slightly turbid, Odourless, Some particulates.
- ② Clear, Colorless, Odourless, No particulates.

END OF REPORT



Acute Toxicity Test Results

Samples collected March 8, 2017

Final Report

March 27, 2017

Submitted to: **Teck Coal / Elkview Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
EV_SP1_WS_2017-03-08_N	08-Mar-17 at 1150h	10-Mar-17 at 1352h	10-Mar-17 at 1545h	10-Mar-17 at 1610h
EV_EC1_WS_2017-03-08_N	08-Mar-17 at 1225h	10-Mar-17 at 1352h	10-Mar-17 at 1545h	10-Mar-17 at 1610h
EV_MG1_WS_2017-03-08_N	08-Mar-17 at 1110h	10-Mar-17 at 1352h	10-Mar-17 at 1545h	10-Mar-17 at 1610h
EV_AQ6_WS_2017-03-08_N	08-Mar-17 at 0900h	10-Mar-17 at 1352h	10-Mar-17 at 1545h	10-Mar-17 at 1610h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_SP1_WS_2017-03-08_N	7.5°C	1140	328
EV_EC1_WS_2017-03-08_N	7.0°C	1340	338
EV_MG1_WS_2017-03-08_N	7.5°C	910	342
EV_AQ6_WS_2017-03-08_N	7.7°C	470	304

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
EV_SP1_WS_2017-03-08_N	0	0
EV_EC1_WS_2017-03-08_N	0	0
EV_MG1_WS_2017-03-08_N	0	0
EV_AQ6_WS_2017-03-08_N	10	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_SP1_WS_2017-03-08_N	Rainbow trout	Slight precipitate observed on the bottom of test vessel	None
EV_SP1_WS_2017-03-08_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
EV_EC1_WS_2017-03-08_N	Rainbow trout	None	None
EV_EC1_WS_2017-03-08_N	<i>Daphnia magna</i>	None	None
EV_MG1_WS_2017-03-08_N	Rainbow trout	None	None
EV_MG1_WS_2017-03-08_N	<i>Daphnia magna</i>	None	None
EV_AQ6_WS_2017-03-08_N	Rainbow trout	None	None
EV_AQ6_WS_2017-03-08_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	87.1 (71.2 – 106.4) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	57.3 (22.5 – 146.4) µg/L Zn	4.2 (3.2 – 5.4) g/L NaCl
Reference toxicant CV	60%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: March 10, 2017; ² Test Date: March 15, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Mar 10 / 17 @ 1545 h

Work Order No.: 170183

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-SPI-WS-2017-03-08-N
Sample Date: Mar 8 / 17
Date Received: Mar 8 / 17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 022217
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10L
Loading Density (g/L): 0.30
Mean Length ± SD (mm): 30 ± 1
Mean Weight ± SD (g): 0.30 ± 0.03

Range: 27 - 32
Range: 0.27 - 0.37

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 65
Stock Solution ID: 16 Zn 02
Date Initiated: Mar 10 / 17
96-h LC50 (95% CL): 87.1 (71.2 - 106.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.3 (22.5 - 146.4) mg/L Zn
Reference Toxicant CV (%): 60

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: March 17, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Mar 10 / 17 @ 1545 h

Work Order No.: 170183

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV_ECI_WS.2017-03-08-N
Sample Date: Mar 08 / 17
Date Received: Mar 10th / 17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 022217
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.32
Mean Length ± SD (mm): 29 ± 1 Range: 27 - 30
Mean Weight ± SD (g): 0.32 ± 0.05 Range: 0.24 - 0.39

Zinc Reference Toxicant Results:

Reference Toxicant ID: RIZn 65
Stock Solution ID: 16 Zn 02
Date Initiated: Mar 10 / 17
96-h LC50 (95% CL): 87.1 (71.2 - 106.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.3 (22.5 - 146.4) mg/L Zn
Reference Toxicant CV (%): 60

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: 

Date reviewed: March 17, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: EV-EL-WS-2017-03-08-N
 W.O. #: 170183
 RBT Batch #: 022217
 Date Collected/Time: Mar 08/17 @ 1225h
 Date Setup/Time: Mar 10/17 @ 1545h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0.7
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.5	/	10.3
pH	8.0	/	8.0
Cond. (µS/cm)	1729	/	1729
Salinity (ppt)	0.9	/	0.9

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
CT1				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.2	9.8	9.9	9.9	9.8	6.8	6.9	6.9	6.9	6.9	26	29
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.8	9.6	9.7	9.9	8.0	8.2	8.1	8.2	8.3	1729	1747
Initials				A	A	EC	EC	EC	A	A	EC	EC	EC	A	A	EC	EC	EC	A	A	EC	EC	EC	EC

Sample Description/Comments: Clear, Colorless, No particulates, No odour

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: no precipitation formed at 96h

Reviewed by: [Signature] Date Reviewed: March 17, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Mar 10 117 @ 1545 h

Work Order No.: 170183

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-MG1-WS-2017-03-08-N
Sample Date: Mar 08 117
Date Received: Mar 10 117
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 022217
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.33
Mean Length ± SD (mm): 30 ± 1
Mean Weight ± SD (g): 0.33 ± 0.02

Range: 29 - 31
Range: 0.29 - 0.36

Zinc Reference Toxicant Results:

Reference Toxicant ID: RIZn 65
Stock Solution ID: 16 Zn 02
Date Initiated: Mar 10 117
96-h LC50 (95% CL): 87.1 (71.2 - 106.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.3 (22.5 - 146.4) mg/L Zn
Reference Toxicant CV (%): 60

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: March 17, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Mar 10 / 17 @ 1545 h

Work Order No.: 170183

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-AG6-WS-2017-03-08-N
Sample Date: Mar 08 / 17
Date Received: Mar 10 8⁰⁰ / 17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 022217
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10 L
Loading Density (g/L): 0.33
Mean Length ± SD (mm): 30 ± 3
Mean Weight ± SD (g): 0.33 ± 0.04

Range: 26 - 34
Range: 0.28 - 0.41

Zinc Reference Toxicant Results:

Reference Toxicant ID: RIZn 65
Stock Solution ID: 16 Zn 02
Date Initiated: Mar 10 / 17
96-h LC50 (95% CL): 87.1 (71.2 - 106.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.3 (22.5 - 146.4) mg/L Zn
Reference Toxicant CV (%): 60

Test Results: 10% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: March 17, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D. EV-ARB-WS-2017-03-08-N
 W.O. # 170183
 RBT Batch #: 022217
 Date Collected/Time: Mar 08 / 17 @ 0900h
 Date Setup/Time: Mar 10 / 17 @ 1545h
 Sample Setup By: EC

Number Fish/Volume: 10 / 10 L
 7-d % Mortality: 0.7
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: LER #2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0		14.0
D.O. (mg/L)	10.5		10.3
pH	8.1		8.1
Cond. (µS/cm)	648		649
Salinity (ppt)	0.3		0.3

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)		
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
CT1				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.2	9.8	9.9	9.9	9.8	6.8	6.9	6.9	6.9	6.9	26	29	
100				10	10	9	9	14.0	14.0	14.0	14.0	14.0	10.3	9.9	9.6	9.7	9.9	8.1	8.2	8.1	8.1	8.3	649	655	
Initials				AS	A	EC	EL	EC	AS	A	EL	EL	EL	AS	A	EL	EL	EL	AS	A	EL	EL	EL	EL	EL

Sample Description/Comments: Clear, Colorless, No particulates, No odour

Fish Description at 96 h All surviving fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: no precipitation formed on either the fish or tanks at 96h

Reviewed by: [Signature] Date Reviewed: March 17 2017

Daphnia magna Summary Sheet

Client: Teck (Evo)
Work Order No.: 170184

Start Date/Time: March 10, 2017 @ 16:00h
Test Species: Daphnia magna
Set up by: YWL

Sample Information:

Sample ID: EV_SPL_WS_2017-03-08.N
Sample Date: March 8, 2017
Date Received: March 10, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.8 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 022217A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC47
Stock Solution ID: 16 NaO2
Date Initiated: MARCH 15, 2017
48-h LC50 (95% CL): 4.2 (3.2 - 5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.2 - 5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: March 17, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: March 10, 2017 @ 16:00h
 Sample ID: EV-SPI-WS-2017-03-08 No. Organisms/volume: 10/200mL
 Work Order No.: 170184 Test Organism: D. magna
 Set up by: YML

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-1/3 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	19.0	19.0	9.2	9.0	8.2	7.5	7.7	7.8	357	365
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	15.0	19.0	19.0	9.2	9.0	8.2	7.7	7.2	8.0	1700	1640
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*	Initial WQ	Adjustment	Adjusted WQ
Concentration	*(mg/L as CaCO3)		Temp (°C)		
Control (MHW)	100	70	DO (mg/L)		
Highest conc.	1140	328	pH		
Hardness adjusted			Cond (µS/cm)		
			Salinity (ppt)		

Comments: slight precipitation on beaker bottom + surface at 48h Mortality: Heartbeat checked under microscope not needed
 Sample Description: slightly yellow, slightly turbid, no odor, no particulates
 Batch#: 022217A 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9
 Reviewed by: YML Date reviewed: March 17, 2017

Daphnia magna Summary Sheet

Client: Teck (Evo)
Work Order No.: 170184

Start Date/Time: March 10, 2017 @ 16:00h
Test Species: Daphnia magna
Set up by: JWL

Sample Information:

Sample ID: EV_ECI-WS-2017-03-08-N
Sample Date: March 8, 2017
Date Received: March 10, 2017
Sample Volume: 2 x 1 L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 02217A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DNTC47
Stock Solution ID: 16 NaCl
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.2 - 5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.2 - 5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (w) undiluted sample.

Reviewed by: JWL

Date reviewed: March 17, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: March 10, 2017 @ 16:04h
 Sample ID: EV-EC1-WS-2017-03-02-N No. Organisms/volume: 10/200mL
 Work Order No.: 170184 Test Organism: D. magna
 Set up by: YML

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-1/3 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	19.0	19.0	8.6	8.4	8.4	7.5	7.9	7.9	357	365
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	18.0	19.0	19.0	9.1	8.9	8.6	7.7	8.1	8.2	1728	1696
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	A	A	YML	A	A	YML	A	A	YML	A	A	YML	A

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO3)	
Control (MHW)	100	70
Highest conc.	1340	338
Hardness adjusted		

	initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		/
DO (mg/L)	9.1		/
pH	7.7		/
Cond (µS/cm)	1728		/
Salinity (ppt)	0.9		/

Comments: no precipitation formed at 48h Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no colour, no odour, no particulates

Batch#: 022217A 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: March 17, 2017

Daphnia magna Summary Sheet

Client: Teck (Evo)
Work Order No.: 170184

Start Date/Time: March 10, 2017 @ 16:00h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: EV-M&I-WS-2017-03-08-N
Sample Date: March 8, 2017
Date Received: March 10, 2017
Sample Volume: 2 x 1 L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 022217A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC47
Stock Solution ID: 16 NaCl
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.2 - 5.4) g/L NaCl
7 4.8
Reference Toxicant Mean and Historical Range: 4.2 (3.2 - 5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: YML

Date reviewed: March 17, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: March 10, 2017 @ 16:00h
 Sample ID: EV-M61-WS-2017-03-08 No. Organisms/volume: 10/200mL
 Work Order No.: 170184 Test Organism: D. magna
 Set up by: YML

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-1/3 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	18.5	19.0	19.0	8.6	8.7	8.5	7.5	7.9	7.8	357	365
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	18.0	19.0	19.0	9.2	8.8	8.4	7.9	8.1	8.3	1240	1209
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	A	A	YML	A	A	YML	A	A	YML	A	A	YML	A

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	100	70
Highest conc.	910	342
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		
DO (mg/L)	9.2		
pH	7.9		
Cond (µS/cm)	1240		
Salinity (ppt)	0.6		

Comments: no precipitation formed at 48h Mortality: Heartbeat checked under microscope not noted

Sample Description: clear, no colour, no odour, no particulates

Batch#: 022217A 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: March 17, 2017

Daphnia magna Summary Sheet

Client: Teck (Evo)
Work Order No.: 170184

Start Date/Time: March 10, 2017 @ 16:0h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: EV-AQ6-WS-2017-03-08-N
Sample Date: March 8, 2017
Date Received: March 10, 2017
Sample Volume: 2 x 1 L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 022217A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 20
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC47
Stock Solution ID: 16NaO2
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.2 - 5.4) g/L NaCl
7 48*
Reference Toxicant Mean and Historical Range: 4.2 (3.2 - 5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: YML

Date reviewed: March 17, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV-A06-WS-2017-03-08
 Work Order No.: 170184
 Start Date/Time: March 10, 2017 @ 16:0h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: Temp-5 DO meter: DO-213 pH meter: pH-1/3 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	19.0	19.0	8.6	8.7	8.5	7.5	7.9	7.9	357	368
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	18.0	19.0	19.0	9.2	9.1	8.4	7.8	8.2	8.3	649	654
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	A	A	YML	A	A	YML	A	A	YML	A	A	YML	A

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	100	70
Highest conc.	470	304
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		
DO (mg/L)	9.7		
pH	7.8		
Cond (µS/cm)	649		
Salinity (ppt)	0.3		

Comments: no precipitation formed at 48h Mortality: Heartbeat checked under microscope not resp'd

Sample Description: clear, no colour, no odour, no particulates

Batch#: 022217A 7-d previous # young/brood: 20 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: March 17, 2017

Client: Teck

W.O.#: 170184

Hardness and Alkalinity Datasheet

Sample ID	Alkalinity						Hardness			Technician
	Subsample Date	Date Measured	Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/L CaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	
EV_SPL-WS- 2017-03-08-N	Mar.10/17	Mar.10/17	50	16.6	16.8	328	10 ^①	11.4	1140	Yue
EV_ECL-WS- 2017-03-08-N	Mar.10/17	Mar.10/17	50	17.1	17.3	338	100	13.4	1340	Yue
EV_MGI-WS- 2017-03-08-N	Mar.10/17	Mar.10/17	50	17.3	17.5	342	10 ^①	9.1	910	Yue
EV_AQG-WS- 2017-03-08-N	Mar.10/17	Mar.10/17	50	15.4	15.6	304	10 ^①	4.7	470	Yue
MHW	Mar.10/17	Mar.10/17	50	3.6	3.7	70	50	5.0	50 100	Yue

Notes: ① Diluted to 100 mL w/ DI water.

Reviewed by: 

Date Reviewed: March 17, 2017

APPENDIX C – Chain-of-custody form

COC ID: 20170308		TURNAROUND TIME:				RUSH:													
PROJECT/CLIENT INFO				LABORATORY				OTHER INFO											
Facility Name / Job# Elkview Operations				Lab Name Nautilus Environmental				Report Format / Distribution											
Job Description Quarterly Toxicity Sampling				Lab Contact Krysta Peary				Excel PDF EDD											
Project Manager Jeff Williams				Email Krysta@nautilusenvironmental.ca				Email 1: jeff.williams@teck.com X X X											
Email Jeff.Williams@teck.com				Address 8664 Commerce Court				Email 2: teckco4l@equionline.com X X X											
Address RR#1 HWY# 3				Imperial Square Lake City				Email 3: James.Boldt@teck.com X X X											
City Sparwood Province BC				City Burnaby Province BC				Email 4: Cameron.Griffin@teck.com X X X											
Postal Code V1C 4C3 Country Canada				Postal Code V5A 4N7 Country Canada				Email 5: Teck.Lab.Risults@thargosent.teck.com X X X											
Phone Number 1-250-865-5289				Phone Number				PO number 475474											
SAMPLE DETAILS								ANALYSIS REQUESTED											
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=C=O=Prob=C=Co=Obj	# OF Cont.	APPROX	Toxicity 96-h rainbow trout (Pass/Fail)	Toxicity 48-h Daphnia magna	Temps (°C)								
① EV_SP1_WS_2017-03-08_N	EV_SP1	WS	N	2017/03/08	11:50	G	3		1	2	7.5	1x20+2x11							
② EV_EC1_WS_2017-03-08_N	EV_EC1	WS	N	2017/03/08	12:25	G	3		1	2	7.0								
③ EV_MG1_WS_2017-03-08_N	EV_MG1	WS	N	2017/03/08	11:10	G	3		1	2	7.5								
④ EV_AQ6_WS_2017-03-08_N	EV_AQ6	WS	N	2017/03/08	9:00	G	3		1	2	7.7								
Total							12		1	2									
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELIQUISHED BY/AFFILIATION				DATE/TIME				ACCEPTED BY/AFFILIATION				DATE/TIME			
Ultra-trace Mercury samples are unfiltered and unpreserved												Eric Cheung				Mar 10/16 @ 13:52			
Total Methyl Mercury samples are preserved but unfiltered																			
Total Selenium samples are preserved but unfiltered																			
Dissolved Selenium samples are preserved and filtered																			
NO. OF BOTTLES RETURNED/DESCRIPTION																			
Regular (default) X																			
Priority (2-3 business days) - 50% surcharge																			
Emergency (1 Business Day) - 100% surcharge																			
For Emergency <1 Day, ASAP or Weekend - Contact ALS																			
				Sampler's Name				JAMES BOLDT				Mobile #							
				Sampler's Signature				J-B-K				Date/Time				MARCH 08 2017			

- ① Slightly yellow, Slightly turbid, Odourless, No particulates.
- ② Clear, Colorless, No particulates, No odour.
- ③ Clear, Colorless, Odourless, No particulates.
- ④ Clear, Colorless, No particulates, No odour.

END OF REPORT



Acute Toxicity Test Results

Sample collected March 15, 2017

Final Report

March 30, 2017

Submitted to: **Teck Coal / Elkview Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
EV_AQ1_WS_2017-03-15_N	15-Mar-17 at 1410h	17-Mar-17 at 1525h	20-Mar-17 at 1200h	17-Mar-17 at 1620h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_AQ1_WS_2017-03-15_N	6.5/5.3°C	140	74

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
EV_AQ1_WS_2017-03-15_N	0	0

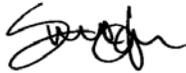
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_AQ1_WS_2017-03-15_N	Rainbow trout	None	None
EV_AQ1_WS_2017-03-15_N	<i>Daphnia magna</i>	Dark precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	96.2 (71.6 – 130.0) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	57.4 (22.5 – 146.7) µg/L Zn	4.2 (3.2 – 5.4) g/L NaCl
Reference toxicant CV	60%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: March 17, 2017; ² Test Date: March 15, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Mar 20 17 @ 1200h

Work Order No.: 170207

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: Ev. A28^{EL} WS-2017-03-15-N
Sample Date: Mar 15 / 17
Date Received: Mar 17 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 030117
Source: Spring Valley
No. Fish/Volume (L): 10/12L
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.32 ± 0.06

Range: 27 - 32
Range: 0.27 - 0.44

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn66
Stock Solution ID: 16Zn02
Date Initiated: Mar 17 / 17
96-h LC50 (95% CL): 96.2 (71.6-130.0) mg/L Zn

Reference Toxicant Mean and Historical Range: 57.4 (22.5-146.7) mg/L Zn
Reference Toxicant CV (%): 60.59%
_{EL}

Test Results: 0% mortality at 96 hours in the undiluted 100% (w/v) sample.

Reviewed by: [Signature]

Date reviewed: March 28, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Truck Coal
 Sample I.D.: EV-AR28-WS-2017-03-15-N
 W.O. #: 170207
 RBT Batch #: 030117
 Date Collected/Time: Mar 15/17 @ 14/1106
 Date Setup/Time: Mar 20/17 @ 1200h
 Sample Setup By: EC

Number Fish/Volume: 10/12L
 7-d % Mortality: 0.9
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	9.9	/	10.0
pH	7.1	/	7.1
Cond. (µS/cm)	264	/	266
Salinity (ppt)	0.1	/	0.1

Concentration	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
(% v/v)				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.8	9.7	9.8	9.8	6.8	6.8	6.8	6.8	6.8	26	33	
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.0	9.9	9.8	9.9	9.9	7.1	7.2	7.7	7.7	7.7	266	267	
Initials				EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	

Sample Description/Comments: light yellow, clear, odorless, no particulates.

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 2

Other Observations: No precipitation occurred by 96h

Reviewed by: [Signature] Date Reviewed: March 28, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170208

Start Date/Time: March 17, 2017 @ 1620h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: EV_AGI_WS_2017-03-15-N
Sample Date: March 15, 2017
Date Received: March 17, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 030317A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 25
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: March 28, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV-AQ1-WS-2017-03-15-N
 Work Order No.: 170208

Start Date/Time: March 17, 2017 @ 1620h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: NW

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.0	19.5	19.0	8.6	8.7	8.6	7.6	7.7	7.8	339	362
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10 ^D	0	19.0	19.5	19.0	9.1	8.8	8.9	7.2	7.7	7.6	260	275
	B	10	10 ^D	0											
	C	10	10 ^D	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	A	A	NW	A	A	NW	A	A	NW	A	A	NW	A

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Control (MHW)	96	66
Highest conc.	140	74
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		19.0
DO (mg/L)	9.9	(4 min aeration)	9.1
pH	7.2		7.2
Cond (µS/cm)	261		260
Salinity (ppt)	0.1		0.1

Comments: ^D Some dark precipitation at 48h on bottom of broods. Mortality: Heartbeat checked under microscope no

Sample Description: light yellow, clear, no odour, no particulates.

Batch#: 030317A 7-d previous # young/brood: 25 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: March 28, 2017

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170315N		TURNAROUND TIME:				RUSH:									
PROJECT/CLIENT INFO				LABORATORY				OTHER INFO							
Facility Name / Job# Elkview Operations				Lab Name Nautilus Environmental				Report Format / Distribution							
Job Description Quarterly Toxicity Sampling				Lab Contact Krysta Pearcy				Email 1: Jeff.Williams@teck.com							
Project Manager Jeff Williams				Email Krysta@nautilusenvironmental.ca				Email 2: teckcoast@andersonline.com							
Email Jeff.Williams@teck.com				Address 8664 Commerce Court				Email 3: James.Boldt@teck.com							
Address RR#1 HWY# 3				Imperial Square Lake City				Email 4: Cameron.Griffin@teck.com							
City Sparwood				Province BC		City Burnaby		Province BC		Email 5: Teck.Lab.Results@sharepoint.teck.com					
Postal Code V1C 4C3				Country Canada		Postal Code V5A 4N7		Country Canada		PO number 486282					
Phone Number 1-250-865-5289				Phone Number											
SAMPLE DETAILS								ANALYSIS REQUESTED							
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# Of Cont.	Analysis	Toxicity 96-h rainbow trout (Pass/Fail)	Toxicity 48-h Daphnia magna	Temp °C	Temp °C			
EV_AQ1_WS_2017-03-15_N	EV_AQ1	WS	N	2017/03/15	14:10	G	3		1	2	5.3	6.5			
Total							3								
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS								RELINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
Toxicity 96-Hr/48-HR = 96 Hr Rainbow Trout pass/fail & 48 Hr Daphnia pass/fail (Daphnia testing to occur at 20 degrees)												Nautilus NY - Mai Yamamoto		Mar 17/17 @ 15:25	
NO OF BOTTLES RETURNED/DESCRIPTION								SAMPLER'S INFO							
Regular (default) <input checked="" type="checkbox"/>								Sampler's Name		Mobile #					
Priority (2-3 business days) - 50% surcharge								Sampler's Signature		Date/Time		15 Mar 17			
Emergency (1 Business Day) - 100% surcharge															
For Emergency <1 Day, ASAP or Weekend - Contact ALS															

light yellow, clear, odorless, no particulates.

END OF REPORT



Acute Toxicity Test Results

Sample collected March 17, 2017

Final Report

April 3, 2017

Submitted to: **Teck Coal / Elkview Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
EV_OC1_WS_2017-03-17_N	17-Mar-17 at 1130h	21-Mar-17 at 1310h	21-Mar-17 at 1530h	21-Mar-17 at 1415h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_OC1_WS_2017-03-17_N	10.1°C	310	224

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
EV_OC1_WS_2017-03-17_N	0	0

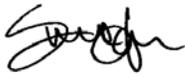
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_OC1_WS_2017-03-17_N	Rainbow trout	None	None
EV_OC1_WS_2017-03-17_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	96.2 (71.6 – 130.0) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	57.4 (22.5 – 146.7) µg/L Zn	4.2 (3.2 – 5.4) g/L NaCl
Reference toxicant CV	60%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: March 17, 2017; ² Test Date: March 15, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal (Evo)

Start Date/Time: Mar 21 117 @ 1530h

Work Order No.: 170219

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV_001_WS.2017-03-17-11
Sample Date: Mar 17 117
Date Received: Mar 21 117
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 030117
Source: Spring Valley
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.37
Mean Length ± SD (mm): 34 ± 3
Mean Weight ± SD (g): 0.37 g ± 0.04

Range: 28 - 38
Range: 0.30 - 0.45

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn66
Stock Solution ID: 16Zn02
Date Initiated: Mar 17/17
96-h LC50 (95% CL): 96.2 (71.6-130.0) µg/L Zn

Reference Toxicant Mean and Historical Range: 57.4 (22.5-146.7) µg/L Zn
Reference Toxicant CV (%): 60.57%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: March 30, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal (EVO)
 Sample I.D.: EV-001-WS-2017-03-17-N
 W.O. #: 170219
 RBT Batch #: 030117
 Date Collected/Time: Mar 17/17 @ 1130h
 Date Setup/Time: Mar 21/17 @ 1530h
 Sample Setup By: EL

Number Fish/Volume: 10/10L
 7-d % Mortality: 1.1
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	9.9	/	9.9
pH	7.5	/	7.7
Cond. (µS/cm)	501	/	499
Salinity (ppt)	0.2	/	0.2

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)		
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
10				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.9	9.8	9.8	9.8	6.8	6.9	6.9	6.8	6.8	26	31	
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	9.9	9.7	9.9	9.8	9.8	7.7	8.2	8.2	8.2	8.2	499	500	
Initials				EL	EL	EL	A	EL	EL	EL	EL	A	EL	EL	EL	EL	A	EL	EL	EL	EL	EL	A	EL	A

Sample Description/Comments: Dark Brown, turbid, Odourless, Some particulates

Fish Description at 96 h remaining fish OK (look normal) Number of Stressed Fish at 96 h 0

Other Observations: No precipitation @ 96 hrs

Reviewed by: [Signature]

Date Reviewed: March 30, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170220

Start Date/Time: March 21, 2017 @ 14:5h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: EV-0C1-WS-2017-03-17LN
Sample Date: March 17, 2017
Date Received: March 21, 2017
Sample Volume: 2 x 1 L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 030317B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: March 30, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV-OCI-WS-2017-03-17-N
 Work Order No.: 170220

Start Date/Time: March 21, 2017 @ 14:52
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YH

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	24		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	19.0	19.0	8.6	8.4	8.4	7.5	7.6	7.8	351	348
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	19.0	19.0	8.9	8.4	8.3	7.3	7.6	8.0	506	493
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YH	YH	YH	YH	YH	YH	YH	YH	YH	YH	YH	YH	YH	YH

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	100	74
Highest conc.	310	224
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.9		
pH	7.3		
Cond (µS/cm)	506		
Salinity (ppt)	0.2		

Comments: no precipitation at 48h Mortality: Heartbeat checked under microscope not req'd
 Sample Description: dark brown, slightly turbid, no scum, some particulates
 Batch#: 0303173 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9
 Reviewed by: [Signature] Date reviewed: March 30, 2017

APPENDIX C – Chain-of-custody form

COC ID: 20170317T		TURNAROUND TIME:			RUSH:													
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO												
Facility Name / Job#	Elkview Operations			Lab Name	Nautilus Environmental		Report Format / Distribution	Excel	PDF	EDD								
Job Description	Toxicity Sampling			Lab Contact	Krysta Percy		Email 1:	Jeff.Williams@teck.com	X	X	X							
Project Manager	Jeff Williams			Email	Krysta@nautilusenvironmental.ca		Email 2:	teckcoal@equisonline.com										
Email	Jeff.Williams@teck.com			Address	8664 Commerce Court		Email 3:	James.Boldt@teck.com	X	X	X							
Address	RR#1 HWY#3				Imperial Square Lake City		Email 4:	Cameron.Griffin@teck.com	X	X	X							
City	Sparwood	Province	BC	City	Burnaby	Province	BC	Email 5:	Teck.Lab.Results@sharepoint.teck.com	X	X	X						
Postal Code	V1C 4C3	Country	Canada	Postal Code	V5A 4N7	Country	Canada	PO number	475474									
Phone Number	1-250-865-5289			Phone Number														
SAMPLE DETAILS				ANALYSIS REQUESTED														
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS	Toxicity 96-h rainbow trout (Pass/Fail)	Toxicity 48-h Daphnia magna								
EV_OC1_WS_2017-03-17_N	EV_OC1	WS	N	2017/03/17	1130	G	3		1	2								
							Total	3										
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION				DATE/TIME	ACCEPTED BY/AFFILIATION			DATE/TIME						
Ultra-trace Mercury samples are unfiltered and unpreserved									VYC NAUTILUS ENV.			MAR. 21/17 @ 1310h						
Total Methyl Mercury samples are preserved but unfiltered									17202, 2 x 1L			10°C						
Total Selenium samples are preserved but unfiltered																		
Dissolved Selenium samples are preserved and filtered																		
NB OF BOTTLES RETURNED/DESCRIPTION																		
Regular (default) X				Sampler's Name				Mobile #										
Priority (2-3 business days) - 50% surcharge																		
Emergency (1 Business Day) - 100% surcharge				Sampler's Signature				Date/Time										
For Emergency <1 Day, ASAP or Weekend - Contact ALS																		

END OF REPORT



Acute Toxicity Test Results

Sample collected March 20, 2017

Final Report

April 3, 2017

Submitted to: **Teck Coal / Elkview Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
EV_BC1_WS_2017-03-20_N	20-Mar-17 at 1430h	22-Mar-17 at 1120h	23-Mar-17 at 1130h	22-Mar-17 at 1510h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_BC1_WS_2017-03-20_N	6.5°C	920	208

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
EV_BC1_WS_2017-03-20_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_BC1_WS_2017-03-20_N	Rainbow trout	None	None
EV_BC1_WS_2017-03-20_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	96.2 (71.6 – 130.0) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	57.4 (22.5 – 146.7) µg/L Zn	4.2 (3.2 – 5.4) g/L NaCl
Reference toxicant CV	60%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: March 17, 2017; ² Test Date: March 15, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Mar 23 117 @ 1130h

Work Order No.: 170236

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-BCI-WS-2017-03-02-N²⁰
Sample Date: Mar 20 117
Date Received: Mar 22 117
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 6
Alkalinity (mg/L CaCO₃): 5

Test Organism Information:

Batch No.: 030117
Source: Spring Valley
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.33
Mean Length ± SD (mm): 29 ± 2
Mean Weight ± SD (g): 0.33 ± 0.06

Range: 26 - 31
Range: 0.25 - 0.42

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn66
Stock Solution ID: 16Zn02
Date Initiated: Mar 17 117
96-h LC50 (95% CL): 96.2 (71.6 - 130.0) µg/L Zn

Reference Toxicant Mean and Historical Range: 57.4 (22.5 - 146.7) µg/L Zn
Reference Toxicant CV (%): 60.57%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: March 30, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: EV-BCL-WS-2017-03-028-N
 W.O. #: 170236
 RBT Batch #: 030117
 Date Collected/Time: Mar 20/17 @ 1430h
 Date Setup/Time: Mar 23/17 @ 1130h
 Sample Setup By: EC

Number Fish/Volume: 10/120L
 7-d % Mortality: 1.2
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.5	/	10.3
pH	8.0	/	8.1
Cond. (µS/cm)	1480	/	1482
Salinity (ppt)	0.7	/	0.7

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)		
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
Ctrl				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.8	9.8	9.7	9.7	6.8	6.8	6.8	6.9	6.9	26	33	
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.7	9.7	9.8	9.9	8.1	8.2	8.3	8.2	8.4	1482	1478	
Initials				AS	AS	AS	EC	EC	AS	AS	AS	EL	EL	AS	AS	AS	EL	EL	AS	AS	AS	EL	EL	EC	EC

Sample Description/Comments: Clear, Colorless, No particulates, No odour

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: no precipitation at 96h

Reviewed by: [Signature] Date Reviewed: March 30, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170237

Start Date/Time: March 22, 2017 @ 1510h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: EV-BCI-WS-2017-03-20-N
Sample Date: March 20, 2017
Date Received: March 22, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 030317A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 24
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC47
Stock Solution ID: 16Na02
Date Initiated: March 15, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.2-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: 

Date reviewed: March 30, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV-BCI-WS-2017-03-20-N
 Work Order No.: 170237

Start Date/Time: March 22, 2017 @ 1510h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMC

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (Cb v/v)	Number of Live Organisms Rep	24		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	19.0	19.0	8.6	8.4	8.2	7.5	7.8	7.6	354	360
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	18.5	19.0	19.0	9.2	8.5	8.1	7.8	8.0	8.1	1488	1460
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC

	Hardness*	Alkalinity*
	*(mg/L as CaCO3)	
Concentration		
Control (MHW)	100	74
Highest conc.	920	208
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		18.5
DO (mg/L)	9.7	(3 min aeration)	9.2
pH	7.7		7.8
Cond (µS/cm)	1474		1488
Salinity (ppt)	0.7		0.7

Comments: no precipitation at 48h Mortality: Heartbeat checked under microscope not record

Sample Description: clear, no colour, no odour, no particulates

Batch#: 030317A 7-d previous # young/brood: 24 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: March 30, 2017

APPENDIX C – Chain-of-custody form

Teck		COC ID: 20170320T		TURNAROUND TIME:		RUSH:												
PROJECT/CLIENT INFO				LABORATORY				OTHER INFO										
Facility Name / Job# Elkview Operations		Lab Name Nautilus Environmental		Report Format / Distribution		Excel	PDF	EDD										
Job Description Toxicity Sampling		Lab Contact Krysta Peary		Email 1: Jeff.Williams@teck.com		X	X	X										
Project Manager Jeff Williams		Email Krysta@nautilusenvironmental.ca		Email 2: teckcoal@equisonline.com				X										
Email Jeff.Williams@teck.com		Address 8664 Commerce Court		Email 3: James.Boldt@teck.com		X	X	X										
Address RR#1 HWY#3		Imperial Square Lake City		Email 4: Cameron.Griffin@teck.com		X	X	X										
City Sparwood		Province BC	City Burnaby	Email 5: Teck.Lab.Results@sharepoint.teck.com		X	X	X										
Postal Code V1C 4C3		Country Canada	Postal Code V5A 4N7	PO number 475474														
Phone Number I-250-865-5289			Phone Number															
SAMPLE DETAILS				ANALYSIS REQUESTED														
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C=Comp	# Of Cont.	FILTERED	No	No								
								PRESERVED	No	No								
EV_BC1_WS_2017-03-20_N	EV_BC1	WS	N	2017/03/20	14:30	G	3	ANALYSIS	Toxicity 96-h rainbow trout (Pass/Fail)	Toxicity 48-h Daphnia magna P/F								Temp °C
									1	2								6.5
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS		RELINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME										
Ultra-trace Mercury samples are unfiltered and unpreserved						Nautilus Burnaby		Mar 22/17 @ 11:20										
Total Methyl Mercury samples are preserved but unfiltered						NY - Wain Yamamoto												
Total Selenium samples are preserved but unfiltered																		
Dissolved Selenium samples are preserved and filtered																		
NO. OF BOTTLES RETURNED/DESCRIPTION																		
Regular (default) X		Sampler's Name		Can Griffin		Mobile #												
Priority (2-3 business days) - 50% surcharge		Sampler's Signature				Date/Time		20 MAR - 17										
Emergency (1 Business Day) - 100% surcharge																		
For Emergency <1 Day, ASAP or Weekend - Contact ALS																		

Clear, colorless, No particulates, No odour.

END OF REPORT



Acute Toxicity Test Results

Samples collected April 3, 2017

Final Report

April 17, 2017

Submitted to: **Teck Coal / Elkview Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
EV_SM1_WS_2017-04-03_N	03-Apr-17 at 1205h	05-Apr-17 at 1015h	06-Apr-17 at 1300h	05-Apr-17 at 1300h
EV_DC1_WS_2017-04-03_N	03-Apr-17 at 1000h	05-Apr-17 at 1015h	06-Apr-17 at 1300h	05-Apr-17 at 1300h
EV_OC1_WS_2017-04-03_N	03-Apr-17 at 1435h	05-Apr-17 at 1015h	06-Apr-17 at 1300h	05-Apr-17 at 1300h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_SM1_WS_2017-04-03_N	9.1/7.6°C	302	250
EV_DC1_WS_2017-04-03_N	7.8/9.3°C	1250	322
EV_OC1_WS_2017-04-03_N	9.5/9.1°C	216	274

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
EV_SM1_WS_2017-04-03_N	0	0
EV_DC1_WS_2017-04-03_N	0	0
EV_OC1_WS_2017-04-03_N	0	0

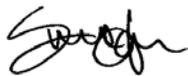
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_SM1_WS_2017-04-03_N	Rainbow trout	None	None
EV_SM1_WS_2017-04-03_N	<i>Daphnia magna</i>	None	None
EV_DC1_WS_2017-04-03_N	Rainbow trout	None	None
EV_DC1_WS_2017-04-03_N	<i>Daphnia magna</i>	None	None
EV_OC1_WS_2017-04-03_N	Rainbow trout	None	None
EV_OC1_WS_2017-04-03_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	40.5 (30.6 – 53.7) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	59.3 (24.6 – 142.8) µg/L Zn	4.2 (3.3 – 5.4) g/L NaCl
Reference toxicant CV	55%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: April 6, 2017; ² Test Date: April 5, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Apr 6 /17 @ 1300h

Work Order No.: 170279

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-SM1-WS-2017-04-03-N
Sample Date: Apr 3 /17
Date Received: Apr 5 /17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 039317
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 29 ± 1
Mean Weight ± SD (g): 0.31 ± 0.02

Range: 27 - 31
Range: 0.27 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 68
Stock Solution ID: 17Zn02
Date Initiated: Apr 6 /17
96-h LC50 (95% CL): 40.5 (30.6 - 53.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.3 (24.6 - 142.8) µg/L Zn
Reference Toxicant CV (%): 55%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 12, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: EV-SM1-WS-2017-04-03-N
 W.O. #: 170279
 RBT Batch #: 032317
 Date Collected/Time: Apr 3/17 @ 1205h
 Date Setup/Time: Apr 6/17 @ 1300h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0.0
 Total Pre-aeration Time (mins): 90
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	11.0	/	10.7
pH	8.1	/	8.1
Cond. (µS/cm)	500	/	499
Salinity (ppt)	0.2	/	0.2

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
41				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.8	9.8	9.8	9.7	6.8	7.0	6.9	6.9	6.7	29	35
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.7	9.8	9.8	9.7	8.1	8.2	8.1	8.2	8.2	499	505
Initials				EL	AL	AL	EL	EC	EL	AL	AL	EL	EC	EL	AL	AL	EL	EL	EL	AL	AL	EL	EL	EL

Sample Description/Comments: light brown, slightly turbid, Odourless, some particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: No precipitation @ 96 hours.

Reviewed by: [Signature] Date Reviewed: April 12, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Apr 6 /17 @ 1300h

Work Order No.: 170279

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV_DCI_WS_2017-04-03-N
Sample Date: Apr 3 /17
Date Received: Apr 5 /17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 039317
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 29 ± 2
Mean Weight ± SD (g): 0.31 ± 0.03

Range: 26 - 31
Range: 0.26 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 68
Stock Solution ID: 17Zn02
Date Initiated: Apr 6 /17
96-h LC50 (95% CL): 40.5 (30.6 - 53.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.3 (24.6 - 142.8) µg/L Zn
Reference Toxicant CV (%): 55%

Test Results: 0% mortality at 96 hours in the undiluted 100% (LW) sample.

Reviewed by: [Signature] Date reviewed: April 12, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Apr 6 /17 @ 1300h

Work Order No.: 170279

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-0CL-WS-2017-04-03-N
Sample Date: Apr 3 /17
Date Received: Apr 5 /17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 039317
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.31 ± 0.03

Range: 27 - 32
Range: 0.27 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 68
Stock Solution ID: 17Zn02
Date Initiated: Apr 6 /17
96-h LC50 (95% CL): 40.5 (30.6 - 53.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.3 (24.6 - 142.8) µg/L Zn
Reference Toxicant CV (%): 55%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 12, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: EV_0C1-WS-2017-04-03-LN
 W.O. #: 170279
 RBT Batch #: 032317
 Date Collected/Time: Apr 3/17 @ 1435h
 Date Setup/Time: Apr 6/17 @ 1300h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0.0
 Total Pre-aeration Time (mins): 90
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	11.0	/	10.7
pH	7.8	/	7.9
Cond. (µS/cm)	686	/	687
Salinity (ppt)	0.3	/	0.3

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
41				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.8	9.8	9.8	9.7	6.8	7.0	6.9	6.9	6.7	29	35
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.9	9.7	9.6	9.7	7.9	8.1	8.2	8.1	8.2	687	683
Initials				EL	AL	AL	EL	EC	EL	AL	AL	EL	EC	EL	AL	AL	EL	EC	EL	AL	AL	EL	EC	EL

Sample Description/Comments: light yellow, clear, no odour, no particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: No precipitation @ 96 hours.

Reviewed by: [Signature] Date Reviewed: April 12, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170280

Start Date/Time: April 5, 2017 @ 1300h
Test Species: Daphnia magna
Set up by: VME

Sample Information:

Sample ID: EV_SMI_WS_2017-04-03-N
Sample Date: April 3, 2017
Date Received: April 5, 2017
Sample Volume: 2x1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: ~ 21
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC48
Stock Solution ID: 17Na01
Date Initiated: April 5, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: April 12, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV-SM1-WS-2017-04-03-N
 Work Order No.: 170280

Start Date/Time: April 5, 2017 @ 1300h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: Yuc

Thermometer: Temp-S DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.0	19.0	19.5	8.5	8.3	8.4	7.5	7.4	7.8	345	359
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	18.5	19.0	19.5	9.0	8.1	8.0	7.8	7.8	8.3	502	512
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	76
Highest conc.	302	250
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		
DO (mg/L)	9.0		
pH	7.8		
Cond (µS/cm)	502		
Salinity (ppt)	0.2		

Comments: no precipitation at 48h Mortality: Heartbeat checked under microscope not needed

Sample Description: light brown, slightly turbid, no odor, some particulates

Batch#: 031517A 7-d previous # young/brood: 21 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 12, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170280

Start Date/Time: April 5, 2017 @ 13:00h
Test Species: Daphnia magna
Set up by: VMC

Sample Information:

Sample ID: EV_DCL_WS_2017-04-03-N
Sample Date: April 3, 2017
Date Received: April 5, 2017
Sample Volume: 2x1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 44 @ 21
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC48
Stock Solution ID: 17Na01
Date Initiated: April 5, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: April 12, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV-DCI-WS-2017-04-03-N
 Work Order No.: 170280

Start Date/Time: April 5, 2017 @ 1300h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: Yuc

Thermometer: Temp-S DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.0	19.0	19.5	8.5	8.4	8.3	7.5	7.4	7.3	345	360
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	18.5	19.0	19.5	8.7	8.3	8.4	7.8	7.9	8.2	1339	1323
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc	Yuc

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	76
Highest conc.	1250	322
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		
DO (mg/L)	8.7		
pH	7.8		
Cond (µS/cm)	1339		
Salinity (ppt)	0.7		

Comments: no precipitation at 48h Mortality: Heartbeat checked under microscope ^{not} needed

Sample Description: slightly yellow, slightly turbid, no odour, slight particulates

Batch#: 031517A 7-d previous # young/brood: 21 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 12, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170280

Start Date/Time: April 5, 2017 @ 1300h
Test Species: Daphnia magna
Set up by: VMC

Sample Information:

Sample ID: EV_OCI_WS_2017-04-03-N
Sample Date: April 3, 2017
Date Received: April 5, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 44 24
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC48
Stock Solution ID: 17NaCl
Date Initiated: April 5, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3 - 5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: April 12, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV-001-WS-2017-04-03-N
 Work Order No.: 170280

Start Date/Time: April 5, 2017 @ 1300h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YMC

Thermometer: temp-5 DO meter: DO-3 pH meter: pH-3 Cond./Salinity: C-3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.0	19.0	19.5	8.5	8.3	8.4	7.5	7.4	7.8	345	359
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	19.5	8.5	8.2	8.1	7.5	7.9	8.3	687	675
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC	YMC

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	76
Highest conc.	210	274
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	8.5		
pH	7.5		
Cond (µS/cm)	687		
Salinity (ppt)	0.3		

Comments: no precipitation at 48h Mortality: Heartbeat checked under microscope not noted

Sample Description: light yellow, clear, no odor, no particulates

Batch#: 031517B 7-d previous # young/brood: 24 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 12, 2017

APPENDIX C – Chain-of-custody form

COC ID:	20170403TOX			TURNAROUND TIME:			RUSH:							
PROJECT/CLIENT INFO				LABORATORY				OTHER INFO						
Facility Name / Job#	Elkview Operations			Lab Name	Nautilus Environmental			Report Format / Distribution			Excel	PDF	EDD	
Job Description	Quarterly Toxicity Sampling			Lab Contact	Krysta Percy			Email 1:	jeff.williams@teck.com			X	X	X
Project Manager	Jeff Williams			Email	Krysta@nautilusenvironmental.ca			Email 2:	teckco@equionline.com			X	X	X
Email	Jeff.Williams@teck.com			Address	8664 Commerce Court			Email 3:	james.Bold@teck.com			X	X	X
Address	RR#1 HWY# 3				Imperial Square Lake City			Email 4:	Cameron.Griffin@teck.com			X	X	X
								Email 5:	TeckLabResults@teckreport.teck.com			X	X	X
City	Sparwood	Province	BC	City	Burnaby	Province	BC	PO number	475474					
Postal Code	V1C 4C3	Country	Canada	Postal Code	V5A 4N7	Country	Canada							
Phone Number	1-250-865-5289			Phone Number										

SAMPLE DETAILS								ANALYSIS REQUESTED					Filtered (Pass/Fail) Lab. Print & Lab. No.	
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS	Toxicity 96-h rainbow trout (Pass/Fail)		Toxicity 48-h Daphnia magna ϕ /F		Temp °C 1L	Temp °C 20L
									No	Pass	No	Pass		
EV_SM1_WS_2017-04-03_N	EV_SM1	WS	N	2017/04/03	12:05	G	3		1	2			7.6	9.1
EV_DC1_WS_2017-04-03_N	EV_DC1	WS	N	2017/04/03	10:00	G	3		1	2			9.3	7.8
EV_OC1_WS_2017-04-03_N	EV_OC1	WS	N	2017/04/03	14:35	G	3		1	2			9.1	9.5
Total							9							

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS			RELINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
Ultra-trace Mercury samples are unfiltered and unpreserved Total Methyl Mercury samples are preserved but unfiltered Total Selenium samples are preserved but unfiltered Dissolved Selenium samples are preserved and filtered							Nautilus - Burnaby NY - Nain Yamamoto		Apr 05/17 @ 10:15	

NB OF BOTTLES RETURNED/DESCRIPTION		Sampler's Name		Mobile #	
Regular (default)	X	James Boldt Jesse W-y			
Priority (2-3 business days) - 50% surcharge		Sampler's Signature		Date/Time	
Emergency (1 Business Day) - 100% surcharge		[Signature]		March 6, 2017 April 3, 2017	
For Emergency <1 Day, ASAP or Weekend - Contact ALS					

- 1
- 2
- 3

- ① light brown, slightly turbid, 0 odorless, some particulates.
- ② light yellow, slightly turbid, some particulates, odorless
- ③ light yellow, clear, no odor, no particulates.

① EV-SM1 - 20L container leaked but still 3/4 full

END OF REPORT



Acute Toxicity Test Results

Samples collected April 4, 2017

Final Report

April 18, 2017

Submitted to: **Teck Coal / Elkview Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
EV_SP1_WS_2017-04-04_N	04-Apr-17 at 1005h	06-Apr-17 at 1220h	07-Apr-17 at 1500h	06-Apr-17 at 1515h
EV_EC1_WS_2017-04-04_N	04-Apr-17 at 1105h	06-Apr-17 at 1220h	07-Apr-17 at 1500h	06-Apr-17 at 1515h
EV_MG1_WS_2017-04-04_N	04-Apr-17 at 0915h	06-Apr-17 at 1220h	07-Apr-17 at 1500h	06-Apr-17 at 1515h
EV_AQ6_WS_2017-04-04_N	04-Apr-17 at 11355h	06-Apr-17 at 1220h	07-Apr-17 at 1500h	06-Apr-17 at 1515h
EV_AQ1_WS_2017-04-04_N	04-Apr-17 at 1410h	06-Apr-17 at 1220h	07-Apr-17 at 1500h	06-Apr-17 at 1515h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO3)	Alkalinity (mg/L CaCO3)
EV_SP1_WS_2017-04-04_N	8.0°C	940	268
EV_EC1_WS_2017-04-04_N	8.0°C	1300	328
EV_MG1_WS_2017-04-04_N	8.0°C	630	248
EV_AQ6_WS_2017-04-04_N	8.0°C	420	238
EV_AQ1_WS_2017-04-04_N	8.0°C	470	250

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
EV_SP1_WS_2017-04-04_N	0	0
EV_EC1_WS_2017-04-04_N	0	0
EV_MG1_WS_2017-04-04_N	0	0
EV_AQ6_WS_2017-04-04_N	0	0
EV_AQ1_WS_2017-04-04_N	0	0

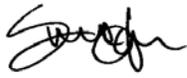
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_SP1_WS_2017-04-04_N	Rainbow trout	Slight precipitate observed on the bottom of test vessel	None
EV_SP1_WS_2017-04-04_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
EV_EC1_WS_2017-04-04_N	Rainbow trout	Slight precipitate observed on the bottom of test vessel	None
EV_EC1_WS_2017-04-04_N	<i>Daphnia magna</i>	None	None
EV_MG1_WS_2017-04-04_N	Rainbow trout	None	None
EV_MG1_WS_2017-04-04_N	<i>Daphnia magna</i>	None	None
EV_AQ6_WS_2017-04-04_N	Rainbow trout	None	None
EV_AQ6_WS_2017-04-04_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
EV_AQ1_WS_2017-04-04_N	Rainbow trout	None	None
EV_AQ1_WS_2017-04-04_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	40.5 (30.6 – 53.7) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	59.3 (24.6 – 142.8) µg/L Zn	4.2 (3.3 – 5.4) g/L NaCl
Reference toxicant CV	55%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: April 6, 2017; ² Test Date: April 5, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Apr 7 /17 @ 1500h

Work Order No.: 170290

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-SPI-WS-2017-04-04-N
Sample Date: Apr 4 /17
Date Received: Apr 6 /17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 039317
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.32
Mean Length ± SD (mm): 28 ± 1
Mean Weight ± SD (g): 0.32 ± 0.02

Range: 27 - 31
Range: 0.28 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 68
Stock Solution ID: 17Zn02
Date Initiated: Apr 6 /17
96-h LC50 (95% CL): 40.5 (30.6 - 53.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.3 (24.6 - 142.8) µg/L Zn
Reference Toxicant CV (%): 55%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: April 18, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Apr 7 117 @ 1500h

Work Order No.: 170290

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-ECRWS-2017-04-04-N
Sample Date: Apr 4 / 17
Date Received: Apr 6 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 037317
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10L
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 29 ± 1
Mean Weight ± SD (g): 0.31 ± 0.02

Range: 27 - 31
Range: 0.28 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 68
Stock Solution ID: 17Zn02
Date Initiated: Apr 6 / 17
96-h LC50 (95% CL): 40.5 (30.6 - 53.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.3 (24.6 - 142.8) µg/L Zn
Reference Toxicant CV (%): 55%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 18, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: EV-ECL-WS-2017-04-04-N
 W.O. #: 170290
 RBT Batch #: 032317
 Date Collected/Time: Apr 4/17 @ 1105h
 Date Setup/Time: Apr 7/17 @ 1500h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0.0
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: LER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.7	/	10.3
pH	7.9	/	8.0
Cond. (µS/cm)	1720	/	
Salinity (ppt)	0.9	/	0.9

Concentration	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	(% v/v)	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0
CT1				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.8	9.7	9.7	9.8	6.8	7.0	6.9	6.9	6.9	2.9	3.2
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.8	9.7	9.9	9.7	8.0	8.1	8.1	8.2	8.2	1720	1630
Initials				Am	Am	EL	EL	EC	Am	Am	EL	EL	EL	Am	Am	EL	EL	EL	Am	Am	EL	EL	EL	EL

Sample Description/Comments: Clear, colorless, no odour, no particulates

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: Some precipitation occurred ^{EL} @ 96 hrs

Reviewed by: Date Reviewed: April 18, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Apr 7 /17 @ 1500h

Work Order No.: 170290

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: Ev-MG1-WS-2017-04-04-N
Sample Date: Apr 4 /17
Date Received: Apr 6 /17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 039317
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.30
Mean Length ± SD (mm): 29 ± 2
Mean Weight ± SD (g): 0.30 ± 0.03

Range: 27 - 31
Range: 0.27 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 68
Stock Solution ID: 17Zn02
Date Initiated: Apr 6 /17
96-h LC50 (95% CL): 40.5 (30.6 - 53.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.3 (24.6 - 142.8) µg/L Zn
Reference Toxicant CV (%): 55%

Test Results: 0% mortality at 96 hours in the undiluted 100% (w/v) sample.

Reviewed by: 

Date reviewed: April 18, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Apr 7 117 @ 1500h

Work Order No.: 170290

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: Ev_A06-WS-2017-04-04-N
Sample Date: Apr 4 / 17
Date Received: Apr 6 / 17
Sample Volume: 1X20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 032317
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 29 ± 1
Mean Weight ± SD (g): 0.31 ± 0.02

Range: 27 - 30
Range: 0.28 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 68
Stock Solution ID: 17Zn02
Date Initiated: Apr 6 / 17
96-h LC50 (95% CL): 40.5 (30.6 - 53.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.3 (24.6 - 142.8) µg/L Zn
Reference Toxicant CV (%): 55%

Test Results: 0% mortality at 96 hours in the undiluted 100% (w/v) sample.

Reviewed by: [Signature]

Date reviewed: April 18, 2017

Rainbow Trout Summary Sheet

Client: Ted's Coal

Start Date/Time: Apr 7 117 @ 1500h

Work Order No.: 170290

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-401-WS-2017-04-04-N
Sample Date: Apr 4 117
Date Received: Apr 6 117
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 032317
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.32
Mean Length ± SD (mm): 29 ± 1
Mean Weight ± SD (g): 0.22 ± 0.02

Range: 28 - 31
Range: 0.29 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 68
Stock Solution ID: 17Zn02
Date Initiated: Apr 6 117
96-h LC50 (95% CL): 40.5 (30.6 - 53.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.3 (24.6 - 142.8) µg/L Zn
Reference Toxicant CV (%): 55%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 18, 2017

Daphnia magna Summary Sheet

Client: TECK
Work Order No.: 170291

Start Date/Time: April 6, 2017 @ 1515h
Test Species: Daphnia magna
Set up by: YHL

Sample Information:

Sample ID: EV_SPL_WS_2017-04-04-N
Sample Date: April 4, 2017
Date Received: April 6, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC48
Stock Solution ID: 17NaCl
Date Initiated: April 5, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 19

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: 

Date reviewed: April 18, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV-SPI-WS-2017-04-04-N
 Work Order No.: 170291

Start Date/Time: April 6, 2017 @ 15:15h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.0	19.5	8.5	8.2	8.5	7.9	7.8	7.9	347	352
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	19.0	19.5	9.2	8.5	8.6	8.0	8.0	8.0	1473	1432
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	AS	AS	YML	YML	AS	YML	YML	AS	YML	YML	AS	YML	AS

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	7296
Highest conc.	940	268
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	9.2		
pH	8.0		
Cond (µS/cm)	1473		
Salinity (ppt)	0.7		

Comments: Some precipitate at 48h on beaker bottom Mortality: Heartbeat checked under microscope NO

Sample Description: clear, no colour, no odour, no particulates

Batch#: 031517A 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 18, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170291

Start Date/Time: April 6, 2017 @ 1515h
Test Species: Daphnia magna
Set up by: YLL

Sample Information:

Sample ID: ENV_ECI_WS_2017-04-04-N
Sample Date: April 4, 2017
Date Received: April 6, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC48
Stock Solution ID: 17NaCl
Date Initiated: April 5, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results:

0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by:

[Signature]

Date reviewed:

April 18, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV-EC1-WS-2017-04-04-N
 Work Order No.: 170291

Start Date/Time: April 6, 2017 @ 15:15h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: VMC

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.0	20.0	8.5	8.4	8.6	7.9	7.8	7.7	347	358
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	18.5	18.0	20.0	9.2	8.4	8.7	8.0	8.1	8.1	1694	1700
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		VMC	AS	AS	VMC	VMC	AS	VMC	VMC	AS	VMC	VMC	AS	VMC	AS

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	100	76
Highest conc.	1300	328
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		
DO (mg/L)	9.2		
pH	8.0		
Cond (µS/cm)	1694		
Salinity (ppt)	0.9		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope no

Sample Description: clear, no colour, no odour, no particulates

Batch#: 031517A 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 18, 2017

Daphnia magna Summary Sheet

Client: TECK
Work Order No.: 170291

Start Date/Time: April 6, 2017 @ 1515h
Test Species: Daphnia magna
Set up by: YIL

Sample Information:

Sample ID: EV_MGH_WS_2017-04-04-N
Sample Date: April 4, 2017
Date Received: April 6, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC48
Stock Solution ID: 17NaCl
Date Initiated: April 5, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results:

0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by:



Date reviewed:

April 18, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV-MGI-WS-2017-04-04-N
 Work Order No.: 170291

Start Date/Time: April 6, 2017 @ 15:15h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: VML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.5	19.0	19.5	8.5	8.4	8.6	7.9	7.8	7.7	347	358
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	19.5	9.2	9.2	9.5	8.2	8.2	8.1	832	849
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		VML	AS	AS	VML	VML	AS	VML	VML	AS	VML	VML	AS	VML	AS

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	100	76
Highest conc.	630	248
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		19.0
DO (mg/L)	9.7	(4 min aeration)	9.2
pH	8.1		8.2
Cond (µS/cm)	830		832
Salinity (ppt)	0.4		0.4

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope no

Sample Description: clear, slightly yellow, no odor, some particulates

Batch#: 031517A 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 18, 2017

Daphnia magna Summary Sheet

Client: TECK
Work Order No.: 170291

Start Date/Time: April 6, 2017 @ 1515h
Test Species: Daphnia magna
Set up by: YIL

Sample Information:

Sample ID: EV_A06_WS_2017-04-04-N
Sample Date: April 4, 2017
Date Received: April 6, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC48
Stock Solution ID: 17NaCl
Date Initiated: April 5, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results:

0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by:

[Signature]

Date reviewed:

April 18, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV-AG6-WS-2017-04-04-N
 Work Order No.: 170291

Start Date/Time: April 6, 2017 @ 15:15h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.0	19.6	8.5	8.4	8.6	7.9	7.8	7.7	347	359
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	19.0	19.6	9.3	9.3	9.7	8.1	8.2	8.1	612	623
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	AS	AS	YML	YML	AS	YML	YML	AS	YML	YML	AS	YML	AS

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	76
Highest conc.	420	238
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		
DO (mg/L)	9.3		
pH	8.1		
Cond (µS/cm)	612		
Salinity (ppt)	0.3		

Comments: Some precipitate at 40h on beaker bottom Mortality: Heartbeat checked under microscope no

Sample Description: clear, no colour, no odour, some particulates

Batch#: 031517A 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 18, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170291

Start Date/Time: April 6, 2017 @ 1515h
Test Species: Daphnia magna
Set up by: Y/L

Sample Information:

Sample ID: EV_A01_WS_2017-04-04_N
Sample Date: April 4, 2017
Date Received: April 6, 2017
Sample Volume: 2x1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC48
Stock Solution ID: 17Na01
Date Initiated: April 5, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 19

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: 

Date reviewed: April 18, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV-AG1-WS-2017-04-04-N
 Work Order No.: 170291

Start Date/Time: April 6, 2017 @ 15:15h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.5	19.0	19.5	8.5	8.4	8.7	7.9	7.8	7.7	347	358
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	18.5	19.0	19.5	8.9	8.2	8.7	8.0	8.2	8.1	644	647
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	AS	AS	YML	YML	AS	YML	YML	AS	YML	YML	AS	YML	AS

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO3)	
Control (MHW)	100	76
Highest conc.	470	250
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		
DO (mg/L)	8.9		
pH	8.0		
Cond (µS/cm)	644		
Salinity (ppt)	0.3		

Comments: some precipitate at 48h on beaker bottom Mortality: Heartbeat checked under microscope no

Sample Description: clear, no colour, no odour, some particulates

Batch#: 031517A 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 18, 2017

Client: Teck

W.O.#: 170291

Hardness and Alkalinity Datasheet

Sample ID	Alkalinity						Hardness			Technician
	Subsample Date	Date Measured	Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/L CaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	
EV_SPLWS 2017-04-04-N	Apr 6/17	Apr 6/17	50	13.6	13.8	288 268	100 [Ⓢ]	9.4	940	YML
EV_ECLWS 2017-04-04-N			50	16.6	16.8	328	100 [Ⓢ]	13.0	1300	YML
EV_MGIWS 2017-04-04-N			50	12.6	12.8	248	100 [Ⓢ]	6.3	630	YML
EV_AQ6WS 2017-04-04-N			50	12.1	12.3	238	100 [Ⓢ]	4.2	420	YML
EV_AQ1WS 2017-04-04-N			50	12.6	12.7	250	100 [Ⓢ]	4.7	470	YML
MFW	Apr. 6/17	Apr. 6/17	50	3.9	4.0	76	50	5.0	100	YML

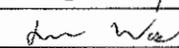
Notes: [Ⓢ] Diluted to 100 mL w/ DI water.

Reviewed by:  Date Reviewed: April 13, 2017

APPENDIX C – Chain-of-custody form

COC ID:	20170404TOX		TURNAROUND TIME:		RUSH:	
PROJECT/CLIENT INFO			LABORATORY		OTHER INFO	
Facility Name / Job#	Elkview Operations		Lab Name	Nautilus Environmental		Report Format / Distribution
Job Description	Quarterly Toxicity Sampling		Lab Contact	Krysta Pearey		Excel PDF EDD
Project Manager	Jeff Williams		Email	Krysta@nautilusenvironmental.ca		Email 1: Jeff.Williams@teck.com
Email	Jeff.Williams@teck.com		Address	8664 Commoreo Court		Email 2: teckcoal@nautilusenv.com
Address	RR#1 HWY#3			Imperial Square Lake City		Email 3: James.Eldh@teck.com
						Email 4: Cameron.Griffin@teck.com
						Email 5: Teck.Lab.Responses@sharpoint.teck.com
City	Sparwood	Province	BC	City	Burnaby	Province
Postal Code	V1C 4C3	Country	Canada	Postal Code	V5A 4N7	Country
Phone Number	1-250-865-5289					PO number 475474

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C=Comp	# of Cont.	ANALYSIS REQUESTED		Temp °C
								Toxicity 96-h rainbow trout (Pass/Fail)	Toxicity 48-h Daphnia magna P/F	
EV_SP1_WS_2017-04-04_N	EV_SP1	WS	N	2017/04/04	10:05	G	3	1	2	1x20L + 2x1L
① EV_EC1_WS_2017-04-04_N	EV_EC1	WS	N	2017/04/04	11:05	G	3	1	2	↓
EV_MG1_WS_2017-04-04_N	EV_MG1	WS	N	2017/04/04	9:15	G	3	1	2	
① EV_AQ6_WS_2017-04-04_N	EV_AQ6	WS	N	2017/04/04	13:58	G	3	1	2	
EV_AQ1_WS_2017-04-04_N	EV_AQ1	WS	N	2017/04/04	14:10	G	3	1	2	
							Total	15		

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS Ultra-trace Mercury samples are unfiltered and unpreserved Total Methyl Mercury samples are preserved but unfiltered Total Selenium samples are preserved but unfiltered Dissolved Selenium samples are preserved and filtered	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
			Received by Nautilus - Burnaby	Apr. 06/17 @ 12:20
			NY - Nain Yamamoto	
NR OF BOTTLES RETURNED/DESCRIPTION Regular (default) X: <input checked="" type="checkbox"/> Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency <1 Day, ASAP or Weekend - Contact ALS	Sampler's Name Jesse Woy	Sampler's Signature 	Mobile # 	Date/Time April 4, 2017

- ② Clear, colorless, No odour, No particulates.
- ③ Clear, colorless, no odour, no particulates
- ④ slightly yellow, some particulates, clear, odorless
- ⑤ Clear, colorless, some particulates, odorless
- ⑥ colorless, no odour, some particulates, clear.

① received 20L containers half full.

END OF REPORT



Acute Toxicity Test Results

Samples collected April 5, 2017

Final Report

April 20, 2017

Submitted to: **Teck Coal / Elkview Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
EV_GC2_WS_2017-04-05_N	05-Apr-17 at 0945h	07-Apr-17 at 1026h	07-Apr-17 at 1500h	07-Apr-17 at 1400h
EV_LC1_WS_2017-04-05_N	05-Apr-17 at 0855h	07-Apr-17 at 1026h	07-Apr-17 at 1500h	07-Apr-17 at 1400h
EV_BC1_WS_2017-04-05_N	05-Apr-17 at 1225h	07-Apr-17 at 1026h	07-Apr-17 at 1500h	07-Apr-17 at 1400h
EV_GT1_WS_2017-04-05_N	05-Apr-17 at 1120h	07-Apr-17 at 1026h	07-Apr-17 at 1500h	07-Apr-17 at 1400h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_GC2_WS_2017-04-05_N	9.5°C	540	246
EV_LC1_WS_2017-04-05_N	9.5°C	860	526
EV_BC1_WS_2017-04-05_N	9.5°C	1520	244
EV_GT1_WS_2017-04-05_N	9.5°C	1320	236

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
EV_GC2_WS_2017-04-05_N	0	0
EV_LC1_WS_2017-04-05_N	0	0
EV_BC1_WS_2017-04-05_N	0	0
EV_GT1_WS_2017-04-05_N	0	0

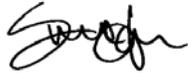
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_GC2_WS_2017-04-05_N	Rainbow trout	None	None
EV_GC2_WS_2017-04-05_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
EV_LC1_WS_2017-04-05_N	Rainbow trout	Slight precipitate observed on the bottom of test vessel	None
EV_LC1_WS_2017-04-05_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
EV_BC1_WS_2017-04-05_N	Rainbow trout	None	None
EV_BC1_WS_2017-04-05_N	<i>Daphnia magna</i>	None	None
EV_GT1_WS_2017-04-05_N	Rainbow trout	None	None
EV_GT1_WS_2017-04-05_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	40.5 (30.6 – 53.7) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	59.3 (24.6 – 142.8) µg/L Zn	4.2 (3.3 – 5.4) g/L NaCl
Reference toxicant CV	55%	14%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: April 6, 2017; ² Test Date: April 5, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Apr 7 17 @ 1500h

Work Order No.: 170297

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-GL2-WS 2017-04-05-N
Sample Date: Apr 5 / 17
Date Received: Apr 7 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 039317
Source: Aqua Farms
No. Fish/Volume (L): 10/10 L
Loading Density (g/L): 0.30
Mean Length ± SD (mm): 30 ± 1
Mean Weight ± SD (g): 0.30 ± 0.02

Range: 29 - 31

Range: 0.27 - 0.33

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 68
Stock Solution ID: 17Zn02
Date Initiated: Apr 6 / 17
96-h LC50 (95% CL): 40.5 (30.6 - 53.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.3 (24.6 - 142.8) µg/L Zn

Reference Toxicant CV (%): 55%

Test Results: 0% mortality at 96 hours in undiluted 100% (w/v) sample.

Reviewed by: [Signature]

Date reviewed: April 19, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: EV-GC2-WS-2017-04-05-N
 W.O. #: 170297
 RBT Batch #: 032717
 Date Collected/Time: Apr 5/17 @ 0945h
 Date Setup/Time: Apr 7/17 @ 1500h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0.8
 Total Pre-aeration Time (mins): 100
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	11.0	/	10.3
pH	8.2	/	8.2
Cond. (µS/cm)	774	/	771
Salinity (ppt)	0.4	/	0.4

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Control				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.8	9.7	9.7	9.7	6.9	7.0	6.9	6.9	6.9	29	32
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.6	9.8	9.7	9.8	8.2	8.1	8.2	8.2	8.2	771	775
Initials				AS	AS	EL	EL	EC	AS	AS	EL	EL	EL	AS	AS	EL	EL	EL	AS	AS	EL	EL	EC	EL

Sample Description/Comments: clear, colorless, some particulates, odorless

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: No precipitation @ 96 hrs.

Reviewed by: [Signature] Date Reviewed: April 19, 2017

Rainbow Trout Summary Sheet

Client: Tech Coal

Start Date/Time: Apr 7 117 @ 1500h

Work Order No.: 170297

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV_LU_WS-2017-04-05-L
Sample Date: Apr 5 / 17
Date Received: Apr 7 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 039317
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.30
Mean Length ± SD (mm): 30 ± 1
Mean Weight ± SD (g): 0.70 ± 0.02

Range: 27 - 31
Range: 0.26 - 0.33

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 68
Stock Solution ID: 17Zn02
Date Initiated: Apr 6 / 17
96-h LC50 (95% CL): 40.5 (30.6 - 53.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.3 (24.6 - 142.8) µg/L Zn
Reference Toxicant CV (%): 55%

Test Results: 0% mortality at 96 hours in undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 19, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Apr 7 17 @ 1500h

Work Order No.: 170297

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV_BCL-WS-2017-04-05-N
Sample Date: Apr 5 / 17
Date Received: Apr 7 / 17
Sample Volume: 1 x 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 037317
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 30 ± 1
Mean Weight ± SD (g): 0.31 ± 0.02

Range: 28 - 31
Range: 0.29 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 68
Stock Solution ID: 17Zn02
Date Initiated: Apr 6 / 17
96-h LC50 (95% CL): 40.5 (30.6 - 53.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.3 (24.6 - 142.8) µg/L Zn
Reference Toxicant CV (%): 55%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 19, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D. EV-BCI-WS-2017-04-05-N
 W.O. # 170297
 RBT Batch #: 032317
 Date Collected/Time: Apr 5/17 @ 1225h
 Date Setup/Time: Apr 7/17 @ 1500h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0.8
 Total Pre-aeration Time (mins): 45
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: LER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.7	/	19.5
pH	8.0	/	8.0
Cond. (µS/cm)	2050	/	2050
Salinity (ppt)	1.0	/	1.0

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
CT1				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.8	9.7	9.7	9.7	6.9	7.0	6.9	6.9	6.9	29	32
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.7	9.9	9.8	9.8	8.0	8.1	8.2	8.2	8.2	2050	2060
Initials				As	A	EL	EL	EC	As	A	EL	EL	EL	As	A	EL	EL	EL	As	A	EL	EL	EL	EL

Sample Description/Comments: clear, colorless, no odour, no particulates

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: No precipitation @ 96 hrs.

Reviewed by: [Signature] Date Reviewed: April 19, 2017

Rainbow Trout Summary Sheet

Client: Tedco Coal

Start Date/Time: Apr 7 117 @ 1500h

Work Order No.: 170297

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-GTI-WS-2017-04-05-N
Sample Date: Apr 5 / 17
Date Received: Apr 7 / 17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 032317
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.32
Mean Length ± SD (mm): 29 ± 1
Mean Weight ± SD (g): 0.32 ± 0.02

Range: 27 - 31
Range: 0.29 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn 68
Stock Solution ID: 17Zn02
Date Initiated: Apr 6 / 17
96-h LC50 (95% CL): 40.5 (30.6 - 53.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 59.3 (24.6 - 142.8) µg/L Zn
Reference Toxicant CV (%): 55%

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: April 19, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: EV-GT1-WS-2017-04-05-N
 W.O. #: 170297
 RBT Batch #: 032317
 Date Collected/Time: Apr 5/17 @ 1120h
 Date Setup/Time: Apr 7/17 @ 1500h
 Sample Setup By: EC

Number Fish/Volume: 10/10 L
 7-d % Mortality: 0.8
 Total Pre-aeration Time (mins): 45
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.8	/	10.5
pH	8.2	/	8.1
Cond. (µS/cm)	1758	/	1758
Salinity (ppt)	0.9	/	0.8

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Concentration (% v/v)	# Survivors						Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)		
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
CTL				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.8	9.7	9.7	9.8	6.9	7.0	6.9	6.9	6.9	29	2932
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.3	9.6	9.9	9.8	9.9	8.1	8.2	8.1	8.1	8.1	1758	1758/1762
																								0
Initials				AE	AE	EL	EL	EC	AE	AE	EL	EL	EL	AE	AE	EL	EL	EL	AE	AE	EL	EL	EL	EL

Sample Description/Comments: clear, colorless, some particulates, odorless, clear in

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: No precipitation @ 96 hrs.

Reviewed by: [Signature] Date Reviewed: April 19, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170298

Start Date/Time: April 7, 2017 @ 1400h
Test Species: Daphnia magna
Set up by: YMc

Sample Information:

Sample ID: EV-602-WS-2017-04-05-N
Sample Date: April 5, 2017
Date Received: April 7, 2017
Sample Volume: 2x1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC48
Stock Solution ID: 17NaCl
Date Initiated: April 5, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (w/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: April 19, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TECK Start Date/Time: April 7, 2017 @ 1400h
 Sample ID: EV-GC2-WS-2017-04-05-N No. Organisms/volume: 10/200mL
 Work Order No.: 170298 Test Organism: D.magna
 Set up by: YU

Thermometer: temp-5 DO meter: DO-2/3 pH meter: pH-1/3 Cond./Salinity: C-2/3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.0	20.0	18.5	8.5	8.6	8.7	7.5	7.6	7.9	345	360
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	18.0	20.0	18.5	8.6	8.5	8.4	7.9	7.8	8.1	1729	1765
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		<u>YU</u>	<u>YU</u>	<u>YU</u>	<u>YU</u>	<u>YU</u>	<u>YU</u>	<u>YU</u>	<u>YU</u>	<u>YU</u>	<u>YU</u>	<u>YU</u>	<u>YU</u>	<u>YU</u>	<u>YU</u>

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	76
Highest conc.	540	246
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		
DO (mg/L)	8.6		
pH	7.9		
Cond (µS/cm)	1729		
Salinity (ppt)	0.9		

Comments: some precipitate at 48h on beaker bottom. Mortality: Heartbeat checked under microscope ND

Sample Description: clear, no colour, no odour, some particulates

Batch#: 031517A 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 19, 2017

Daphnia magna Summary Sheet

Client: Teck

Work Order No.: 170298

Start Date/Time: April 7, 2017 @ 1400h

Test Species: Daphnia magna

Set up by: YMC

Sample Information:

Sample ID: EV-LCI-WS-2017-04-05-N

Sample Date: April 5, 2017

Date Received: April 7, 2017

Sample Volume: 2x1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517A

Age of young (Day 0): <24 h

Avg No. young per brood in previous 7 d: 19

Mortality (%) in previous 7 d: 0

Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC48

Stock Solution ID: 17NaCl

Date Initiated: April 5, 2017

48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl

Reference Toxicant CV (%): 14

Test Results:

0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by:



Date reviewed:

April 19, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: April 7, 2017 @ 1400h
 Sample ID: EU-LC1-WS-2017-04-05-N No. Organisms/volume: 10/200mL
 Work Order No.: 170298 Test Organism: D. magna
 Set up by: YU

Thermometer: temp-5 DO meter: DO-2/3 pH meter: pH-1/3 Cond./Salinity: C-2/3

Concentration (% v/v)	Number of Live Organisms Rep	24		48		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48	48	0		24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	19.0	20.0	18.5	8.5	8.6	8.7	7.5	7.8	8.0	345	358		
	B	10	10	0													
	C	10	10	0													
	D																
100	A	10	10	0	18.0	20.0	18.5	8.8	8.7	8.8	7.8	7.8	20	1073	945		
	B	10	10	0													
	C	10	10	0													
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
Technician Initials		YU	YU	YU	YU	YU	YU	YU	YU	YU	YU	YU	YU	YU	YU		

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	100	76
Highest conc.	860	526
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		
DO (mg/L)	8.8		
pH	7.8		
Cond (µS/cm)	1073		
Salinity (ppt)	0.5		

Comments: Some precipitate at 48h on beaker bottom Mortality: Heartbeat checked under microscope NO
 Sample Description: clear no odour, no odour, no particulates
 Batch#: 031517A 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9
 Reviewed by: [Signature] Date reviewed: April 19, 2017

Version 1.8; Issued February 29, 2016

Nautlius Environmental Company Inc.

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170298

Start Date/Time: April 7, 2017 @ 1400h
Test Species: Daphnia magna
Set up by: Mc

Sample Information:

Sample ID: EV-BCI-WS-2017-04-05-N
Sample Date: April 5, 2017
Date Received: April 7, 2017
Sample Volume: 2x1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC48
Stock Solution ID: 17Naol
Date Initiated: April 5, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: April 19, 2017

**Freshwater Acute
48 Hour Toxicity Test Data Sheet**

Client: Teck Start Date/Time: April 7, 2017 @ 1400h
 Sample ID: EV-BCI-WS-2017-04-05-N No. Organisms/volume: 10/200mL
 Work Order No.: 170298 Test Organism: D.magna
 Set up by: Yue

Thermometer: temp-5 DO meter: DO-2/3 pH meter: pH-1/3 Cond./Salinity: C-2/3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.0	20.0	18.5	8.5	8.5	8.5	7.5	7.7	8.0	345	359
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	18.0	20.0	18.5	8.8	8.7	8.6	7.9	7.8	8.0	2030	2060
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCo3)	
Control (MHW)	100	76
Highest conc.	1520	244
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		
DO (mg/L)	8.8		
pH	7.9		
Cond (µS/cm)	2030		
Salinity (ppt)	1.0		

Comments: NO precipitate at 48h Mortality: Heartbeat checked under microscope NO

Sample Description: Clear, no colour, no odour, no particulates

Batch#: 031517A 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 19, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170298

Start Date/Time: April 7, 2017 @ 1400h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: EV-GTI-WS-2017-04-05-N
Sample Date: April 5, 2017
Date Received: April 7, 2017
Sample Volume: 2x1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 031517A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMT(48)
Stock Solution ID: 17NaCl
Date Initiated: April 5, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 14

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: April 19, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: April 7, 2017 @ 1400h
 Sample ID: EV-GT1-WS-2017-04-05-N No. Organisms/volume: 10/200mL
 Work Order No.: 170298 Test Organism: D.magna
 Set up by: YU

Thermometer: temp-5 DO meter: DD-2/3 pH meter: pH-1/3 Cond./Salinity: C-2/3

Concentration (% v/v)	Number of Live Organisms Rep	No. Organisms		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	48	0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.0	20.0	18.5	8.5	8.6	8.5	7.5	7.7	7.9	345	358
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	18.5	12.0	18.5	9.0	8.6	8.7	8.1	8.0	2.0	1749	1762
	B	10	10	0			18.5								
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YU	YU	YU	YU	YU	YU	YU	YU	YU	YU	YU	YU	YU	YU

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCo3)	
Control (MHW)	100	76
Highest conc.	1320	236
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		
DO (mg/L)	9.0		
pH	8.1		
Cond (µS/cm)	1749		
Salinity (ppt)	0.9		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope NO

Sample Description: clear, no colour, no odour, some particulates

Batch#: 031517A 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: April 19, 2017

Client: Teck

W.O.#: 170298

Hardness and Alkalinity Datasheet

Sample ID	Alkalinity						Hardness			Technician
	Subsample Date	Date Measured	Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/L CaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	
EV_GC2_WS 2017-04-05-N	Apr 7 11 7	Apr 7 11 7	50	12.5	12.7	246	100 [Ⓢ]	5.4	540	YML
EV_LCI_WS 2017-04-05-N	Apr 7 11 7	Apr 7 11 7	50	26.6	26.9	526	100 [Ⓢ]	8.6	860	YML
EV_BCI_WS 2017-04-05-N	Apr 7 11 7	Apr 7 11 7	50	12.4	12.6	244	100 [Ⓢ]	15.2	1520	YML
EV_GTL_WS 2017-04-05-N	Apr 7 11 7	Apr 7 11 7	50	12.0	12.2	236	100 [Ⓢ]	13.2	1320	YML
MHW	Apr 7 11 7	Apr 7 11 7	50	3.9	4.0	76	50	5.0	100	YML

Notes: [Ⓢ] Diluted to 100 mL w/ DI water.

Reviewed by: 

Date Reviewed: April 18, 2017

APPENDIX C – Chain-of-custody form

Teck

COC ID:	20170405TOX		TURNAROUND TIME:		RUSH:	
PROJECT/CLIENT INFO			LABORATORY		OTHER INFO	
Facility Name / Job#	Elkview Operations		Lab Name	Nautilus Environmental		Report Format / Distribution
Job Description	Quarterly Toxicity Sampling		Lab Contact	Krysta Pearey		Excel
Project Manager	Jeff Williams		Email	Krysta@nautilusenvironmental.ca		PDF
Email	Jeff.Williams@teck.com		Address	8664 Commerce Court		EDD
Address	RR#1 HWY#3			Imperial Square Lake City		
City	Sparwood	Province	BC	City	Burnaby	Province
Postal Code	V1C 4C3	Country	Canada	Postal Code	V5A 4N7	Country
Phone Number	1-250-865-5289			Phone Number		

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	C=Grab C=Comp	# OF Cont.	ANALYSIS REQUESTED		Temp °C
								Toxicity 96-h rainbow trout (Pass/Fail)	Toxicity 48-h Daphnia magna P/F	
② EV_GC2_WS_2017-04-05_N	EV_GC2	WS	N	2017/04/05	9:45	G	3	1	2	9.5
③ EV_LCI_WS_2017-04-05_N	EV_LCI	WS	N	2017/04/05	8:55	G	3	1	2	
④ EV_BCI_WS_2017-04-05_N	EV_BCI	WS	N	2017/04/05	12:25	G	3	1	2	
⑤ EV_GT1_WS_2017-04-05_N	EV_GT1	WS	N	2017/04/05	11:20	G	3	1	2	
Total							12			

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RECEIVED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
Toxicity 96-Hr/48-HR = 96 Hr Rainbow Trout pass/fail & 48 Hr Daphnia pass/fail (Daphnia testing to occur at 20 degrees)			Nautilus - Burnaby NY - Nari Yamamoto	Apr 07/17 @ 10:26
NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #		
Regular (default) X	Jesse Wiy			
Priority (2-3 business days) - 50% surcharge	Sampler's Signature	Date/Time	April 5, 2017	
Emergency (1 Business Day) - 100% surcharge				
For Emergency <1 Day, ASAP or Weekend - Contact ALS				

- ② clear, colorless, some particulates, odorless
- ③ clear, colorless, ^{is} some no particulates, odorless
- ④ clear, colorless, no odour, no particulate.
- ⑤ clear, colorless, some particulates, odorless

① Sample BCI arrived 2/3 full (20L canboy)

END OF REPORT



Acute Toxicity Test Results

Samples collected May 30, 2017

Final Report

June 15, 2017

Submitted to: **Teck Coal / Elkview Operations**
Elkford, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
EV_GC2_WS_2017-05-30_N_12:30	30-May-17 at 1230h	01-Jun-17 at 1105h	01-Jun-17 at 1630h	01-Jun-17 at 1330h
EV_GC2A3_WS_2017-05-30_NP	30-May-17 at 1330h	01-Jun-17 at 1105h	01-Jun-17 at 1630h	01-Jun-17 at 1330h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_GC2_WS_2017-05-30_N_12:30	17.8°C	660	246
EV_GC2A3_WS_2017-05-30_NP	17.8°C	670	234

TESTS

- Rainbow trout 96-h LC50 test
- *Daphnia magna* 48-h LC50 test

RESULTS

Toxicity test results

Sample ID	LC50 (% v/v)	
	Rainbow trout	<i>Daphnia magna</i>
EV_GC2_WS_2017-05-30_N_12:30	> 100	> 100
EV_GC2A3_WS_2017-05-30_NP	> 100	> 100

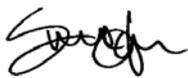
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_GC2_WS_2017-05-30_N_12:30	Rainbow trout	None	None
EV_GC2_WS_2017-05-30_N_12:30	<i>Daphnia magna</i>	None	None
EV_GC2A3_WS_2017-05-30_NP	Rainbow trout	None	None
EV_GC2A3_WS_2017-05-30_NP	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	75.5 (56.2 – 101.7) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	55.6 (25.9 – 119.4) µg/L Zn	4.1 (3.3 – 5.0) g/L NaCl
Reference toxicant CV	46%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: May 30, 2017; ² Test Date: June 7, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) LC50 test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	Five concentrations, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS Version 1.8.7
Test endpoints	Survival (96-hour LC50)
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* LC50 test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	Five concentrations, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Statistical software	CETIS Version 1.8.7
Test endpoints	Survival (48-hour LC50)
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Tedi Coal

Start Date/Time: June 1 /17 @ 1630h

Work Order No.: 170534

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-GCL-WS-2017-05-30-N-1230
Sample Date: May 30 /17
Date Received: June 1 /17
Sample Volume: 2X20 L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 215
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: 051517
Source: Aqua Farms
No. Fish/Volume (L): 10/12L
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.32 ± 0.04

Range: 27 - 32
Range: 0.26 - 0.39

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn72
Stock Solution ID: 17Zn02
Date Initiated: May 30/17
96-h LC50 (95% CL): 75.5 (56.2 - 101.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 55.6 (25.9 - 119.4) µg/L Zn
Reference Toxicant CV (%): 46

Test Results: The 96 hours LC50 is estimated to be >100% (v/v).

Reviewed by: [Signature] Date reviewed: June 14, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: EV-GC2-NS-2017-05-30-N-12-30
 W.O. #: 170534
 RBT Batch #: 051517
 Date Collected/Time: May 30/17 @ 13:12:30h
 Date Setup/Time: June 1/17 @ 16:30h
 Sample Setup By: EL

Number Fish/Volume: 10/12L
 7-d % Mortality: 1.2
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.5	/	14.5
D.O. (mg/L)	9.6	/	9.8
pH	7.8	/	7.6
Cond. (µS/cm)	1126	/	1126
Salinity (ppt)	0.6	/	0.6

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Control				10	10	10	10	14.5	14.5	14.5	14.5	14.5	10.0	9.4	9.6	9.8	9.7	6.9	6.8	6.9	7.0	7.0	39	43
6.25				10	10	10	10	14.5	14.5	14.5	14.5	14.5	10.0	9.5	9.6	9.7	9.6	7.1	7.1	7.0	7.1	7.1	97	101
12.5				10	10	10	10	14.5	14.5	14.5	14.5	14.5	10.0	9.5	9.4	9.7	9.5	7.5	7.5	7.2	7.3	7.2	196	206
25				10	10	10	10	14.5	14.5	14.5	14.5	14.5	9.9	9.6	9.5	9.8	9.7	7.9	7.8	7.6	7.6	7.6	362	362
50				10	10	10	10	14.5	14.5	14.5	14.5	14.5	9.9	9.7	9.5	9.6	9.7	7.9	7.9	7.8	7.8	7.8	608	618
100				10	10	10	10	14.5	14.5	14.5	14.5	14.5	9.8	9.6	9.6	9.7	9.8	7.8	8.2	8.1	7.9	7.9	1126	1082
Initials				EL	AN	AN	EL	EL	EL	AN	AN	EL	EL	EL	AN	AN	EL	EL	EL	AN	AN	EL	EL	EL

Sample Description/Comments: Colorless, No odour, Some particulates, Clear

Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0

Other Observations: No precipitates present @ 96 hrs.

Reviewed by: [Signature] Date Reviewed: June 14, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: June 1 /17 @ 16:30h

Work Order No.: 170534

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV-GC2A3-WS-2017-05-30-NP
Sample Date: May 30 /17
Date Received: June 1 /17
Sample Volume: 2 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 215
Alkalinity (mg/L CaCO₃): 15

Test Organism Information:

Batch No.: OS1517
Source: Aqua Farms
No. Fish/Volume (L): 10/12
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 31 ± 1
Mean Weight ± SD (g): 0.31 ± 0.03

Range: 29 - 32
Range: 0.27 - 0.37

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn72
Stock Solution ID: 17Zn02
Date Initiated: May 30/17
96-h LC50 (95% CL): 75.5 (56.2 - 101.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 55.6 (25.9 - 119.4) µg/L Zn
Reference Toxicant CV (%): 46

Test Results: The 96 hours LC50 is estimated to be >100% (V/V).

Reviewed by: [Signature]

Date reviewed: June 14, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D. EV-GLZP3-WS-2017-05-30-NP
 W.O. # 170534
 RBT Batch #: 051517
 Date Collected/Time: May 30/17 @ 1330h
 Date Setup/Time: 21 Jun 1/17 @ 1630h
 Sample Setup By: EL

Number Fish/Volume: 10/12 L
 7-d % Mortality: 1.2
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.5	/	14.5
D.O. (mg/L)	9.8	/	9.7
pH	7.8	/	7.8
Cond. (µS/cm)	1140	/	1139
Salinity (ppt)	0.5	/	0.5

Concentration (% v/v)	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96	
Control				10	10	10	10	14.5	14.5	14.5	14.5	14.5	10.0	9.4	9.6	9.7	9.7	6.7	6.7	6.9	7.0	7.0	38	41	
6.25				10	10	10	10	14.5	14.5	14.5	14.5	14.5	10.0	9.4	9.6	9.6	9.6	7.7	7.2	7.0	7.1	7.1	151	155	
12.5				10	10	10	10	14.5	14.5	14.5	14.5	14.5	9.9	9.5	9.5	9.7	9.7	7.8	7.5	7.3	7.4	7.3	201	208	
25				10	10	10	10	14.5	14.5	14.5	14.5	14.5	9.9	9.6	9.7	9.8	9.7	7.9	7.7	7.6	7.5	7.6	347	359	
50				10	10	10	10	14.5	14.5	14.5	14.5	14.5	9.9	9.7	9.6	9.8	9.8	7.9	7.9	7.9	7.8	7.8	656	658	
100				9	9	9	9	14.5	14.5	14.5	14.5	14.5	9.9	9.7	9.6	9.8	9.8	7.8	8.1	8.1	8.1	8.0	1139	1069	
Initials				EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	

Sample Description/Comments: Grey, turbid, Odourless, Some particulates,

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: No precipitates present @ 96 hrs.

Reviewed by: [Signature] Date Reviewed: June 14, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170535

Start Date/Time: June 1, 2017 @ 1330h
Test Species: Daphnia magna
Set up by: VMC

Sample Information:

Sample ID: EV_GC2_WS_2017-05-30-N
Sample Date: MAY 30, 2017 12:30
Date Received: June 1, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 051017B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTCSI
Stock Solution ID: 17NaCl
Date Initiated: June 7, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results:

The 48h TS estimated to be >100% (UL)

Reviewed by:

[Signature]

Date reviewed:

June 14, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: June 1, 2017 @ 1330h
 Sample ID: EV-GC2-WS-2017-05-30-N No. Organisms/volume: 10/200mL
 Work Order No.: 170535 12130 Test Organism: D. magna
 Set up by: Ym

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	20.5	20.5	8.6	8.4	8.2	7.6	7.6	7.7	355	373
	B														
	C														
	D														
6.25	A	10	10	0	20.0	20.5	20.5	8.7	8.3	8.2	7.6	7.6	7.7	399	412
	B														
	C														
	D														
12.5	A	10	10	0	20.0	20.5	20.5	8.7	8.3	8.1	7.7	7.6	7.7	456	469
	B														
	C														
	D														
25	A	10	10	0	20.0	20.5	20.5	8.7	8.3	8.2	7.7	7.7	7.8	561	563
	B														
	C														
	D														
50	A	10	10	0	20.0	20.5	20.5	8.7	8.4	8.2	7.8	7.9	7.9	765	763
	B														
	C														
	D														
100	A	10	10	0	20.5	20.5	20.5	8.8	8.4	8.2	7.9	8.0	8.1	1105	1083
	B														
	C														
	D														
Technician Initials		A	A	A	Ym	A	A	Ym	A	A	Ym	A	A	Ym	A

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	93	66
Highest conc.	660	246
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.5		
DO (mg/L)	8.8		
pH	7.9		
Cond (µS/cm)	1105		
Salinity (ppt)	0.5		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope NO

Sample Description: clear, no colour, no odour, some particulates

Batch#: 051017B 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: June 14, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170535

Start Date/Time: June 1, 2017 @ 1330h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: EV-6C2A3-WS-2017-05-30-NP
Sample Date: May 30, 2017
Date Received: June 1, 2017
Sample Volume: 2 x 20L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 051017B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCSI
Stock Solution ID: 17Na01
Date Initiated: June 7, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: The 48h LC50 is estimated to be >100% (w/w)

Reviewed by: [Signature]

Date reviewed: June 14, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EN GC2A3 WS-2017-05-30-NP
 Work Order No.: 170535

Start Date/Time: June 1, 2017 @ 1330h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	20.5	20.5	8.6	8.5	8.4	7.6	7.9	7.8	355	375
	B														
	C														
	D														
6.25	A	10	10	0	19.5	20.5	20.5	8.6	8.4	8.3	7.6	7.8	7.8	401	415
	B														
	C														
	D														
12.5	A	10	10	0	20.0	20.5	20.5	8.6	8.5	8.3	7.6	7.9	7.8	458	467
	B														
	C														
	D														
25	A	10	10	0	20.0	20.5	20.5	8.6	8.3	8.4	7.7	8.0	7.9	563	562
	B														
	C														
	D														
50	A	10	10	0	20.0	20.5	20.5	8.6	8.2	8.3	7.8	8.0	8.0	758	754
	B														
	C														
	D														
100	A	10	10	0	20.5	20.5	20.5	8.7	8.3	8.3	7.8	8.0	8.1	1102	1059
	B														
	C														
	D														
Technician Initials		A	B	C	YML	A	B	C	YML	A	B	C	YML	A	B

	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Concentration		
Control (MHW)	98	66
Highest conc.	670	234
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.5		
DO (mg/L)	8.7		
pH	7.8		
Cond (µS/cm)	1102		
Salinity (ppt)	0.5		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope ND

Sample Description: grey, turbid, no odor, some particulate

Batch#: 0510173 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: June 14, 2017

APPENDIX C – Chain-of-custody form

Teck													
COCID: 20170530EMER			TURNAROUND TIME:				RUSH:						
PROJECT/CLIENT INFO						LABORATORY			OTHER INFO				
Facility Name / Job#		Elkview Operations				Lab Name		Nautilus Environmental			Report Format / Distribution		
Job Description		Toxicity Sampling				Lab Contact		Krysta Peracy			Excel	PDF	EDD
Project Manager		Jeff Williams				Email		krysta@nautilusenvironmental.ca			X	X	X
Email		Jeff.Williams@teck.com				Address		8664 Commerce Court			X	X	X
Address		RR#1 HWY#3						Imperial Square, Lake City			X	X	X
City		Sparwood		Province	BC	City		Burnaby	Province	BC	PO number	475474	
Postal Code		V1C 4C3		Country	Canada	Postal Code		V5A 4N7	Country	Canada			
Phone Number		1-250-425-8746				Phone Number							
SAMPLE DETAILS						ANALYSIS REQUESTED							
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# Of Cont.	ANALYSIS	96-HR Rainbow Trout LC50	48-HR Daphnia LC50		Temp °C	
① EV_GC2_WS_2017-05-30_N_12:30	EV_GC2	ws	N	2017/05/30	12:30	G	2 x 20L		1	1		17.8	
② EV_GC2A3_WS_2017-05-30_NP	EV_GC2A3	ws	N	2017/05/30	13:30	G	2 x 20L		1	1		17.8	
						Total							
						4							
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS						RELINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
Please test toxicity for Multiple Concentrations										Nautilus Burnaby		June 01/17 @ 11:05	
										JB Jaymee Buccinog			
NO/OK BOTTLES RETURNED/DESCRIPTION													
Regular (default) X						Sampler's Name		James Boldt		Mobile #			
Priority (2-3 business days) - 50% surcharge						Sampler's Signature				Date/Time		May 30, 2017	
Emergency (1 Business Day) - 100% surcharge													
For Emergency <1 Day, ASAP or Weekend - Contact ALS													

- ① Colorless, No odour, Some particulates, Clear
- ② Grey, turbid, Odourless, Some particulates.

END OF REPORT



Acute Toxicity Test Results

Samples collected July 10, 2017

Final Report

August 13, 2017

Submitted to: **Teck Resources Elkview Operations**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates				Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	
EV_SM1_WS_2017-07-10_N 1617-1225-01	10-Jul-17 at 0915h	11-July-17 at 1120h	13-Jul-17 at 1500h	14-July-17 at 1135h	18°C
EV_DC1_WS_2017-07-10_N 1617-1225-02	10-Jul-17 at 1045h	11-July-17 at 1120h	13-Jul-17 at 1500h	14-July-17 at 1140h	18°C
EV_OC1_WS_2017-07-10_N 1617-1225-03	10-Jul-17 at 1250h	11-July-17 at 1120h	13-Jul-17 at 1500h	14-July-17 at 1145h	18°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_SM1_WS_2017- 07-10_N	18°C	210	154
EV_DC1_WS_2017- 07-10_N	18°C	788	225
EV_OC1_WS_2017- 07-10_N	18°C	235	218

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
EV_SM1_WS_2017-07-10_N	100	100
EV_DC1_WS_2017-07-10_N	100	97
EV_OC1_WS_2017-07-10_N	100	100

Sample ID	<i>Daphnia magna</i> Percent Immobility in 100 (% v/v)
EV_SM1_WS_2017-07-10_N	0
EV_DC1_WS_2017-07-10_N	3
EV_OC1_WS_2017-07-10_N	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_SM1_WS_2017-07-10_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None
EV_DC1_WS_2017-07-10_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None
EV_OC1_WS_2017-07-10_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.4 (2.9-3.9) g/L KCl ¹	4.9 (4.6-5.2) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.2-3.7) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	8.3%	5.8%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, July 11, 2017; ² Test Date, July 11, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jacklyn Poole, BSc
Laboratory Supervisor



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control for single concentration test
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival for single concentration test
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control for single concentration test
Test replicates	3 per treatment for single concentration test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival for single concentration test
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR5 Client TEC 164 Reference 1617-1225-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/07/13	1500 *	SS	1	NS
1	2017/07/14	1400	SS	-	HS
2	2017/07/15	1240	SS	-	HS
3	2017/07/16	1100	NTM	-	HS
4	2017/07/17	0845	SS	1	-

Sample Information

Initial pH:	8.6
Initial EC (µS/cm):	636
Initial DO (mg/L):	8.8
Initial Temp (°C):	14.6
Salinity (ppt):	2
Nets used: yes / no	no

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100%: 8.8

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	7.9	8.3				
Day 4	8.1	8.4				

EC (uS/cm)

Day 0	488	615				
Day 4	486	620				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.8	8.8				
Day 4	8.7	8.7				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	14.6	14.7				
Day 4	14.9	14.9				

Number Alive (In brackets number stressed)

Day 0	10	10				
Day 1	10	10				
Day 2	10	10				
Day 3	10	10				
Day 4	10	10				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control

Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	3.0	0.3	Loading Density (g/L):	Batch <u>20170626TR</u>
2	2.9	0.2		Source <u>LSC</u>
3	3.0	0.3	Mean Length (cm):	Days Held <u>17</u>
4	2.8	0.2		Percent stock mortality (7 days prior to test, must be ≤2%)
5	3.0	0.3	Length Range (cm):	
6	2.9	0.2		<u>2.8-3.1</u>
7	3.0	0.3	Mean Weight (g):	
8	3.0	0.3	<u>0.3</u>	
9	3.1	0.3	Weight Range (g):	
10	3.0	0.3		<u>0.2-0.3</u>

Comments:

Method DAS

Client TECIBY

Reference 1617-1225-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/14	1135	10/10	3	HS	8.6	636	9.4	21.0	2
1	2017/07/15	1130	HS	-	SS					
2	2017/07/16	1155	HW	3	HS					

Lab Code	CTLA	CTB	CTC	100A	100B	100C
	CTLA	CTB	CTC	100A	100B	100C

day

pH (units) (range: 6.0-8.5)						
0	7.8	7.9	7.9	8.1	8.1	8.1
2	8.0	8.0	8.0	8.4	8.4	8.4

EC (uS/cm)						
0	324	345	347	581	595	594
2	354	359	362	563	571	573

DO (mg/L) (40-100% saturation at test temp.)						
0	7.7	7.7	7.7	7.7	7.7	7.7
2	7.7	7.7	7.7	7.7	7.7	7.7

Temperature (°C) (range: 17.5-22.5 °C)						
0	21.2	21.0	21.0	21.1	21.2	21.2
2	20.8	21.0	20.9	20.8	20.7	20.7

Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)						
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 99.7% ^{HW} 8
 Average number of young produced (≥15 young) 374
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 99.1% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 200 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G: 07/12 Weekly water hardness (mg/L) 81

Comments:
 no ppt @ 0 hrs
 no ppt @ 4.8 hrs

Method TKS

Client TEC164

Reference 1617-1225-02

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):	Nets used: yes / no
0	2017/07/13	1500 *	FP/SS	1	HS	8.6	1899	10.1	5.9	5	no
1	2017/07/14	1400	SS	-	HS						
2	2017/07/15	1240	SS	-	HS						
3	2017/07/16	1100	NM	-	HS						
4	2017/07/17	0845	EP	1	-						

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L : yes/no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100% 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>8.1</u>	<u>8.2</u>					
Day 4	<u>8.2</u>	<u>8.2</u>					

EC (uS/cm)

Day 0	<u>479</u>	<u>1867</u>					
Day 4	<u>480</u>	<u>1854</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.8</u>	<u>8.9</u>					
Day 4	<u>8.8</u>	<u>8.8</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.8</u>	<u>14.8</u>					
Day 4	<u>14.9</u>	<u>14.9</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control

Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>3.0</u>	<u>0.3</u>	<u>20170626TR</u>	
2	<u>2.7</u>	<u>0.2</u>	Source <u>LSL</u>	
3	<u>2.9</u>	<u>0.2</u>	Days Held <u>17</u>	
4	<u>3.0</u>	<u>0.3</u>	Percent stock mortality (7 days prior to test, must be ≤2%) <u>0%</u>	
5	<u>3.1</u>	<u>0.3</u>	Test Volume (L) <u>0.2</u>	
6	<u>3.0</u>	<u>0.3</u>		
7	<u>3.0</u>	<u>0.3</u>		
8	<u>2.6</u>	<u>0.2</u>		
9	<u>3.0</u>	<u>0.3</u>		
10	<u>3.0</u>	<u>0.2</u>		
Loading Density (g/L): <u>0.13</u>				
Mean Length (cm): <u>2.9</u>				
Length Range (cm): <u>2.6-3.1</u>				
Mean Weight (g): <u>0.3</u>				
Weight Range (g): <u>0.2-0.3</u>				
Comments :				

Method DAS

Client TECIGY

Reference 1617-1225-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/14	1140	CA/SW	3	HS	8.6	1899	10.1	5.9	5
1	2017/07/15	1130	HS	-	SS					
2	2017/07/16	1200	SW	3	HS					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)					
0	7.8	7.8	7.8	8.0	8.0	8.0
2	7.9	7.9	7.9	8.2	8.2	8.2

	EC (µS/cm)					
0	333	340	339	1747	1818	1826
2	330	341	343	1724	1745	1752

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.7	7.7	7.7	7.7	7.7	7.7
2	7.6	7.6	7.6	7.5	7.6	7.6

	Temperature (°C) (range: 17.5-22.5 °C)					
0	21.2	21.1	21.1	21.2	21.2	21.2
2	21.1	21.1	21.1	20.8	20.8	20.7

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	9	10(2D)*	10(1D)*

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control Day 2: daphn on on is string-like
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 37.4
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 788 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date G:07/12 Weekly water hardness (mg/L) 81

Comments:

Method TKS

Client TEC/Clon

Reference 1617-1225-03

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:
0	2017/07/13	1500*	EP/SS	1	HS	8.5
1	2017/07/14	1400	SS	-	HS	Initial EC (µS/cm): 792
2	2017/07/15	1240	SS	-	HS	Initial DO (mg/L): 10.2
3	2017/07/16	1100	NM	-	HS	Initial Temp (°C): 5.7
4	2017/07/17	0845	EP	1	-	Salinity (ppt): 5.5

Note: *, time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100% 8.8

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.9</u>	<u>8.2</u>				
Day 4	<u>8.1</u>	<u>8.3</u>				

EC (uS/cm)

Day 0	<u>489</u>	<u>766</u>				
Day 4	<u>472</u>	<u>767</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.8</u>	<u>8.8</u>				
Day 4	<u>8.8</u>	<u>8.9</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>14.8</u>	<u>14.8</u>				
Day 4	<u>14.8</u>	<u>14.8</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control

Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>2.6</u>	<u>0.2</u>	<u>2017062617</u>	
2	<u>3.0</u>	<u>0.3</u>	Source	<u>LSL</u>
3	<u>3.0</u>	<u>0.3</u>	Mean Length (cm):	<u>2.9</u>
4	<u>2.9</u>	<u>0.2</u>	Length Range (cm):	<u>2.6-3.1</u>
5	<u>3.0</u>	<u>0.2</u>	Mean Weight (g):	<u>0.3</u>
6	<u>3.0</u>	<u>0.3</u>	Weight Range (g):	<u>0.2-0.3</u>
7	<u>3.1</u>	<u>0.3</u>	Percent stock mortality	<u>0%</u>
8	<u>3.1</u>	<u>0.3</u>	(7 days prior to test, must be ≤2%)	
9	<u>3.0</u>	<u>0.3</u>	Test Volume (L)	<u>20L</u>
10	<u>2.9</u>	<u>0.2</u>		

Comments :

Method DAS

 Client TECUB4

 Reference 1617-122503
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information
0	2017/07/14	1145	COJW	3	HS	Initial pH: <u>8.5</u>
1	2017/07/15	1130	HS	-	SS	Initial EC (µS/cm): <u>792</u>
2	2017/07/16	1205	FW	3	HS	Initial DO (mg/L): <u>10.2</u>
						Initial Temp (°C): <u>5.7</u>
						Salinity (ppt): <u>5</u>

Lab Code	<u>CCL A</u>	<u>CCL B</u>	<u>CCL C</u>	<u>100 A</u>	<u>100 B</u>	<u>100 C</u>			
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day	pH (units) (range: 6.0-8.5)								
0	<u>7.8</u>	<u>7.9</u>	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>			
2	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>8.3</u>	<u>8.3</u>	<u>8.3</u>			

	EC (µS/cm)								
0	<u>341</u>	<u>356</u>	<u>349</u>	<u>708</u>	<u>753</u>	<u>763</u>			
2	<u>344</u>	<u>359</u>	<u>350</u>	<u>711</u>	<u>715</u>	<u>714</u>			

	DO (mg/L) (40-100% saturation at test temp.)								
0	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>			
2	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>			

	Temperature (°C) (range: 17.5-22.5 °C)								
0	<u>21.1</u>	<u>21.1</u>	<u>21.1</u>	<u>21.3</u>	<u>21.3</u>	<u>21.3</u>			
2	<u>21.1</u>	<u>21.1</u>	<u>20.9</u>	<u>20.8</u>	<u>20.9</u>	<u>20.9</u>			

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	
Young jar <u>C3, C4</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0.14 = 7%</u>
QA (previous month)	
Days to first brood (≤12 days) <u>8</u>	
Average number of young produced (≥15 young) <u>37.4</u>	
Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	
DO % of sample prior to aeration: <u>98%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
Hardness (mg CaCO ₃ /L) of 100%: <u>235</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	
Pail label / preparation date <u>G:07/12</u>	Weekly water hardness (mg/L) <u>8</u>
Comments:	

APPENDIX C – Chain-of-custody form

Teck

TEC104

COC ID:	20170710TOX	TURNAROUND TIME:		RUSH:	
PROJECT/CLIENT INFO		LABORATORY		OTHER INFO	
Facility Name / Job#	Elkview Operations	Lab Name	Nautilus Environmental	Report Format / Distribution	Excel PDF EDD
Job Description	Quarterly Toxicity Sampling	Lab Contact	Claudio Quinteros	Email 1:	Jeff.Williams@teck.com X X X
Project Manager	Jeff Williams	Email		Email 2:	teckcoal@equisonline.com X X X
Email	Jeff.Williams@teck.com	Address	#4, 6125-12th Street S.E	Email 3:	James.Boldt@teck.com X X X
Address	RR#1 HWY# 3			Email 4:	Cameron.Griffin@teck.com X X X
				Email 5:	Teck.Lab.Results@sharepoint.teck.com X X X
City	Sparwood	Province	BC	City	Calgary
Postal Code	V1C 4C3	Country	Canada	Postal Code	T2H 2K1
Phone Number	1-250-865-5289			Country	Canada
				Phone Number	475474

SAMPLE DETAILS								ANALYSIS REQUESTED						
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (2-hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS	Toxicity 96-h rainbow trout (Pass/Fail)	Toxicity 48-h Daphnia magna				
1617-1225														
-01 EV_SM1_WS_2017-07-10_N	EV_SM1	WS	N	2017/07/10	9:15	G	3		1	2				
-02 EV_DC1_WS_2017-07-10_N	EV_DC1	WS	N	2017/07/10	10:45	G	3		1	2				
-03 EV_OC1_WS_2017-07-10_N	EV_OC1	WS	N	2017/07/10	12:50	G	3		1	2				
							Total							9

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
Toxicity 96-Hr/48-HR = 96 Hr Rainbow Trout pass/fail & 48 Hr Daphnia testing to occur at 20 degrees				

NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	James Boldt	Mobile #
Regular (default) X	Sampler's Signature	<i>[Signature]</i>	Date/Time
Priority (2-3 business days) - 50% surcharge			March 6, 2017
Emergency (1 Business Day) - 100% surcharge			
For Emergency <1 Day, ASAP or Weekend - Contact ALS			

COA
 2017/07/11
 1120
 No Yes S I I
 3 x 20L
 6 x 1L
 Manitowlin Transport
 18°C

END OF REPORT



Acute Toxicity Test Results

Samples collected July 11, 2017

Final Report

August 15, 2017

Submitted to: **Teck Resources Elkview Operations**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates				Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	
EV_SP1_WS_2017-07-11_N	11-Jul-17 at 0905h	12-July-17 at 0940h	13-Jul-17 at 1500h	16-July-17 at 1445h	16°C
EV_EC1_WS_2017-07-11_N	11-Jul-17 at 0920h	12-July-17 at 0940h	13-Jul-17 at 1500h	16-July-17 at 1445h	16°C
EV_MG1_WS_2017-07-11_N	11-Jul-17 at 0940h	12-July-17 at 0940h	13-Jul-17 at 1500h	16-July-17 at 1450h	16°C
EV_AQ6_WS_2017-07-11_N	11-Jul-17 at 0710h	12-July-17 at 0940h	13-Jul-17 at 1500h	16-July-17 at 1450h	16°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_SP1_WS_2017-07-11_N	16°C	1032	360
EV_EC1_WS_2017-07-11_N	16°C	772	227
EV_MG1_WS_2017-07-11_N	16°C	517	206
EV_AQ6_WS_2017-07-11_N	16°C	318	160

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
EV_SP1_WS_2017-07-11_N	100	97
EV_EC1_WS_2017-07-11_N	100	93
EV_MG1_WS_2017-07-11_N	100	100
EV_AQ6_WS_2017-07-11_N	100	100

Sample ID	<i>Daphnia magna</i> Percent Immobility in 100 (% v/v)
EV_SP1_WS_2017-07-11_N	7
EV_EC1_WS_2017-07-11_N	17
EV_MG1_WS_2017-07-11_N	0
EV_AQ6_WS_2017-07-11_N	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_SP1_WS_2017-07-11_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None
EV_EC1_WS_2017-07-11_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None
EV_MG1_WS_2017-07-11_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None
EV_AQ6_WS_2017-07-11_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.4 (2.9-3.9) g/L KCl ¹	4.9 (4.6-5.2) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.2-3.7) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	8.3%	5.8%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, July 11, 2017; ² Test Date, July 11, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Jessica Wang, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	LSL
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control for single concentration test
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival for single concentration test
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control for single concentration test
Test replicates	3 per treatment for single concentration test
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival for single concentration test
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR5

Client TEC164

Reference 1617-1236-01

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	
0	2017/07/13	1500 *	FP/SS	1	HS	Initial pH: <u>7.8</u>
1	2017/07/14	1400	SS	-	HS	Initial EC (µS/cm): <u>1898</u>
2	2017/07/15	1240	SS	-	HS	Initial DO (mg/L): <u>8.0</u>
3	2017/07/16	1100	NM	-	HS	Initial Temp (°C): <u>20.4</u>
4	2017/07/17	0845	SD	1	LC	Salinity (ppt): <u>2</u>
						Nets used: yes <input checked="" type="checkbox"/> no <input type="checkbox"/>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.6

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.7</u>	<u>8.0</u>				
Day 4	<u>7.9</u>	<u>8.1</u>				

EC (uS/cm)

Day 0	<u>485</u>	<u>2070</u>				
Day 4	<u>498</u>	<u>2080</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.4</u>	<u>8.6</u>				
Day 4	<u>8.6</u>	<u>8.6</u>				

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.3</u>	<u>15.5</u>				
Day 4	<u>15.0</u>	<u>15.0</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control

Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>3.2</u>	<u>0.3</u>	Loading Density (g/L): <u>0.155</u> Mean Length (cm): <u>3.1</u> Length Range (cm): <u>3.0-3.2</u> Mean Weight (g): <u>0.3</u> Weight Range (g): <u>0.3-0.4</u>	Batch <u>20170626TR</u>
2	<u>3.1</u>	<u>0.3</u>		Source <u>LSL</u>
3	<u>3.7</u>	<u>0.3</u>		Days Held <u>17</u>
4	<u>3.7</u>	<u>0.3</u>		Percent stock mortality (7 days prior to test, must be ≤2%) <u>0%</u>
5	<u>3.1</u>	<u>0.3</u>		Test Volume (L) <u>20</u>
6	<u>3.2</u>	<u>0.4</u>		
7	<u>3.2</u>	<u>0.3</u>		
8	<u>3.0</u>	<u>0.3</u>		
9	<u>3.0</u>	<u>0.3</u>		
10	<u>3.0</u>	<u>0.3</u>		
Comments :				

Method DAS

Client TEC164 (EVO)

Reference 1617-1236-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/16	1445	JW/NM	3	EP	7.8	1898	20.9 ^W 8.0	20.4	2
1	2017/07/18	0930	EP	-	CR					
2	2017/07/18	1030	NM/SS	3	EP					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.5	7.5	7.5	7.5	7.5	7.5
2	7.9	7.9	7.9	8.0	8.0	8.0

day	EC (uS/cm)					
0	357	358	361	1940	1950	1951
2	324	324	324	1663	1665	1651

day	DO (mg/L) (40-100% saturation at test temp.)					
0	7.8	7.8	7.8	7.7	7.8	7.8
2	7.9	7.9	7.9	8.0	8.0	8.0

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	20.2	20.2	20.2	20.7	20.7	20.7
2	20.1	20.1	20.1	20.1	20.3	20.2

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10(7D)	9(1I6D)	10(7D)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D4 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 41.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 97% Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1032 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date E: 07/13 Weekly water hardness (mg/L) 83

Comments:

Method DAS

Client TEC164 (EVO)

Reference 1617-1236-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:
0	2017/07/16	1445	JW/AM	3	EP	8.8.0
1	2017/07/17	0930	EP	-	CR	1704
2	2017/07/18	1030	NM/SS	3	EP	9.4
						Initial DO (mg/L):
						19.7
						Salinity (ppt):
						1

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.5	7.6	7.6	7.7	7.7	7.7			
2	7.6	7.8	7.8	8.2	8.2	8.2			

EC (uS/cm)

0	354	356	362	1703	1770	1488			
2	310	323	320	1470	1503	1513			

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.8	7.8	7.9	7.9	7.9			
2	7.7	7.7	7.8	7.8	7.9	7.9			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.2	20.2	20.2	20.7	20.4	20.9			
2	20.3	20.3	20.3	20.1	20.1	20.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	8(I)	10(I)	10(I)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar DS Jar(s) mortality 7 days prior to test (must be ≤25%) 01

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 41.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 951 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 772 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date E07/13 Weekly water hardness (mg/L) 83

Comments:

Method TR3

Client TEC164

Reference 1617-1536-03

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/07/13	1500 *	ED/SS	1	HS	Initial pH: <u>8.0</u> Initial EC (µS/cm): <u>1281</u>
1	2017/07/14	1400	SS	-	HS	Initial DO (mg/L): <u>8.1</u>
2	2017/07/15	1240	SS	-	HS	Initial Temp (°C): <u>20.7</u>
3	2017/07/16	1130	NDY	-	HS	Salinity (ppt): <u>2</u>
4	2017/07/17	0900	ED	1	RL	Nets used: yes / <u>no</u>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L : yes/no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours
DO(mg/L) of 100% 8.6

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.8</u>	<u>8.1</u>					
Day 4	<u>7.0</u>	<u>8.1</u>					

EC (µS/cm)

Day 0	<u>494</u>	<u>1304</u>					
Day 4	<u>485</u>	<u>1305</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.3</u>	<u>8.6</u>					
Day 4	<u>8.0</u>	<u>8.7</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>16.1</u>	<u>15.8</u>					
Day 4	<u>15.1</u>	<u>15.1</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>3.0</u>	<u>0.3</u>	Loading Density (g/L): <u>0.135</u>	Batch <u>20170626TR</u>
2	<u>2.9</u>	<u>0.3</u>		Source <u>LSL</u>
3	<u>3.2</u>	<u>0.3</u>	Mean Length (cm): <u>2.9</u>	Days Held <u>17</u>
4	<u>2.9</u>	<u>0.3</u>		Percent stock mortality (7 days prior to test, must be ≤2%) <u>0%</u>
5	<u>2.8</u>	<u>0.2</u>	Mean Weight (g): <u>0.3</u>	
6	<u>2.8</u>	<u>0.2</u>		
7	<u>3.0</u>	<u>0.3</u>	Weight Range (g): <u>0.2-0.3</u>	
8	<u>3.0</u>	<u>0.3</u>		
9	<u>2.8</u>	<u>0.2</u>		
10	<u>2.8</u>	<u>0.3</u>		
Comments :				

Method DAS

Client TEC164/EVO

Reference 1617-1236-03

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information		
0	2017/07/16	1450	JW/AM	3	EP	Initial pH:	8.0	
1	2017/07/17	0930	EP	-	CE	Initial EC (µS/cm):	1281	
2	2017/07/18	1040	NM/SS	3	EP	Initial DO (mg/L):	8.1	
						Initial Temp (°C):	20.7	
						Salinity (ppt):	2	
Lab Code	CTLA	CTLB	CTLC	100A	100B	100C		

day	pH (units) (range: 6.0-8.5)								
0	7.7	7.7	7.7	7.8	7.8	7.8			
2	7.9	7.9	7.9	8.3	8.3	8.3			

day	EC (uS/cm)								
0	371	363	360	1253	1272	1275			
2	327	322	323	1052	1081	1096			

day	DO (mg/L) (40-100% saturation at test temp.)								
0	7.8	7.8	7.8	7.8	7.8	7.8			
2	7.9	7.9	7.9	7.9	7.9	7.9			

day	Temperature (°C) (range: 17.5-22.5 °C)								
0	20.2	20.2	20.2	20.9	20.9	20.9			
2	20.0	20.0	20.0	20.0	20.0	20.0			

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	9	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D3 Jar(s) mortality 7 days prior to test (must be ≤25%) 01

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 4.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 98.7 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110um screen prior to testing? Yes or No
 Hardness (mg CaCO3/L) of 100%: 517 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date E: 07/13 Weekly water hardness (mg/L) 83

Comments:

Method TKS

Client TEC164

Reference 1617-1236-04

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):	Nets used: (yes / no)
0	2017/07/13	1500 *	EP/SS	1	HS	8.1	828	8.2	20.7	1	yes / no
1	2017/07/14	1440	SS	-	HS						
2	2017/07/15	1240	SS	-	HS						
3	2017/07/16	1130	WTM	-	HS						
4	2017/07/17	0900	FD	1	LC						

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L : yes / no

Preaeration time	0.5 hours	1 hour	1.5 hours	2 hours
DO(mg/L) of 100%				

Test Chemistry and Biology

Conc.	CTL	100					
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pH (units) (range: 5.5-8.5)

Day 0	8.0	8.3					
Day 4	8.0	8.0					

EC (µS/cm)

Day 0	491	470					
Day 4	488	860					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	8.5	8.7					
Day 4	8.6	8.7					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	15.8	15.9					
Day 4	14.9	15.1					

Number Alive (In brackets number stressed)

Day 0	10	10					
Day 1	10	10					
Day 2	10	10					
Day 3	10	10					
Day 4	10	10					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information		
Control Fish	Length (cm)	Weight (g)			
1	2.0	0.3	Loading Density (g/L): <u>0.45</u> Mean Length (cm): <u>2.9</u> Length Range (cm): <u>2.7-3.1</u> Mean Weight (g): <u>0.3</u> Weight Range (g): <u>0.2-0.4</u>	Batch	<u>20170626TR</u>
2	2.4	0.4		Source	<u>LSL</u>
3	2.4	0.3		Days Held	<u>17</u>
4	2.7	0.2		Percent stock mortality (7 days prior to test, must be ≤2%) <u>0%</u>	Test Volume (L) <u>20L</u>
5	2.7	0.2			
6	2.7	0.2			
7	3.1	0.4			
8	3.0	0.3			
9	3.0	0.3			
10	2.9	0.3			
Comments :					

Method DAS

 Client TEC164 (EVO)

 Reference 1617-1236-04
Test Log
Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/16	1450	JW/JM	3	EP	8.1	828	8.2	20.7	1
1	2017/07/17	0930	EP	-	CO					
2	2017/07/18	1030	JM/SS	3	EP					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.7	7.7	7.7	7.7	7.8	7.8
2	7.9	7.9	7.9	8.2	8.2	8.3

day	EC (uS/cm)					
0	365	369	360	825	843	846
2	324	310	326	711	740	756

day	DO (mg/L) (40-100% saturation at test temp.)					
0	7.8	7.9	7.9	7.7	7.7	7.6
2	7.9	7.9	7.9	7.9	7.9	8.0

day	Temperature (°C) (range: 17.5-22.5 °C)					
0	20.9	20.4	20.4	20.9	20.9	20.8
2	20.0	20.0	19.9	19.9	19.9	19.9

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	
Young jar <u>D3</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>01</u>
QA (previous month)	
Days to first brood (≤12 days) <u>4</u>	
Average number of young produced (≥15 young) <u>41.2</u>	
Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	
DO % of sample prior to aeration: <u>94.1</u>	Is aeration required (<40% or >100%)? <input type="radio"/> Yes or <input checked="" type="radio"/> No
Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110um screen prior to testing <input type="radio"/> Yes or <input checked="" type="radio"/> No
Hardness (mg CaCO ₃ /L) of 100%: <u>318</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input type="radio"/> Yes or <input checked="" type="radio"/> No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	
Pail label / preparation date <u>E: 07/13</u>	Weekly water hardness (mg/L) <u>83</u>
Comments:	

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20170711TOX		TURNAROUND TIME:			RUSH:				
PROJECT/CLIENT INFO				LABORATORY			OTHER INFO		
Facility Name / Job: Elkview Operations		Lab Name: Nautilus Environmental		Report Format / Distribution			Excel	PDF	EDD
Job Description: Quarterly Toxicity Sampling		Lab Contact: Claudio Quinteros		Email 1: Jeff.Williams@teck.com			X	X	X
Project Manager: Jeff Williams		Email		Email 2: teckcoal@equisonline.com			X	X	X
Email: Jeff.Williams@teck.com		Address: #4, 6125-12th Street S.E		Email 3: James.Boldt@teck.com			X	X	X
Address: RR#1 HWY# 3				Email 4: Cameron.Griffin@teck.com			X	X	X
				Email 5: Teck.Lab.Results@sharepoint.teck.com			X	X	X
City: Sparwood		Province: BC	City: Calgary	Province: AB	PO number: 475474				
Postal Code: V1C 4C3		Country: Canada	Postal Code: T2H 2K1	Country: Canada					
Phone Number: 1-250-865-5289		Phone Number: 403-253-7121							

SAMPLE DETAILS								ANALYSIS REQUESTED							
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Cump	# Of Cont.	Filtered	No	No	Filtered - F, Field, L, Lab, FI, Field & Lab, N, Non				
								Preserved	No	No					
1617-1236															
-01	EV_SPI_WS_2017-07-11_N	EV_SPI	WS	N	2017/07/11	9:05	G	3							
-02	EV_EC1_WS_2017-07-11_N	EV_EC1	WS	N	2017/07/11	9:20	G	3							
-03	EV_MG1_WS_2017-07-11_N	EV_MG1	WS	N	2017/07/11	9:40	G	3							
-04	EV_AQ6_WS_2017-07-11_N	EV_AQ6	WS	N	2017/07/11	7:10	G	3							
Total								12							

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
Toxicity 96-Hr/48-HR = 96 Hr Rainbow Trout pass/fail & 48 Hr Daphnia pass/fail (Daphnia testing to occur at 20 degrees)				

NB OF BOTTLES RETURNED/DESCRIPTION	Sampler's Name	Mobile #
Regular (default) X	JAMES BOLDT	
Priority (2-3 business days) - 50% surcharge	A-B-T	
Emergency (1 Business Day) - 100% surcharge		
For Emergency <1 Day, ASAP or Weekend - Contact ALS		

MANATOULIN
2017/07/12
@ 0940
4x20L CARBOYS
8x1L BOTTLES
NO S/I
GOOD CONDITION
16°

ERIC-JI

END OF REPORT



Acute Toxicity Test Results

Samples collected July 12, 2017

Final Report

August 16, 2017

Submitted to: **TECK Resources Ltd. Elkview Operation**
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates				Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	
EV_GC2_WS_2017-07-12_N / 1617-1245-01	12-July-17 at 0700h	13-July-17 at 0900h	17-July-17 at 1545h	17-July-17 at 1500h	18°C
EV_LC1_WS_2017-07-12_N / 1617-1245-02	12-July-17 at 0730h	13-July-17 at 0900h	17-July-17 at 1545h	17-July-17 at 1500h	18°C
EV_BC1_WS_2017-07-12_N / 1617-1245-03	12-July-17 at 0945h	13-July-17 at 0900h	17-July-17 at 1545h	17-July-17 at 1510h	18°C
EV_GT1_WS_2017-07-12_N / 1617-1245-04	12-July-17 at 0900h	13-July-17 at 0900h	17-July-17 at 1545h	17-July-17 at 1510h	18°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_GC2_WS_2017-07- 12_N	18°C	482	173
EV_LC1_WS_2017-07- 12_N	18°C	530	422
EV_BC1_WS_2017-07- 12_N	18°C	783	210
EV_GT1_WS_2017-07- 12_N	18°C	664	235

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
EV_GC2_WS_2017-07-12_N	100	100
EV_LC1_WS_2017-07-12_N	100	100
EV_BC1_WS_2017-07-12_N	100	100
EV_GT1_WS_2017-07-12_N	100	97

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i>
EV_GC2_WS_2017-07-12_N	0
EV_LC1_WS_2017-07-12_N	0
EV_BC1_WS_2017-07-12_N	7
EV_GT1_WS_2017-07-12_N	10

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_GC2_WS_2017-07-12_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None
EV_LC1_WS_2017-07-12_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None
EV_BC1_WS_2017-07-12_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None
EV_GT1_WS_2017-07-12_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

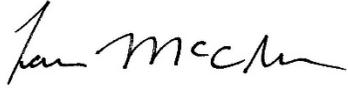
QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
---------------	---------------	----------------------

Reference toxicant LC50 (95% CL)	3.2 (2.9-3.6) g/L KCl ¹	4.9 (4.6-5.2) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	2.9 (2.2-3.7) g/L KCl	4.9 (4.1-5.8) g/L NaCl
Reference toxicant CV	9%	6%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	See below
Test performance	Valid	Valid

¹ Test date, July 14, 2017; ² Test Date July 11, 2017
 LC = Lethal Concentration; CL = Confidence Limit

Control performance was acceptable for samples 1617-1245-01 to 03. The control for 1617-1245-04 (EV_GT1_WS_2017-07-12_N) was invalid due to immobility over 10%.



Report By:
Tamara McClure, B.Sc.
Quality Assurance Manager



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Sam Livingston
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS

Client TEC164

Reference 1617-1245-01

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	
0	2017/07/17	1545 *	CEL	1	JW	Initial pH: <u>7.8</u>
1	2017/07/18	0530	NDM	-	HS	Initial EC (µS/cm): <u>1193</u>
2	2017/07/19	0915	FD	-	JW	Initial DO (mg/L): <u>7.7</u>
3	2017/07/20	0900	FD	-	JW	Initial Temp (°C): <u>22</u>
4	2017/07/21	1100	CA	1	HS	Salinity (ppt): <u>1</u>
						Nets used: yes / <input checked="" type="radio"/> no

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L yes/no

Preaeration time	0.5 hours	1 hour	1.5 hours	2 hours
DO(mg/L) of 100%	<u>8.5</u>			

Test Chemistry and Biology

Conc.	CTL	<u>100</u>					
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pH (units) (range: 5.5-8.5)

Day 0	<u>7.8</u>	<u>7.9</u>					
Day 4	<u>7.8</u>	<u>8.0</u>					

EC (µS/cm)

Day 0	<u>488</u>	<u>1232</u>					
Day 4	<u>487</u>	<u>1240</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.3</u>	<u>8.5</u>					
Day 4	<u>8.4</u>	<u>8.5</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.9</u>	<u>15.5</u>					
Day 4	<u>15.0</u>	<u>15.3</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control

Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	<u>20170630TH</u>
1	<u>2.8</u>	<u>0.2</u>	Source	<u>Sum L</u>
2	<u>2.7</u>	<u>0.2</u>	Days Held	<u>17</u>
3	<u>2.6</u>	<u>0.2</u>	Mean Length (cm):	<u>2.6-2.9</u>
4	<u>2.9</u>	<u>0.3</u>	Length Range (cm):	<u>2.6-3.1</u>
5	<u>2.8</u>	<u>0.3</u>	Mean Weight (g):	<u>0.3</u>
6	<u>2.8</u>	<u>0.2</u>	Weight Range (g):	<u>0.2-0.3</u>
7	<u>2.7</u>	<u>0.3</u>	Percent stock mortality (7 days prior to test, must be ≤2%)	<u>0%</u>
8	<u>3.0</u>	<u>0.3</u>	Test Volume (L)	<u>20L</u>
9	<u>3.1</u>	<u>0.3</u>		
10	<u>3.1</u>	<u>0.3</u>		
Loading Density (g/L): <u>0.135</u>				
Comments :				

Method DAS

Client TECHN (EVO)

Reference 1617-1245-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/17	1500	JW/NM	3	FP	7.8	1193	7.7	22.0	1
1	2017/07/18	0930	EP/HS	-	LC					
2	2017/07/19	1050	SS/NM	3						

Lab Code	DTVA	DTVB	DTVC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.7	7.7	7.8	7.9	7.9	8.0			
2	7.9	7.9	7.9	8.2	8.2	8.2			

EC (uS/cm)

0	356	358	364	1280	1293	1295			
2	341	353	332	1106	1110	1137			

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.7	7.7	7.7	7.7	7.8			
2	7.8	7.8	8.0	8.0	8.0	8.0			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.1	20.1	20.1	20.0	20.0	19.6			
2	20.2	20.2	20.0	20.2	20.2	20.4			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10 (JP)	10 (3F)	10 (1F)			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	
Young jar <u>C1</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	
Days to first brood (≤12 days) <u>8</u>	
Average number of young produced (≥15 young) <u>22.3</u>	
Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	
DO % of sample prior to aeration: <u>95%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110um screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
Hardness (mg CaCO3/L) of 100%: <u>482</u>	Is hardness adjustment required (<25 mg CaCO3/L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) <u>-</u>	
Dilution Water	
Pail label / preparation date <u>D:07/14</u>	Weekly water hardness (mg/L) <u>80</u>
Comments:	

Method FRS Client TEC164 Reference 1617-1245-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/07/17	1545 *	CA	13451	JW
1	2017/07/18	0830	ADM	-	HS
2	2017/07/19	0915	FP	-	JW
3	2017/07/20	0900	FP	-	JW
4	2017/07/21	1100	CA	1	HS

Sample Information

Initial pH: 7.4
 Initial EC (µS/cm): 1249
 Initial DO (mg/L): 7.5
 Initial Temp (°C): 22
 Salinity (ppt): 2
 Nets used: yes / no

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L yes/no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100% 8.6

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>8.0</u>	<u>7.8</u>					
Day 4	<u>8.1</u>	<u>8.1</u>					

EC (µS/cm)

Day 0	<u>440</u>	<u>1270</u>					
Day 4	<u>500</u>	<u>1250</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.7</u>	<u>8.6</u>					
Day 4	<u>8.8</u>	<u>8.7</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.3</u>	<u>15.2</u>					
Day 4	<u>15.2</u>	<u>15.1</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	<u>20170630TR</u>
1	<u>2.8</u>	<u>0.2</u>	Source	<u>SumL</u>
2	<u>2.7</u>	<u>0.2</u>	Days Held	<u>17</u>
3	<u>2.6</u>	<u>0.2</u>	Mean Length (cm):	<u>2.9</u>
4	<u>2.9</u>	<u>0.3</u>	Length Range (cm):	<u>2.6-3.1</u>
5	<u>2.8</u>	<u>0.3</u>	Mean Weight (g):	<u>0.3</u>
6	<u>2.8</u>	<u>0.3</u>	Weight Range (g):	<u>0.2-0.3</u>
7	<u>2.7</u>	<u>0.3</u>	Percent stock mortality (7 days prior to test, must be ≤2%)	<u>0%</u>
8	<u>3.0</u>	<u>0.3</u>	Test Volume (L)	<u>20L</u>
9	<u>3.1</u>	<u>0.3</u>		
10	<u>3.1</u>	<u>0.3</u>		
Loading Density (g/L): <u>0.135</u>				
Comments:				

Method DAS

Client TECIBU (EVO)

Reference 1617-1245-02

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information		
0	2017/07/17	1500	JW/NM	3	EP	Initial pH:	7.4	
1	2017/07/18	0930	EP/HS	-	LC	Initial EC (µS/cm):	1249	
2	2017/07/19	1050	AD/MS	3.		Initial DO (mg/L):	7.5	
						Initial Temp (°C):	22.0	
						Salinity (ppt):	2	
Lab Code	CTUB	CTUB	CTUB	100A	100B	100C		

day pH (units) (range: 6.0-8.5)

0	8.0	7.9	7.9	7.8	7.9	7.9			
2	7.9	7.9	7.9	8.3	8.3	8.3			

EC (µS/cm)

0	363	364	365	1108	1131	1141			
2	325	326	341	861	911	925			

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.9	7.9	7.8	7.8	7.8			
2	7.9	7.9	7.9	8.7.9	7.8	7.9			

Temperature (°C) (range: 17.5-22.5 °C)

0	19.9	19.9	19.9	19.8	19.6	19.5			
2	20.2	20.2	20.2	20.2	20.0	20.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	10	10			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C3</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>8.</u>	Average number of young produced (≥15 young) <u>22.3</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>96%</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>530</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>p-07/14</u>	Weekly water hardness (mg/L) <u>80</u>
Comments:		

Method TRS Client TEC164 Reference 1617-1245-03

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/07/17	1345 *	CR	1	JW
1	2017/07/18	0830	DM	-	HS
2	2017/07/19	0915	FD	-	JW
3	2017/07/20	0900	FD	-	JW
4	2017/07/21	1100	CR	1	HS

Sample Information

Initial pH: 7.5
 Initial EC (µS/cm): 1929
 Initial DO (mg/L): 8.1
 Initial Temp (°C): 22
 Salinity (ppt): 2
 Nets used: yes / (no)

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.6

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.8</u>	<u>7.7</u>					
Day 4	<u>7.9</u>	<u>7.7</u>					

EC (µS/cm)

Day 0	<u>486</u>	<u>2100</u>					
Day 4	<u>489</u>	<u>2098</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.5</u>	<u>8.6</u>					
Day 4	<u>8.6</u>	<u>8.8</u>					

Temperature (°C) (range: 13.5-16.5 °C)

Day 0	<u>15.2</u>	<u>15.4</u>					
Day 4	<u>15.3</u>	<u>15.6</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>4</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>2.8</u>	<u>0.2</u>	<u>20170630TR</u>	Source <u>Small</u>
2	<u>2.7</u>	<u>0.2</u>		Days Held <u>17</u>
3	<u>2.6</u>	<u>0.2</u>		Percent stock mortality <u>0%</u>
4	<u>2.9</u>	<u>0.3</u>		(7 days prior to test, must be ≤2%)
5	<u>2.8</u>	<u>0.3</u>	Mean Length (cm): <u>2.9</u>	Test Volume (L) <u>20L</u>
6	<u>2.8</u>	<u>0.3</u>	Length Range (cm): <u>2.6-3.1</u>	
7	<u>2.7</u>	<u>0.3</u>	Mean Weight (g): <u>0.3</u>	
8	<u>3.0</u>	<u>0.3</u>	Weight Range (g): <u>0.2-0.3</u>	
9	<u>3.1</u>	<u>0.3</u>		
10	<u>3.1</u>	<u>0.3</u>		

Comments :

Method DAS

 Client TECIBU (EVO)

 Reference 1617-1245-03
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information		
0	2017/07/17	1510	JUNYM	3	FD	Initial pH:	7.5	
1	2017/07/18	0930	LD/HS	-	LC	Initial EC (µS/cm):	1929	
2	2017/07/19	1050	SS/NM	3		Initial DO (mg/L):	8.1	
						Initial Temp (°C):	22.0	
						Salinity (ppt):	2	
Lab Code	CTA	CPB	CTL	100A	100B	00C		

day	pH (units) (range: 6.0-8.5)								
0	7.8	7.8	7.8	7.8	7.8	7.8			
2	8.0	7.9	7.9	8.1	8.2	8.1			

	EC (µS/cm)								
0	357	364	360	2140	2136	2216			
2	318	300	321	1759	1807	1816			

	DO (mg/L) (40-100% saturation at test temp.)								
0	7.9	7.9	7.9	7.8	7.9	7.9			
2	7.9	7.9	7.8	7.9	7.8	7.9			

	Temperature (°C) (range: 17.5-22.5 °C)								
0	20.2	20.2	20.0	19.5	19.5	19.4			
2	20.7	20.7	20.7	20.7	20.8	20.7			

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10 (2I)	10 (2I)	10	10 (1I, 1D)	10	10 (1I)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture	
Young jar <u>E1</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>7/.</u>
QA (previous month)	
Days to first brood (≤12 days) <u>8</u>	
Average number of young produced (≥15 young) <u>43.6</u>	
Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	
DO % of sample prior to aeration: <u>95/.</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>-</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
Hardness (mg CaCO ₃ /L) of 100%: <u>783</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	
Pail label / preparation date <u>D:07114</u>	Weekly water hardness (mg/L) <u>80</u>
Comments:	

Method TRS

Client TECIGA

Reference 1617-1245-04

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:
0	2017/07/17	1545 *	CR	1	JW	7.9
1	2017/07/18	0830	DM	-	HS	Initial EC (µS/cm): 1965
2	2017/07/19	0915	FP	-	JW	Initial DO (mg/L): 8.2
3	2017/07/20	0900	IP	-	JW	Initial Temp (°C): 22
4	2017/07/21	0900	CQ	1	HS	Salinity (ppt): 3
						Nets used: yes / <input checked="" type="radio"/> no

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100%

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0 7.6 8.0

Day 4 7.7 8.0

EC (µS/cm)

Day 0 489 2120

Day 4 495 215

DO (mg/L) (70-100% saturation at test temp.)

Day 0 7.9 8.4

Day 4 8.2 8.5

Temperature (°C) (range: 13.5-16.5 °C)

Day 0 13.5 15.4

Day 4 13.1 15.0

Number Alive (In brackets number stressed)

Day 0 10 16

Day 1 10 10

Day 2 10 10

Day 3 10 10

Day 4 10 10

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control

Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>2.8</u>	<u>0.2</u>	<u>20170630TR</u>	Source <u>Sam L</u>
2	<u>2.7</u>	<u>0.2</u>		Loading Density (g/L): <u>0.135</u>
3	<u>2.6</u>	<u>0.2</u>		Mean Length (cm): <u>2.9</u>
4	<u>2.9</u>	<u>0.3</u>		Length Range (cm): <u>2.6-3.1</u>
5	<u>2.8</u>	<u>0.3</u>		Mean Weight (g): <u>0.3</u>
6	<u>2.8</u>	<u>0.3</u>		Weight Range (g): <u>0.2-0.3</u>
7	<u>2.7</u>	<u>0.3</u>		Days Held <u>12</u>
8	<u>3.0</u>	<u>0.3</u>		Percent stock mortality <u>0%</u> (7 days prior to test, must be ≤2%)
9	<u>3.1</u>	<u>0.3</u>		Test Volume (L) <u>20L</u>
10	<u>3.1</u>	<u>0.3</u>		
Comments :				

Method DAS

Client TEC164 (EVO)

Reference 1617-1245-04

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/07/17	1510	JWINM	3	FP	7.9	1965	8.2	22.0	3
1	2017/07/18	0930	EP/HS	-	LC					
2	2017/07/19	1050	NIMBS	3						

Lab Code	CTA	CTB	CTC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.8	7.8	7.8	7.8	7.9	7.9			
2	7.9	7.9	7.9	8.2	8.2	8.2			

EC (µS/cm)

0	367	367	365	2116	2140	2220			
2	319	319	325	1747	1862	1862			

DO (mg/L) (40-100% saturation at test temp.)

0	7.9	7.9	7.9	7.7	7.8	7.9			
2	7.9	7.9	7.9	7.9	7.9	7.9			

Temperature (°C) (range: 17.5-22.5 °C)

0	20.4	20.4	20.4	20.2	19.9	19.9			
2	20.5	20.5	20.5	20.5	20.5	20.4			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10(I)	10(I)	10(I)	10	10(I)	10(I)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1, C2 Jar(s) mortality 7 days prior to test (must be ≤25%) 0 + 14% = 7%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 22.3
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 98.1 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 664 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date p: 07/14 Weekly water hardness (mg/L) 80

Comments:

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected October 2, 2017

Final Report

November 9, 2017

Submitted to: **Teck Resources Ltd.** EVO
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates				Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	
EV_LCI_WS_201 7-10-02_N / 1718-0258-01	2-Oct-17	3-Oct-17 at 1000h	6-Oct-17 at 1600h	4-Oct-17 at 1430h	6°C
EV_SM1_WS_20 17-10-02_N / 1718-0258-02	2-Oct-17	3-Oct-17 at 1000h	6-Oct-17 at 1600h	4-Oct-17 at 1430h	6°C
EV_DC1_WS_20 17-10-02_N / 1718-0258-03	2-Oct-17	3-Oct-17 at 1000h	Not tested as per client request	Not tested as per client request	6°C
EV_OC1_WS_20 17-10-02_N / 1718-0258-04	2-Oct-17	3-Oct-17 at 1000h	6-Oct-17 at 1600h	4-Oct-17 at 1430h	6°C
EV_GT1_WS_201 7-10-02_N / 1718-0258-05	2-Oct-17	3-Oct-17 at 1000h	6-Oct-17 at 1600h	4-Oct-17 at 1430h	6°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_LCI_WS_2017-10-02_N	6°C	450	477
EV_SM1_WS_2017-10-02_N	6°C	222	180
EV_OC1_WS_2017-10-02_N	6°C	238	276
EV_GT1_WS_2017-10-02_N	6°C	1235	220

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
EV_LCI_WS_2017-10-02_N	100	100
EV_SM1_WS_2017-10-02_N	100	100
EV_OC1_WS_2017-10-02_N	100	100
EV_GT1_WS_2017-10-02_N	100	100

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i>
EV_LCI_WS_2017-10-02_N	0
EV_SM1_WS_2017-10-02_N	0
EV_OC1_WS_2017-10-02_N	0
EV_GT1_WS_2017-10-02_N	20

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_LCI_WS_2017-10-02_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the test vessel	None
EV_SM1_WS_2017-10-02_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None
EV_OC1_WS_2017-10-02_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None
EV_GT1_WS_2017-10-02_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.9-3.6) g/L KCl ¹	4.4 (4.3-4.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2-4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.1%	6.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, October 1, 2017; ² Test Date October 10, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Nautilus Environmental
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS

Client TEC 164

Reference 1716-0258-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/10/06	1600 *	CO	1	LC
1	2017/10/07	1430	ED	-	LC
2	2017/10/08	1230	EP	-	SS
3	2017/10/09	0900	EW	-	HS
4	2017/10/10	0915	AFIB	1	HS

Sample Information

Initial pH: 7.8
 Initial EC (µS/cm): 1105
 Initial DO (mg/L): 7.4
 Initial Temp (°C): 18.0
 Salinity (ppt): 0
 Nets used: yes / no

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L : yes / no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100%: 8.5

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.9</u>	<u>8.0</u>					
Day 4	<u>8.1</u>	<u>8.1</u>					

EC (uS/cm)

Day 0	<u>422</u>	<u>1177</u>					
Day 4	<u>442</u>	<u>1192</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.7</u>	<u>8.7</u>					
Day 4	<u>8.9</u>	<u>8.9</u>					

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.3</u>	<u>14.4</u>					
Day 4	<u>14.3</u>	<u>14.3</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>3.6</u>	<u>0.4</u>	Loading Density (g/L): <u>0.13</u> Mean Length (cm): <u>2.9</u> Length Range (cm): <u>2.5-3.6</u> Mean Weight (g): <u>0.3</u> (Must be ≥0.3g) Weight Range (g): <u>0.2-0.4</u>	Batch: <u>217031TR</u>
2	<u>3.3</u>	<u>0.3</u>		Source: <u>In house</u>
3	<u>3.4</u>	<u>0.3</u>		Days Held: <u>35</u>
4	<u>3.4</u>	<u>0.3</u>		Percent stock mortality (7 days prior to test, must be ≤2%): <u>0%</u>
5	<u>2.5</u>	<u>0.2</u>		Test Volume (L): <u>20L</u>
6	<u>2.6</u>	<u>0.2</u>		
7	<u>2.5</u>	<u>0.2</u>		
8	<u>2.5</u>	<u>0.2</u>		
9	<u>2.6</u>	<u>0.3</u>		
10	<u>2.5</u>	<u>0.2</u>		
Comments :				

Reviewed By: TM

Date Reviewed: 2017/10/11

Method DAS

Client TEC 164

Reference 1718-0258-01

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/04	1430	AP/EP	3	CE	7.8	1103	7.4	18.0	0
1	2017/10/05	1040	JW/JP	-	HS					
2	2017/10/06	1015	SP/CB	3	HS					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	8.0	7.9	7.9	7.9	7.8	7.8			
2	8.1	8.1	8.1	8.0	8.0	8.0			

EC (µS/cm)

0	357	357	353	1183	1191	1174			
2	380	386	390	930	898	729			

DO (mg/L) (40-100% saturation at test temp.)

0	8.0	8.0	8.0	8.0	8.0	8.1			
2	7.9	7.9	7.9	7.9	7.7	7.7			

Temperature (°C) (range: 18-22°C)

0	19.6	19.7	19.7	19.6	19.6	19.4			
2	20.0	20.0	20.0	19.6	19.9	19.8			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10 (1F)	10 (2F)			
2	10	10	10	10 (3D)	10 (4D)	10 (4D)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar c3/c5 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 6
Average number of young produced (≥15 young) 14.5
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? **Yes or No** No
Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing **Yes or No** No
Hardness (mg CaCO₃/L) of 100%: 450 Is hardness adjustment required (<25 mg CaCO₃/L)? **Yes or No** No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
Pail label / preparation date 12/10/02 Weekly water hardness (mg/L) 115

Comments: **Observations** at 0 hrs: no ppt
at 48 hrs: surfacial ppt observed

Reviewed By: JM

Date Reviewed: 2017/10/11

Method TBS

Client TECIGY

Reference L7B-0258-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/10/06	8:00	Ca	1	LC	Initial pH: <u>8.3</u> Initial EC (µS/cm): <u>611</u>
1	2017/10/07	11:30	EP	-	LC	Initial DO (mg/L): <u>8.5</u>
2	2017/10/08	12:30	AS	-	SS	Initial Temp (°C): <u>17.0</u>
3	2017/10/09	09:00	JW	-	HS	Salinity (ppt): <u>0</u>
4	2017/10/10	09:15	AFHS	1	HS	Nets used: yes / <u>no</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100% 9.0

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.9</u>	<u>8.4</u>				
Day 4	<u>8.0</u>	<u>8.4</u>				

EC (uS/cm)

Day 0	<u>422</u>	<u>649</u>				
Day 4	<u>442</u>	<u>664</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.7</u>	<u>9.0</u>				
Day 4	<u>8.9</u>	<u>8.9</u>				

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.3</u>	<u>14.2</u>				
Day 4	<u>14.3</u>	<u>14.2</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	<u>2070831TR</u>
1	<u>3.6</u>	<u>0.4</u>	Source	<u>In house</u>
2	<u>3.3</u>	<u>0.3</u>	Days Held	<u>35</u>
3	<u>3.4</u>	<u>0.3</u>	Percent stock mortality (7 days prior to test, must be ≤2%)	<u>0.1</u>
4	<u>3.4</u>	<u>0.3</u>	Test Volume (L)	<u>20L</u>
5	<u>2.5</u>	<u>0.2</u>		
6	<u>2.6</u>	<u>0.3</u>		
7	<u>2.5</u>	<u>0.2</u>		
8	<u>2.5</u>	<u>0.2</u>		
9	<u>2.6</u>	<u>0.3</u>		
10	<u>2.5</u>	<u>0.2</u>		
Loading Density (g/L):			<u>0.13</u>	
Mean Length (cm):			<u>2.9</u>	
Length Range (cm):			<u>2.5-3.6</u>	
Mean Weight (g): (Must be ≥0.3g)			<u>0.3</u>	
Weight Range (g):			<u>0.2-0.4</u>	
Comments :				

Reviewed By: TM

Date Reviewed: 2017/10/12

Method DAS

Client TEC 164

Reference 1718-0258-02

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/04	1430	AP/EP	3	OK	8.3	611	8.5	17.0	0
1	2017/10/05	1040	JW/AP	-	HS					
2	2017/10/06	1015	EP/LB	3	HS					

Sample Information

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	8.0	7.9	7.9	8.3	8.3	8.3
2	8.1	8.1	8.1	8.6	8.6	8.6

day	EC (µS/cm)					
0	357	357	353	620	602	604
2	380	386	390	586	589	592

day	DO (mg/L) (40-100% saturation at test temp.)					
0	8.0	8.0	8.0	7.9	7.8	7.8
2	7.9	7.9	7.9	7.8	7.8	7.7

day	Temperature (°C) (range: 18-22°C)					
0	19.6	19.7	19.7	19.9	19.9	20.0
2	20.0	20.0	20.0	19.9	19.9	19.9

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C3/05 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 6
 Average number of young produced (≥15 young) 14.5
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 222 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date D:10/07 Weekly water hardness (mg/L) 115

Comments: Observations at 0 hrs: no ppt
 at 48 hrs: no ppt

Reviewed By: JM

Date Reviewed: 2017/10/11

Method JRS

Client TEC/164

Reference 1713-0258-04

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/10/06	1600 *	GP	1	LC
1	2017/10/07	1730	EP	-	LC
2	2017/10/08	1230	EP	-	SS
3	2017/10/09	0900	SW	-	HS
4	2017/10/10	0915	EP/HS	1	HS

Sample Information

Initial pH: 8.0
 Initial EC (µS/cm): 664
 Initial DO (mg/L): 8.9
 Initial Temp (°C): 16.7
 Salinity (ppt): 0
 Nets used: yes no

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.9

Test Chemistry and Biology

Conc. CTL 100

7.9 pH (units) (range: 5.5-8.5)

Day 0	<u>8.2</u>	<u>8.2</u>					
Day 4	<u>8.1</u>	<u>8.3</u>					

422 EC (µS/cm)

Day 0	<u>701</u>						
Day 4	<u>711</u>						

8.7 DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.9</u>	<u>8.9</u>					
Day 4	<u>8.9</u>	<u>8.9</u>					

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.3</u>	<u>14.5</u>					
Day 4	<u>14.3</u>	<u>14.3</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>3.6</u>	<u>0.4</u>	<u>20170831TR</u>	
2	<u>3.3</u>	<u>0.3</u>	Source	<u>In house</u>
3	<u>3.4</u>	<u>0.3</u>	Mean Length (cm):	<u>2.9</u>
4	<u>3.4</u>	<u>0.3</u>	Length Range (cm):	<u>2.5-3.6</u>
5	<u>2.5</u>	<u>0.2</u>	Mean Weight (g):	<u>0.3</u>
6	<u>2.6</u>	<u>0.3</u>	(Must be ≥0.3g)	
7	<u>2.5</u>	<u>0.2</u>	Weight Range (g):	<u>0.2-0.4</u>
8	<u>2.5</u>	<u>0.3</u>	Percent stock mortality	<u>0%</u>
9	<u>2.6</u>	<u>0.3</u>	(7 days prior to test, must be ≤2%)	<u>27</u>
10	<u>2.5</u>	<u>0.2</u>	Test Volume (L)	<u>20L</u>
Comments :				

Reviewed By: TM

Date Reviewed: 2017/10/12

Method DAS

Client TEC 164

Reference 1718-0258-04

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/04	1430	AP/EP	3	CA	8.0	357	8.0	19.6	0
1	2017/10/05	1040	JW/AP	-	HS	8.1	380	7.9	20.0	0
2	2017/10/06	1015	EP/US	2	HS	8.1	386	7.9	20.0	0

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	8.0	7.4	7.9	8.0	8.0	8.0
2	8.1	8.1	8.1	8.4	8.4	8.4

EC (µS/cm)

0	357	357	353	680	488	644
2	380	386	390	679	632	577

DO (mg/L) (40-100% saturation at test temp.)

0	8.0	8.0	8.0	7.8	7.8	7.9
2	7.9	7.9	7.9	7.7	7.8	7.7

Temperature (°C) (range: 18-22°C)

0	19.6	19.7	19.7	19.0	20.1	20.0
2	20.0	20.0	20.0	19.8	19.8	19.6

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10	10	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar C3/15 Jar(s) mortality 7 days prior to test (must be ≤25%) 0.1%

QA (previous month)
Days to first brood (≤12 days) 6
Average number of young produced (≥15 young) 14.5
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
Hardness (mg CaCO₃/L) of 100%: 238 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
Pail label / preparation date D/10/07 Weekly water hardness (mg/L) 715

Comments: **Observations** at 0 hrs: no ppt
at 48 hrs: no ppt

Reviewed By: ZotTM TM

Date Reviewed: 2017/10/11

Method TR5 Client TEC164 Reference 17B-0258-05

Test Log

Sample Information

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:
0	2017/10/06	1600*	CE	1	LC	8.1
1	2017/10/07	1430	EP	-	LC	Initial EC (µS/cm): 2160
2	2017/10/08	1230	AP	-	SS	Initial DO (mg/L): 8.9
3	2017/10/09	0900	JW	-	HS	Initial Temp (°C): 17.1
4	2017/10/10	0915	AP/HS	1	HS	Salinity (ppt): 0
						Nets used: yes / <u>no</u>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 9.0

Test Chemistry and Biology

Conc.	CTL	100					
pH (units) (range: 5.5-8.5)							
Day 0	7.9	8.1					
Day 4	8.1	8.1					
EC (uS/cm)							
Day 0	422	2310					
Day 4	442	2300					
DO (mg/L) (70-100% saturation at test temp.)							
Day 0	8.7	9.0					
Day 4	8.9	9.0					
Temperature (°C) (range: 14-16°C)							
Day 0	14.3	14.3					
Day 4	14.3	14.1					
Number Alive (In brackets number stressed)							
Day 0	10	10					
Day 1	10	10					
Day 2	10	10					
Day 3	10	10					
Day 4	10	10					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	3.6	0.4	20170831TR	
2	3.3	0.3	Source	In house
3	3.4	0.3	Loading Density (g/L):	0.13
4	3.4	0.3	Mean Length (cm):	2.9
5	2.5	0.2	Length Range (cm):	2.5-3.6
6	2.6	0.3	Mean Weight (g):	0.3
7	2.5	0.2	(Must be ≥0.3g)	
8	2.5	0.2	Weight Range (g):	0.2-0.4
9	2.6	0.3	Days Held	35
10	2.5	0.2	Percent stock mortality (7 days prior to test, must be ≤2%)	0%
			Test Volume (L)	20L

Comments :

Reviewed By: TM

Date Reviewed: 2017/10/12

Method DAS

Client TEC 164

Reference 1718-0258-05

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/04	1430	AP/EP	3	OK	8.1	2160	8.9	17.1	0
1	2017/10/05	1040	JW/AP	-	HS					
2	2017/10/06	1015	AP/CB	3	HS					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day

pH (units) (range: 6.0-8.5)

0	8.0	7.9	7.9	8.1	8.1 ^{XP}	8.2			
2	8.1	8.1	8.1	8.1	8.2	8.2			

EC (µS/cm)

0	257	257	353	2260	2260	2260			
2	380	386	390	2110	2190	2270			

DO (mg/L) (40-100% saturation at test temp.)

0	8.0	8.0	8.0	7.8	7.8	7.9			
2	7.9	7.9	7.9	7.8	7.8	7.9			

Temperature (°C) (range: 18-22°C)

0	19.6	19.7	19.7	20.1	20.1	20.0			
2	20.0	20.0	20.0	19.7	19.7	19.0			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10 (1F, 1I)	10 (10F, 2I)	10 (10F, 2I)			
2	10	10	10	10 (1F)	10 (2F)	10 (3F, 3I)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar C3/C5 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 6
Average number of young produced (≥15 young) 14.5
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
Hardness (mg CaCO₃/L) of 100%: 1235 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
Pail label / preparation date D:10/02 Weekly water hardness (mg/L) 115

Comments: **Observations**
at 0 hrs: no ppt
at 48 hrs: no ppt

Reviewed By: TM

Date Reviewed: 2017/10/11

APPENDIX C – Chain-of-custody form

COC ID: 20171002TOX		TURNAROUND TIME:			RUSH:													
PROJECT/CLIENT INFO				LABORATORY			OTHER INFO											
Facility Name / Job# Elkview Operations				Lab Name Nautilus Environmental			Report Format / Distribution											
Job Description Quarterly Toxicity Sampling				Lab Contact Claudio Quinteros			Excel <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EDD <input checked="" type="checkbox"/>											
Project Manager Cam Griffin				Email			Email 1: Chalsea.Jensen@teck.com <input checked="" type="checkbox"/>											
Email Cameron.Griffin@teck.com				Address #4, 6125-12th Street S.E.			Email 2: teckcoal@equisonline.com <input checked="" type="checkbox"/>											
Address RR#1 HWY#3							Email 3: James.Boldt@teck.com <input checked="" type="checkbox"/>											
							Email 4: Cameron.Griffin@teck.com <input checked="" type="checkbox"/>											
							Email 5: Teck.Lab.Results@sharepoint.teck.com <input checked="" type="checkbox"/>											
City Sparwood Province BC				City Calgary Province AB			PO number 475474											
Postal Code V1C 4C3 Country Canada				Postal Code T2H 2K1 Country Canada														
Phone Number 1-250-425-8137				Phone Number 403 253 7121														
SAMPLE DETAILS				ANALYSIS REQUESTED														
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# Of Cont.	ANALYSIS	Toxicity 96-h rainbow trout (Pass/Fail)	Toxicity 48-h Daphnia magna	Filtered	Preserved						
											Ne	Ne						
EV_LC1_WS_2017-10-02_N	EV_LC1	WS	N	2017/10/02		G	3		1	2								
EV_SMI_WS_2017-10-02_N -02	EV_SMI	WS	N	2017/10/02		G	3		1	2								
EV_DC1_WS_2017-10-02_N -03	EV_DC1	WS	N	2017/10/02		G	3		1	2								
EV_OC1_WS_2017-10-02_N -04	EV_OC1	WS	N	2017/10/02		G	3		1	2								
EV_BC1_WS_2017-10-02_N	EV_BC1	WS	N	2017/10/02		G	3		1	2								
EV_GT1_WS_2017-10-02_N -05	EV_GT1	WS	N	2017/10/02		G	3		1	2								
							Total	15										
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION				DATE/TIME	ACCEPTED BY/AFFILIATION				DATE/TIME					
Toxicity 96-Hr/48-HR = 96 Hr Rainbow Trout pass/fail & 48 Hr Daphnia pass/fail (Daphnia testing to occur at 20 degrees)																		
NR OF BOTTLES RETURNED-DESCRIPTION																		
Regular (default) <input checked="" type="checkbox"/>				Sampler's Name				Cam Griffin				Mobile #						
Priority (2-3 business days) - 50% surcharge				Sampler's Signature								Date/Time						
Emergency (1 Business Day) - 100% surcharge												20 OCT - 17						
For Emergency <1 Day, ASAP or Weekend - Contact ALS																		

END OF REPORT



Acute Toxicity Test Results

Samples collected October 3, 2017

Final Report

November 9, 2017

Submitted to: **Teck Resources Ltd.** EVO
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates				Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	
EV_MG1_WS_20 17-10-03_N / 1718-0290-01	3-Oct-17	6-Oct-17 at 1407h	7-Oct-17 at 1500h	7-Oct-17 at 1500h	11.1°C
EV_SP1_WS_201 7-10-03_N / 1718-0290-02	3-Oct-17	6-Oct-17 at 1407h	7-Oct-17 at 1500h	7-Oct-17 at 1500h	11.7°C
EV_EC1_WS_201 7-10-03_N / 1718-0290-03	3-Oct-17	6-Oct-17 at 1407h	7-Oct-17 at 1500h	7-Oct-17 at 1500h	14.2°C
EV_AQ6_WS_20 17-10-03_N / 1718-0290-04	3-Oct-17	6-Oct-17 at 1407h	7-Oct-17 at 1500h	7-Oct-17 at 1500h	11.8°C
EV_GC2_WS_201 7-10-03_N / 1718-0290-05	3-Oct-17	6-Oct-17 at 1407h	7-Oct-17 at 1500h	7-Oct-17 at 1500h	12.1°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_MG1_WS_2017-10-03_N	11.1°C	681	246
EV_SP1_WS_2017-10-03_N	11.7°C	1160	270
EV_EC1_WS_2017-10-03_N	14.2°C	660	136
EV_AQ6_WS_2017-10-03_N	11.8°C	247	208
EV_GC2_WS_2017-10-03_N	12.1°C	498	192

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
EV_MG1_WS_2017-10-03_N	100	100
EV_SP1_WS_2017-10-03_N	100	63
EV_SP1_WS_2017-10-03_N Reset	n/a	90
EV_EC1_WS_2017-10-03_N	100	80
EV_AQ6_WS_2017-10-03_N	100	97
EV_GC2_WS_2017-10-03_N	100	93

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i>
EV_MG1_WS_2017-10-03_N	3
EV_SP1_WS_2017-10-03_N	57
EV_SP1_WS_2017-10-03_N Reset	13
EV_EC1_WS_2017-10-03_N	30
EV_AQ6_WS_2017-10-03_N	3
EV_GC2_WS_2017-10-03_N	7

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_MG1_WS_2017-10-03_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None
EV_SP1_WS_2017-10-03_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the test vessel	None
EV_SP1_WS_2017-10-03_N Reset	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the test vessel	None
EV_EC1_WS_2017-10-03_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the test vessel	None
EV_AQ6_WS_2017-10-03_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the test vessel	None
EV_GC2_WS_2017-10-03_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	Precipitate observed in the test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.9-3.6) g/L KCl ¹	4.4 (4.3-4.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2-4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.1%	6.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	See Below	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, October 1, 2017; ² Test Date October 10, 2017

LC = Lethal Concentration; CL = Confidence Limit

The mean weight of the control fish were less than the 0.3 gram per fish weight requirement. This should not affect the outcome of the toxicity tests.



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In House
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TICS Client TEC164 Reference 1718-0290-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/10/07	1500*	EP	1	LC
1	2017/10/08	1230	FF	-	SS
2	2017/10/09	0900	JW	-	HS
3	2017/10/10	0915	RF	-	HS
4	2017/10/11	0845	SS	1	SBTW

Sample Information

Initial pH: 8.3
 Initial EC (µS/cm): 1171
 Initial DO (mg/L): 10.0
 Initial Temp (°C): 16.9
 Salinity (ppt): 2
 Nets used: yes / no

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L : yes / no
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.8

Test Chemistry and Biology

Conc. CTL 700

pH (units) (range: 5.5-8.5)

Day 0 7.6 8.1
 Day 4 8.1 8.2

EC (uS/cm)

Day 0 475 1460
 Day 4 401 1225

DO (mg/L) (70-100% saturation at test temp.)

Day 0 8.7 8.8
 Day 4 8.8 8.9

Temperature (°C) (range: 14-16°C)

Day 0 14.3 14.5
 Day 4 14.3 14.5

Number Alive (In brackets number stressed)

Day 0 10 10
 Day 1 10 10
 Day 2 10 10
 Day 3 10 10
 Day 4 10 10

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.4</u>	<u>0.1</u>	Loading Density (g/L): <u>0.065</u> Mean Length (cm): <u>2.6</u> Length Range (cm): <u>2.3-2.9</u> Mean Weight (g): <u>0.1</u> (Must be ≥0.3g) Weight Range (g): <u>0.1-0.2</u>	Batch <u>20170831TR</u>
2	<u>2.3</u>	<u>0.1</u>		Source <u>In House</u>
3	<u>2.9</u>	<u>0.2</u>		Days Held <u>37</u>
4	<u>2.9</u>	<u>0.2</u>		Percent stock mortality <u>0.37</u> (7 days prior to test, must be ≤2%)
5	<u>2.5</u>	<u>0.1</u>		Test Volume (L) <u>20L</u>
6	<u>2.9</u>	<u>0.2</u>		
7	<u>2.4</u>	<u>0.1</u>		
8	<u>2.5</u>	<u>0.1</u>		
9	<u>2.4</u>	<u>0.1</u>		
10	<u>2.4</u>	<u>0.1</u>		

Comments :

Reviewed By: JM

Date Reviewed: 2017/10/12

Method DAS Client TECLIB4 Reference 1718-0390-01

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information	
0	2017/10/07	1500	EP/AD	3	TM	Initial pH:	<u>8.3</u>
1	2017/10/08	1200	HP	-	TM	Initial EC (µS/cm):	<u>1171</u>
2	2017/10/09	1003	CB	3	HS	Initial DO (mg/L):	<u>10.0</u>
						Initial Temp (°C):	<u>16.9</u>
						Salinity (ppt):	<u>2</u>
Lab Code	<u>CLA</u>	<u>CLB</u>	<u>CLC</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>	

day pH (units) (range: 6.0-8.5)

0	<u>7.7</u>	<u>7.8</u>	<u>7.9</u>	<u>8.1</u>	<u>8.1</u>	<u>8.1</u>			
2	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>8.2</u>	<u>8.2</u>	<u>8.2</u>			

EC (µS/cm)

0	<u>348</u>	<u>354</u>	<u>360</u>	<u>1376</u>	<u>1417</u>	<u>1430</u>			
2	<u>368</u>	<u>374</u>	<u>372</u>	<u>1306</u>	<u>1426</u>	<u>1524</u>			

DO (mg/L) (40-100% saturation at test temp.)

0	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>			
2	<u>8.0</u>	<u>8.0</u>	<u>8.1</u>	<u>8.0</u>	<u>8.1</u>	<u>8.1</u>			

Temperature (°C) (range: 18-22°C)

0	<u>19.1</u>	<u>19.0</u>	<u>19.7</u>	<u>18.9</u>	<u>18.1</u>	<u>18.0</u>			
2	<u>19.4</u>	<u>19.3</u>	<u>19.2</u>	<u>19.0</u>	<u>18.9</u>	<u>18.9</u>			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10 (I)</u>	<u>10</u>	<u>10</u>			
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10 (I)</u>	<u>10</u>			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 6
 Average number of young produced (≥15 young) 17.0
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 111.7 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 mins Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 681 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date E: 10/02 Weekly water hardness (mg/L) 110

Comments:
0hrs: no ppt
48hrs: no ppt

Reviewed By: TM 2017/10/12 Date Reviewed: 2017/10/12

Method TR5 Client TEU164 Reference 1718-0290-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/10/07	1500	FP	1	LC
1	2017/10/08	1230	AA	-	SS
2	2017/10/09	0900	JW	-	HS
3	2017/10/10	0915	AT	-	HS
4	2017/10/11	0845	SS	1	JW

Sample Information

Initial pH: 7.9
 Initial EC (µS/cm): 1814
 Initial DO (mg/L): 9.2
 Initial Temp (°C): 16.6
 Salinity (ppt): 3
 Nets used: yes / (no)

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L : yes/no
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.8

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.6</u>	<u>7.8</u>					
Day 4	<u>8.1</u>	<u>8.2</u>					

EC (uS/cm)

Day 0	<u>475</u>	<u>2310</u>					
Day 4	<u>401</u>	<u>1708</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.7</u>	<u>8.8</u>					
Day 4	<u>8.8</u>	<u>8.9</u>					

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.3</u>	<u>14.5</u>					
Day 4	<u>14.3</u>	<u>14.1</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>6</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.4</u>	<u>0.1</u>	Loading Density (g/L): <u>0.065</u> Mean Length (cm): <u>2.6</u> Length Range (cm): <u>2.3-2.9</u> Mean Weight (g): <u>0.1</u> (Must be ≥0.3g) Weight Range (g): <u>0.1-0.2</u>	Batch <u>20170831TR</u>
2	<u>2.3</u>	<u>0.1</u>		Source <u>In House</u>
3	<u>2.9</u>	<u>0.2</u>		Days Held <u>37</u>
4	<u>2.9</u>	<u>0.2</u>		Percent stock mortality <u>0.57</u> (7 days prior to test, must be ≤2%)
5	<u>2.5</u>	<u>0.1</u>		Test Volume (L) <u>20L</u>
6	<u>2.9</u>	<u>0.2</u>		
7	<u>2.4</u>	<u>0.1</u>		
8	<u>2.5</u>	<u>0.1</u>		
9	<u>2.4</u>	<u>0.1</u>		
10	<u>2.4</u>	<u>0.1</u>		
Comments :				

Reviewed By: TM Date Reviewed: 2017/10/12

Method DAS

Client TEC164

Reference 1718-0290-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/07	1500	EP/AD	3	CA	<u>7.9</u>	<u>1814</u>	<u>9.2</u>	<u>16.6</u>	<u>3</u>
1	2017/10/08	1200	AD	-	EP					
2	2017/10/09	1005	CR	3	HS					

Lab Code	C7L A	C7L B	C7L C	100 A	100 B	100 C

day	pH (units) (range: 6.0-8.5)					
0	<u>7.7</u>	<u>7.8</u>	<u>7.9</u>	<u>8.0</u>	<u>8.1</u>	<u>8.1</u>
2	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>

day	EC (µS/cm)					
0	<u>348</u>	<u>354</u>	<u>360</u>	<u>2670</u>	<u>2200</u>	<u>2100</u>
2	<u>368</u>	<u>374</u>	<u>372</u>	<u>1996</u>	<u>2060</u>	<u>2010</u>

day	DO (mg/L) (40-100% saturation at test temp.)					
0	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>
2	<u>8.0</u>	<u>8.0</u>	<u>8.1</u>	<u>8.0</u>	<u>8.1</u>	<u>8.1</u>

day	Temperature (°C) (range: 18-22°C)					
0	<u>19.1</u>	<u>19.0</u>	<u>19.0</u>	<u>18.0</u>	<u>18.7</u>	<u>18.0</u>
2	<u>19.4</u>	<u>19.3</u>	<u>19.2</u>	<u>19.2</u>	<u>19.2</u>	<u>19.2</u>

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10(20)</u>	<u>10(10)</u>	<u>10(21)</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>8(13)</u>	<u>7(32)</u>	<u>4(21)</u>

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 6
 Average number of young produced (≥15 young) 17.0
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 109.7 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20mins Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 1160 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date E:10/02 Weekly water hardness (mg/L) 110

Comments:
ohrs: no ppt
48hrs: ppt formed on top of vessel surface

Reviewed By: [Signature]

Date Reviewed: 2017/10/11

Method DAS 20°C
RESET

Client RECLBY

Reference 1718-0290-02 (RESET)

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review
0	2017/10/11	1415	SW/JAP	3	HS
1	2017/10/12	1120	CS	-	JW
2	2017/10/13	0730	SW	3	EP

Sample Information

Initial pH:	<u>7.9</u>
Initial EC (µS/cm):	<u>1814</u>
Initial DO (mg/L):	<u>9.2</u>
Initial Temp (°C):	<u>16.6</u>
Salinity (ppt):	<u>3</u>

Lab Code	<u>CTLN</u>	<u>CTLB</u>	<u>CTLG</u>	<u>100A</u>	<u>100B</u>	<u>100C</u>
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day pH (units) (range: 6.0-8.5)

0	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>
2	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>

EC (µS/cm)

0	<u>319</u>	<u>317</u>	<u>319</u>	<u>1856</u>	<u>1861</u>	<u>1872</u>
2	<u>257</u>	<u>333</u>	<u>339</u>	<u>1830</u>	<u>1856</u>	<u>1853</u>

DO (mg/L) (40-100% saturation at test temp.)

0	<u>7.7</u>	<u>7.7</u>	<u>7.8</u>	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>
2	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>

Temperature (°C) (range: 18-22°C)

0	<u>20.1</u>	<u>20.1</u>	<u>20.0</u>	<u>20.2</u>	<u>20.2</u>	<u>20.2</u>
2	<u>20.7</u>	<u>20.2</u>	<u>20.5</u>	<u>20.1</u>	<u>20.1</u>	<u>20.1</u>

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>9 (1I)</u>	<u>8</u>	<u>10</u>

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar D3 Jar(s) mortality 7 days prior to test (must be ≤25%) 0.1.

QA (previous month)
Days to first brood (≤12 days) 6
Average number of young produced (≥15 young) 24.8
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 100% Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
Hardness (mg CaCO3/L) of 100%: - Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
Pail label / preparation date G:10/04 Weekly water hardness (mg/L) 81

Comments:
1mg/lust jars, 24 hrs
@ chr = nappi
@ 48hr: surficial ppt. some debris on DA under scope

Reviewed By: [Signature] Date Reviewed: 2017/10/13

Method TRS Client TEC164 Reference 178-0290-03

Test Log						Sample Information	
Day	Date	Time	Initial	Chem. Cart	Daily Data Review		
0	2017/10/07	1520 *	FP	1	LC	Initial pH:	<u>8.3</u>
1	2017/10/08	1230	AP	-	SS	Initial EC (µS/cm):	<u>1182</u>
2	2017/10/09	0900	JW	-	AS	Initial DO (mg/L):	<u>9.1</u>
3	2017/10/10	0915	AP	-	NS	Initial Temp (°C):	<u>16.9</u>
4	2017/10/11	0845	SS	1	AW	Salinity (ppt):	<u>2</u>
						Nets used: yes / no	<u>(no)</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration
Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes
Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
DO(mg/L) of 100%: 8.8

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0 7.6 7.9
Day 4 8.1 8.2

EC (uS/cm)

Day 0 475 1848
Day 4 401 1591

DO (mg/L) (70-100% saturation at test temp.)

Day 0 8.7 8.8
Day 4 8.8 8.9

Temperature (°C) (range: 14-16°C)

Day 0 14.3 14.5
Day 4 14.3 14.1

Number Alive (In brackets number stressed)

Day 0 10 10
Day 1 10 10
Day 2 10 10
Day 3 10 10
Day 4 10 10

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.4</u>	<u>0.1</u>	Loading Density (g/L):	<u>0.065</u>
2	<u>2.3</u>	<u>0.1</u>		Source: <u>In House</u>
3	<u>2.9</u>	<u>0.2</u>	Mean Length (cm):	<u>2.6</u>
4	<u>2.9</u>	<u>0.2</u>	Length Range (cm):	<u>2.3-2.9</u>
5	<u>2.5</u>	<u>0.1</u>		Percent stock mortality (7 days prior to test, must be ≤2%): <u>0.37</u>
6	<u>2.9</u>	<u>0.2</u>	Mean Weight (g):	<u>0.1</u>
7	<u>2.4</u>	<u>0.1</u>	(Must be ≥0.3g)	Test Volume (L): <u>20L</u>
8	<u>2.5</u>	<u>0.1</u>	Weight Range (g):	
9	<u>2.4</u>	<u>0.1</u>		
10	<u>2.4</u>	<u>0.1</u>		

Batch: 20170831TR
Days Held: 37

Comments :

Reviewed By: TM

Date Reviewed: 2017/10/12

Method DAS

Client TEC164

Reference 1718-0290-03

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/07	1500	EP/AD	3	TM	8.3	1182	9.1	16.9	0
1	2017/10/08	1200	AS	-	SS					
2	2017/10/09	1015	CB	3	AS					

Lab Code	CLA	CLB	CLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.7	7.8	7.9	8.0	8.0	8.0			
2	7.8	7.9	7.9	8.1	8.1	8.1			

EC (µS/cm)

0	348	354	360	1757	1777	1781			
2	368	371	372	1689	1744	1783			

DO (mg/L) (40-100% saturation at test temp.)

0	7.8	7.8	7.8	8.1	8.1	8.1			
2	8.0	8.0	8.1	7.9	7.9	7.9			

Temperature (°C) (range: 18-22°C)

0	19.1	19.0	19.0	18.0	18.0	18.0			
2	19.4	19.3	19.2	19.8	19.7	19.6			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	9	8	7(51)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 6
 Average number of young produced (≥15 young) 17.0
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 110.2 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20mins Filtered with 110um screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 660 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date E:10/02 Weekly water hardness (mg/L) 110

Comments:
0hrs: no ppt
48hrs: ppt formed

Reviewed By: TM

Date Reviewed: 2017/10/12

Method TRB Client TFU164 Reference 1718-0790-04

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/10/07	1500*	TD	1	LC
1	2017/10/08	1230	AC	-	SS
2	2017/10/09	0900	JW	-	HS
3	2017/10/10	0915	AC	-	HS
4	2017/10/11	0845	SS	1	JW

Sample Information

Initial pH:	<u>8.2</u>
Initial EC (µS/cm):	<u>323</u>
Initial DO (mg/L):	<u>9.7</u>
Initial Temp (°C):	<u>16.3</u>
Salinity (ppt):	<u>2</u>
Nets used: yes /	<u>10</u>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100%: 8.8

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>7.6</u>	<u>8.1</u>				
Day 4	<u>8.1</u>	<u>8.3</u>				

EC (uS/cm)

Day 0	<u>475</u>	<u>701</u>				
Day 4	<u>401</u>	<u>545</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.7</u>	<u>8.8</u>				
Day 4	<u>8.8</u>	<u>8.9</u>				

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.3</u>	<u>14.5</u>				
Day 4	<u>14.3</u>	<u>14.2</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.4</u>	<u>0.1</u>	Loading Density (g/L): <u>0.065</u> Mean Length (cm): <u>2.6</u> Length Range (cm): <u>2.3-2.9</u> Mean Weight (g): <u>0.1</u> (Must be ≥0.3g) Weight Range (g): <u>0.1-0.2</u>	Batch: <u>20170831TR</u>
2	<u>2.3</u>	<u>0.1</u>		Source: <u>In House</u>
3	<u>2.9</u>	<u>0.2</u>		Days Held: <u>37</u>
4	<u>2.9</u>	<u>0.2</u>		Percent stock mortality: <u>0.37</u> (7 days prior to test, must be ≤2%)
5	<u>2.5</u>	<u>0.1</u>		Test Volume (L): <u>20L</u>
6	<u>2.9</u>	<u>0.2</u>		
7	<u>2.4</u>	<u>0.1</u>		
8	<u>2.5</u>	<u>0.1</u>		
9	<u>2.4</u>	<u>0.1</u>		
10	<u>2.4</u>	<u>0.1</u>		
Comments :				

Reviewed By: TM Date Reviewed: 2017/10/12

Method DAS

Client TEC164

Reference 1718-0290-04

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/07	1500	EP/AD	3	TM	8.2	503	9.7	16.3	2
1	2017/10/08	1200	AR	-	SS					
2	2017/10/12/09	1017	CB	3	ITS					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day

	pH (units) (range: 6.0-8.5)					
0	7.7	7.8	7.9	8.3	8.3	8.3
2	7.8	7.89	7.9	8.2	8.2	8.2

	EC (µS/cm)					
0	348	354	360	605	609	608
2	368	371	372	564	455	584

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.8	7.8	7.8	8.0	8.1	8.1
2	8.0	8.0	8.1	7.9	8.0	7.9

	Temperature (°C) (range: 18-22°C)					
0	19.1	19.0	19.2	18.0	18.1	18.1
2	19.4	19.5	19.2	19.6	19.5	19.5

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	9	10(10)	10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 6
 Average number of young produced (≥15 young) 17.0
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 110.6 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20min Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 247 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date E: 10/02 Weekly water hardness (mg/L) 110

Comments:
 0hrs: no ppt
 48hrs: ppt formed

Reviewed By: TM

Date Reviewed: 2017/10/12

Method TR Client TEC164 Reference 1718-0290-05

Test Log						Sample Information	
Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Initial pH:	
0	2017/10/07	1500 *	EP	1	LC	Initial EC (µS/cm):	8.1 972
1	2017/10/08	1230	EP	-	SS	Initial DO (mg/L):	8.7
2	2017/10/09	0900	JW	-	HS	Initial Temp (°C):	17.3
3	2017/10/10	0800	EP	-	NS	Salinity (ppt):	3
4	2017/10/11	0845	SS	1	TW	Nets used: yes / no	no

Note: *; time when the test was loaded with fish

Sample Pre-Aeration
 Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.8

Test Chemistry and Biology

Conc.	CTL	100					
pH (units) (range: 5.5-8.5)							
Day 0	7.6	8.0					
Day 4	8.1	8.2					
EC (µS/cm)							
Day 0	475	1179					
Day 4	401	899					
DO (mg/L) (70-100% saturation at test temp.)							
Day 0	8.7	8.8					
Day 4	8.8	9.0					
Temperature (°C) (range: 14-16°C)							
Day 0	14.7	14.5					
Day 4	14.3	13.6					
Number Alive (In brackets number stressed)							
Day 0	10	10					
Day 1	10	10					
Day 2	10	10					
Day 3	10	10					
Day 4	10	10					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	2.4	0.1	20170831TR	
2	2.3	0.1	Source	In House
3	2.9	0.2	Loading Density (g/L):	0.13
4	2.9	0.2	Mean Length (cm):	2.6
5	2.5	0.1	Length Range (cm):	2.3-2.9
6	2.9	0.2	Mean Weight (g):	0.1
7	2.4	0.1	(Must be ≥0.3g)	
8	2.45	0.1	Weight Range (g):	0.1-0.2
9	2.0	0.1	Percent stock mortality (7 days prior to test, must be ≤2%)	0.37
10	2.4	0.1	Test Volume (L)	10L

Comments :

Reviewed By: TM Date Reviewed: 2017/10/12

Daphnia Bench Sheet

Method DAS

Client TEC164

Reference 1718-0290-05

Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information
0	2017/10/07	1500	EP/AD	3	JM	Initial pH: <u>8.1</u>
1	2017/10/08	1200	AP	-	SA	Initial EC (µS/cm): <u>972</u>
2	2017/10/09	1002	CB	3	HS	Initial DO (mg/L): <u>8.7</u>
						Initial Temp (°C): <u>17.3</u>
						Salinity (ppt): <u>3</u>

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day 7.7.18 pH (units) (range: 6.0-8.5)

0	<u>7.8</u>	<u>7.8</u>	<u>7.9</u>	<u>8.0</u>	<u>8.1</u>	<u>8.3</u>
2	<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>8.1</u>	<u>8.1</u>	<u>8.1</u>

EC (µS/cm)

0	<u>348</u>	<u>354</u>	<u>360</u>	<u>1084</u>	<u>1136</u>	<u>1120</u>
2	<u>368</u>	<u>374</u>	<u>372</u>	<u>1074</u>	<u>1097</u>	<u>1136</u>

DO (mg/L) (40-100% saturation at test temp.)

0	<u>7.8</u>	<u>7.8</u>	<u>7.8</u>	<u>8.1</u>	<u>8.5</u>	<u>8.0</u>
2	<u>8.0</u>	<u>8.0</u>	<u>8.1</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>

Temperature (°C) (range: 18-22°C)

0	<u>19.1</u>	<u>19.0</u>	<u>19.2</u>	<u>18.4</u>	<u>18.4</u>	<u>18.4</u>
2	<u>19.4</u>	<u>19.3</u>	<u>19.3</u>	<u>19.4</u>	<u>19.4</u>	<u>19.4</u>

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
1	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
2	<u>10</u>	<u>10</u>	<u>10</u>	<u>9</u>	<u>9</u>	<u>9</u>

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture

Young jar C1 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)

Days to first brood (≤12 days) 6

Average number of young produced (≥15 young) 17.0

Were test treatments randomized on test tray? Yes / No

Sample

DO % of sample prior to aeration: 109.2 Is aeration required (<40% or >100%)? Yes or No

Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes or No

Hardness (mg CaCO₃/L) of 100%: 498 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No

Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water

Pail label / preparation date E: 10/02 Weekly water hardness (mg/L) 110

Comments:

0hrs: no ppt
48hrs: v. small amt of ppt present

Reviewed By: JM

Date Reviewed: 2017/10/12

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20171003TOX		TURNAROUND TIME:				RUSH:							
PROJECT/CLIENT INFO				LABORATORY				OTHER INFO					
Facility Name / Job: Elkview Operations				Lab Name: Nautilus Environmental				Report Format / Distribution					
Job Description: Quarterly Toxicity Sampling				Lab Contact: Claudio Quintero				Excel					
Project Manager: Cam Griffin				Email				PDF					
Email: Cameron.Griffin@teck.com				Address: #4, 6125-12th Street S.E.				EDD					
Address: RR#1 HWY# 3								Email 1: Chelsea.Jensen@teck.com					
								Email 2: teckcoal@equisonline.com					
								Email 3: James.Bolt@teck.com					
								Email 4: Cameron.Griffin@teck.com					
								Email 5: Teck.Lab.Results@sharepoint.teck.com					
City: Sparwood				Province: BC		City: Calgary		Province: AB		PO number: 475474			
Postal Code: V1C 4C3				Country: Canada		Postal Code: T2H 2K1		Country: Canada					
Phone Number: 1-250-425-8137				Phone Number: 403 253 7121									
SAMPLE DETAILS								ANALYSIS REQUESTED					
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# Of Cont.	FILTERED		PRESERVED		ANALYSIS	
								Yes	No	Yes	No	Toxicity 96-h rainbow trout (Pass/Fail)	Toxicity 48-h Daphnia magna
11.1 EV_MG1_WS_2017-10-03_N 01	EV_MG1	WS	N	2017/10/03	12:15	G	3			1	2		
11.7 EV_SP1_WS_2017-10-03_N 02	EV_SP1	WS	N	2017/10/03	9:30	G	3			1	2		
14.2 EV_EC1_WS_2017-10-03_N 03	EV_EC1	WS	N	2017/10/03	10:30	G	3			1	2		
11.8 EV_AQ6_WS_2017-10-03_N 04	EV_AQ6	WS	N	2017/10/03	11:15	G	3			1	2		
12.1 EV_GC2_WS_2017-10-03_N 05	EV_GC2	WS	N	2017/10/03	7:15	G	3			1	2		
							Total	15					
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION				DATE/TIME	ACCEPTED BY/AFFILIATION				DATE/TIME
Toxicity 96-Hr/48-HR = 96 Hr Rainbow Trout pass/fail & 48 Hr Daphnia pass/fail (Daphnia testing to occur at 20 degrees)													
NB OF BOTTLES RETURNED/DESCRIPTION													
Regular (default) <input checked="" type="checkbox"/>				Sampler's Name				Chelsea Jensen		Mobile #			
Priority (2-3 business days) - 50% surcharge				Sampler's Signature				Chelsea Jensen		Date/Time		October 3, 2017	
Emergency (1 Business Day) - 100% surcharge													
For Emergency <1 Day, ASAP or Weekend - Contact ALS													

CB
 2017/10/06
 1407
 Manitoulin
 5 x 20L Carboys
 10 x 1L bottles
 1 x 20L Carboy for GC2 broken - some sample leaked in cooler
 4 x 20L Carboys + 10 x 1L bottles good condition
 CB NB Deal/Initial V

END OF REPORT



Acute Toxicity Test Results

Samples collected October 4, 2017

Final Report

November 9, 2017

Submitted to: **Teck Resources Ltd.** EVO
Sparwood, BC

#4, 6125 12 Street SE, Calgary, AB T2H 2K1

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates				Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	
EV_DC1_WS_2017-10-04_N / 1718-0294-01	4-Oct-17	7-Oct-17 at 1215h	9-Oct-17 at 1300h	9-Oct-17 at 1600h	10°C
EV_BC1_WS_2017-10-04_N / 1718-0294-02	4-Oct-17	7-Oct-17 at 1215h	9-Oct-17 at 1300h	9-Oct-17 at 1600h	10°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_DC1_WS_2017-10-04_N	10°C	1095	331
EV_BC1_WS_2017-10-04_N	10°C	954	256

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
EV_DC1_WS_2017-10-04_N	100	93
EV_BC1_WS_2017-10-04_N	100	97

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i>
EV_DC1_WS_2017-10-04_N	7
EV_BC1_WS_2017-10-04_N	7

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_DC1_WS_2017-10-04_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None
EV_BC1_WS_2017-10-04_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.9-3.6) g/L KCl ¹	4.4 (4.3-4.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2-4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.1%	6.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, October 1, 2017; ² Test Date October 10, 2017

LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In House
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	10 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TRS

Client TEC 101

Reference 1718-0294-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/10/09	1300*	HS	1	CB	Initial pH: <u>8.1</u>
1	2017/10/10	0915	AP	-	LC	Initial EC (µS/cm): <u>1921</u>
2	2017/10/11	0845	SS	-	HS	Initial DO (mg/L): <u>10.5</u>
3	2017/10/12	1000	JW	-	HS	Initial Temp (°C): <u>5.1</u>
4	2017/10/13	0910	EP/AP	1	CB	Salinity (ppt): <u>4</u>
						Nets used: yes / <u>(no)</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100%: 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>8.0</u>	<u>8.1</u>				
Day 4	<u>8.1</u>	<u>8.3</u>				

EC (uS/cm)

Day 0	<u>428</u>	<u>1910</u>				
Day 4	<u>433</u>	<u>1931</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.7</u>	<u>8.9</u>				
Day 4	<u>8.7</u>	<u>8.7</u>				

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.5</u>	<u>14.5</u>				
Day 4	<u>14.9</u>	<u>14.9</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>26</u>	<u>0.2</u>	Loading Density (g/L): <u>0.26</u> Mean Length (cm): <u>2.8</u> Length Range (cm): <u>2.6-3.0</u> Mean Weight (g): <u>0.3</u> (Must be ≥0.3g) Weight Range (g): <u>0.2-0.3</u>	Batch <u>20170801PR</u>
2	<u>2.8</u>	<u>0.3</u>		Source <u>In house</u>
3	<u>2.7</u>	<u>0.2</u>		Days Held <u>39</u>
4	<u>3.0</u>	<u>0.3</u>		Percent stock mortality <u>0.5</u> (7 days prior to test, must be ≤2%)
5	<u>3.0</u>	<u>0.3</u>		Test Volume (L) <u>10L</u>
6	<u>2.9</u>	<u>0.3</u>		
7	<u>2.8</u>	<u>0.3</u>		
8	<u>2.7</u>	<u>0.2</u>		
9	<u>2.8</u>	<u>0.2</u>		
10	<u>2.9</u>	<u>0.3</u>		
Comments :				

Reviewed By: cu

Date Reviewed: 2017/10/20

Method DAS

 Client TEC/164

 Reference 1718-0794-01
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information			
0	2017/10/09	1600	HS	3	CA	Initial pH:	8.1		
1	2017/10/10	1000	CB	-	AD	Initial EC (µS/cm):	1921		
2	2017/10/11	1100	ER	3	CA	Initial DO (mg/L):	10.5		
						Initial Temp (°C):	5.9		
						Salinity (ppt):	4		
Lab Code	CTLA	CTCB	CTLC	100A	100B	100C			

day	pH (units) (range: 6.0-8.5)								
0	7.8	7.6	7.9	8.2	8.2	8.2			
2	7.9	7.9	7.9	8.0	8.2	8.2			

	EC (µS/cm)								
0	352	354	359	1925	1930	1931			
2	348	350	357	1910	1913	1917			

	DO (mg/L) (40-100% saturation at test temp.)								
0	7.8	7.9	7.8	8.3	8.3	8.3			
2	7.8	7.8	7.8	8.1	8.1	8.1			

	Temperature (°C) (range: 18-22°C)								
0	20.1	20.1	20.1	20.3	20.3	20.3			
2	20.9	20.9	20.8	20.9	20.9	20.9			

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)								
0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10	9	9			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>D2</u>	Jar(s) mortality 7 days prior to test (must be ≤25%)	<u>0%</u>
QA (previous month)	Days to first brood (≤12 days)	<u>8</u>	
	Average number of young produced (≥15 young)	<u>18.2</u>	
	Were test treatments randomized on test tray?	<input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>100</u>	Is aeration required (<40% or >100%)?	Yes or <input checked="" type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>—</u>	Filtered with 110µm screen prior to testing	Yes or <input checked="" type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>1095</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)?	Yes or <input checked="" type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L)	<u>—</u>	
Dilution Water	Pail label / preparation date	<u>C: 10/06</u>	Weekly water hardness (mg/L) <u>89</u>
Comments:	<u>0hrs: no ppt</u> <u>48hrs: no ppt</u>		

 Reviewed By: CA

 Date Reviewed: 2017/10/20

Method JRS Client TECIGA Reference 1716-0294-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review	Sample Information
0	2017/10/09	1300 *	HS	1	CA	Initial pH: <u>7.9</u>
1	2017/10/10	0915	AS	-	LC	Initial EC (µS/cm): <u>1807</u>
2	2017/10/11	0815	SS	-	HS	Initial DO (mg/L): <u>10.2</u>
3	2017/10/12	1000	(JW)	-	HS	Initial Temp (°C): <u>5.9</u>
4	2017/10/13	0910	EP/AP	1	CA	Salinity (ppt): <u>3</u>
						Nets used: yes / <input checked="" type="checkbox"/> no

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes / no
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>8.0</u>	<u>8.0</u>					
Day 4	<u>8.1</u>	<u>8.1</u>					

EC (uS/cm)

Day 0	<u>430</u>	<u>1810</u>					
Day 4	<u>441</u>	<u>1827</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.7</u>	<u>8.9</u>					
Day 4	<u>8.7</u>	<u>8.5</u>					

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.5</u>	<u>14.5</u>					
Day 4	<u>15.0</u>	<u>15.0</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.8</u>	<u>0.2</u>	Loading Density (g/L): <u>0.21</u> Mean Length (cm): <u>2.8</u> Length Range (cm): <u>2.6-3.0</u> Mean Weight (g): <u>0.3</u> (Must be ≥0.3g) Weight Range (g): <u>0.2-0.3</u>	Batch: <u>20170831TR</u>
2	<u>3.0</u>	<u>0.3</u>		Source: <u>In house</u>
3	<u>2.9</u>	<u>0.3</u>		Days Held: <u>39</u>
4	<u>2.7</u>	<u>0.2</u>		Percent stock mortality: <u>0.5</u> (7 days prior to test, must be ≤2%)
5	<u>2.7</u>	<u>0.3</u>		Test Volume (L): <u>10L</u>
6	<u>2.6</u>	<u>0.2</u>		
7	<u>2.3</u>	<u>0.3</u>		
8	<u>2.9</u>	<u>0.2</u>		
9	<u>3.0</u>	<u>0.3</u>		
10	<u>3.0</u>	<u>0.3</u>		
Comments :				

Reviewed By: ca

Date Reviewed: 2017/10/20

Method DAS

Client TEC164

Reference 1718-0294-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/09	1600	HS	3	CO	7.9	1807	10.2	5.9	3
1	2017/10/10	1000	CB	-	AP					
2	2017/10/11	1000	EP	3	CO					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.8	7.9	7.8	7.9	7.9	7.9
2	7.8	7.8	7.9	8.0	8.0	8.1

day	EC (µS/cm)					
0	352	358	361	1814	1811	1810
2	360	351	350	1810	1809	1800

day	DO (mg/L) (40-100% saturation at test temp.)					
0	7.8	7.8	7.8	7.9	7.9	7.9
2	7.8	7.9	7.9	8.1	8.0	8.0

day	Temperature (°C) (range: 18-22°C)					
0	20.0	20.0	20.0	20.0	20.1	20.1
2	20.8	20.9	20.9	20.7	20.7	20.7

day	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10 (1+)
2	10	10	10	10	10	9/10

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar D₁ Jar(s) mortality 7 days prior to test (must be ≤25%) 01

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 182
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 100 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): - Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 954 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date C: 10/06 Weekly water hardness (mg/L) 89

Comments:
 0 hrs: 10 ppt
 48 hrs: 10 ppt

Reviewed By: CO

Date Reviewed: 2017/10/20

APPENDIX C – Chain-of-custody form

Teck

COB ID: 20171004N		TURNAROUND TIME:		RUSH:						
PROJECT/CLIENT INFO				LABORATORY		OTHER INFO				
Facility Name / Job# Elkview Operations				Lab Name Nautilus Environmental		Report Format / Distribution				
Job Description Chronic Toxicity Sampling				Lab Contact Claudio Quinteros		Email 1:	Cameron.Griffin@teck.com	Excel	PDF	EDD
Project Manager Cameron Griffin				Email		Email 2:	teckcoal@equisonline.com	X	X	X
Email Cameron.Griffin@teck.com				Address #4, 6125-12th Street S.E		Email 3:	Chelsea.Jensen@Teck.com	X	X	X
Address RR#1 HWY# 3						Email 4:	James.Boldt@Teck.com	X	X	X
						Email 5:	Jeff.Williams@Teck.com	X	X	X
						Email 6:	Teck.Lab.Results@sharepoint.teck.com	X	X	X
City Sparwood Province BC				City Calgary Province AB		PO number		475474		
Postal Code V0B 2G1 Country Canada				Postal Code T2H 2K1 Country Canada						
Phone Number 1-250-425-8137				Phone Number 403 253 7121						

SAMPLE DETAILS **ANALYSIS REQUESTED** Filtered - F, Fish, L, Lab, SL, Field & Lab, R, Non

Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# Of Cont.	ANALYSIS	30-day rainbow trout early life stage P/F	72h P. subcapitata P/F	7d C.dupia P/F	96 hr rainbow trout Pass/Fail	48 hr Daphnia Pass/Fail				
1718-0294																	
EV_DC1_WS_2017-10-04_N -01	EV_DC1	WS	N	10/4/2017		G	3					x	x				
EV_BC1_WS_2017-10-04_N -02	EV_BC1	WS	N	10/4/2017		G	3					x	x				
J.C.	10°C																
2017/10/07	2 x 20L cor boxes																
12:15																	
Monitourlin	Yes S/ Yes I																
							Total	6									

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
72h P.subcapitata P/F C.dupia P/F rainbow trout early life stage P/F				
Good condition				
7d 30d				
96 hr Rainbow Trout P/F 48 hr Daphnia P/F				

Regular (default) <input checked="" type="checkbox"/>	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend - Contact ALS
Sampler's Name	Chelsea Jensen	Mobile #	
Sampler's Signature		Date/Time	October 4, 2017

END OF REPORT



Acute Toxicity Test Results

Samples collected October 13, 2017

Final Report

November 9, 2017

Submitted to: **Teck Resources Ltd.** EVO
Sparwood, BC

SAMPLE INFORMATION

Sample ID/ Internal ID	Dates				Receipt temperature
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	
EV_GC2_WS_201 7-10-13_N / 1718-0329-01	13-Oct-17 at 1505h	14-Oct-17 at 1045h	17-Oct-17 at 1045h	16-Oct-17 at 1400h	4.3°C
EV_GCMARSH_ WS_2017-09- 11_NP / 1718-0329-02	13-Oct-17 at 1425h	14-Oct-17 at 1045h	17-Oct-17 at 1045h	16-Oct-17 at 1400h	5.2°C
EV_ER5_WS_201 7-10-13_N / 1718-0329-03	13-Oct-17 at 1510h	14-Oct-17 at 1045h	17-Oct-17 at 1030h	16-Oct-17 at 1400h	5.1°C
EV_ER9_WS_201 7-10-13_N / 1718-0329-04	13-Oct-17 at 1430h	14-Oct-17 at 1045h	17-Oct-17 at 1045h	16-Oct-17 at 1400h	4.0°C

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_GC2_WS_2017-10-13_N	4.3°C	500	160
EV_GCMARSH_WS_2017-09-11_NP	5.2°C	512	169
EV_ER5_WS_2017-10-13_N	5.1°C	443	164
EV_ER9_WS_2017-10-13_N	4.0°C	408	164

TEST TYPES

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent survival in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
EV_GC2_WS_2017-10-13_N	70	97
EV_GCMARSH_WS_2017-09-11_NP	100	100
EV_ER5_WS_2017-10-13_N	100	100
EV_ER9_WS_2017-10-13_N	100	77

Sample ID	Percent Immobility in 100 (% v/v)
	<i>Daphnia magna</i>
EV_GC2_WS_2017-10-13_N	17
EV_GCMARSH_WS_2017-09-11_NP	13
EV_ER5_WS_2017-10-13_N	13
EV_ER9_WS_2017-10-13_N	30

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_GC2_WS_2017-10-13_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None
EV_GCMARSH_WS_2017-09-11_NP	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None
EV_ER5_WS_2017-10-13_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None
EV_ER9_WS_2017-10-13_N	Rainbow trout	None	None
	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	3.2 (2.9-3.6) g/L KCl ¹	4.4 (4.3-4.5) g/L NaCl ²
Reference toxicant historical mean (2 SD Range)	3.0 (2.2-4.0) g/L KCl	5.0 (4.1-6.0) g/L NaCl
Reference toxicant CV	9.1%	6.2%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date, October 1, 2017; ² Test Date October 10, 2017
 LC = Lethal Concentration; CL = Confidence Limit



Report By:
Alvin Pham, BSc
Biologist



Reviewed By:
Claudio Quinteros
Laboratory Technical Lead

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) survival test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	In House
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	22-L plastic pails with polyethylene liners
Test volume	20 L
Test solution depth	Minimum 15 cm
Test concentrations	100% (undiluted) sample plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	De-chlorinated City of Calgary tap water
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light/8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test Measurements	pH, conductivity, dissolved oxygen and temperature were measured at test initiation and test completion; salinity measured at test initiation; evaluated for survival daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS version 1.9.0.8
Test endpoints	Percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Potassium chloride (KCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* survival test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24 hours
Test type	Static
Test duration	48 hours
Test vessel	375 mL glass vessels
Test volume	150 mL
Test concentrations	100% (undiluted) plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water supplemented with B12 (2 µg/L) and Na ₂ SeO ₄ (2 µg Se/L)
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light/8 hours dark
Aeration	None
Test measurements	pH, conductivity, dissolved oxygen and temperature measured at test initiation and completion; salinity and hardness measured at test initiation in undiluted sample; evaluated daily for survival
Test protocol	Environment Canada (2000), EPS 1/RM/14
Statistical software	CETIS version 1.9.0.8
Test endpoints	Mean percent survival
Test acceptability criteria for controls	Survival ≥ 90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Method TR5 Client TFC164 Reference 1718-0329-01

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/10/17	1045*	EP	1	HS
1	2017/10/18	0800	FW	-	SS
2	2017/10/19	0800	AP	-	JW
3	2017/10/20	0745	EP	-	LC
4	2017/10/21	1100	AP	1	LC

Sample Information

Initial pH:	<u>8.0</u>
Initial EC (µS/cm):	<u>950</u>
Initial DO (mg/L):	<u>9.7</u>
Initial Temp (°C):	<u>19.5</u>
Salinity (ppt):	<u>4</u>
Nets used: yes / no	yes / <u>no</u>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no
 Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>8.1</u>	<u>8.1</u>				
Day 4	<u>8.2</u>	<u>8.2</u>				

EC (uS/cm)

Day 0	<u>405</u>	<u>1005</u>				
Day 4	<u>417</u>	<u>987</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.8</u>	<u>8.9</u>				
Day 4	<u>8.9</u>	<u>8.9</u>				

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.2</u>	<u>14.0</u>				
Day 4	<u>14.5</u>	<u>14.5</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>8</u>				
Day 3	<u>10</u>	<u>8</u>				
Day 4	<u>10</u>	<u>7</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.8</u>	<u>0.103</u>	Loading Density (g/L): <u>0.135</u> Mean Length (cm): <u>2.9</u> Length Range (cm): <u>2.7-3.0</u> Mean Weight (g): <u>0.3</u> (Must be ≥0.3g) Weight Range (g): <u>0.2-0.3</u>	Batch: <u>20170831TR</u>
2	<u>2.9</u>	<u>0.3</u>		Source: <u>In House</u>
3	<u>2.7</u>	<u>0.2</u>		Days Held: <u>41</u>
4	<u>2.9</u>	<u>0.3</u>		Percent stock mortality: <u>0%</u> (7 days prior to test, must be ≤2%)
5	<u>2.7</u>	<u>0.2</u>		Test Volume (L): <u>20L</u>
6	<u>2.9</u>	<u>0.3</u>		
7	<u>2.9</u>	<u>0.3</u>		
8	<u>2.8</u>	<u>0.2</u>		
9	<u>2.9</u>	<u>0.3</u>		
10	<u>2.9</u>	<u>0.3</u>		
Comments:				

Reviewed By: JM Date Reviewed: 2017/10/23

Method DAS

 Client TECLB4

 Reference 1718-0329-01
Test Log

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Sample Information
0	2017/10/16	1400	SS/IB	3	SW	Initial pH: <u>8.0</u>
1	2017/10/17	0900	JW/EP	-	HS	Initial EC (µS/cm): <u>950</u>
2	2017/10/18	0930	EP/EP	3	SW	Initial DO (mg/L): <u>9.7</u>
						Initial Temp (°C): <u>19.5</u>
						Salinity (ppt): <u>4</u>

Lab Code	CLH	CLB	CLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.9	7.9	7.9	8.2	8.2	8.2
2	7.9	7.9	7.9	8.1	8.1	8.2

EC (µS/cm)

0	312	319	319	1000	1013	1024
2	530	333	340	977	977	995

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.6	7.7	8.0	8.0	8.1
2	7.8	7.8	7.8	7.8	7.8	7.8

Temperature (°C) (range: 18-22°C)

0	20.1	20.3	20.2	18.1	18.0	18.0
2	20.0	19.8	19.7	20.0	20.0	20.1

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10
1	10	10	10	10	10	10 (2F)
2	10	10	10	10 (1I)	10 (2I)	9 (1I)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture	Young jar <u>C4</u>	Jar(s) mortality 7 days prior to test (must be ≤25%) <u>0%</u>
QA (previous month)	Days to first brood (≤12 days) <u>8</u>	Average number of young produced (≥15 young) <u>31.2</u>
	Were test treatments randomized on test tray? <input checked="" type="radio"/> Yes / <input type="radio"/> No	
Sample	DO % of sample prior to aeration: <u>114</u>	Is aeration required (<40% or >100%)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Duration of aeration (37.5 +/- 12.5 mL/min/L): <u>20 min</u>	Filtered with 110µm screen prior to testing <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness (mg CaCO ₃ /L) of 100%: <u>500</u>	Is hardness adjustment required (<25 mg CaCO ₃ /L)? <input checked="" type="radio"/> Yes or <input type="radio"/> No
	Hardness of sample after adjustment (must be between 25 - 30 mg CaCO ₃ /L) <u>-</u>	
Dilution Water	Pail label / preparation date <u>D: 10111</u>	Weekly water hardness (mg/L) <u>80</u>
Comments:	<u>In glass jars, 24 hr updates</u> <u>@0hr = no ppt</u> <u>@4hr = no ppt</u>	

 Reviewed By: TM

 Date Reviewed: 2017/10/23

Method FRS Client TEC164 Reference 1718-0329-02

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/10/17	1045	EP	1	HS
1	2017/10/18	0800	FW	-	SS
2	2017/10/19	0800	AF	-	SW
3	2017/10/20	0745	EP	-	LC
4	2017/10/21	0810	DIP	1	LC

Sample Information

Initial pH: 8.0
 Initial EC (µS/cm): 968
 Initial DO (mg/L): 9.6
 Initial Temp (°C): 18.8
 Salinity (ppt): 4
 Nets used: yes / (no)

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L (yes/no)
 Preaeration time: 0.5 hours (checked) 1 hour 1.5 hours 2 hours
 DO(mg/L) of 100%: 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>8.1</u>	<u>8.2</u>				
Day 4	<u>8.2</u>	<u>8.3</u>				

EC (uS/cm)

Day 0	<u>405</u>	<u>1071</u>				
Day 4	<u>411</u>	<u>972</u>				

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.8</u>	<u>8.9</u>				
Day 4	<u>8.9</u>	<u>8.9</u>				

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.8</u>	<u>14.0^{sp}</u>				
Day 4	<u>14.5</u>	<u>14.0</u>				

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>				
Day 1	<u>10</u>	<u>10</u>				
Day 2	<u>10</u>	<u>10</u>				
Day 3	<u>10</u>	<u>10</u>				
Day 4	<u>10</u>	<u>10</u>				

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)		
1	<u>2.5</u>	<u>0.3</u>	Loading Density (g/L): <u>0.135</u> Mean Length (cm): <u>2.9</u> Length Range (cm): <u>2.7-3.0</u> Mean Weight (g): <u>0.3</u> (Must be ≥0.3g) Weight Range (g): <u>0.2-0.3</u>	Batch: <u>20170831TR</u>
2	<u>2.9</u>	<u>0.3</u>		Source: <u>In House</u>
3	<u>2.7</u>	<u>0.3</u>		Days Held: <u>47</u>
4	<u>2.9</u>	<u>0.3</u>		Percent stock mortality: <u>0%</u>
5	<u>2.7</u>	<u>0.3</u>		(7 days prior to test, must be ≤2%)
6	<u>2.9</u>	<u>0.3</u>		Test Volume (L): <u>200</u>
7	<u>2.9</u>	<u>0.3</u>		
8	<u>2.8</u>	<u>0.2</u>		
9	<u>3.0</u>	<u>0.3</u>		
10	<u>2.9</u>	<u>0.3</u>		
Comments:				

Reviewed By: JM Date Reviewed: 2017/10/23

Method DAS

Client TEC 164

Reference 1718-0329-02

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/16	1400	CS/SS	3	FW	8.0	968	9.6	18.8	0
1	2017/10/17	0900	JW/EP	-	FS					
2	2017/10/18	0930	EP/EP	3	FW					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day	pH (units) (range: 6.0-8.5)					
0	7.9	7.9	7.9	8.2	8.2	8.2
2	7.9	7.9	7.9	8.2	8.2	8.2

	EC (µS/cm)					
0	312	319	319	1026	1024	1025
2	330	333	340	946	1000	999

	DO (mg/L) (40-100% saturation at test temp.)					
0	7.7	7.6	7.7	8.1	8.1	8.2
2	7.8	7.8	7.8	7.9	7.8	7.8

	Temperature (°C) (range: 18-22°C)					
0	20.1	20.3	20.2	18.0	18.0	17.9
2	20.0	19.8	19.7	19.4	20.1	20.1

	Number Alive (F, floating; I, immobile; B, stuck on bubble; D, caught in debris)					
0	10	10	10	10	10	10
1	10	10	10	10	10	10
2	10	10	10	10(2I)	10	10(2I)

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
Unless otherwise noted, behaviour is considered to be normal

Culture
Young jar C4 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
Days to first brood (≤12 days) 8
Average number of young produced (≥15 young) 31.2
Were test treatments randomized on test tray? Yes / No

Sample
DO % of sample prior to aeration: 124 Is aeration required (<40% or >100%)? Yes or No
Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes or No
Hardness (mg CaCO3/L) of 100%: 512 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
Pail label / preparation date D: 10111 Weekly water hardness (mg/L) 80

Comments: 1h glass jars, 24 hr updates @ 0hr = no ppt @ 48 hr = no ppt

Reviewed By: TM

Date Reviewed: 2017/10/23

Method TR

Client FECL64

Reference 1718-0329-03

Test Log

Day	Date	Time	Initial	Chem. Cart	Daily Data Review
0	2017/10/17	1030 *	FP	1	HS
1	2017/10/18	0800	JW	-	SS
2	2017/10/18	0500	AP	-	JW
3	2017/10/20	0745	FP	-	LC
4	2017/10/21	1100	AP	1	LC

Sample Information

Initial pH:	<u>8.1</u>
Initial EC (µS/cm):	<u>957</u>
Initial DO (mg/L):	<u>8.4</u>
Initial Temp (°C):	<u>14.7</u>
Salinity (ppt):	<u>3</u>
Nets used: yes / (no)	<u>3</u>

Note: *; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time: 0.5 hours 1 hour 1.5 hours 2 hours

DO(mg/L) of 100%: 8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0	<u>8.1</u>	<u>8.1</u>					
Day 4	<u>8.2</u>	<u>8.2</u>					

EC (uS/cm)

Day 0	<u>405</u>	<u>1018</u>					
Day 4	<u>411</u>	<u>996</u>					

DO (mg/L) (70-100% saturation at test temp.)

Day 0	<u>8.8</u>	<u>8.9</u>					
Day 4	<u>8.9</u>	<u>8.9</u>					

Temperature (°C) (range: 14-16°C)

Day 0	<u>14.7</u>	<u>14.0</u>					
Day 4	<u>14.5</u>	<u>14.5</u>					

Number Alive (In brackets number stressed)

Day 0	<u>10</u>	<u>10</u>					
Day 1	<u>10</u>	<u>10</u>					
Day 2	<u>10</u>	<u>10</u>					
Day 3	<u>10</u>	<u>10</u>					
Day 4	<u>10</u>	<u>10</u>					

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	<u>20170831TR</u>
1	<u>2.8</u>	<u>0.103</u>	Source	<u>In House</u>
2	<u>2.9</u>	<u>0.3</u>	Days Held	<u>47</u>
3	<u>2.7</u>	<u>0.3</u>	Percent stock mortality	<u>0%</u>
4	<u>2.9</u>	<u>0.3</u>	(7 days prior to test, must be ≤2%)	
5	<u>2.7</u>	<u>0.3</u>	Test Volume (L)	<u>20L</u>
6	<u>2.9</u>	<u>0.3</u>		
7	<u>2.9</u>	<u>0.3</u>		
8	<u>2.8</u>	<u>0.3</u>		
9	<u>3.0</u>	<u>0.3</u>		
10	<u>2.9</u>	<u>0.3</u>		
Loading Density (g/L):			<u>0.135</u>	
Mean Length (cm):			<u>2.9</u>	
Length Range (cm):			<u>2.7-3.0</u>	
Mean Weight (g):			<u>0.3</u>	
(Must be ≥0.3g)				
Weight Range (g):			<u>0.2-0.3</u>	
Comments :				

Reviewed By: TM

Date Reviewed: 2017/11/23

Method DAS

Client TEC LM

Reference 1718-0320-03

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/16	1400	CB/SS	3	FW	8.1	9.7	9.4	18.7	3
1	2017/10/17	0900	JW/EP	-	HS					
2	2017/10/18	0930	AP/EP	3	FW					

Lab Code	CTVA	CTVB	CTVC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.9	7.9	7.9	8.1	8.1	8.1			
2	7.9	7.9	7.9	8.2	8.2	8.2			

EC (µS/cm)

0	332	319	319	1018	1028	1031			
2	330	333	340	1011	1013	1018			

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.6	7.7	8.2	8.2	8.2			
2	7.8	7.8	7.8	7.9	7.8	7.9			

Temperature (°C) (range: 18-22°C)

0	20.1	20.3	20.2	17.9	17.9	18.0			
2	20.0	19.8	19.7	19.9	19.9	19.8			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10	10	10			
2	10	10	10	10(I,F)	10(I,D)	10(I,D)			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control

Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move

Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C4 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 31.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 118 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 20 min Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO₃/L) of 100%: 443 Is hardness adjustment required (<25 mg CaCO₃/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO₃/L) -

Dilution Water
 Pail label / preparation date D: 10111 Weekly water hardness (mg/L) 80

Comments: In glass jar, 24 hr upcycles @ 0hr = no ppt @ 4hr = no ppt

Reviewed By: TM

Date Reviewed: 2017/10/23

Method TRB Client TEC164 Reference 1718-0329-04

Test Log						Sample Information	
Day	Date	Time	Initial	Chem. Cart	Daily Data Review		
0	2017/10/17	1045 *	FP	1	HS	Initial pH:	<u>8.0</u>
1	2017/10/18	0800	FW	-	SS	Initial EC (µS/cm):	<u>958</u>
2	2017/10/19	0800	FP	-	JW	Initial DO (mg/L):	<u>9.3</u>
3	2017/10/20	0745	FP	-	LC	Initial Temp (°C):	<u>18.9</u>
4	2017/10/21	1100	FP	1	LC	Salinity (ppt):	<u>3</u>
						Nets used: yes / no	<u>3</u>

Note: * ; time when the test was loaded with fish

Sample Pre-Aeration

Aeration rate adjusted to 6.5 +/- 1 mL/min/L: yes/no

Preaeration time
 DO(mg/L) of 100%
 0.5 hours 1 hour 1.5 hours 2 hours
8.9

Test Chemistry and Biology

Conc. CTL 100

pH (units) (range: 5.5-8.5)

Day 0 8.1 8.2
 Day 4 8.2 8.2

EC (uS/cm)

Day 0 405 1019
 Day 4 411 994

DO (mg/L) (70-100% saturation at test temp.)

Day 0 8.8 8.9
 Day 4 8.9 8.9

Temperature (°C) (range: 14-16°C)

Day 0 14.2 14.0
 Day 4 14.5 14.0

Number Alive (In brackets number stressed)

Day 0 10 10
 Day 1 10 10
 Day 2 10 10
 Day 3 10 10
 Day 4 10 10

Validity Criteria: must be ≤ 10% mortality and/or stressed behavior in the control
 Unless otherwise noted, behavior is considered to be normal

Control Organism Data			Test Organism Information	
Control Fish	Length (cm)	Weight (g)	Batch	
1	<u>2.8</u>	<u>0.103</u>	<u>201708B1TR</u>	Source <u>In House</u>
2	<u>2.9</u>	<u>0.3</u>	Loading Density (g/L): <u>0.135</u>	Days Held <u>47</u>
3	<u>2.7</u>	<u>0.2</u>		
4	<u>2.9</u>	<u>0.3</u>	Mean Length (cm): <u>2.9</u>	Percent stock mortality (7 days prior to test, must be ≤2%) <u>0%</u>
5	<u>2.7</u>	<u>0.2</u>		
6	<u>2.9</u>	<u>0.3</u>	Length Range (cm): <u>2.7-3.0</u>	Test Volume (L) <u>20L</u>
7	<u>2.9</u>	<u>0.3</u>		
8	<u>2.8</u>	<u>0.2</u>	Mean Weight (g): (Must be ≥0.3g) <u>0.3</u>	
9	<u>3.0</u>	<u>0.3</u>		
10	<u>2.9</u>	<u>0.3</u>	Weight Range (g): <u>0.2-0.3</u>	

Comments :

Reviewed By: TM

Date Reviewed: 2017/10/23

Method DAS

Client TECIBU

Reference 1711-0329-04

Test Log

Sample Information

Day	Date	Time	Technician	Chem. Cart	Daily Data Review	Initial pH:	Initial EC (µS/cm):	Initial DO (mg/L):	Initial Temp (°C):	Salinity (ppt):
0	2017/10/16	1400	CB/SS	3	JW	8.0	958	9.3	18.9	3
1	2017/10/17	0900	JW/EP	-	ii					
2	2017/10/18	0930	EP/EP	3	JW					

Lab Code	CTLA	CTLB	CTLC	100A	100B	100C

day pH (units) (range: 6.0-8.5)

0	7.9	7.9	7.9	8.1	8.2	8.2			
2	7.9	7.9	7.9	8.2	8.2	8.2			

EC (µS/cm)

0	312	319	319	999	1018	1016			
2	330	333	340	1020	1030	1044			

DO (mg/L) (40-100% saturation at test temp.)

0	7.7	7.6	7.7	8.0	8.2	8.2			
2	7.8	7.8	7.8	7.9	7.8	7.8			

Temperature (°C) (range: 18-22°C)

0	20.1	20.3	20.2	18.4	17.9	17.9			
2	20.0	19.8	19.7	19.6	19.7	19.7			

Number Alive
(F, floating; I, immobile; B, stuck on bubble; D, caught in debris)

0	10	10	10	10	10	10			
1	10	10	10	10 (1F)	10 (1I)	10 (3I) sm			
2	10	10	10	7 (1F)	6 (1I)	7			

Validity Criteria: must be ≤ 10% mortality and/or abnormal behavior in the control
 Notes: Immobile; daphnid can't swim after 60 sec. even if antenna still move
 Unless otherwise noted, behaviour is considered to be normal

Culture
 Young jar C4 Jar(s) mortality 7 days prior to test (must be ≤25%) 0%

QA (previous month)
 Days to first brood (≤12 days) 8
 Average number of young produced (≥15 young) 31.2
 Were test treatments randomized on test tray? Yes / No

Sample
 DO % of sample prior to aeration: 118 Is aeration required (<40% or >100%)? Yes or No
 Duration of aeration (37.5 +/- 12.5 mL/min/L): 16 hr 20 min Filtered with 110µm screen prior to testing Yes or No
 Hardness (mg CaCO3/L) of 100%: 408 Is hardness adjustment required (<25 mg CaCO3/L)? Yes or No
 Hardness of sample after adjustment (must be between 25 - 30 mg CaCO3/L) -

Dilution Water
 Pail label / preparation date D: 10/11 Weekly water hardness (mg/L) 80

Comments: in glass jars, 24 hr updates
@ 0hr = no ppt
@ 48hr = No ppt

Reviewed By: TM

Date Reviewed: 2017/10/23

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20171013TOXN		TURNAROUND TIME:				RUSH:											
PROJECT/CLIENT INFO				LABORATORY				OTHER INFO									
Facility Name / Job# Elkview Operations		Lab Name Nautilus Environmental		Report Format / Distribution		Excel	PDF	EDD									
Job Description Goddard Tox Sampling		Lab Contact Claudio Quinteros		Email 1 Chelsea.Jensen@teck.com		X	X	X									
Project Manager Cam Griffin		Email Cameron.Griffin@teck.com		Address #4, 6125-12th Street S.E.		Email 2 teckcoal@equisonline.com											
Email Cameron.Griffin@teck.com		Address #4, 6125-12th Street S.E.		Email 3 James.Boist@teck.com		X	X	X									
Address RR#1 HWY# 3		City Sparwood		Province BC		Email 4 Cameron.Griffin@teck.com	X	X	X								
City Sparwood		Province BC		City Calgary		Province AB		Email 5 Teck.Lab.Results@sharepoint.teck.com		X	X	X					
Postal Code V0B 2G1		Country Canada		Postal Code T2H 2K1		Country Canada		PO number 475474									
Phone Number 1-250-425-8137		Phone Number 403 253 7121															
SAMPLE DETAILS								ANALYSIS REQUESTED									
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G-Grab C-Comp	# Of Cont.	Filtered - F, Field, L, Lab, FL, Field & Lab, N, None									
								FILTERED	No	No	No	No	No	No	No	No	No
								96 Hr Rainbow Trout P/F	48 Hr Daphnia	TECKCOAL-MET-DVA (SW6020)	DOC (APHA 5310)	TKN/TOC (APHA 4500-NORG)	T-ULTRA MERCURY (SW6020)	D-LOW LEVEL MERCURY	T-METHYL MERCURY	PAH, EPH (C10-C32)	EPH (C10-C32)
EV_GC2_WS_2017-10-13_N 4.3 ^{OC}	EV_GC2	WS	N	2017/10/13	15:05	G	3	1	2		1718-0329-01						
EV_GCMARSH_WS_2017-09-11 NP 5.8 ^{OC}	EV_GCMARSH	WS	N	2017/10/13	14:25	G	3	1	2		1718-0329-02						
EV_ER5_WS_2017-10-13_N 5.1 ^{OC}	EV_ER5	WS	N	2017/10/13	15:10	G	3	1	2		1718-0329-03						
EV_ER9_WS_2017-10-13_N 4.0 ^{OC}	EV_ER9	WS	N	2017/10/13	14:36	G	3	1	2		1718-0329-04						
							Total	12									
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION				DATE/TIME	ACCEPTED BY/AFFILIATION				DATE/TIME				
Toxicity 96-Hr/48-HR = 96 Hr Rainbow Trout pass/fail & 48 Hr Daphnia pass/fail (Daphnia testing to occur at 20 degrees)																	
NO OF BOTTLES RETURNED/DESCRIPTION																	
Regular (default)																	
Priority (2-3 business days) - 50% surcharge																	
Emergency (1 Business Day) - 100% surcharge																	
For Emergency <1 Day, ASAP or Weekend - Contact ALS				Sampler's Signature					Mobile #								
				<i>Cam Griffin</i>													
									Date/Time				13 OCT -17				

50: 7/10/14 EP
1045
No I/S
good condition
4x 20L carboy, 8x 1L bottle
Montaulin

END OF REPORT



Acute Toxicity Test Results

Sample collected October 17, 2017

Final Report

October 31, 2017

Submitted to: **Teck Coal / Elkview Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates		<i>Daphnia magna</i> test initiation
	Collected	Received	
EV_SP1_WS_2017-10-17_N	17-Oct-17 at 0925h	20-Oct-17 at 1145h	20-Oct-17 at 1440h/1445h/ 1515h/1520h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
EV_SP1_WS_2017-10-17_N	11.4°C	1260 (20°C) / 1280 (10°C)	330 (20°C) / 330 (10°C)

TESTS

- *Daphnia magna* 48-h single concentration screening test, conducted at 10°C and 20°C
- *Daphnia magna* 48-h LC50 test, conducted at 10°C and 20°C

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	20°C	10°C
EV_SP1_WS_2017-10-17_N	17	3

Sample ID	LC50 (%v/v)	
	20°C	10°C
EV_SP1_WS_2017-10-17_N	> 100	> 100

Precipitate observations

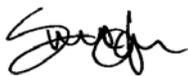
Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_SP1_WS_2017-10-17_N [undiluted sample at 20°C]	<i>Daphnia magna</i>	Precipitate observed on the bottom of test vessel	Precipitate observed on carapace
EV_SP1_WS_2017-10-17_N [undiluted sample at 10°C]	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	4.5 (3.8 – 5.4) g/L NaCl ¹
Reference toxicant historical mean (2 SD range)	4.1 (3.3 – 5.1) g/L NaCl
Reference toxicant CV	11%
Organism health history	Acceptable
Protocol deviations	Yes (see below) ³
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test Date: October 11, 2017, CL = Confidence Limits, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

³ Additional LC50 and screening tests were conducted at 10±2°C, as part of the project study to compare survival data from two exposure temperatures.



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

Table 2. Summary of test conditions: 48-h *Daphnia magna* LC50 test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	Five concentrations, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Statistical software	CETIS Version 1.8.7
Test endpoints	Survival (48-hour LC50)
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Daphnia magna Summary Sheet

Client: TECK
Work Order No.: 171203

Start Date/Time: 20 Oct 17 @ 1440h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: EV-SP1-WS-2017-10-02-N¹⁷
Sample Date: 17 Oct 2017
Date Received: 20 Oct 2017
Sample Volume: 1x20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 100417A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC 57
Stock Solution ID: 17 NaCl
Date Initiated: October 11, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3 - 5.1) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: at 17
Fr-20% mortality at 48h in the 100% (v/v) undiluted sample. There is ^{an} The test was run at 20°C ± 2°C.

Reviewed by: 

Date reviewed: Oct-30, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV SMP NS-2017-10-22-N
 Work Order No.: 171203

Start Date/Time: October 20, 2017 @ 1440h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YMC/CW

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
Control	A	10	10	0	18.5	14.5	11.0	8.7	8.7	8.4	7.8	8.0	7.9	1944	1955
	B	10	10	0											
	C	10	10	0											
	D														
100% (at 20°C)	A	10	80	8	18.5	14.5	11.0	9.2	8.7	8.5	7.8	8.2	8.1	1998	1947
	B	10	90	9											
	C	10	80	7											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials:		Y	MC	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity*
Control (MHW)	90	66
Highest conc.	760	330
Hardness adjusted:	—	—

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		18.5
DO (mg/L)	9.8	(6 min aeration)	9.2
pH	7.8		7.8
Cond (µS/cm)	1994		1998
Salinity (ppt)	1.0		1.0

Comments: white precipitate on beaker bottom & organisms on surface
organisms better at 48h Mortality: Heartbeat checked under microscope yes

Sample Description: clear, no colour, no odour, no particulates

Batch#: 100417A 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: YMC Date reviewed: Oct 30, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171202

Start Date/Time: 20 Oct 2017 @ 1520h
Test Species: Daphnia magna
Set up by: YHL/CW

Sample Information:

Sample ID: EV-SPI-WS-2017-10-02¹⁷N
Sample Date: 17 Oct 2017
Date Received: 20 Oct 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 100417B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 10
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC 57
Stock Solution ID: 17 NaCl
Date Initiated: October 11, 2017
48-h LC50 (95% CL): 4.3 (3.8 - 5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3 - 5.1) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 3% mortality at 48h in the 100% (v/v) undiluted sample.
Test was run at 10 C ± 2 C

Reviewed by: [Signature]

Date reviewed: Oct 30, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: EV-SPI-WS-2017-10-02-N
 Work Order No.: 171202

Start Date/Time: October 29, 2017 @ 1520h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YVL/CW

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	No. Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	12.0	12.0	11.0	9.5	10.7	10.7	8.0	7.9	7.9	340	345
	B	10	10	0											
	C	10	10	0											
	D														
100% (at 10°C)	A	10	10	1	11.0	12.0	11.0	10.8	10.6	10.6	8.1	8.2	8.1	1986	1958
	B	10	9	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials															

Concentration	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Control (MHW)	92	66
Highest conc.	740	330
Hardness adjusted:	—	—

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	11.0	/	/
DO (mg/L)	10.8	/	/
pH	8.1	/	/
Cond (µS/cm)	1968	/	/
Salinity (ppt)	1.0	/	/

Comments: no precipitate at 48h / 0 organisms on surface Mortality: Heartbeat checked under microscope not yes

Sample Description: clear, no colour, no odour, no particulates

Batch#: 100417B 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 10 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: Dec-30, 2017

Version 1.9; Issued July 19, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171205

Start Date/Time: 20 Oct 2017 @ 1445h
Test Species: Daphnia magna
Set up by: CW/YL

Sample Information:

Sample ID: EV-SP1-WS-2017-10-02¹⁷N
Sample Date: 17 Oct 2017
Date Received: 20 Oct 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 100417 A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 16
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC 57
Stock Solution ID: 17 NaCl
Date Initiated: October 11, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3 - 5.1) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: The 48h LC50 is estimated to be >100% (v/v).
The test was run at 20°C ± 2°C.

Reviewed by: [Signature]

Date reviewed: Oct - 30, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck 17
 Sample ID: EV-SPI-WS-2017-10-02-N
 Work Order No.: 171205

Start Date/Time: October 20, 2017 @ 1445 h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YYL/CW

Thermometer: CER#5 pH meter/probe: 3/3 DO meter/probe: 3/3 Cond./Salinity meter/probe: 3/3

Concentration (% v/v)	Number of Live Organisms Rep	24		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
control	A	10	10	0	18.5	19.5	19.0	8.7	8.7	8.4	7.8	8.0	7.8	344	355
	B														
	C														
	D														
6-25	A	10	10	0	18.5	19.5	19.0	8.7	8.8	8.4	7.8	8.1	7.9	1993	1993
	B													489	
	C														
	D														
12.5	A	10	10	0	18.5	19.5	19.0	8.8	8.8	8.5	7.8	8.2	7.9	612	617
	B														
	C														
	D														
25	A	10	10	0	18.5	19.5	19.0	8.8	8.7	8.4	7.8	8.3	8.0	800	819
	B														
	C														
	D														
50	A	10	10	0	19.0	19.5	19.0	8.7	8.7	8.5	7.9	8.3	8.1	1261	1222
	B														
	C														
	D														
100	A	100	8	0	19.0	19.5	19.0	9.0	8.7	8.4	7.9	8.2	8.1	1993	1894
	B														
	C														
	D														
Technician Initials		YYL	CW	YYL	YYL	CW	YYL	YYL	CW	YYL	YYL	CW	YYL	YYL	YYL

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	90	66
Highest conc.	760	330
Hardness adjusted	—	—

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		19.0
DO (mg/L)	9.9	(7 min aeration)	9.0
pH	7.8		7.9
Cond (µS/cm)	1994		1993
Salinity (ppt)	1.0		1.0

Comments: white precipitate on beaker bottom & organisms hauled in 2003 at 48h Mortality: Heartbeat checked under microscope yes
 Sample Description: clear, no colour, no odour, no particulates
 Batch#: 1D0417A 7-d previous # young/brood: 16 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9
 Reviewed by: YYL Date reviewed: Oct 30, 2017

Version 1.9; Issued July 19, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171204

Start Date/Time: 20 Oct 2017 @ 1515h
Test Species: Daphnia magna
Set up by: YVL/CW

Sample Information:

Sample ID: EV-SP7-WS_2017-10-27-N
Sample Date: 17 Oct 2017
Date Received: 20 Oct 2017
Sample Volume: 1 x 20L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 100417B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 10
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC 57
Stock Solution ID: 17 NaCl
Date Initiated: October 11, 2017
48-h LC50 (95% CL): 4.5 (3.8 - 5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3 - 5.1) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: The 48h LC50 is estimated to be >100% (v/v).
Test was run at 10°C ± 2°C.

Reviewed by: [Signature]

Date reviewed: Oct 30, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck 17
 Sample ID: EV_SPL_WS_2017-10-02_N
 Work Order No.: 171204 w

Start Date/Time: October 20, 2017 @ 15:15h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YVL/CW

Thermometer: CERAS pH meter/probe: 3/3 DO meter/probe: 3/3 Cond./Salinity meter/probe: 3/3

Concentration (% v/v)	Number of Live Organisms Rep	No. Immobilized		Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)		
		24	48	0	24	48	0	24	48	0	24	48	0	48	
control	A	10	10	0	12.0	12.0	11.0	9.6	10.5	10.6	8.1	8.0	7.9	342	344
	B														
	C														
	D														
6.25	A	10	10	0	12.0	12.0	11.0	9.7	10.5	10.6	8.0	8.1	7.9	484	485
	B														
	C														
	D														
12.5	A	10	10	0	12.0	12.0	11.0	9.6	10.6	10.7	8.1	8.2	7.9	630	633
	B														
	C														
	D														
25	A	10	10	0	12.0	12.0	11.0	9.8	10.6	10.6	8.2	8.2	8.0	848	848
	B														
	C														
	D														
50	A	10	10	0	12.0	12.0	11.0	9.9	10.5	10.6	8.2	8.3	8.1	1226	1220
	B														
	C														
	D														
100	A	10	10	0	11.5	12.0	11.0	10.6	10.6	10.6	8.1	8.2	8.1	1984	1980
	B														
	C														
	D														
Technician Initials		u	u	u	CW	u	u	CW	u	u	CW	u	u	CW	u

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	92	66
Highest conc.	740	330
Hardness adjusted	—	—

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	11.5	/	/
DO (mg/L)	10.6	/	/
pH	8.1	/	/
Cond (µS/cm)	1984	/	/
Salinity (ppt)	1.0	/	/

Comments: no mortality of 48h ^{organisms on surface} Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no color, no odour, no particulates.

Batch#: 100417B 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 10 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: Oct 30, 2017

Client: Teck

W.O.#: 171205, 171202, 171203, 171204 **Hardness and Alkalinity Datasheet**

Sample ID	Alkalinity						Hardness			Technician
	Subsample Date	Date Measured	Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/L CaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	
EV-SPI-WS-2017- 10-02-N (20°C)	20 Oct 17	20 Oct 17	① 10	3.4	3.5	330	① 10	7.6 12.6	76 1260 ^u	CW
MHW (20°C)	20 Oct 17	20 Oct 17	50	3.4	3.5	66	50	4.5	90	CW
EV-SPI-WS-2017- 10-02-N (10°C)	20 Oct 17	20 Oct 17	① 10	3.4	3.5	330	① 10	7.7 12.8	77 1280 ^u	CW
MHW (10°C)	20 Oct 17	20 Oct 17	50	3.4	3.5	66	50	4.6	92	CW

Notes: ① Diluted to 100ml with DI water.
~~Sample at 20°C.~~

Reviewed by:  Date Reviewed: Oct 30, 2017

APPENDIX C – Chain-of-custody form

COC ID: 20171017TOX TURNAROUND TIME: RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO			
Facility Name / Job#	Elkview Operations			Lab Name	Nautilus Environmental			Report Format / Distribution	Excel	PDF	EDD
Job Description	Toxicity Sampling			Lab Contact	Krysta Pearcy			Email 1:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Project Manager	Cam Griffin			Email	Krysta@nautilusenvironmental.ca			Email 2:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Email	Cameron.Griffin@teck.com			Address	8664 Commerce Court			Email 3:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Address	RR#1 HWY# 3				Imperial Square Lake City			Email 4:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
								Email 5:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
City	Sparwood	Province	BC	City	Burnaby	Province	BC	PO number	475474		
Postal Code	V0B 2G1	Country	Canada	Postal Code	V5A 4N7	Country	Canada				
Phone Number	1-250-425-8137			Phone Number							

SAMPLE DETAILS							ANALYSIS REQUESTED							
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	FILTERED		No		No		Temp °C
								ANALYSIS	ANALYSIS	Toxicity 96-h rainbow trout (Pass/Fail)	Toxicity 48-h Daphnia magna			
EV_SPI_WS_2017-10-02_N	EV_SPI	WS	N	2017/10/17	9:25	G	1							11.4
Total							1							

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
48 Hr Daphnia pass/fail (Daphnia testing to occur at 10 & 20 degrees)			Nautilus - Burnaby	Oct 20/17 @ 11:45
48 Hr Daphnia Multiply concentrations (Daphnia testing to occur at 10 & 20 degrees)			NY - Nari Yamamoto	
TIE				

NB OF BOTTLES RETURNED/DESCRIPTION	Regular (default) X	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend - Contact ALS	Sampler's Name	Mobile #	Sampler's Signature	Date/Time
					JAMES BOLDT			

wo # 171202 - 48H D. Magma P/F @ 10°C
 171203 - ↓ @ 20°C
 171204 - 48H D. Magma LCSD @ 10°C
 171205 - ↓ @ 20°C
 171206 - TIE

END OF REPORT



Acute Toxicity Test Results

Sample collected October 30, 2017

Final Report

November 17, 2017

Submitted to: **Teck Coal / Elkview Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			Receipt temperature
	Collected	Received	Rainbow trout test initiation	
EV_GC2_WS_2017-10-30_N	30-Oct-17 at 1445h	01-Nov-17 at 1240h	02-Nov-17 at 1250h	8.0°C

TESTS

- Rainbow trout 96-h single concentration screening test
- Rainbow trout 96-h LC50 test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample
EV_GC2_WS_2017-10-30_N	0

Sample ID	LC50 (% v/v)
EV_GC2_WS_2017-10-30_N	> 100

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
EV_GC2_WS_2017-10-30_N	Rainbow trout	Precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout
Reference toxicant LC50 (95% CL)	100.5 (73.1 – 142.3) µg/L Zn ¹
Reference toxicant historical mean (2 SD range)	103.3 (56.0 – 190.5) µg/L Zn
Reference toxicant CV	36%
Organism health history	Acceptable
Protocol deviations	None
Water quality range deviations	None
Control performance	Acceptable
Test performance	Valid

¹ Test date: November 1, 2017, CL = Confidence Limits, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) LC50 test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	Five concentrations, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Statistical software	CETIS Version 1.8.7
Test endpoints	Survival (96-hour LC50)
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: November 2, 2017 @ 1250h

Work Order No.: 171291, 171292

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: EV_GC2_WS_2017-10-30-A
Sample Date: October 30, 2017
Date Received: November 1, 2017
Sample Volume: 5 x 20L
Other: /

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 12

Test Organism Information:

Batch No.: 101817a
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 33 ± 3 Range: 30 - 37
Mean Weight ± SD (g): 0.27 ± 0.06 Range: 0.19 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ194
Stock Solution ID: 172104
Date Initiated: November 1, 2017
96-h LC50 (95% CL): 100.5 (73.1 - 142.3) µg/L Zn
Reference Toxicant Mean and Historical Range: 103.3 (56.0 - 190.5) µg/L Zn
Reference Toxicant CV (%): 36

Test Results: 0% mortality at 96h in the 100% (v/v) undiluted sample.
The 96h LC50 is estimated to be >100% (v/v)

Reviewed by: [Signature]

Date reviewed: Nov. 16, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Elkview Operations
 Sample I.D.: EV-GC2-WS-2017-10-30-N
 W.O. #: 1712921
 RBT Batch #: 101817A
 Date Collected/Time: 30 Oct 17 @ 1445 h
 Date Setup/Time: 02 Nov 17 @ 1250 h
 CER #: 2
 Sample Setup By: RC

Number Fish/Volume: 10 / 10L
 7-d % Mortality: 0.2%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cer 2
 D.O. meter/probe: 2 / DL
 Cond./Salinity meter/probe: 2 / CP2
 pH meter/probe: 2 / P2

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	15.0	/	15.0
D.O. (mg/L)	9.7	/	9.7
pH	8.3	/	8.4
Cond. (µS/cm)	980	/	1289
Salinity (ppt)	0.5	/	0.5

Concentration	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
(% v/v)	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Ctrl	10	10	10	10	10	10	10	15.5	15.5	15	15	15.0	9.3	9.6	9.7	9.5	9.4	7.3	7.5	7.3	7.0	7.2	37	43
6.25%	10	10	10	10	10	10	10	15.5	15.5	15	15	15.0	9.4	9.7	9.6	9.5	9.4	7.6	7.7	7.6	7.3	7.4	94	99
12.5%	10	10	10	10	10	10	10	15.5	15.5	15	15	15.0	9.5	9.8	9.7	9.6	9.5	7.8	7.9	7.7	7.6	7.7	190	197
25%	10	10	10	10	10	10	10	15.5	15.5	15	15	15.0	9.6	9.9	9.8	9.6	9.5	8.1	8.2	8.0	8.0	8.1	310	324
50%	10	10	10	10	10	10	10	15.5	15.5	15	15	15.0	9.6	9.9	9.7	9.5	9.6	8.3	8.4	8.2	8.1	8.4	532	546
100%	10	10	10	10	10	10	10	15.0	15.5	15	15	15.0	9.7	9.9	9.7	9.5	9.6	8.4	8.6	8.6	8.5	8.6	979	939
Initials	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC

Sample Description/Comments: Clear, light grey liquid, no odour, ^{brown} particulates

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: White precipitate formed at bottom of tank at 96h

Reviewed by: [Signature] Date Reviewed: Nov 16, 2017

APPENDIX C – Chain-of-custody form

Teck

COC ID: 20171030N		TURNAROUND TIME:			RUSH:														
PROJECT/CLIENT INFO				LABORATORY			OTHER INFO												
Facility Name / Job# Elkview Operations				Lab Name Nautilus Environmental			Report Format / Distribution												
Job Description Chronic Toxicity Sampling				Lab Contact Krysta Peracy			Excel PDF EDD												
Project Manager Cameron Griffin				Email krysta@nautilusenvironmental.ca			Email 1: Cameron.Griffin@teck.com												
Email Cameron.Griffin@teck.com				Address 8664 Commerce Court			Email 2: teckcoast@equisonline.com												
Address RR#1 HWY# 3				Imperial Square, Lake City			Email 3: James.Boldt@teck.com												
City Sparwood Province BC				City Burnaby Province BC			Email 4: Chelsea.Jensen@Teck.com												
Postal Code V0B 2G1 Country Canada				Postal Code V5A 4N7 Country Canada			Email 5: Jeff.Williams@Teck.com												
Phone Number 1-250-425-8137				Phone Number 604-420-8773			Email 6: Teck.Lab.Reqs@nautilus.teck.com												
SAMPLE DETAILS				ANALYSIS REQUESTED			Phone # Fax # E-Mail # Lab #												
Sample ID	Sample Location	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS											
EV_GC2_WS_2017-10-30_N	EV_GC2	WS	N	10/30/2017	14:45	G	5	96h TIE 100% Concentration test (20L carboy)	96h TIE Multiple concentration test (20L carboy)	TIE test (20L carboy)								Temp °C	
																			8.0
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION			DATE/TIME			ACCEPTED BY/AFFILIATION			DATE/TIME						
30d rainbow trout early life stage P/F				Nautilus - Burnaby			Nov 01/17 @ 12:40			NP - Naito Yamamoto									
Regular (default) X				Sampler's Name			James Boldt			Mobile #									
Priority (2-3 business days) - 50% surcharge				Sampler's Signature			J-B-T			Date/Time			October 30, 2017						
Emergency (1 Business Day) - 100% surcharge																			
For Emergency <1 Day, ASAP or Weekend - Contact ALS																			

END OF REPORT

Coal Mountain Operations (CMO) COAs



Acute Toxicity Test Results

Samples collected January 17, 2017

Final Report

January 31, 2017

Submitted to: **Teck Coal / Coal Mountain Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates				Receipt temp.
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation	
CM_SPD_M_WS_20170117_N	17-Jan-17 at 1055h	19-Jan-17 at 1015h	19-Jan-17 at 1125h	19-Jan-17 at 1240h	8.1°C
CM_CCPD_M_WS_20170117_N	17-Jan-17 at 0945h	19-Jan-17 at 1015h	19-Jan-17 at 1125h	19-Jan-17 at 1245h	7.3°C
CM_CC1_M_WS_20170117_N	17-Jan-17 at 1515h	19-Jan-17 at 1015h	19-Jan-17 at 1125h	19-Jan-17 at 1245h	8.1°C
CM_ND2_M_WS_20170117_NP	17-Jan-17 at 1148h	19-Jan-17 at 1015h	19-Jan-17 at 1125h	19-Jan-17 at 1240h	7.7°C

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
CM_SPD_M_WS_20170117_N	20	0
CM_CCPD_M_WS_20170117_N	40	0
CM_CC1_M_WS_20170117_N	0	0
CM_ND2_M_WS_20170117_NP	0	0

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	50.0 (36.9 – 67.7) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	53.0 (19.7 – 142.5) µg/L Zn	4.1 (3.1 – 5.5) g/L NaCl
Reference toxicant CV	64%	15%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: January 17, 2017; ² Test date: January 10, 2017



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Jan 19 /17 @ 1125h

Work Order No.: 170038

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: CM_SPD_M_WS_20170117_N
Sample Date: Jan 17 /17
Date Received: Jan 19 /17
Sample Volume: 1 X 20 L
Other: /

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 010417
Source: Aqua Farms
No. Fish/Volume (L): 10 / 12L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 31 ± 2
Mean Weight ± SD (g): 0.31 ± 0.03

Range: 27 - 32
Range: 0.27 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn60
Stock Solution ID: 16Zn02
Date Initiated: Jan 17 /17
96-h LC50 (95% CL): 50.0 (36.9 - 67.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 53.0 (19.7 - 142.5) µg/L Zn
Reference Toxicant CV (%): 64

Test Results: 20% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: Jan 27, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Jan 19 / 17 @ 1125h

Work Order No.: 170038

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: CM_CCPD_M-WS_20170117-N
Sample Date: Jan 17 / 17
Date Received: Jan 19 / 17
Sample Volume: 1 X 70 L
Other: /

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 010417
Source: Agua Farms
No. Fish/Volume (L): 10 / 12L
Loading Density (g/L): ~0.27 0.26
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.32 ± 0.02

Range: 27 - 32
Range: 0.29 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn60
Stock Solution ID: 16Zn02
Date Initiated: Jan 17 / 17
96-h LC50 (95% CL): 50.0 (36.9 - 67.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 53.0 (19.7 - 142.5) µg/L Zn
Reference Toxicant CV (%): 64

Test Results: 40% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: Jan 27, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Jan 19 / 17 @ 1125h

Work Order No.: 170038

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: CM.CCI.M.WS.20170117LN
Sample Date: Jan 17 / 17
Date Received: Jan 19 / 17
Sample Volume: 1 X 20 L
Other: /

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 010417
Source: Aqua Farms
No. Fish/Volume (L): 10 / 12L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.31 ± 0.02

Range: 27 - 32
Range: 0.28 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn60
Stock Solution ID: 16Zn02
Date Initiated: Jan 17 / 17
96-h LC50 (95% CL): 50.0 (36.9 - 67.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 53.0 (19.7 - 142.5) µg/L Zn
Reference Toxicant CV (%): 64

Test Results: 100% survival at 96 hours in the undiluted
100% (v/v) sample. 0% mortality at 96h in the
undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Jan 27, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Jan 19 / 17 @ 1125h

Work Order No.: 170038

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: CM_NDR.M.WS.20170117.NP
Sample Date: Jan 17 / 17
Date Received: Jan 19 / 17
Sample Volume: 1 X 20 L
Other: /

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 11
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 010417
Source: Aqua Farm
No. Fish/Volume (L): 10 / 12L
Loading Density (g/L): 0.26
Mean Length ± SD (mm): 30 ± 1
Mean Weight ± SD (g): 0.31 ± 0.02

Range: 28 - 3832^{EC}
Range: 0.27 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn60
Stock Solution ID: 16Zn02
Date Initiated: Jan 17 / 17
96-h LC50 (95% CL): 50.0 (36.9 - 67.7) µg/L Zn

Reference Toxicant Mean and Historical Range: 53.0 (19.7 - 142.5) µg/L Zn
Reference Toxicant CV (%): 64

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: 

Date reviewed: Jan. 27, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck
 Sample I.D.: CM-ND2-M-WS-20170117-NP
 W.O. #: 170038
 RBT Batch #: 010417
 Date Collected/Time: Jan 17/17 @ 1148h
 Date Setup/Time: Jan 19/17 @ 1125h
 Sample Setup By: EC

Number Fish/Volume: 10/12 L
 7-d % Mortality: 1.9
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2 D.O. meter: 2
 Cond./Salinity: 2 pH meter: 1

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.0	/	14.0
D.O. (mg/L)	10.3	/	10.3
pH	7.9	/	7.9
Cond. (µS/cm)	2340	/	2330
Salinity (ppt)	1.2	/	1.2

Concentration (% v/v)	# Survivors							Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
10				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.8	9.9	9.8	9.7	6.9	6.9	7.0	6.9	6.9	34	42
100				10	10	10	10	14.0	14.0	14.0	14.0	14.0	10.1	9.9	9.9	9.6	9.8	7.8	8.1	8.2	8.1	8.1	2330	2250
Initials				EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC	EC

Sample Description/Comments: Slightly grey, ^{EC} Clear, No odour, No particulate

Fish Description at 96 h: All ^{fish} samples appear normal Number of Stressed Fish at 96 h: 0

Other Observations: _____

Reviewed by: [Signature] Date Reviewed: Jan 27, 2017

Daphnia magna Summary Sheet

Client: Teck (CMO)
Work Order No.: 170039

Start Date/Time: January 19 2017 @ 1240h
Test Species: Daphnia magna
Set up by: EC / AWD

Sample Information:

Sample ID: CM-SPD-M-WS-20170117N
Sample Date: January 17, 2017
Date Received: January 19, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 122916A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 22
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC44
Stock Solution ID: 16Na02
Date Initiated: January 10, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.1 - 5.5) g/L NaCl
Reference Toxicant CV (%): 15

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Jan. 27, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: Jan 19/17 @ 1240h
 Sample ID: CM - SPD, M, WS 20170117 No. Organisms/volume: 10/200mL
 Work Order No.: 170039 Test Organism: D. magna
 Set up by: EC / AWB

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	24		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.0	19.0	19.0	9.2	8.7	8.6	7.7	7.7	8.0	358	369
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	19.0	9.0	8.8	8.7	7.7	7.5	7.8	2370	2250
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		<u>EC</u>	<u>AWB</u>	<u>AWB</u>	<u>EC</u>	<u>AWB</u>	<u>EC</u>	<u>AWB</u>	<u>AWB</u>	<u>EC</u>	<u>AWB</u>	<u>AWB</u>	<u>EC</u>	<u>AWB</u>	<u>AWB</u>

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	98	72
Highest conc.	1660	250
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	9.0		
pH	7.7		
Cond (µS/cm)	2370		
Salinity (ppt)	1.2		

Comments: _____ Mortality: Heartbeat checked under microscope NO

Sample Description: clear, no colour, no odour, no particulates

Batch#: 122916A 7-d previous # young/brood: 22 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Jan-27, 2017

Daphnia magna Summary Sheet

Client: Teck (CMO)
Work Order No.: 170039

Start Date/Time: January 19, 2017 @ 1245h
Test Species: Daphnia magna
Set up by: EC / AWD

Sample Information:

Sample ID: CM-CCPD-M-WS-20170117-N
Sample Date: January 17, 2017
Date Received: January 19, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 122916A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 23
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC44
Stock Solution ID: 16NA02
Date Initiated: January 10, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.1-5.5) g/L NaCl
Reference Toxicant CV (%): 15

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Jan 27, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: Jan 19/17 @ 1245h
 Sample ID: cm-CCPD-m-WS-2017-0117-02 No. Organisms/volume: 10/200mL
 Work Order No.: 170039 Test Organism: D.magna
 Set up by: EC/AWO

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.0	19.0	19.0	9.2	8.7	8.8	7.7	7.7	8.0	358	370
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	19.0	9.1	8.9	8.8	7.8	7.8	8.0	1746	1665
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	A	A	EL	A	A	EL	A	A	EL	A	A	EL	A

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCo3)	
Control (MHW)	98	72
Highest conc.	1300	286
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	9.1		
pH	7.8		
Cond (µS/cm)	1746		
Salinity (ppt)	1.0		

Comments: _____ Mortality: Heartbeat checked under microscope NO

Sample Description: slightly yellow, slightly turbid, no odor, no particulates

Batch#: 122916A 7-d previous # young/brood: 22 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Jan 27, 2017

Version 1.8; Issued February 29, 2016

Daphnia magna Summary Sheet

Client: Teck (CMO)
Work Order No.: 170039

Start Date/Time: January 19, 2017 @ 1245h
Test Species: Daphnia magna
Set up by: EC / AWD

Sample Information:

Sample ID: CM-CC1-M-WS-20170117-N
Sample Date: January 17, 2017
Date Received: January 19, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 122916A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 22
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC44
Stock Solution ID: 16Na02
Date Initiated: January 10, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.1 - 5.5) g/L NaCl
Reference Toxicant CV (%): 15

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Jan. 27, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck Start Date/Time: Jan 19/17 @ 1245h
 Sample ID: CM-CC1-m-w-2017-0117-2 No. Organisms/volume: 10/200mL
 Work Order No.: 170039 Test Organism: D.magna
 Set up by: EC/ADD
 Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.0	19.0	19.0	9.2	8.7	8.7	7.7	7.7	8.0	358	367
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	19.0	9.1	8.9	8.8	7.7	7.6	8.0	1728	1767
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	A	A	EL	A	A	EL	A	A	EL	A	A	EL	A

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	98	72
Highest conc.	1200	252
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	9.1		
pH	7.7		
Cond (µS/cm)	1728		
Salinity (ppt)	0.9		

Comments: _____ Mortality: Heartbeat checked under microscope NO

Sample Description: clear, no colour, no odour, no particulates

Batch#: 122916A 7-d previous # young/brood: 22 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Jan 27, 2017

Version 1.8; Issued February 29, 2016

Daphnia magna Summary Sheet

Client: Teck (CMO)
Work Order No.: 170039

Start Date/Time: January 19 2017 @ 1240h
Test Species: Daphnia magna
Set up by: EC / AWD

Sample Information:

Sample ID: CM-ND2-M-WS-20170117-NP
Sample Date: January 17, 2017
Date Received: January 19, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 122916A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 22
Mortality (%) in previous 7 d: 0
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC44
Stock Solution ID: 16NA02
Date Initiated: January 10, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.1 - 5.5) g/L NaCl

Reference Toxicant CV (%): 15

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Jan. 27, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck

Sample ID: CM-ND2-M-WS-2017

Work Order No.: 170039

Start Date/Time: Jan 19/17 @ 1240h

No. Organisms/volume: 10/200mL

Test Organism: D.magna

Set up by: EC/AWO

Thermometer: temp-5

DO meter: DO-213

pH meter: pH-113

Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	No. Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.0	19.0	19.0	9.2	9.0	8.6	7.7	7.7	8.0	358	365
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	19.0	8.9	9.0	8.6	7.7	7.6	7.8	2480	2150
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	A	A	EL	A	AD	EL	A	A	EL	A	A	EL	A

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	98	72
Highest conc.	1340	246
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	8.9		
pH	7.7		
Cond (µS/cm)	2180		
Salinity (ppt)	1.1		

Comments: _____

Mortality: Heartbeat checked under microscope NO

Sample Description: slight grey colour, clear, no odour, no particulates

Batch#: 122916 A 7-d previous # young/brood: 22 Previous 7-d Mortality (%): 0 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Jan 27, 2017

Client: Teck

W.O.#: 170039

Hardness and Alkalinity Datasheet

Sample ID	Alkalinity						Hardness			Technician
	Subsample Date	Date Measured	Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/L CaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	
CM SPD-M WS_20170117-N	Jan 19/17	Jan 19/17	50	12.7	12.9	250	50 [Ⓢ]	8.3	1660	YML
CM CCPD-M WS_20170117-N	Jan 19/17	Jan 19/17	50	14.6	14.9	286	50 [Ⓢ]	6.5	1300	YML
CM CCL-M WS_20170117-N	Jan 19/17	Jan 19/17	50	12.8	13.0	252	50 [Ⓢ]	6.0	1200	YML
CM ND 2-M WS_20170117-N	Jan 19/17	Jan 19/17	50	12.6	12.9	246	50 [Ⓢ]	6.7	1340	YML
MHW	Jan 19/17	Jan 19/17	50	3.7	3.8	72	50	4.9	98	YML

Notes: [Ⓢ] Diluted to 100 mL w. DI water.

Reviewed by:  Date Reviewed: Jan 26, 2017

APPENDIX C – Chain-of-custody form

Chain Of Custody Record

COC ID: 20150622-0622

Page: 4 of 4

Turnaround Time:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO			
Facility Name: Coal Mountain Operation				Lab Name: Nautilus Environmental				Send Invoice To:			
Contact Name: Carla Romero				Contact Name: Krysta Percy/Armando Tang				Address:			
Address: 2261 Corbin Rd.				Address: 8664 Commerce Court							
City: Sparwood		Prov.: BC		City: Burnaby		State: BC		City:		State:	
Postal Code: V0B 2G0		Country: Canada		Postal Code: V5A4N7		Country: Canada		Postal Code:		Country:	
Phone Number: 250 425 7377				Postal Code: V5A4N7				Task Code:			
Email EDD To: Rick.Maglioocco@teck.com				Phone Number: 6044208773				Shipping Company:			
Don.Sacino@teck.com				Email Address: krysta@nautilusenvironmental.com				Tracking Number:			
Carla.Romero@teck.com				PO Number:				CC Hardcopy To:			
								CC Hardcopy To:			

SAMPLE DETAILS						ANALYSIS REQUESTED						ADDITIONAL INFORMATION			
Sample ID	Matrix	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ADDITIONAL INFORMATION
						96 hr Rainbow trout Acute Toxicity - Single concentration (pass/fail)	48 hr Daphnia Magna Acute Toxicity-Single concentration (pass/fail)								
① CM_SPD_M_WS_20170117_N	WS	1/17/2017	10:55	G	3	X	X								20L+2L containers
② CM_CCPD_M_WS_20170117_N	WS	1/17/2017	09:45	G	3	X	X								20L+2L containers
③ CM_CC1_M_WS_20170117_N	WS	1/17/2017	15:15	G	3	X	X								20L+2L containers
④ CM_ND2_M_WS_20170117_NP	WS	1/17/2017	11:48	G	3	X	X								20L+2L containers

Additional Comments/Special Instructions	Relinquished By/Affiliation	Date	Time	Accepted By/Affiliation	Date	Time	Sample Receipt Conditions		
							Y/N	Y/N	Y/N
① Clear, Colorless, No particulate, No odour ② Slightly yellow, Slightly turbid, No odour, No particulates ③ Clear, Colorless, No particulate, No odour ④ Slightly grey, Clear, No odour, No particulates	J. Brown (Signature)	17-Jan-17	17:30	Nautilus - Burnaby	Jan 19/17	10:15			

Sampler's Name	Jeremy Enns	Mobile #	250-919-4387
Sampler's Signature			
	Date/Time		

END OF REPORT



Acute Toxicity Test Results

Samples collected May 2, 2017

Final Report

May 17, 2017

Submitted to: **Teck Coal / Coal Mountain Operations**
Sparwood, BC

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
CM_SPD_M_WS_20170502_N	02-May-17 at 0925h	03-May-17 at 0945h	04-May-17 at 0830h	03-May-17 at 1515h
CM_CCPD_M_WS_20170502_N	02-May-17 at 1215h	03-May-17 at 0945h	04-May-17 at 0830h	03-May-17 at 1515h
CM_PC2_M_WS_20170502_N	02-May-17 at 1150h	03-May-17 at 0945h	04-May-17 at 0830h	03-May-17 at 1515h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
CM_SPD_M_WS_20170502_N	6.5/4.5°C	990	224
CM_CCPD_M_WS_20170502_N	6.5/4.5°C	1140	274
CM_PC2_M_WS_20170502_N	6.5/4.5°C	190	176

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
CM_SPD_M_WS_20170502_N	0	0
CM_CCPD_M_WS_20170502_N	0	0
CM_PC2_M_WS_20170502_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
CM_SPD_M_WS_20170502_N	Rainbow trout	Some precipitate observed on the bottom of test vessel	None
CM_SPD_M_WS_20170502_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
CM_CCPD_M_WS_20170502_N	Rainbow trout	Some precipitate observed on the bottom of test vessel	None
CM_CCPD_M_WS_20170502_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
CM_PC2_M_WS_20170502_N	Rainbow trout	None	None
CM_PC2_M_WS_20170502_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	81.0 (61.1 – 107.4) µg/L Zn ¹	3.4 (2.9 – 4.1) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	55.0 (26.1 – 115.9) µg/L Zn	4.2 (3.3 – 5.4) g/L NaCl
Reference toxicant CV	45%	13%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: May 2, 2017; ² Test date: April 24, 2017; LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnCl ₂)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teek Coal

Start Date/Time: May 4 /17 @ 0830h

Work Order No.: 170408

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: CM-SPD-M-WS 20170502-N
Sample Date: May 2 /17
Date Received: May 3 /17
Sample Volume: 1 XLO L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 041817
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.31
Mean Length ± SD (mm): 28 ± 1
Mean Weight ± SD (g): 0.31 ± 0.03

Range: 26 - 29
Range: 0.25 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn70
Stock Solution ID: 17Zn02
Date Initiated: May 2/17
96-h LC50 (95% CL): 81.0 (61.1 - 107.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.0 (26.1 - 115.9) mg/L Zn
Reference Toxicant CV (%): EC 55.45

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: May 15, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: May 4 /17 @ 0830h

Work Order No.: 170408

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: CM-CPD-M-WS-20170502-N
Sample Date: May 2 /17
Date Received: May 3 /17
Sample Volume: 1 X 20 L
Other: -

Test Validity Criteria:
≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 041817
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.30
Mean Length ± SD (mm): 28 ± 1
Mean Weight ± SD (g): 0.30 ± 0.03

Range: 25 - 29
Range: 0.26 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn70
Stock Solution ID: 17 Zn02
Date Initiated: May 2/17
96-h LC50 (95% CL): 81.0 (61.1 - 107.4) mg/L Zn

Reference Toxicant Mean and Historical Range: 55.0 (26.1 - 115.9) mg/L Zn
Reference Toxicant CV (%): EC 55.45

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: May 15, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: May 4 17 @ 0830h

Work Order No.: 170408

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: CM-PCZ-M-WS-201700502-N
Sample Date: May 2 / 17
Date Received: May 3 / 17
Sample Volume: 1 X 70 L
Other: -

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 041817
Source: Aqua Farms
No. Fish/Volume (L): 10/10
Loading Density (g/L): 0.30
Mean Length ± SD (mm): 28 ± 1
Mean Weight ± SD (g): 0.30 ± 0.03

Range: 26 - 29
Range: 0.26 - 0.34

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn70
Stock Solution ID: 17Zn02
Date Initiated: May 2/17
96-h LC50 (95% CL): 81.0 (61.1 - 107.4) µg/L Zn

Reference Toxicant Mean and Historical Range: 55.0 (26.1 - 115.9) µg/L Zn
Reference Toxicant CV (%): EL 55.45

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature]

Date reviewed: May 15, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170409

Start Date/Time: May 3, 2017 9:15:15h
Test Species: Daphnia magna
Set up by: VVL

Sample Information:

Sample ID: CM-SPD-M-WS 20170502-N
Sample Date: May 2, 2017
Date Received: May 3, 2017
Sample Volume: 2x1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 041917A-B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC49
Stock Solution ID: 17NaCl
Date Initiated: April 24, 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample

Reviewed by: [Signature]

Date reviewed: May 15, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: CM_SFD_M-WS-20170502-N
 Work Order No.: 170409

Start Date/Time: May 3/17 15:15h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YYL

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	18.5	19.0	20.0	8.5	8.4	8.3	7.5	7.5	7.6	335	340
	B	10	10	0											
	C	10	10	0											
	D													152	
100	A	10	10	0	18.5	19.0	20.0	9.2	8.5	8.2	7.9	8.0	8.0	1210	1497
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	98	70
Highest conc.	990	224
Hardness adjusted	—	

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		
DO (mg/L)	9.2		
pH	7.9		
Cond (µS/cm)	152		
Salinity (ppt)	0.8		

Comments: slight precipitate at 48h on beaker bottom Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no colour, no odour, no particulates

Batch#: 041917AAS 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 15, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170409

Start Date/Time: MAY 3, 2017 @ 1515h
Test Species: Daphnia magna
Set up by: YHL

Sample Information:

Sample ID: CM CCPD-M-WS-20170502-N
Sample Date: MAY 2, 2017
Date Received: MAY 3, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 041917A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC49
Stock Solution ID: 17NaCl
Date Initiated: April 24, 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: MAY 15, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: CM-CCPD-M.W.S. 20170502-N
 Work Order No.: 170409

Start Date/Time: May 3/17 1515h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YYL

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	24		48		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48	0	24		48	0	24	48	0	24	48	0	48		
		Control	A	10	10		0	18.5	19.0	19.0	8.5	8.4	8.5	7.5	7.6	7.6	335
	B	10	10	0													
	C	10	10	0													
	D																
100	A	10	10	0	18.0	19.0	19.0	9.1	8.4	8.2	7.9	8.0	8.0	1213	1681		
	B	10	10	0													
	C	10	10	0													
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
Technician Initials		YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL		

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCo3)	
Control (MHW)	98	70
Highest conc.	1140	274
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		
DO (mg/L)	9.1		
pH	7.9		
Cond (µS/cm)	1213		
Salinity (ppt)	1280.9		

Comments: slight precipitate at 48h at beaker bottom Mortality: Heartbeat checked under microscope not noted

Sample Description: clear, no colour, no odour, no particulates.

Batch#: 041917AAS 7-d previous # young/brood: 19 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 15, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170409

Start Date/Time: May 3, 2017 @ 1515h
Test Species: Daphnia magna
Set up by: VML

Sample Information:

Sample ID: CM-PCZ-M-WS-20170502-N
Sample Date: May 2, 2017
Date Received: May 3, 2017
Sample Volume: 2x1L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 041917A+B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 19
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC49
Stock Solution ID: 17Na01
Date Initiated: April 24, 2017
48-h LC50 (95% CL): 3.4 (2.9-4.1) g/LNaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.3-5.4) g/L NaCl
Reference Toxicant CV (%): 13

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: May 15, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: CM-PC2-M.WS-20170502-N
 Work Order No.: 170409

Start Date/Time: May 3/17 1515h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YYL

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	19.5	19.0	19.0	8.5	8.4	8.4	7.5	7.6	7.6	335	339
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.0	19.0	19.0	9.2	8.3	8.2	8.0	8.0	8.2	373	376
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL	YYL

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	98	70
Highest conc.	190	176
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	9.2		
pH	8.0		
Cond (µS/cm)	373		
Salinity (ppt)	0.2		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no colour, no odour, no particulates

Batch#: 041917A45 7-d previous # young/brood: 18 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: May 15, 2017

Version 1.8; Issued February 29, 2016

APPENDIX C – Chain-of-custody form

Chain Of Custody Record

COC ID: 20150622-0622

Page: 4 of 4

Turnaround Time:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO			
Facility Name	Coal Mountain Operation			Lab Name	Nautilus Environmental			Send Invoice To			
Contact Name	Bob Werner			Contact Name	Krysta Pearcy/Armando Tang			Address			
Address	2261 Corbin Rd.			Address	8664 Commerce Court			City		State	
City	Sparwood	Prov.	BC	City	Burnaby	State	BC	Postal Code		Country	
Postal Code	V0B 2G0	Country	Canada	Postal Code	V5A4N7	Country	Canada	Task Code			
Phone Number	250 425 7321			Phone Number	6044208773			Shipping Company			
Email EDD To	Rick.Maglioocco@teck.com			Email Address	krysta@nautilusenvironmental.com			Tracking Number			
	Don.Sacino@teck.com			PO Number				CC Hardcopy To			
	Bob.Werner@teck.com							CC Hardcopy To			

SAMPLE DETAILS						ANALYSIS REQUESTED						ADDITIONAL INFORMATION					
Sample ID	Matrix	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	PRESERV	ANALYSIS										
							96 hr Rainbow trout Acute Toxicity - Single concentration (pass/fail)	48 hr Daphnia Magna Acute Toxicity-Single concentration (pass/fail)									
④ CM_SPD_M_WS_20170502_N	WS	5/2/2017	07:15	G	3		X	X						Temp °C - 20L	6.5	4.5	20L+2L containers
③ CM_CCPD_M_WS_20170502_N	WS	5/2/2017	12:15	G	3		X	X						Temp °C - 1L	6.5	4.5	20L+2L containers
③ CM_PC2_M_WS_20170502_N	WS	5/2/2017	11:50	G	3		X	X						Temp °C - 1L	6.5	4.5	20L+2L containers

Additional Comments/Special Instructions	Relinquished By/Affiliation	Date	Time	Accepted By/Affiliation	Date	Time	Sample Receipt Conditions		
① sample ID corrected, ② Clear, colorless, Odourless, No particulates ③ Clear, colorless, No particulates, Odourless				Nautilus - Burnaby	May 03/17	09:45	Y / N	Y / N	Y / N
				NY - Nari Yamamoto			Y / N	Y / N	Y / N
							Y / N	Y / N	Y / N
							Y / N	Y / N	Y / N
	Sampler's Name	Bob Werner	Mobile #	2504257321	Temp in °C	Samples on ice?	Sample intact?	Trip Blank?	
	Sampler's Signature	<i>Bob Werner</i>	Date/Time	5/2/2017 14:00					

END OF REPORT



Acute Toxicity Test Results

Samples collected August 1, 2017

Final Report

August 16, 2017

Submitted to: **Teck Coal / Coal Mountain Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
CM_SPD_M_WS_20170801_N	01-Aug-17 at 1205h	02-Aug-17 at 0830h	04-Aug-17 at 1400h	02-Aug-17 at 1545h
CM_CCPD_M_WS_20170801_N	01-Aug-17 at 1130h	02-Aug-17 at 0830h	04-Aug-17 at 1400h	02-Aug-17 at 1545h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
CM_SPD_M_WS_20170801_N	19.5/17.0°C	1070	202
CM_CCPD_M_WS_20170801_N	18.3/15.3°C	1140	374

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
CM_SPD_M_WS_20170801_N	0	0
CM_CCPD_M_WS_20170801_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
CM_SPD_M_WS_20170801_N	Rainbow trout	None	None
CM_SPD_M_WS_20170801_N	<i>Daphnia magna</i>	None	None
CM_CCPD_M_WS_20170801_N	Rainbow trout	Slight precipitate observed on the bottom of test vessel	None
CM_CCPD_M_WS_20170801_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	178.2 (132.2 – 240.1) µg/L Zn ¹	4.5 (3.8 – 5.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	72.8 (37.1 – 142.7) µg/L Zn	4.1 (3.3 – 5.0) g/L NaCl
Reference toxicant CV	40%	10%
Organism health history	Acceptable	Acceptable
Protocol deviations	Yes (see below)	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: August 8, 2017; ² Test Date: July 19, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

The rainbow trout reference toxicant LC50 value was over the 2 SD historical range, but within the acceptable range of 3 SD.



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Aug 4 /17 @ 1400h

Work Order No.: 170750

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: CM-SPD-M-WS-20170801-N
Sample Date: Aug 1 /17
Date Received: Aug 2 /17
Sample Volume: 1 X 20 L
Other: /

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 062917
Source: Aqua Farms
No. Fish/Volume (L): 10 X 12 L
Loading Density (g/L): 0.27
Mean Length ± SD (mm): 28 ± 2
Mean Weight ± SD (g): 0.32 ± 0.06

Range: 26 - 31
Range: 0.26 - 0.44

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn79
Stock Solution ID: 16 ZnO2
Date Initiated: Aug 8 /17
96-h LC50 (95% CL): 178.2 (132.2-240.1) µg/L Zn

Reference Toxicant Mean and Historical Range: 72.8 (37.1 - 142.7) µg/L Zn
Reference Toxicant CV (%): 40

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Aug 15 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: CM-SPD-M-WS-20170801-N
 W.O. #: 170750
 RBT Batch #: 062917
 Date Collected/Time: Aug 1/17 @ 1205 h
 Date Setup/Time: Aug 4/17 @ 1400h
 CER #: 2
 Sample Setup By: EL

Number Fish/Volume: 10/12 L
 7-d % Mortality: 0
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: CER#2
 D.O. meter/probe: 2 1D-2
 Cond./Salinity meter/probe: 2 1Cp-2
 pH meter/probe: 1 1P-2

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	15.0	/	15.0
D.O. (mg/L)	9.3	/	8.6
pH	7.8	/	7.8
Cond. (µS/cm)	1803	/	1803
Salinity (ppt)	0.8	/	0.8

Concentration	# Survivors								Temperature (°C)				Dissolved Oxygen (mg/L)				pH				Conductivity (µS/cm)			
	(% v/v)	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0
1/1				10	10	10	10	15.0	15.0	15.0	15.0	15.0	10.0	9.8	9.7	10.0	9.7	6.9	7.0	7.3	7.2	7.1	40	47
100				10	10	10	10	15.0	15.0	15.0	15.0	15.0	8.6	8.9	8.8	10.0	9.7	7.8	7.9	8.0	8.2	8.1	1803	1784
Initials				AMM JS JS EL EL	AMM JS JS EL EL	AMM JS JS EL EL	AMM JS JS EL EL	AMM JS JS EL EL	AMM JS JS EL EL	AMM JS JS EL EL	AMM JS JS EL EL	AMM JS JS EL EL	AMM JS JS EL EL	AMM JS JS EL EL	AMM JS JS EL EL	AMM JS JS EL EL	AMM JS JS EL EL	AMM JS JS EL EL	AMM JS JS EL EL					

Sample Description/Comments: colorless, clear, no odour, no particulates

Fish Description at 96 h All fish appear normal Number of Stressed Fish at 96 h 0

Other Observations: no precipitate @ 96 hours

Reviewed by: [Signature]

Date Reviewed: Aug 15, 2017

Rainbow Trout Summary Sheet

Client: Teck Coal

Start Date/Time: Aug 4 / 17 @ 1400h

Work Order No.: 170750

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: (M-CCPD_M-WS-20170801-N)
Sample Date: Aug 1 / 17
Date Received: Aug 2 / 17
Sample Volume: 1 X 20 L
Other: /

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 062917
Source: Aqua Farms
No. Fish/Volume (L): 10 X 12 L
Loading Density (g/L): 0.28
Mean Length ± SD (mm): 30 ± 2
Mean Weight ± SD (g): 0.34 ± 0.07

Range: 27 - 32
Range: 0.26 - 0.49

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn79
Stock Solution ID: 16 Zn02
Date Initiated: Aug 8 / 17
96-h LC50 (95% CL): 178.2 (132.2-240.1) µg/L Zn

Reference Toxicant Mean and Historical Range: 72.8 (37.1 - 142.7) µg/L Zn
Reference Toxicant CV (%): 40

Test Results: 0% mortality at 96 hours in the undiluted 100% (v/v) sample.

Reviewed by: [Signature] Date reviewed: Aug 15, 2017

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal
 Sample I.D.: CM-CCPD-M-WS-2017080LN
 W.O. #: 170750
 RBT Batch #: 062917
 Date Collected/Time: Aug 1 /17 @ 1130h
 Date Setup/Time: Aug 4 /17 @ 1400h
 CER #: 2
 Sample Setup By: EL

Number Fish/Volume: 10/12 L
 7-d % Mortality: 0
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	15.0		15.0
D.O. (mg/L)	8.9		9.2
pH	7.8		7.8
Cond. (µS/cm)	1928		1928
Salinity (ppt)	1.0		1.0

Thermometer: ER#2
 D.O. meter/probe: 2 1D-2
 Cond./Salinity meter/probe: 2 1Cp2
 pH meter/probe: 1 1D-2

Concentration (% v/v)	# Survivors								Temperature (°C)				Dissolved Oxygen (mg/L)				pH					Conductivity (µS/cm)		
	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
1/1				10	10	10	10	15.0	15.0	15.0	15.0	15.0	10.0	9.8	9.7	9.7	9.9	6.9	6.9	7.3	7.2	7.1	40	47
100				10	10	10	10	15.0	15.0	15.0	15.0	15.0	9.2	9.6	9.7	10.0	9.7	7.8	7.9	8.0	8.2	8.2	1928	1746
Initials				EMM	JS	JS	EL	EL	EMM	JS	JS	EL	EL	EMM	JS	JS	EL	EL	EMM	JS	JS	EL	EL	EL

Sample Description/Comments: colorless, clear, no odour, no particulates
 Fish Description at 96 h: All fish appear normal Number of Stressed Fish at 96 h: 0
 Other Observations: slight precipitates present @ 96 hours on tank bottom

Reviewed by: [Signature] Date Reviewed: Aug 15, 2017

Daphnia magna Summary Sheet

Client: Toek
Work Order No.: 170751

Start Date/Time: Aug 2/17 @ 1545h
Test Species: Daphnia magna
Set up by: YYL

Sample Information:

Sample ID: CM-SPD-LL-WS-20170801-N
Sample Date: Aug 1, 2017
Date Received: Aug 2, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 07121FB
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 26
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS3
Stock Solution ID: 17Naol
Date Initiated: July 19, 2017
48-h LC50 (95% CL): 4.5 (3.8-5.4) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl

Reference Toxicant CV (%): 10

Test Results: 0% mortality at 48h in the undiluted 100% (v/v) sample

Reviewed by: [Signature]

Date reviewed: Aug 15, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: CM-SPD-MWS-20170801-N
 Work Order No.: 170751

Start Date/Time: Aug-2, 2017 @ 1545h
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	20.0	20.0	19.5	8.6	8.4	8.2	7.9	7.9	7.8	361	369
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	20.0	19.5	8.9	8.2	8.2	7.5	8.1	8.0	1863	1846
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*
	*(mg/L as CaCO ₃)	
Concentration		
Control (MHW)	94	74
Highest conc.	1070	202
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.9		
pH	7.9		
Cond (µS/cm)	1863		
Salinity (ppt)	0.9		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no colour, no odour, no particulates

Batch#: 0712173 7-d previous # young/brood: 26 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: Aug. 15, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170751

Start Date/Time: Aug 2, 2017 @ 1545h
Test Species: Daphnia magna
Set up by: YYL

Sample Information:

Sample ID: CM-CCPD-M-WS-20170801-N
Sample Date: Aug 17, 2017
Date Received: Aug 2, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 071217B
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 26
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTC53
Stock Solution ID: 17NaCl
Date Initiated: July 19, 2017
48-h LC50 (95% CL): 4.5 (3.8-5.4) g/L NaCl
Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 10

Test Results:

0% mortality at 48h in the undiluted 100% (v/v) sample.

Reviewed by:

[Signature]

Date reviewed:

Aug 15, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck
 Sample ID: CMCCPD M-WS-20170801-N
 Work Order No.: 170751

Start Date/Time: July Aug-2, 2017 @ 1545h
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: YML

Thermometer: temp-5 DO meter: DO-213 pH meter: pH-113 Cond./Salinity: C-213

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	20.0	20.0	19.5	8.6	8.4	8.2	7.9	7.9	7.8	361	369
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.5	20.0	19.5	8.7	8.3	8.2	7.8	8.1	8.0	1999	1878
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML	YML

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	94	74
Highest conc.	1140	374
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.5		
DO (mg/L)	8.7		
pH	7.8		
Cond (µS/cm)	1999		
Salinity (ppt)	1.0		

Comments: slight precipitate on container bottom at 48h Mortality: Heartbeat checked under microscope not req'd

Sample Description: clear, no colour, no odour, no particulates

Batch#: 071217B 7-d previous # young/brood: 26 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: Aug 15, 2017

Client: AS Teck

W.O.#: (7075)

Hardness and Alkalinity Datasheet

Sample ID	Alkalinity						Hardness			
	Subsample Date	Date Measured	Sample Volume (mL)	(mL) 0.02N HCL/H ₂ SO ₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/L CaCO ₃)	Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	Technician
CM-SPD_M-WS- 20170801-N	Aug 21/17	Aug 21/17	50	10.3	10.5	202	100	10.7	1070	JS
CM-CCPD_M-WS- 20170801-N	Aug 21/17	Aug 21/17	50	18.9	19.1	374	100	11.4	1140	JS
MHW	Aug 21/17	Aug 21/17	50	3.8	3.9	74	50	4.7	94	YML

Notes: ① Diluted to 100 mL w/ DI water.

Reviewed by: 

Date Reviewed: Aug 15, 2017

APPENDIX C – Chain-of-custody form

Chain Of Custody Record

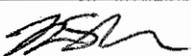
COC ID: 20150622-0622

Page: 4 of 4

Turnaround Time:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO			
Facility Name	Coal Mountain Operation			Lab Name	Nautilus Environmental			Send Invoice To			
Contact Name	Bob Werner			Contact Name	Krysta Pearcy/Armando Tang			Address			
Address	2261 Corbin Rd.			Address	8664 Commerce Court			City			
City	Sparwood	Prov.	BC	City	Burnaby	State	BC	Postal Code		Country	State
Postal Code	V0B 2G0	Country	Canada	Postal Code	V5A4N7	Country	Canada	Task Code		Shipping Company	
Phone Number	250 425 7321			Phone Number	6044208773			Tracking Number			
Email EDD To	errin.deboer@teck.com			Email Address	krysta@nautilusenvironmental.com			CC Hardcopy To			
	Don.Sacino@teck.com			PO Number				CC Hardcopy To			
	Bob.Werner@teck.com										

SAMPLE DETAILS						ANALYSIS REQUESTED						ADDITIONAL INFORMATION					
Sample ID	Matrix	Date	Time (24hr)	G=Grab C=Comp	# Of Cont.	PRESERV.	ANALYSIS										
							96 hr Rainbow trout Acute Toxicity - Single concentration (pass/fail)	48 hr Daphnia Magna Acute Toxicity-Single concentration (pass/fail)									
1) CM_SPD_M_WS_20170801_N	WS	8/1/2017	12:05	G	3		X	X						Temp °C - 1L bottle	Temp °C - 20L	packaged in 2 coolers	
2) CM_CCPD_M_WS_20170801_N	WS	8/1/2017	11:30	G	3		X	X						17.0	19.5		20L+2L containers
CM_SPD_M_WS_20170801_N	WS	8/1/2017	12:05	G	3		X	X									20L+2L containers
							WC# 170750	WC# 170751									

Additional Comments/Special Instructions	Relinquished By/Affiliation	Date	Time	Accepted By/Affiliation	Date	Time	Sample Receipt Conditions				
							Y / N	Y / N	Y / N		
① colorless, clear, no odour, no particulates				Nautilus - Burnaby	Aug 02/17	08:30	Y / N	Y / N	Y / N		
				NY - Nari Yamamoto			Y / N	Y / N	Y / N		
② colorless, clear, no odour, no particulates							Y / N	Y / N	Y / N		
							Y / N	Y / N	Y / N		
Sampler's Name		Bob Werner		Mobile #	2504257321			Temp in °C	Samples on ice?	Sample intact?	Trip Blank?
Sampler's Signature				Date/Time	5/2/2017 14:00						

END OF REPORT



Acute Toxicity Test Results

Samples collected August 22, 2017

Final Report

September 7, 2017

Submitted to: **Teck Coal / Coal Mountain Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
CM_SPD_M_WS_20170822_N	22-Aug-17 at 1041h	23-Aug-17 at 0730h	24-Aug-17 at 1550h	23-Aug-17 at 1500h
CM_CCPD_M_WS_20170822_N	22-Aug-17 at 1122h	23-Aug-17 at 0730h	24-Aug-17 at 1550h	23-Aug-17 at 1500h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
CM_SPD_M_WS_20170822_N	16.1°C	1040	220
CM_CCPD_M_WS_20170822_N	16.2°C	1140	388

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
CM_SPD_M_WS_20170822_N	0	0
CM_CCPD_M_WS_20170822_N	0	0

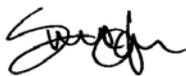
Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
CM_SPD_M_WS_20170822_N	Rainbow trout	None	None
CM_SPD_M_WS_20170822_N	<i>Daphnia magna</i>	None	None
CM_CCPD_M_WS_20170822_N	Rainbow trout	None I	None
CM_CCPD_M_WS_20170822_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	154.1 (75.5 – 194.7) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	84.3 (39.3 – 180.8) µg/L Zn	4.1 (3.3 – 5.0) g/L NaCl
Reference toxicant CV	46%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: August 24, 2017; ² Test Date: August 9, 2017, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Julianna Kalocai, M.Sc., R.P.Bio
QA Manager

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Aug 24 / 17 @ 1550h

Work Order No.: 170846

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: CM SPD M WS 2010822 N
Sample Date: Aug 22 / 17
Date Received: Aug 23 / 17
Sample Volume: 2 X 1 L + 20L
Other: /

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 072717^Ka
Source: Aqua Farm
No. Fish/Volume (L): 10/12L
Loading Density (g/L): 0.33
Mean Length ± SD (mm): 36.7 ± 2.8 Range: 33.0 - 42.0
Mean Weight ± SD (g): 0.39 ± 0.08 Range: 0.25 - 0.52

Zinc Reference Toxicant Results:

Reference Toxicant ID: 2172 RTZn82
Stock Solution ID: 17Zn04
Date Initiated: Aug 24/17
96-h LC50 (95% CL): 154.1 (75.5 - 199.7) µg/L Zn
Reference Toxicant Mean and Historical Range: 84.3 (39.3 - 180.8) µg/L Zn
Reference Toxicant CV (%): 46

Test Results: ~~100% survival at 96 hours in the undiluted (100% (100)) sample~~
0% mortality at 96 hours in the undiluted (100% (100)) sample

Reviewed by: JLH Date reviewed: Sept. 5/17

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Aug 24 / 17 @ 1550h

Work Order No.: 170846

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: CMCCPD WS M WS 20170822N
Sample Date: Aug 22 / 17
Date Received: Aug 23 / 17
Sample Volume: 2 X 4 L + 20L
Other: /

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 17
Alkalinity (mg/L CaCO₃): 16

Test Organism Information:

Batch No.: 072717/ka
Source: Aqua Farm
No. Fish/Volume (L): 10 / 12L
Loading Density (g/L): 0.34
Mean Length ± SD (mm): 37.0 ± 1.7 Range: 34.0 - 39.0
Mean Weight ± SD (g): 0.41 ± 0.06 Range: 0.31 - 0.48

Zinc Reference Toxicant Results:

Reference Toxicant ID: 2172 RTZn82
Stock Solution ID: 17Zn04
Date Initiated: Aug 24 / 17
96-h LC50 (95% CL): 154.1 (75.5 - 199.7) µg/L Zn
Reference Toxicant Mean and Historical Range: 84.3 (39.3 - 180.8) µg/L Zn
Reference Toxicant CV (%): 46

Test Results: 0% mortality observed at 96 hours in the undiluted 100% (v/v) sample

Reviewed by: Jeb Date reviewed: Sept 5 / 17

96-Hour Rainbow Trout Toxicity Test Data Sheet

Client/Project#: Teck Coal Mountain Operation
 Sample I.D. CM-CCPD-M-WS-20170822-N
 W.O. # 170846
 RBT Batch #: 072717a
 Date Collected/Time: 22 Aug 17 @ 1122
 Date Setup/Time: 24 23 Aug 17 @ 1550
 CER #: 3
 Sample Setup By: RL

Number Fish/Volume: 10 / 12L
 7-d % Mortality: 0-3%
 Total Pre-aeration Time (mins): 30
 Aeration rate adjusted to 6.5 ± 1 mL/min/L? (Y/N): Y

Thermometer: Cel 3
 D.O. meter/probe: 2 / D2
 Cond./Salinity meter/probe: 2 / cp2
 pH meter/probe: 2 / p2

Undiluted Sample WQ			
Parameters	Initial WQ	Adjustment	30 min WQ
Temp °C	14.5	/	14.5
D.O. (mg/L)	9.8	/	10.0
pH	7.9	/	8.1
Cond. (µS/cm)	2010	/	2010
Salinity (ppt)	1.0	/	1.0

Concentration	# Survivors								Temperature (°C)					Dissolved Oxygen (mg/L)					pH					Conductivity (µS/cm)	
	(% v/v)	1	2	4	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	96
Ct ₁				10	10	10	10	15.0	15.0	15.0	15.0	14.5	9.8	9.5	9.6	9.6	9.7	7.4	7.3	7.3	7.4	7.3	46	54	
100%				10	10	10	10	14.5	15.0	15.0	15.0	14.5	10.0	9.5	9.7	9.5	9.7	8.1	8.4	8.4	8.4	8.4	2010	1826	

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170847

Start Date/Time: Aug 23/17 @ 1500h
Test Species: Daphnia magna
Set up by: YML

Sample Information:

Sample ID: UM_SFD_M_LB_20A0822_N
Sample Date: Aug 22/17
Date Received: Aug 23/17
Sample Volume: 20L + 2x1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 08021AD
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 7
Mortality (%) in previous 7 d: 0
Days to first brood: 7

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17Na01
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48 hours in the unadmitted 100% (v/v) sample

Reviewed by: JGA Date reviewed: sep. 5/17

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Tede
 Sample ID: CM-SPD-MWS-20A0822-N
 Work Order No.: 170847

Start Date/Time: Aug 23/17 @ 1500h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: TYL

Thermometer: CER05 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		48	0	24	48	0	24	48	0	24	48	0
Control	A	10	10	0	20.0	20.0	19.5	8.2	8.5	8.4	7.8	7.7	7.6	358	365
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	18.5	19.5	19.5	9.1	8.6	8.3	7.9	8.0	8.1	1924	1908
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		TYL	CW		TYL	CW	NM	TYL	CW	NM	TYL	CW	NM	TYL	NM

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO ₃)	
Control (MHW)	100	74
Highest conc.	1040	220
Hardness adjusted		

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		
DO (mg/L)	9.1		
pH	7.9		
Cond (µS/cm)	1924		
Salinity (ppt)	8.0		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope not noted

Sample Description: clear, no colour, no odour, no particulates

Batch#: 080217D 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 7

Reviewed by: JGL Date reviewed: sep. 5/17

Version 1.9; Issued July 19, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 170847

Start Date/Time: Aug 23/12 e 1500h
Test Species: Daphnia magna
Set up by: YAK YML

Sample Information:

Sample ID: CM 8 CUPD - MWS-20170822-N
Sample Date: Aug 22/17
Date Received: Aug 23/17
Sample Volume: 20L + 2x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 0802AD
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 7

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTCS4
Stock Solution ID: 17Na01
Date Initiated: August 9, 2017
48-h LC50 (95% CL): 4.2 (3.7-4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.1 (3.3-5.0) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48 hours in the undiluted 100% (w/v) sample

Reviewed by: JGle

Date reviewed: Sept 5/17

**Freshwater Acute
48 Hour Toxicity Test Data Sheet**

Client: Teck
 Sample ID: cm - CCPD - M - WS - 20A 0822 N
 Work Order No.: 170847

Start Date/Time: Aug 23/17 @ 1500h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: TYL

Thermometer: CERUS pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	20.0	20.0	19.5	8.2	8.5	8.4	7.8	7.7	7.7	358	365
	B	10	10	0											
	C	10	10	0											
	D														
100	A	10	10	0	19.2	20.0	19.5	9.2	9.1	8.3	7.7	7.9	8.0	2530	1977
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		TYL		TYL	TYL	CW	TYL	CW	TYL	CW	TYL	CW	TYL	CW	TYL

	Hardness*	Alkalinity*
Concentration	*(mg/L as CaCO3)	
Control (MHW)	100	74
Highest conc.	1140	388
Hardness adjusted	-	

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	19.0		
DO (mg/L)	9.1		
pH	7.7		
Cond (µS/cm)	2530		
Salinity (ppt)	1.0		

Comments: slight precipitate on beaker bottom Mortality: Heartbeat checked under microscope not resp. at

Sample Description: clear, no colour, no odour, no particulates

Batch#: 05021715 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 7

Reviewed by: JGK Date reviewed: Sep 5/17

Version 1.9; Issued July 19, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Samples collected October 3, 2017

Final Report

October 19, 2017

Submitted to: **Teck Coal / Coal Mountain Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
CM_CCPD_WS_2017-10-02_N	03-Oct-17 at 1510h	05-Oct-17 at 1100h	05-Oct-17 at 1720h	05-Oct-17 at 1610h
CM_SPD_WS_2017-10-02_N	03-Oct-17 at 1323h	05-Oct-17 at 1100h	05-Oct-17 at 1720h	05-Oct-17 at 1600h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
CM_CCPD_WS_2017-10-02_N	9.0°C	1310	382
CM_SPD_WS_2017-10-02_N	9.0°C	1230	206

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
CM_CCPD_WS_2017-10-02_N	0	0
CM_SPD_WS_2017-10-02_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
CM_CCPD_WS_2017-10-02_N	Rainbow trout	Slight precipitate observed on the bottom of test vessel	None
CM_CCPD_WS_2017-10-02_N	<i>Daphnia magna</i>	Slight precipitate observed on the bottom of test vessel	None
CM_SPD_WS_2017-10-02_N	Rainbow trout	None	None
CM_SPD_WS_2017-10-02_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CL)	114.9 (94.0 – 140.4) µg/L Zn ¹	5.2 (4.2 – 6.4) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	94.7 (46.7 – 192.0) µg/L Zn	4.1 (3.4 – 4.9) g/L NaCl
Reference toxicant CV	42%	10%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	Yes (see below)
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: October 2, 2017; ² Test Date: September 21, 2017, CL = Confidence Limits, LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation

The *D. magna* reference toxicant LC50 was outside of 2 SD but within the acceptable 3 SD historical range.



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Oct. 5 / 17 @ 1720h

Work Order No.: 171111

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: CMCCPD_WS_2017-10-02-N
Sample Date: Oct. 3 / 17
Date Received: Oct. 5 / 17
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival
WQ Ranges:
T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 091517
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10
Loading Density (g/L): 0.30
Mean Length ± SD (mm): 34 ± 2 Range: 31 - 37
Mean Weight ± SD (g): 0.30 ± 0.04 Range: 0.22 - 0.37

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ189
Stock Solution ID: 17Zn04
Date Initiated: October 2, 2017
96-h LC50 (95% CL): 114.9 (94.0 - 140.4) µg/L Zn
Reference Toxicant Mean and Historical Range: 94.7 (46.7 - 192.0) µg/L Zn
Reference Toxicant CV (%): 42

Test Results: 0% mortality of 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Oct. 18, 2017

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Oct. 5/17 @ 1720h

Work Order No.: 171111

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: CM SPD-WS-2017-10-02-N
Sample Date: Oct. 3/17
Date Received: Oct. 5/17
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 12
Alkalinity (mg/L CaCO₃): 8

Test Organism Information:

Batch No.: 091517
Source: Aqua Farms
No. Fish/Volume (L): 10 / 10
Loading Density (g/L): 0.28
Mean Length ± SD (mm): 33 ± 3
Mean Weight ± SD (g): 0.28 ± 10

Range: 29 - 39
Range: 0.16 - 0.47

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZ189
Stock Solution ID: 17Z104
Date Initiated: October 2, 2017
96-h LC50 (95% CL): 114.9 (94.0 - 140.4) µg/L Zn

Reference Toxicant Mean and Historical Range: 94.7 (46.7 - 192.0) µg/L Zn
Reference Toxicant CV (%): 42

Test Results: 0% mortality of 96h in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Oct. 18, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 17110

Start Date/Time: 05 Oct 2017 @ 1610h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: CM-CCPD-WS-2017-10-02-N
Sample Date: 03 OCT 2017
Date Received: 05 Oct 2017
Sample Volume: 2 x 1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

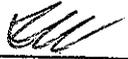
Test Organism Information:

Broodstock No.: 091317A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 22
Mortality (%) in previous 7 d: 10
Days to first brood: 8

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTCS6
Stock Solution ID: 17Na02
Date Initiated: September 21, 2017
48-h LC50 (95% CL): 5.2 (4.2-6.4) g/L NaCl (w/in acceptable 3SD of historical mean)
Reference Toxicant Mean and Historical Range: 4.1 (3.4-4.9) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Oct 18, 2017

**Freshwater Acute
48 Hour Toxicity Test Data Sheet**

Client: Teck
 Sample ID: CM-CCPD-WS-2017-10-02-A
 Work Order No.: 171110

Start Date/Time: 05 OCT 2017 @ 1610h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: CW

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	24		48		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		0	24	48	0		24	48	0	24	48	0	24	48	0	48	
control	A	10	10			0	19.5	19.5	20.0	8.8	8.3	8.1	7.6	7.7	7.9	348	352
	B	10	10							8			7.5				
	C	10	10														
	D																
100	A	10	10				18.0	19.5	20.0	8.7	8.5	8.6	7.8	8.1	8.1	2120	2130
	B	10	10														
	C	10	10														
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
	A																
	B																
	C																
	D																
Technician Initials		[Signature]		[Signature]		[Signature]		[Signature]			[Signature]			[Signature]		[Signature]	

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	98	3468
Highest conc.	1310	382
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0	/	/
DO (mg/L)	8.7	/	/
pH	7.8	/	/
Cond (µS/cm)	2120	/	/
Salinity (ppt)	1.1	/	/

Comments: slight precipitate at 48h on water bottom Mortality: Heartbeat checked under microscope Not reg'd

Sample Description: clear, colourless liquid, no odour, no particulates.

Batch#: 091317A 7-d previous # young/brood: 22 Previous 7-d Mortality (%): 10 Day of 1st Brood: 8

Reviewed by: [Signature] Date reviewed: Oct-18, 2017

Daphnia magna Summary Sheet

Client: Teck
Work Order No.: 171110

Start Date/Time: 05 Oct 2017 @ 1600h
Test Species: Daphnia magna
Set up by: CW

Sample Information:

Sample ID: CM-SPD-WS-2017-10-024N
Sample Date: 03 Oct 2017
Date Received: 05 Oct 2017
Sample Volume: 2x1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 091317C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 17
Mortality (%) in previous 7 d: 0
Days to first brood: 10

NaCl Reference Toxicant Results:

Reference Toxicant ID: DMTCS6
Stock Solution ID: 17Na02
Date Initiated: September 21, 2017
48-h LC50 (95% CL): 5.2 (4.2 - 6.4) g/L NaCl (w/in acceptable 3SD of historical mean)
Reference Toxicant Mean and Historical Range: 4.1 (3.4 - 4.9) g/L NaCl
Reference Toxicant CV (%): 10

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Oct. 18, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: TECK
 Sample ID: CM-SPD.WS-2017-10-02-N
 Work Order No.: 17110

Start Date/Time: 05OCT2017@1600h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: CW

Thermometer: CER#5 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
control	A	10	10	0	19.5	19.5	10.0	8.8	8.2	8.1	7.5	7.7	7.8	348	352
	B	10	10	0									7.9		
	C	10	10	0											
	D														
100	A	10	10	0	18.0	19.5	10.0	8.8	8.3	8.2	8.0	8.2	8.3	1976	1976
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		UW/EMM		EMM	CW	UW/EMM	CW	UW/EMM	EMM	CW	UW/EMM	EMM	CW	EMM	

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	98	um 7468
Highest conc.	1230	206
Hardness adjusted	—	—

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.0		
DO (mg/L)	8.8		
pH	8.0		
Cond (µS/cm)	1976		
Salinity (ppt)	1.0		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope Not req'd

Sample Description: Clear, colourless liquid, no odour, no particulates

Batch#: 091317C 7-d previous # young/brood: 17 Previous 7-d Mortality (%): 0 Day of 1st Brood: 10

Reviewed by: [Signature] Date reviewed: Oct 18, 2017

APPENDIX C – Chain-of-custody form

COC ID:	1-3888650055-100217-04 Tox WS			TURNAROUND TIME:		RUSH:						
PROJECT/CLIENT INFO				LABORATORY			OTHER INFO					
Facility Name / Job#	Coal Mountain Operation			Lab Name	Nautilus Environmental - BC			Report Format / Distribution	Excel	PDF	EDD	
Project Manager	Kimberly San			Lab Contact	Krysta Pearcy/Armando Tang			Email 1:	Don.sacino@teck.com	X	X	X
Email	Kimberly.san@teck.com			Email	krysta@nautilusenvironmental.com			Email 2:	Kimberly.San@teck.com	X	X	X
Address	2261 Corbin Rd.			Address	8664 Commerce Court			Email 3:	teckcoal@equisonline.com			X
								Email 4:	Karen.hannan@teck.com	X	X	X
City	Sparwood	Province	BC	City	Burnaby	Province	BC	PO number				
Postal Code	V0B 2G0	Country	Canada	Postal Code	V5A 4N7	Country	Canada					
Phone Number	250 425 7541			Phone Number	604-420-8773							

SAMPLE DETAILS

ANALYSIS REQUESTED

Filtered - F; Field; L; Lab; FL; Field & Lab; N; None

Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# Of Cont.	NAUT_48hr_DM_P/F	NAUT_96hr_RT_P/F					
3) CM_CCPD_WS_2017-10-02_N	CM_CCPD	WS		2017/10/03	15:10	G	3	X	X			2x1L + 1x20L	9.0	
CM_PC2_WS_2017-10-02_N	CM_PC2	WS		2017/10/03		G	3	X	X					
3) CM_SPD_WS_2017-10-02_N	CM_SPD	WS		2017/10/03	13:23	G	3	X	X			2x1L + 1x20L	9.0	
Sample Descriptions:														
) Clear, colourless liquid, no odour, no particulates														
) Clear, colourless liquid, no odour, no particulates.														

WQ# PRESERV

Temp °C

20L + 2 1L

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
- sent in 2 coolers			Nautilus - Burnaby NY - Nari Yamamoto	Oct 05/17 @ 11:00

SERVICE REQUEST (rush - subject to availability)				
Regular (default) X	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend - Contact ALS	
Sampler's Name	Kim San/ Don Sacino	Mobile #	250-425-7541	
Sampler's Signature		Date/Time	10/3/2017 16:00:00 PM	

END OF REPORT



Acute Toxicity Test Results

Sample collected November 22, 2017

Final Report

December 7, 2017

Submitted to: **Teck Coal / Coal Mountain Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
CM_SPD_WS_2017-11-22_N	22-Nov-17 at 1445h	24-Nov-17 at 0930h	24-Nov-17 at 1810h	24-Nov-17 at 1400h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
CM_SPD_WS_2017-11-22_N	10.6°C	1220	200

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
CM_SPD_WS_2017-11-22_N	0	0

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
CM_SPD_WS_2017-11-22_N	Rainbow trout	Precipitate observed on the bottom of test vessel	None
CM_SPD_WS_2017-11-22_N	<i>Daphnia magna</i>	None	None

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	116.4 (95.1 – 148.9) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	106.4 (60.2 – 188.1) µg/L Zn	4.2 (3.5 – 5.2) g/L NaCl
Reference toxicant CV	33%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: November 16, 2017; ² Test date: November 27, 2017; LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck - CMO

Start Date/Time: 24 Nov 17 @ 1810h

Work Order No.: 171433

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: CM-SPD-WS-2017-11-22-N
Sample Date: 22 Nov 17
Date Received: 24 Nov 17
Sample Volume: 1 x 20L
Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water
Hardness (mg/L CaCO₃): 10
Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 110117
Source: Aqua Farms
No. Fish/Volume (L): 10/10L
Loading Density (g/L): 0.45
Mean Length ± SD (mm): 37 ± 2 Range: 34 - 41
Mean Weight ± SD (g): 0.45 ± 0.13 Range: 0.30 - 0.63

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn97
Stock Solution ID: 17Zn05
Date Initiated: November 16, 2017
96-h LC50 (95% CL): 116.4 (95.1 - 148.9) µg/L Zn

Reference Toxicant Mean and Historical Range: 106.4 (60.2 - 188.1) µg/L Zn
Reference Toxicant CV (%): 33

Test Results: 0% mortality at 48th 96h in the 100% undiluted sample.

Reviewed by: 

Date reviewed: Dec-6, 2017

Daphnia magna Summary Sheet

Client: Teck CMO
Work Order No.: 171432

Start Date/Time: Nov 24/17 @ 1400h
Test Species: Daphnia magna
Set up by: AD

Sample Information:

Sample ID: CM-SPD-WS-2017-11-22-N
Sample Date: Nov 22/17
Date Received: Nov 24/17
Sample Volume: 1.20L^{cu} 2x1L

Test Validity Criteria:

≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.

WQ Ranges:

T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 110817 C
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 22
Mortality (%) in previous 7 d: 1
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DmTC60
Stock Solution ID: 17Na05
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5 - 5.2) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: 0% mortality at 48h in the 100% (v/v) undiluted sample.

Reviewed by: 

Date reviewed: Dec 6, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Tuck
 Sample ID: LM-SPP-WS-2017-11-22-N
 Work Order No.: 1714/2

Start Date/Time: Nov 24 / 12:00 PM
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D. magna
 Set up by: As

Thermometer: CERAS pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	Number of Live Organisms		No. Immobilized	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	19.5	19.5	19.0	8.1	8.4	8.2	7.9	7.7	8.0	336	347
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10	0	20.0	19.5	19.0	8.2	8.2	8.2	7.9	8.0	8.2	1966	1932
	B	10	10	0											
	C	10	10	0											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		A	CW	CW	A	MM	CW	A	MM	CW	A	MM	CW	A	CW

Concentration	Hardness* (mg/L as CaCO ₃)	Alkalinity* (mg/L as CaCO ₃)
Control (MHW)	100	72
Highest conc.	1220	200
Hardness adjusted	-	-

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	20.0		
DO (mg/L)	8.2		
pH	7.9		
Cond (µS/cm)	1966		
Salinity (ppt)	1.0		

Comments: no precipitate at 48h Mortality: Heartbeat checked under microscope Not reg'd

Sample Description: light yellow clear, colourless, odourless liquid, no particulates

Batch#: 110617c 7-d previous # young/brood: 22 Previous 7-d Mortality (%): 7 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: Dec 6, 2017

APPENDIX C – Chain-of-custody form

END OF REPORT



Acute Toxicity Test Results

Sample collected November 24, 2017

Final Report

December 11, 2017

Submitted to: **Teck Coal / Coal Mountain Operations**
Sparwood, BC

8664 Commerce Court, Burnaby, BC V5A 4N7

SAMPLE INFORMATION

Sample ID	Dates			
	Collected	Received	Rainbow trout test initiation	<i>Daphnia magna</i> test initiation
CM_PC2_WS_2017-11-24_N	24-Nov-17 at 1336h	27-Nov-17 at 1130h	29-Nov-17 at 1145h	28-Nov-17 at 1100h

Sample chemistry

Sample ID	Receipt temperature	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)
CM_PC2_WS_2017-11-24_N	8.8°C	237	142

TESTS

- Rainbow trout 96-h single concentration screening test
- *Daphnia magna* 48-h single concentration screening test

RESULTS

Toxicity test results

Sample ID	Percent mortality in 100% (v/v) sample	
	Rainbow trout	<i>Daphnia magna</i>
CM_PC2_WS_2017-11-24_N	0	10

Precipitate observations

Sample ID	Species	Precipitate in test vessel at test termination	Precipitate on test organism at test termination
CM_PC2_WS_2017-11-24_N	Rainbow trout	None	None
CM_PC2_WS_2017-11-24_N	<i>Daphnia magna</i>	None	Precipitate observed on carapace

QA/QC

QA/QC summary	Rainbow trout	<i>Daphnia magna</i>
Reference toxicant LC50 (95% CI)	77.1 (54.0 – 104.0) µg/L Zn ¹	4.2 (3.7 – 4.8) g/L NaCl ²
Reference toxicant historical mean (2 SD range)	106.1 (58.6 – 192.1) µg/L Zn	4.2 (3.5 – 5.2) g/L NaCl
Reference toxicant CV	35%	11%
Organism health history	Acceptable	Acceptable
Protocol deviations	None	None
Water quality range deviations	None	None
Control performance	Acceptable	Acceptable
Test performance	Valid	Valid

¹ Test date: November 30, 2017; ² Test date: November 27, 2017; LC = Lethal Concentration, SD = Standard Deviation, CV = Coefficient of Variation



Report By:
Yvonne Lam, B.Sc.
Laboratory Biologist



Reviewed By:
Edmund Canaria, R.P.Bio
Senior Analyst

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APPENDIX A – Summary of test conditions

Table 1. Summary of test conditions: 96-h rainbow trout (*Oncorhynchus mykiss*) single concentration test.

Test species	<i>Oncorhynchus mykiss</i>
Organism source	Hatchery
Organism age	Juvenile
Test type	Static
Test duration	96 hours
Test vessel	20-L glass aquarium
Test volume	10 to 20 L (depending on size of fish)
Test solution depth	≥15 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	1 per treatment
Number of organisms	10 per replicate
Control/dilution water	Dechlorinated Metro Vancouver municipal tapwater
Test solution renewal	None
Test temperature	15 ± 1°C
Feeding	None
Light intensity	100 to 500 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	6.5 ± 1 mL/min/L
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/13, with 2007 & 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Zinc (added as ZnSO ₄)

Table 2. Summary of test conditions: 48-h *Daphnia magna* single concentration test.

Test species	<i>Daphnia magna</i>
Organism source	In-house culture
Organism age	<24-hour old neonates
Test type	Static
Test duration	48 hours
Test vessel	250-mL glass beaker
Test volume	200 mL
Test solution depth	6 cm
Test concentrations	100% (undiluted) sample, plus laboratory control
Test replicates	3 per treatment
Number of organisms	10 per replicate
Control/dilution water	Moderately-hard reconstituted water + 2.5 µg/L Se
Test solution renewal	None
Test temperature	20 ± 2°C
Feeding	None
Light intensity	400 to 800 lux
Photoperiod	16 hours light / 8 hours dark
Aeration	None
Test measurements	Temperature, dissolved oxygen and pH measured daily; salinity, hardness and alkalinity measured in the undiluted sample at test initiation; conductivity measured at test initiation and termination; survival checked daily
Test protocol	Environment Canada (2000), EPS 1/RM/14, with 2016 amendments
Test endpoints	Survival
Test acceptability criterion for controls	Survival ≥90%
Reference toxicant	Sodium chloride (NaCl)

APPENDIX B – Toxicity test data

Rainbow Trout Summary Sheet

Client: Teck

Start Date/Time: Nov, 29/17 @ 1145h

Work Order No.: 171443

Test Species: Oncorhynchus mykiss

Sample Information:

Sample ID: CM-PC2-WS-2017-11-24-N

Sample Date: Nov. 24/17

Date Received: Nov. 27/17

Sample Volume: 1x 20L

Other: -

Test Validity Criteria:

≥ 90% control survival

WQ Ranges:

T (°C) = 15 ± 1; DO (mg/L) = 7.0 to 10.3; pH = 5.5 to 8.5

Dilution Water:

Type: Dechlorinated Municipal Tap Water

Hardness (mg/L CaCO₃): 10

Alkalinity (mg/L CaCO₃): 13

Test Organism Information:

Batch No.: 111517

Source: Aqua Farms

No. Fish/Volume (L): 10/10

Loading Density (g/L): 0.31

Mean Length ± SD (mm): 30 ± 2

Mean Weight ± SD (g): 0.31 ± 0.03

Range: 26 - 32

Range: 0.25 - 0.35

Zinc Reference Toxicant Results:

Reference Toxicant ID: RTZn99

Stock Solution ID: 17Zn05

Date Initiated: November 30, 2017

96-h LC50 (95% CL): 77.1 (54.0 - 104.0) µg/L Zn

Reference Toxicant Mean and Historical Range: 106.1 (58.6 - 192.1) µg/L Zn

Reference Toxicant CV (%): 35

Test Results: 0% mortality at 96h in the 100% (v/v) undiluted sample

Reviewed by: 

Date reviewed: Dec-6, 2017

Daphnia magna Summary Sheet

Client: Teck - CMD
Work Order No.: 171442

Start Date/Time: November 28, 2017 @ 1100h
Test Species: Daphnia magna
Set up by: YNL

Sample Information:

Sample ID: CM-PC2-WS-2017-11-24-N
Sample Date: November 24, 2017
Date Received: November 27, 2017
Sample Volume: 2 x 1L

Test Validity Criteria:
≥ 90% mean control survival and/or mobility and ≤ 2 daphnids exhibit immobility and/or mortality in any single control replicate.
WQ Ranges:
T (°C) = 20 ± 2; DO (mg/L) = 3.6 to 9.4; pH = 6 to 8.5

Test Organism Information:

Broodstock No.: 110817 A
Age of young (Day 0): <24 h
Avg No. young per brood in previous 7 d: 22
Mortality (%) in previous 7 d: 0
Days to first brood: 9

NaCl Reference Toxicant Results:

Reference Toxicant ID: DnTC60
Stock Solution ID: 17N905
Date Initiated: November 27, 2017
48-h LC50 (95% CL): 4.2 (3.7 - 4.8) g/L NaCl

Reference Toxicant Mean and Historical Range: 4.2 (3.5 - 5.2) g/L NaCl
Reference Toxicant CV (%): 11

Test Results: at 48h
10% mortality[^] in the 100% (v/v) undiluted sample.

Reviewed by: [Signature]

Date reviewed: Dec 6, 2017

Freshwater Acute 48 Hour Toxicity Test Data Sheet

Client: Teck CMO
 Sample ID: CM-PC2-WS-2017-11-24-N
 Work Order No.: 171442

Start Date/Time: November 28, 2017 @ 11:00h
 CER #: 5
 No. Organisms/volume: 10/200mL
 Test Organism: D.magna
 Set up by: VMM

Thermometer: CE#45 pH meter/probe: 3 / 3 DO meter/probe: 3 / 3 Cond./Salinity meter/probe: 3 / 3

Concentration (% v/v)	Number of Live Organisms Rep	24		No. Immobilized 48	Temperature (°C)			Dissolved oxygen (mg/L)			pH			Conductivity (µS/cm)	
		24	48		0	24	48	0	24	48	0	24	48	0	48
Control	A	10	10	0	18.5	19.0	19.0	8.7	8.5	8.5	7.6	7.7	7.8	347	351
	B	10	10	0											
	C	10	10	0											
	D														
100%	A	10	10	0	18.5	19.0	18.5	9.0	8.7	8.1	7.6	8.1	8.1	410	411
	B	10	9 ⁰	10											
	C	10	8 ⁰	10											
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
	A														
	B														
	C														
	D														
Technician Initials		CM	CM	CM	YVL	CM	YVL	CM	CM	YVL	CM	CM	YVL	CM	

Concentration	Hardness* (mg/L as CaCO3)	Alkalinity* (mg/L as CaCO3)
Control (MHW)	90	668
Highest conc.	238	142
Hardness adjusted	—	—

	Initial WQ	Adjustment	Adjusted WQ
Temp (°C)	18.5		
DO (mg/L)	9.0		
pH	7.6		
Cond (µS/cm)	410		
Salinity (ppt)	0.2		

Comments: ① Daphnids congregated to surface, stuck in solids at 48h, still present on brood 2nd Mortality: Heartbeat checked under microscope Yes

Sample Description: Clear, colourless, odourless liquid, no particulates

Batch#: 110817EA 7-d previous # young/brood: 22 Previous 7-d Mortality (%): 0 Day of 1st Brood: 9

Reviewed by: [Signature] Date reviewed: Dec-6, 2017

APPENDIX C – Chain-of-custody form

COC ID: ACUTE_TOX_PC2_20171124		TURNAROUND TIME: Regular		RUSH: NO							
PROJECT/CLIENT INFO				LABORATORY			OTHER INFO				
Facility Name / Job# Coal Mountain Operation				Lab Name Nautilus Environmental - BC			Report Format / Distribution				
Project Manager Jay Jones				Lab Contact Krysta Pearcy/Emma Marus			Email 1:	Don.sacino@teck.com	X	X	X
Email Jay.Jones@teck.com				Email krysta@nautilusenvironmental.com			Email 2:	Kimberly.San@teck.com	X	X	X
Address 2261 Corbin Rd.				Address 8664 Commerce Court			Email 3:	teckcoal@equisonline.com			X
							Email 4:	Karen.hannan@teck.com	X	X	X
							Email 5:	Jay.Jones@teck.com	X	X	X
City Sparwood		Province BC		City Burnaby		Province BC		PO number 478075			
Postal Code V0B 2G0		Country Canada		Postal Code V5A 4N7		Country Canada					
Phone Number 250 425 7321				Phone Number 604-420-8773							
SAMPLE DETAILS						ANALYSIS REQUESTED					
Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# Of Cont.	NAUT_48hr_DM_P/F	NAUT_96hr_RT_P/F	Temp °C	
CM_PC2_WS_2017-11-24_N	CM_SPD	WS	n	2017/11/24	13:36	G	3	X	X	8.8	20L + 2 1L
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
								Nautilus - Burnaby		Nov 27/17 @ 11:30	
								NY - Nari Yamamoto			
SERVICE REQUEST (rush - subject to availability)											
Regular (default) X				Sampler's Name		Kim San		Mobile #		250-425-7541	
Priority (2-3 business days) - 50% surcharge				Sampler's Signature				Date/Time		11/24/2017 16:00:00 PM	
Emergency (1 Business Day) - 100% surcharge											
For Emergency <1 Day, ASAP or Weekend - Contact ALS											

END OF REPORT

Appendix I – 2017 Monitoring Data

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
1/5/2017	CM_CC1	200209				0.0021	0.0071	0.65	0.63	0.2	0.26	0.0465	0.0477	< 0.020	< 0.020	< 0.000050
1/17/2017	CM_CC1	200209	0	0	277	< 0.0030	0.0106	0.71	0.74	0.22	0.28	0.0442	0.0455	< 0.020	< 0.020	< 0.000050
1/24/2017	CM_CC1	200209				0.0014	0.0063	0.73	0.76	0.21	0.28	0.0443	0.0464	< 0.020	< 0.020	< 0.000050
1/29/2017	CM_CC1	200209														
1/30/2017	CM_CC1	200209				0.0014	0.0074	0.58	0.68	0.2	0.2	0.0461	0.0438	< 0.020	< 0.020	< 0.000050
1/31/2017	CM_CC1	200209				0.017	< 0.015	0.55	0.61	< 0.50	< 0.50	0.0473	0.0498	< 0.10	< 0.10	< 0.00025
2/1/2017	CM_CC1	200209			272	< 0.0050	< 0.015	0.58	0.67	< 0.50	< 0.50	0.0477	0.0496	< 0.10	< 0.10	< 0.00025
2/7/2017	CM_CC1	200209				0.0017	0.011	0.57	0.61	0.22	0.39	0.0457	0.049	< 0.020	< 0.020	< 0.000050
2/21/2017	CM_CC1	200209				0.0014	0.0053	0.66	1.03	0.19	0.26	0.0577	0.0592	< 0.020	< 0.020	< 0.000050
3/1/2017	CM_CC1	200209			266	0.0015	0.006	0.64	0.7	0.21	0.25	0.0513	0.054	< 0.020	< 0.020	< 0.000050
3/7/2017	CM_CC1	200209				0.0052	0.0043	0.86	0.8	0.2	0.22	0.0547	0.0521	< 0.020	< 0.020	< 0.000050
3/22/2017	CM_CC1	200209														
3/22/2017	CM_CC1	200209			242	0.0025	0.0183	0.89	0.97	0.23	0.28	0.0731	0.0693	< 0.020	< 0.020	< 0.000050
3/29/2017	CM_CC1	200209			249	0.0022	0.0328	0.97	0.83	0.27	0.29	0.0661	0.0562	< 0.020	< 0.020	< 0.000050
4/4/2017	CM_CC1	200209														
4/5/2017	CM_CC1	200209			234	0.0082	0.0093	0.99	0.87	0.26	0.26	0.069	0.0607	< 0.020	< 0.020	< 0.000050
4/12/2017	CM_CC1	200209			250	0.0032	0.0086	0.73	0.73	0.24	0.26	0.0618	0.0575	< 0.020	< 0.020	< 0.000050
4/19/2017	CM_CC1	200209			257	0.0049	0.0121	0.77	0.84	0.23	0.28	0.051	0.0523	< 0.020	< 0.020	< 0.000050
4/26/2017	CM_CC1	200209			241	0.0082	0.0326	0.61	0.61	0.22	0.26	0.0508	0.0504	< 0.020	< 0.020	< 0.000050
5/2/2017	CM_CC1	200209			249	0.0069	0.0143	0.67	0.67	0.21	0.25	0.0552	0.0554	< 0.020	< 0.020	< 0.000050
5/9/2017	CM_CC1	200209			226	0.0068	0.0376	0.5	0.47	0.27	0.31	0.045	0.0424	< 0.020	< 0.020	< 0.000050
5/16/2017	CM_CC1	200209			282	0.006	0.0088	0.47	0.57	0.19	0.24	0.0345	0.0312	< 0.020	< 0.020	< 0.000050
5/17/2017	CM_CC1	200209														
5/17/2017	CM_CC1	200209														
5/18/2017	CM_CC1	200209														
5/23/2017	CM_CC1	200209			222	0.0041	0.0285	0.54	0.57	0.24	0.3	0.034	0.0359	< 0.020	< 0.020	< 0.000050
5/30/2017	CM_CC1	200209			210	0.0036	0.0664	0.53	0.54	0.23	0.32	0.0316	0.0343	< 0.020	< 0.020	< 0.000050
6/6/2017	CM_CC1	200209			240	0.0028	0.0246	0.58	0.56	0.23	0.27	0.029	0.0286	< 0.020	< 0.020	< 0.000050
6/14/2017	CM_CC1	200209			229	0.0029	0.0295	0.82	0.85	0.24	0.24	0.0335	0.0342	< 0.020	< 0.020	< 0.000050
6/21/2017	CM_CC1	200209			167	0.0023	0.0163	0.91	0.9	0.3	0.37	0.0366	0.0359	< 0.020	< 0.020	< 0.000050
6/28/2017	CM_CC1	200209			263	0.0026	0.0087	0.85	0.82	0.27	0.27	0.0386	0.0375	< 0.020	< 0.020	< 0.000050
7/5/2017	CM_CC1	200209			257	0.0017	0.0098	0.81	0.74	0.24	0.32	0.0377	0.0378	< 0.020	< 0.020	< 0.000050
7/12/2017	CM_CC1	200209			300	0.0012	0.0064	0.88	0.86	0.21	0.26	0.0376	0.0383	< 0.020	< 0.020	< 0.000050
7/19/2017	CM_CC1	200209			247	0.0019	0.0047	0.77	0.71	0.22	0.23	0.0421	0.0378	< 0.020	< 0.020	< 0.000050
7/25/2017	CM_CC1	200209			250	0.0013	0.0051	0.74	0.8	0.22	0.26	0.0447	0.0453	< 0.020	< 0.020	< 0.000050
8/1/2017	CM_CC1	200209			256	< 0.0030	0.0176	0.67	0.74	0.23	0.29	0.049	0.0516	< 0.020	< 0.020	< 0.000050
8/8/2017	CM_CC1	200209			281	< 0.0030	0.0056	0.69	0.78	0.27	0.41	0.0506	0.0504	< 0.020	< 0.020	< 0.000050
8/15/2017	CM_CC1	200209			253	< 0.0030	0.0057	0.67	0.72	0.24	0.22	0.0506	0.0539	< 0.020	< 0.020	< 0.000050
8/15/2017	CM_CC1	200209														
8/22/2017	CM_CC1	200209			250	< 0.0030	0.0044	0.63	0.65	0.21	0.39	0.0571	0.0548	< 0.020	< 0.020	< 0.000050
8/29/2017	CM_CC1	200209			271	< 0.0030	0.0042	0.62	0.66	0.23	0.22	0.0605	0.0554	< 0.020	< 0.020	< 0.000050
9/5/2017	CM_CC1	200209			277	< 0.0030	0.0046	0.55	0.56	0.24	0.29	0.055	0.0593	< 0.020	< 0.020	< 0.000050
9/12/2017	CM_CC1	200209			229	< 0.0030	0.0035	0.57	0.6	0.25	0.3	0.0593	0.0641	< 0.020	< 0.020	< 0.000050
9/19/2017	CM_CC1	200209			218	< 0.0030	0.0031	0.4	0.41	0.26	0.28	0.069	0.0709	< 0.020	< 0.020	< 0.000050
10/4/2017	CM_CC1	200209			244	< 0.0030	0.0034	0.58	0.62	0.26	0.26	0.0631	0.0632	< 0.020	< 0.020	< 0.000050
11/7/2017	CM_CC1	200209			270	< 0.0030	0.0041	0.59	0.57	0.26	0.23	0.0756	0.0735	< 0.020	< 0.020	< 0.000050
12/6/2017	CM_CC1	200209			296	0.004	0.0156	0.76	0.83	0.32	0.3	0.058	0.0539	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
1/17/2017	CM_CCPD	E206438	0	40	308	0.0034	0.0314	0.71	0.7	0.4	0.45	0.0358	0.0362	< 0.020	0.021	< 0.000050
2/1/2017	CM_CCPD	E206438			294	0.0056	< 0.015	< 0.50	< 0.50	< 0.50	< 0.50	0.0325	0.0336	< 0.10	< 0.10	< 0.00025
3/1/2017	CM_CCPD	E206438			310	0.0034	0.007	0.37	0.42	0.27	0.29	0.038	0.0398	< 0.020	< 0.020	< 0.000050
4/5/2017	CM_CCPD	E206438			274	0.011	0.0223	0.86	0.9	0.33	0.39	0.0572	0.0514	< 0.020	< 0.020	< 0.000050
4/12/2017	CM_CCPD	E206438														
4/19/2017	CM_CCPD	E206438														
4/19/2017	CM_CCPD	E206438														
4/26/2017	CM_CCPD	E206438														
5/2/2017	CM_CCPD	E206438	0	0	274	0.0278	0.0575	0.56	0.57	0.24	0.31	0.0392	0.0415	< 0.020	0.021	< 0.000050
5/6/2017	CM_CCPD	E206438														
5/9/2017	CM_CCPD	E206438														
5/16/2017	CM_CCPD	E206438														
5/17/2017	CM_CCPD	E206438														
5/17/2017	CM_CCPD	E206438														
5/18/2017	CM_CCPD	E206438														
5/23/2017	CM_CCPD	E206438														
5/30/2017	CM_CCPD	E206438			239	0.0022	0.126	0.5	0.45	0.18	0.32	0.0244	0.0286	< 0.020	0.026	< 0.000050
6/6/2017	CM_CCPD	E206438			257	0.0025	0.0195	0.38	0.39	0.15	0.18	0.0207	0.0213	< 0.020	< 0.020	< 0.000050
6/14/2017	CM_CCPD	E206438			262	0.0034	0.109	0.41	0.4	0.14	0.22	0.0225	0.0234	< 0.020	< 0.020	< 0.000050
6/21/2017	CM_CCPD	E206438			228	0.0027	0.0292	0.39	0.41	0.18	0.26	0.0257	0.027	< 0.020	< 0.020	< 0.000050
6/28/2017	CM_CCPD	E206438			339	0.0027	0.0181	0.39	0.41	0.19	0.22	0.0278	0.0276	< 0.020	< 0.020	< 0.000050
7/5/2017	CM_CCPD	E206438			330	0.0028	0.0179	0.42	0.41	0.2	0.33	0.032	0.0306	< 0.020	< 0.020	< 0.000050
7/12/2017	CM_CCPD	E206438			351	0.0025	0.0118	0.46	0.44	0.2	0.27	0.033	0.0351	< 0.020	< 0.020	< 0.000050
7/19/2017	CM_CCPD	E206438			336	0.0059	0.0385	0.41	0.39	0.21	0.25	0.0324	0.0302	< 0.020	< 0.020	< 0.000050
7/25/2017	CM_CCPD	E206438			350	0.0055	0.018	0.39	0.43	0.2	0.25	0.0332	0.0335	< 0.020	< 0.020	< 0.000050
8/1/2017	CM_CCPD	E206438	0	0	361	0.0034	0.0098	0.38	0.43	0.2	0.29	0.0305	0.0324	< 0.020	< 0.020	< 0.000050
8/22/2017	CM_CCPD	E206438	0	0	339	< 0.0030	0.0074	0.38	0.42	0.17	0.24	0.0316	0.0321	< 0.020	< 0.020	< 0.000050
9/12/2017	CM_CCPD	E206438			266	0.0035	0.0182	0.48	0.51	0.26	0.28	0.0417	0.0449	< 0.020	< 0.020	< 0.000050
9/19/2017	CM_CCPD	E206438			253	0.0116	0.0245	0.53	0.56	0.29	0.31	0.0404	0.0441	< 0.020	< 0.020	< 0.000050
10/3/2017	CM_CCPD	E206438	0	0	209	0.0031	0.0212	0.52	0.58	0.3	0.41	0.0379	0.0454	< 0.020	< 0.020	< 0.000050
10/10/2017	CM_CCPD	E206438			221	< 0.0030	0.0238	0.52	0.55	0.28	0.34	0.0345	0.0383	< 0.020	< 0.020	< 0.000050
10/11/2017	CM_CCPD	E206438														
10/24/2017	CM_CCPD	E206438			249	< 0.0030	0.0323	0.82	0.83	0.41	0.4	0.0437	0.0492	< 0.020	< 0.020	< 0.000050
11/7/2017	CM_CCPD	E206438			301	0.0035	0.0074	0.82	0.8	0.39	0.35	0.0372	0.0397	< 0.020	< 0.020	< 0.000050
11/22/2017	CM_CCPD	E206438			331	0.0035	0.0371	0.87	0.86	0.57	0.59	0.043	0.0479	< 0.020	< 0.020	< 0.000050
11/28/2017	CM_CCPD	E206438			296	0.0064	0.062	1.09	1.26	0.67	0.81	0.047	0.0513	0.023	0.037	< 0.000050
12/6/2017	CM_CCPD	E206438			342	0.0124	0.0338	1.13	0.97	0.47	0.55	0.0378	0.0391	0.026	< 0.020	< 0.000050
12/12/2017	CM_CCPD	E206438			329	0.0114	0.0397	0.86	0.83	0.44	0.45	0.0291	0.0339	< 0.020	0.022	< 0.000050
12/19/2017	CM_CCPD	E206438			312	0.0119	0.0346	0.65	0.69	0.37	0.44	0.0309	0.0352	< 0.040	< 0.040	< 0.00010
12/27/2017	CM_CCPD	E206438			324	0.0087	0.0179	0.7	0.78	0.32	0.44	0.0297	0.0298	< 0.020	< 0.020	< 0.000050
1/18/2017	CM_MC1	E258175			138	< 0.0030	0.0512	< 0.10	< 0.10	0.14	0.19	0.0525	0.0528	< 0.020	< 0.020	< 0.000050
2/1/2017	CM_MC1	E258175			140	0.0012	0.0196	< 0.10	< 0.10	0.18	0.17	0.051	0.0523	< 0.020	< 0.020	< 0.000050
3/1/2017	CM_MC1	E258175			141	0.0014	0.0222	< 0.10	< 0.10	0.16	0.19	0.0491	0.0513	< 0.020	< 0.020	< 0.000050
4/5/2017	CM_MC1	E258175			139	0.002	0.018	< 0.10	< 0.10	0.17	0.36	0.0516	0.0455	< 0.020	0.138	< 0.000050
4/12/2017	CM_MC1	E258175			131	0.0026	0.0064	< 0.10	< 0.10	0.17	0.17	0.048	0.0433	< 0.020	< 0.020	< 0.000050
4/19/2017	CM_MC1	E258175			134	0.0028	0.0178	< 0.10	< 0.10	0.16	0.19	0.0476	0.0496	< 0.020	< 0.020	< 0.000050
4/26/2017	CM_MC1	E258175			139	0.0039	0.0295	< 0.10	< 0.10	0.18	0.2	0.049	0.049	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
5/2/2017	CM_MC1	E258175			133	0.004	0.0195	< 0.10	< 0.10	0.22	0.2	0.0478	0.0463	< 0.020	< 0.020	< 0.000050
5/9/2017	CM_MC1	E258175			113	0.0065	0.136	< 0.10	0.42	0.17	0.28	0.0348	0.0357	< 0.020	< 0.020	< 0.000050
5/16/2017	CM_MC1	E258175			126	0.0068	0.0139	< 0.10	< 0.10	0.17	0.2	0.0377	0.0332	< 0.020	< 0.020	< 0.000050
5/23/2017	CM_MC1	E258175			98.8	0.0117	0.381	< 0.10	< 0.10	0.25	0.46	0.0317	0.0354	< 0.020	0.035	< 0.000050
5/30/2017	CM_MC1	E258175			88.6	0.0759	0.747	< 0.10	< 0.10	0.29	0.6	0.0328	0.0351	< 0.020	0.034	< 0.000050
6/6/2017	CM_MC1	E258175			90.7	0.0207	0.361	< 0.10	< 0.10	0.26	0.46	0.0245	0.0264	< 0.020	0.026	< 0.000050
6/14/2017	CM_MC1	E258175			86.4	0.0097	0.33	< 0.10	< 0.10	0.26	0.4	0.0246	0.0299	< 0.020	< 0.020	< 0.000050
6/21/2017	CM_MC1	E258175			92.9	0.0086	0.0939	< 0.10	< 0.10	0.25	0.33	0.0289	0.0297	< 0.020	< 0.020	< 0.000050
6/28/2017	CM_MC1	E258175			114	0.0058	0.0591	< 0.10	< 0.10	0.23	0.24	0.0338	0.0318	< 0.020	< 0.020	< 0.000050
7/4/2017	CM_MC1	E258175			121	0.0044	0.0441	< 0.10	< 0.10	0.21	0.29	0.0393	0.0394	< 0.020	< 0.020	< 0.000050
7/4/2017	CM_MC1	E258175														
7/12/2017	CM_MC1	E258175			135	0.0028	0.022	< 0.10	< 0.10	0.21	0.23	0.0434	0.0412	< 0.020	< 0.020	< 0.000050
7/19/2017	CM_MC1	E258175			136	0.0032	0.0302	< 0.10	< 0.10	0.2	0.21	0.0488	0.0461	< 0.020	< 0.020	< 0.000050
7/25/2017	CM_MC1	E258175			141	0.0026	0.0213	< 0.10	< 0.10	0.22	0.24	0.0503	0.0459	< 0.020	< 0.020	< 0.000050
8/1/2017	CM_MC1	E258175			138	< 0.0030	0.0118	< 0.10	< 0.10	0.21	0.22	0.053	0.0507	< 0.020	< 0.020	< 0.000050
8/8/2017	CM_MC1	E258175			145	< 0.0030	0.0092	< 0.10	0.12	0.21	0.25	0.0531	0.0522	< 0.020	< 0.020	< 0.000050
8/15/2017	CM_MC1	E258175			143	< 0.0030	0.0092	< 0.10	< 0.10	0.21	0.2	0.0518	0.0527	< 0.020	< 0.020	< 0.000050
8/22/2017	CM_MC1	E258175			143	< 0.0030	0.0065	< 0.10	< 0.10	0.2	0.21	0.0541	0.0562	< 0.020	< 0.020	< 0.000050
8/29/2017	CM_MC1	E258175			152	< 0.0030	0.0058	< 0.10	< 0.10	0.16	0.18	0.0583	0.0539	< 0.020	< 0.020	< 0.000050
9/12/2017	CM_MC1	E258175			146	< 0.0030	0.0069	< 0.10	< 0.10	0.18	0.19	0.0555	0.059	< 0.020	< 0.020	< 0.000050
9/19/2017	CM_MC1	E258175			145	0.0075	0.0692	< 0.10	< 0.10	0.19	0.25	0.0587	0.0544	< 0.020	< 0.020	< 0.000050
9/26/2017	CM_MC1	E258175			149	< 0.0030	0.0053	< 0.10	< 0.10	0.14	0.17	0.0567	0.059	< 0.020	< 0.020	< 0.000050
10/2/2017	CM_MC1	E258175			134	< 0.0030	0.0086	< 0.10	< 0.10	0.16	0.19	0.0514	0.0508	< 0.020	< 0.020	< 0.000050
10/10/2017	CM_MC1	E258175			146	< 0.0030	0.0035	< 0.10	< 0.10	0.14	0.17	0.0516	0.0527	< 0.020	< 0.020	< 0.000050
10/17/2017	CM_MC1	E258175			126	< 0.0030	< 0.0030	< 0.10	< 0.10	0.14	0.19	0.0516	0.0539	< 0.020	< 0.020	< 0.000050
10/24/2017	CM_MC1	E258175			136	< 0.0030	0.0066	< 0.10	< 0.10	0.17	0.19	0.0482	0.0469	< 0.020	< 0.020	< 0.000050
10/31/2017	CM_MC1	E258175			136	< 0.0030	0.0119	< 0.10	< 0.10	0.16	0.17	0.0543	0.0493	< 0.020	< 0.020	< 0.000050
11/7/2017	CM_MC1	E258175			148	< 0.0030	0.0331	< 0.10	< 0.10	0.15	0.15	0.0543	0.0554	< 0.020	< 0.020	< 0.000050
12/6/2017	CM_MC1	E258175			142	< 0.0030	0.0479	< 0.10	< 0.10	0.15	0.21	0.0517	0.0516	< 0.020	< 0.020	< 0.000050
1/5/2017	CM_MC2	E258937				0.0016	0.0269	0.34	0.42	0.17	0.24	0.0666	0.0699	< 0.020	< 0.020	< 0.000050
1/12/2017	CM_MC2	E258937				0.0023	0.0185	0.3	0.33	0.17	0.24	0.0654	0.0659	< 0.020	< 0.020	< 0.000050
1/17/2017	CM_MC2	E258937			214	< 0.0030	0.0217	0.34	0.37	0.17	0.25	0.0643	0.0667	< 0.020	< 0.020	< 0.000050
1/24/2017	CM_MC2	E258937				0.0013	0.0183	0.34	0.37	0.18	0.24	0.0668	0.0656	< 0.020	< 0.020	< 0.000050
1/29/2017	CM_MC2	E258937														
1/30/2017	CM_MC2	E258937			206	0.0014	0.007	0.29	0.3	0.18	0.21	0.0698	0.0689	< 0.020	< 0.020	< 0.000050
1/31/2017	CM_MC2	E258937				0.0078	0.0118	0.33	0.34	0.2	0.23	0.0737	0.0756	< 0.020	< 0.020	< 0.000050
2/1/2017	CM_MC2	E258937			218	0.001	0.0151	0.3	0.35	0.17	0.22	0.0714	0.0743	< 0.020	< 0.020	< 0.000050
2/7/2017	CM_MC2	E258937				0.0016	0.0184	0.27	0.31	0.15	0.25	0.0696	0.0749	< 0.020	0.03	< 0.000050
2/21/2017	CM_MC2	E258937				0.0012	0.0081	0.32	0.66	0.16	0.21	0.0719	0.0752	< 0.020	< 0.020	< 0.000050
2/28/2017	CM_MC2	E258937			211	< 0.0030	0.0196	0.26	0.28	0.13	0.17	0.0697	0.0731	< 0.020	< 0.020	< 0.000050
3/1/2017	CM_MC2	E258937			202	0.0012	0.0277	0.28	0.44	0.15	0.18	0.0768	0.0716	< 0.020	< 0.020	< 0.000050
3/7/2017	CM_MC2	E258937			210	< 0.0030	0.0278	0.33	0.4	0.14	0.19	0.0663	0.0697	< 0.020	< 0.020	< 0.000050
3/14/2017	CM_MC2	E258937			202	< 0.0030	0.0071	0.41	0.45	0.16	0.21	0.0735	0.0677	< 0.020	< 0.020	< 0.000050
3/21/2017	CM_MC2	E258937			160	0.0056	0.119	0.25	0.27	0.17	0.22	0.0593	0.063	< 0.020	< 0.020	< 0.000050
3/22/2017	CM_MC2	E258937														
3/29/2017	CM_MC2	E258937														
4/5/2017	CM_MC2	E258937			210	0.0021	0.0144	0.43	0.42	0.19	0.19	0.0757	0.062	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
4/12/2017	CM_MC2	E258937														
4/12/2017	CM_MC2	E258937			195	0.0027	0.0162	0.31	0.32	0.17	0.18	0.0776	0.0662	< 0.020	< 0.020	< 0.000050
4/19/2017	CM_MC2	E258937			200	0.0044	0.0348	0.37	0.37	0.16	0.21	0.066	0.0669	< 0.020	< 0.020	< 0.000050
4/24/2017	CM_MC2	E258937			197	0.0057	0.114	0.28	0.25	0.16	0.27	0.0665	0.0628	< 0.020	< 0.020	< 0.000050
5/2/2017	CM_MC2	E258937			194	0.0047	0.0946	0.28	0.35	0.16	0.27	0.0674	0.0796	< 0.020	< 0.020	< 0.000050
5/9/2017	CM_MC2	E258937			160	0.0045	0.233	0.2	0.19	0.19	0.34	0.0486	0.0542	< 0.020	0.031	< 0.000050
5/16/2017	CM_MC2	E258937			160	0.0042	0.354	0.19	0.25	0.16	0.32	0.048	0.0432	< 0.020	< 0.020	< 0.000050
5/23/2017	CM_MC2	E258937			141	0.0057	0.736	0.18	0.28	0.18	0.6	0.0436	0.0524	< 0.020	0.057	< 0.000050
5/30/2017	CM_MC2	E258937			121	0.0122	1.08	0.17	0.26	0.18	0.69	0.0395	0.0498	< 0.020	0.068	< 0.000050
6/6/2017	CM_MC2	E258937			129	0.0067	0.582	0.18	0.16	0.18	0.51	0.034	0.0398	< 0.020	0.034	< 0.000050
6/13/2017	CM_MC2	E258937			135	0.0063	0.208	0.21	0.19	0.2	0.34	0.0437	0.0477	< 0.020	< 0.020	< 0.000050
6/14/2017	CM_MC2	E258937			120	0.0043	0.503	0.17	0.21	0.18	0.48	0.0342	0.0392	< 0.020	0.036	< 0.000050
6/21/2017	CM_MC2	E258937			115	0.0049	0.206	0.19	0.21	0.16	0.34	0.0361	0.0383	< 0.020	< 0.020	< 0.000050
6/28/2017	CM_MC2	E258937			138	0.0056	0.105	0.25	0.22	0.16	0.22	0.0379	0.0362	< 0.020	< 0.020	< 0.000050
7/4/2017	CM_MC2	E258937			144	0.0044	0.0538	0.24	0.22	0.18	0.25	0.0423	0.0415	< 0.020	< 0.020	< 0.000050
7/12/2017	CM_MC2	E258937			188	0.0027	0.0258	0.3	0.3	0.18	0.23	0.0462	0.0448	< 0.020	< 0.020	< 0.000050
7/19/2017	CM_MC2	E258937			172	0.0026	0.0287	0.34	0.29	0.22	0.22	0.0553	0.0533	< 0.020	< 0.020	< 0.000050
7/25/2017	CM_MC2	E258937			180	0.0019	0.0184	0.31	0.36	0.18	0.24	0.0577	0.0585	< 0.020	< 0.020	< 0.000050
8/1/2017	CM_MC2	E258937			183	< 0.0030	0.0175	0.29	0.33	0.18	0.24	0.0668	0.0651	< 0.020	< 0.020	< 0.000050
8/8/2017	CM_MC2	E258937			206	< 0.0040	0.0897	0.33	0.44	0.23	0.3	0.0684	0.0685	< 0.020	< 0.020	< 0.000050
8/15/2017	CM_MC2	E258937			183	< 0.0030	0.0108	0.3	0.31	0.19	0.22	0.0644	0.066	< 0.020	< 0.020	< 0.000050
8/22/2017	CM_MC2	E258937			198	< 0.0030	0.0066	0.31	0.34	0.18	0.22	0.0762	0.0739	< 0.020	< 0.020	< 0.000050
8/29/2017	CM_MC2	E258937			207	< 0.0030	0.0067	0.31	0.33	0.18	0.19	0.0833	0.0723	< 0.020	< 0.020	< 0.000050
9/12/2017	CM_MC2	E258937			171	< 0.0030	0.0039	0.29	0.32	0.17	0.2	0.0795	0.0856	< 0.020	< 0.020	< 0.000050
9/19/2017	CM_MC2	E258937			169	< 0.0030	0.0047	0.23	0.28	0.2	0.19	0.0785	0.0783	< 0.020	< 0.020	< 0.000050
9/26/2017	CM_MC2	E258937			203	< 0.0030	0.0063	0.17	0.19	0.17	0.2	0.0827	0.0795	< 0.020	< 0.020	< 0.000050
10/2/2017	CM_MC2	E258937			212	< 0.0030	0.0064	0.25	0.25	< 0.40	< 0.40	0.0735	0.0788	< 0.020	< 0.020	< 0.000050
10/2/2017	CM_MC2	E258937			196	< 0.0030	0.0102	0.27	0.3	0.17	0.18	0.0729	0.0742	< 0.020	< 0.020	< 0.000050
10/3/2017	CM_MC2	E258937			204	< 0.0030	0.0095	0.29	0.35	0.19	0.21	0.0725	0.0759	< 0.020	< 0.020	< 0.000050
10/5/2017	CM_MC2	E258937			205	< 0.0030	0.0035	0.27	0.28	0.16	0.21	0.0779	0.0782	< 0.020	< 0.020	< 0.000050
10/6/2017	CM_MC2	E258937			213	< 0.0030	0.0051	0.27	0.29	0.17	0.22	0.0832	0.0845	< 0.020	< 0.020	< 0.000050
10/10/2017	CM_MC2	E258937			218	< 0.0030	0.0033	0.23	0.26	0.16	0.21	0.081	0.0836	< 0.020	< 0.020	< 0.000050
10/11/2017	CM_MC2	E258937			218	< 0.0030	0.0043	0.25	0.33	0.24	0.19	0.0811	0.0815	< 0.020	< 0.020	0.00006
10/12/2017	CM_MC2	E258937			211	0.0072	0.0117	0.26	0.26	0.19	0.21	0.0833	0.08	< 0.020	< 0.020	< 0.000050
10/16/2017	CM_MC2	E258937			223	< 0.0030	0.0062	0.25	0.26	0.16	0.2	0.0773	0.0819	< 0.020	< 0.020	< 0.000050
10/17/2017	CM_MC2	E258937			196	< 0.0030	0.0034	0.22	0.25	0.17	0.17	0.0859	0.0703	< 0.020	< 0.020	< 0.000050
10/19/2017	CM_MC2	E258937			160	0.0054	1.88	0.29	0.41	0.18	1.31	0.0639	0.0921	< 0.020	0.133	< 0.000050
10/20/2017	CM_MC2	E258937			177	0.0046	0.124	0.21	0.25	0.17	0.27	0.0655	0.0679	< 0.020	< 0.020	< 0.000050
10/23/2017	CM_MC2	E258937			181	< 0.0030	0.0208	0.21	0.23	0.2	0.22	0.0727	0.0722	< 0.020	< 0.020	< 0.000050
10/24/2017	CM_MC2	E258937			189	< 0.0030	0.0146	0.27	0.32	0.19	0.21	0.0786	0.0759	< 0.020	< 0.020	< 0.000050
10/26/2017	CM_MC2	E258937			198	< 0.0030	0.0139	0.32	0.33	0.16	0.21	0.0735	0.0768	< 0.020	< 0.020	< 0.000050
10/30/2017	CM_MC2	E258937			206	< 0.0030	0.0134	0.28	0.3	0.18	0.17	0.0747	0.0709	< 0.020	< 0.020	< 0.000050
10/31/2017	CM_MC2	E258937			210	< 0.0030	0.0088	0.28	0.29	0.17	0.24	0.0753	0.0812	< 0.020	< 0.020	< 0.000050
11/7/2017	CM_MC2	E258937			216	< 0.0030	0.0409	0.26	0.24	0.19	0.22	0.0837	0.0855	< 0.020	< 0.020	< 0.000050
11/9/2017	CM_MC2	E258937			205	0.0063	0.0088	0.26	0.3	0.17	0.2	0.0879	0.0868	< 0.020	< 0.020	< 0.000050
11/14/2017	CM_MC2	E258937			210	< 0.0050	< 0.015	< 0.50	< 0.50	< 0.50	< 0.50	0.0766	0.0727	< 0.10	< 0.10	< 0.00025
11/21/2017	CM_MC2	E258937			223	< 0.0030	0.0079	0.24	0.26	0.18	0.17	0.0795	0.0766	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
11/28/2017	CM_MC2	E258937			188	0.0033	0.0603	0.28	0.29	0.21	0.24	0.0634	0.0647	< 0.020	< 0.020	< 0.000050
12/6/2017	CM_MC2	E258937			235	< 0.0030	0.0143	0.4	0.36	0.2	0.27	0.0703	0.0729	< 0.020	< 0.020	< 0.000050
12/12/2017	CM_MC2	E258937			222	< 0.0030	0.0161	0.31	0.3	0.18	0.19	0.0693	0.0786	< 0.020	< 0.020	< 0.000050
12/19/2017	CM_MC2	E258937			212	< 0.0030	0.0215	0.22	0.25	0.18	0.21	0.0709	0.0715	< 0.020	< 0.020	< 0.000050
12/27/2017	CM_MC2	E258937			220	< 0.0030	0.0136	0.25	0.34	0.18	0.24	0.0744	0.0763	< 0.020	< 0.020	< 0.000050
4/12/2017	CM_PC2	E298733														
4/19/2017	CM_PC2	E298733			158	0.0073	0.0309	< 0.10	0.12	0.6	0.62	0.0373	0.0388	< 0.020	< 0.020	< 0.000050
4/26/2017	CM_PC2	E298733														
5/2/2017	CM_PC2	E298733	0	0		0.0021	0.0149	< 0.10	< 0.10	0.47	0.53	0.0323	0.0339	< 0.020	< 0.020	< 0.000050
5/9/2017	CM_PC2	E298733														
5/16/2017	CM_PC2	E298733														
5/23/2017	CM_PC2	E298733														
5/30/2017	CM_PC2	E298733														
6/6/2017	CM_PC2	E298733				0.0024	0.0051	< 0.10	< 0.10	0.38	0.34	0.0296	0.0267	< 0.020	< 0.020	< 0.000050
6/14/2017	CM_PC2	E298733														
6/21/2017	CM_PC2	E298733														
6/28/2017	CM_PC2	E298733														
7/5/2017	CM_PC2	E298733			129	0.0019	0.0073	< 0.10	< 0.10	0.44	0.5	0.0276	0.026	< 0.020	< 0.020	< 0.000050
7/12/2017	CM_PC2	E298733														
7/19/2017	CM_PC2	E298733														
7/25/2017	CM_PC2	E298733														
8/1/2017	CM_PC2	E298733														
8/8/2017	CM_PC2	E298733														
8/15/2017	CM_PC2	E298733														
8/22/2017	CM_PC2	E298733														
8/29/2017	CM_PC2	E298733														
9/5/2017	CM_PC2	E298733														
9/12/2017	CM_PC2	E298733														
9/19/2017	CM_PC2	E298733														
9/26/2017	CM_PC2	E298733														
10/3/2017	CM_PC2	E298733														
10/10/2017	CM_PC2	E298733														
10/17/2017	CM_PC2	E298733														
10/24/2017	CM_PC2	E298733														
10/31/2017	CM_PC2	E298733														
11/7/2017	CM_PC2	E298733														
11/14/2017	CM_PC2	E298733														
11/21/2017	CM_PC2	E298733														
11/24/2017	CM_PC2	E298733	10	0	149	< 0.0030	0.0127	0.11	0.15	0.36	0.4	0.0383	0.0355	< 0.020	< 0.020	< 0.000050
11/28/2017	CM_PC2	E298733														
12/6/2017	CM_PC2	E298733														
12/12/2017	CM_PC2	E298733														
12/19/2017	CM_PC2	E298733														
12/27/2017	CM_PC2	E298733														
1/17/2017	CM_SOW	E298734			389	< 0.0030	0.0102	< 0.10	0.11	0.14	0.2	0.0334	0.0342	< 0.020	< 0.020	< 0.000050
2/1/2017	CM_SOW	E298734			383	< 0.0050	0.102	< 0.50	< 0.50	< 0.50	< 0.50	0.0315	0.0425	< 0.10	< 0.10	< 0.00025
3/1/2017	CM_SOW	E298734			347	0.0012	0.0062	0.14	0.24	0.16	0.17	0.038	0.0358	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
4/5/2017	CM_SOW	E298734			196	0.0023	0.0942	0.17	0.18	0.14	0.31	0.145	0.15	< 0.020	< 0.020	< 0.000050
5/2/2017	CM_SOW	E298734			313	0.0025	0.115	0.19	0.23	0.16	0.47	0.0577	0.0658	< 0.020	0.023	< 0.000050
6/6/2017	CM_SOW	E298734			305	0.0016	0.0228	0.22	0.21	0.23	0.32	0.0331	0.0322	< 0.020	< 0.020	< 0.000050
7/4/2017	CM_SOW	E298734			225	0.0095	0.0287	0.31	0.31	0.51	0.64	0.0517	0.0514	< 0.020	< 0.020	< 0.000050
8/1/2017	CM_SOW	E298734			277	< 0.0030	0.0272	0.19	0.25	0.41	0.51	0.0267	0.028	< 0.020	< 0.020	< 0.000050
9/12/2017	CM_SOW	E298734			212	< 0.0030	0.0111	0.2	0.2	0.45	0.49	0.014	0.0149	< 0.020	< 0.020	< 0.000050
10/4/2017	CM_SOW	E298734			227	< 0.0030	0.0452	0.26	0.29	0.44	0.49	0.0355	0.0396	< 0.020	< 0.020	< 0.000050
11/7/2017	CM_SOW	E298734			184	< 0.0030	28.6	0.47	1.01	0.43	8.55	0.0556	0.56	< 0.020	1.12	< 0.000050
12/5/2017	CM_SOW	E298734			91.3	< 0.0030	54.9	0.45	2.02	0.31	18.1	0.0563	1.18	< 0.020	2.33	< 0.000050
1/5/2017	CM_SPD	E102488				0.005	0.0097	1.3	1.25	0.13	0.23	0.0227	0.0241	< 0.020	< 0.020	< 0.000050
1/17/2017	CM_SPD	E102488	0	20	269	0.0033	0.038	1.25	1.29	< 0.20	< 0.20	0.0221	0.0238	< 0.040	< 0.040	< 0.00010
1/24/2017	CM_SPD	E102488				0.0023	0.0097	1.34	1.2	0.17	0.22	0.0244	0.0214	< 0.020	< 0.020	< 0.000050
1/29/2017	CM_SPD	E102488														
1/30/2017	CM_SPD	E102488				0.0023	0.0181	1.19	1.22	0.12	0.16	0.0209	0.0216	< 0.020	< 0.020	< 0.000050
1/31/2017	CM_SPD	E102488				0.0433	0.022	1.06	1.2	< 0.50	< 0.50	0.0211	0.0224	< 0.10	< 0.10	< 0.00025
2/1/2017	CM_SPD	E102488			275	< 0.0050	< 0.015	1.06	1.2	< 0.50	< 0.50	0.0203	0.0228	< 0.10	< 0.10	< 0.00025
2/7/2017	CM_SPD	E102488				0.0022	0.0186	1.2	1.13	0.15	0.27	0.0236	0.0243	< 0.020	< 0.020	< 0.000050
2/21/2017	CM_SPD	E102488				0.0022	0.0179	1.24	1.74	0.14	0.22	0.0426	0.0456	< 0.020	< 0.020	< 0.000050
3/1/2017	CM_SPD	E102488			255	0.0024	0.0061	1.07	1.01	0.16	0.18	0.0319	0.0307	< 0.020	< 0.020	< 0.000050
3/7/2017	CM_SPD	E102488				0.0115	0.0106	1.58	1.67	0.18	0.26	0.0262	0.0337	< 0.020	< 0.020	< 0.000050
3/29/2017	CM_SPD	E102488														
3/29/2017	CM_SPD	E102488														
4/5/2017	CM_SPD	E102488			205	0.0022	0.0137	1.5	1.46	0.28	0.29	0.06	0.0592	< 0.020	< 0.020	< 0.000050
4/10/2017	CM_SPD	E102488														
4/12/2017	CM_SPD	E102488														
4/19/2017	CM_SPD	E102488														
4/26/2017	CM_SPD	E102488														
4/27/2017	CM_SPD	E102488														
4/28/2017	CM_SPD	E102488														
4/28/2017	CM_SPD	E102488														
5/2/2017	CM_SPD	E102488	0	0	228	0.0033	0.0243	1.06	1.04	0.27	0.3	0.0431	0.0437	< 0.020	< 0.020	< 0.000050
5/5/2017	CM_SPD	E102488														
5/5/2017	CM_SPD	E102488														
5/6/2017	CM_SPD	E102488														
5/6/2017	CM_SPD	E102488														
5/6/2017	CM_SPD	E102488														
5/6/2017	CM_SPD	E102488														
5/7/2017	CM_SPD	E102488														
5/9/2017	CM_SPD	E102488														
5/16/2017	CM_SPD	E102488														
5/17/2017	CM_SPD	E102488														
5/17/2017	CM_SPD	E102488														
5/18/2017	CM_SPD	E102488														
5/23/2017	CM_SPD	E102488														
5/30/2017	CM_SPD	E102488														
6/6/2017	CM_SPD	E102488			249	0.0035	0.0384	1.61	1.61	0.26	0.42	0.0317	0.0339	< 0.020	< 0.020	< 0.000050
6/14/2017	CM_SPD	E102488														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
6/21/2017	CM_SPD	E102488														
6/28/2017	CM_SPD	E102488														
7/4/2017	CM_SPD	E102488			217	0.002	0.0118	1.94	1.92	0.29	0.4	0.0276	0.0298	< 0.020	< 0.020	< 0.000050
7/12/2017	CM_SPD	E102488														
7/19/2017	CM_SPD	E102488														
7/25/2017	CM_SPD	E102488														
8/1/2017	CM_SPD	E102488	0	0	213	< 0.0030	0.166	1.99	1.97	0.32	0.61	0.0274	0.0422	< 0.020	0.023	< 0.000050
8/8/2017	CM_SPD	E102488														
8/15/2017	CM_SPD	E102488														
8/22/2017	CM_SPD	E102488	0	0	203	< 0.0030	0.0141	1.56	1.62	0.3	0.33	0.0318	0.031	< 0.020	< 0.020	< 0.000050
8/29/2017	CM_SPD	E102488														
9/5/2017	CM_SPD	E102488														
9/12/2017	CM_SPD	E102488			169	< 0.0030	0.0115	1.38	1.37	0.26	0.32	0.0304	0.0329	< 0.020	< 0.020	< 0.000050
9/19/2017	CM_SPD	E102488														
10/3/2017	CM_SPD	E102488	0	0	124	< 0.0030	0.0141	1.48	1.37	0.28	0.35	0.0288	0.0315	< 0.020	< 0.020	< 0.000050
10/19/2017	CM_SPD	E102488														
10/19/2017	CM_SPD	E102488														
10/20/2017	CM_SPD	E102488														
10/23/2017	CM_SPD	E102488														
11/7/2017	CM_SPD	E102488			244	< 0.0030	0.0102	1.02	1.01	0.21	0.22	0.0332	0.0332	< 0.020	< 0.020	< 0.000050
11/22/2017	CM_SPD	E102488	0	0	283	< 0.0030	0.0575	0.81	0.86	0.22	0.28	0.0364	0.0362	< 0.020	< 0.020	< 0.000050
12/6/2017	CM_SPD	E102488			264	< 0.0030	0.0196	0.75	0.79	0.2	0.24	0.0427	0.0428	< 0.020	< 0.020	< 0.000050
1/10/2017	EV_AQ1	E210369														
2/8/2017	EV_AQ1	E210369														
3/7/2017	EV_AQ1	E210369														
3/15/2017	EV_AQ1	E210369	0	0	68.8	0.0301	0.0581	0.22	0.24	0.22	0.25	0.0633	0.0596	< 0.020	< 0.020	< 0.000050
3/15/2017	EV_AQ1	E210369														
3/16/2017	EV_AQ1	E210369														
3/17/2017	EV_AQ1	E210369														
3/18/2017	EV_AQ1	E210369														
3/19/2017	EV_AQ1	E210369														
3/19/2017	EV_AQ1	E210369														
3/20/2017	EV_AQ1	E210369														
3/21/2017	EV_AQ1	E210369														
3/22/2017	EV_AQ1	E210369			215	0.0054	0.576	0.26	0.37	0.3	0.69	0.138	0.17	< 0.020	0.048	< 0.000050
3/23/2017	EV_AQ1	E210369														
3/24/2017	EV_AQ1	E210369														
3/28/2017	EV_AQ1	E210369														
4/4/2017	EV_AQ1	E210369	0	0	237	0.0042	0.411	0.24	0.31	0.27	0.42	0.176	0.181	< 0.020	0.026	< 0.000050
4/12/2017	EV_AQ1	E210369														
4/20/2017	EV_AQ1	E210369														
4/26/2017	EV_AQ1	E210369														
5/3/2017	EV_AQ1	E210369			254	0.0037	0.0585	0.23	0.23	0.21	0.26	0.197	0.203	< 0.020	< 0.020	< 0.000050
5/10/2017	EV_AQ1	E210369														
5/17/2017	EV_AQ1	E210369														
5/24/2017	EV_AQ1	E210369														
5/31/2017	EV_AQ1	E210369														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
6/5/2017	EV_AQ1	E210369			243	0.0031	0.0328	0.24	0.28	0.27	0.3	0.162	0.175	< 0.020	< 0.020	< 0.000050
6/14/2017	EV_AQ1	E210369														
6/21/2017	EV_AQ1	E210369														
6/28/2017	EV_AQ1	E210369														
7/5/2017	EV_AQ1	E210369														
7/11/2017	EV_AQ1	E210369														
8/2/2017	EV_AQ1	E210369														
9/12/2017	EV_AQ1	E210369														
10/3/2017	EV_AQ1	E210369														
11/15/2017	EV_AQ1	E210369														
12/6/2017	EV_AQ1	E210369														
1/10/2017	EV_AQ6	E302170			263	< 0.0030	0.045	0.16	0.17	0.19	0.21	0.18	0.169	< 0.020	< 0.020	< 0.000050
2/8/2017	EV_AQ6	E302170														
2/16/2017	EV_AQ6	E302170			206	0.0062	0.225	0.17	0.3	0.53	0.81	0.144	0.152	< 0.020	< 0.020	< 0.000050
2/23/2017	EV_AQ6	E302170														
3/8/2017	EV_AQ6	E302170	0	10	249	< 0.0030	0.0201	0.16	0.2	0.2	0.2	0.165	0.16	< 0.020	< 0.020	< 0.000050
3/15/2017	EV_AQ6	E302170														
3/15/2017	EV_AQ6	E302170														
3/16/2017	EV_AQ6	E302170														
3/17/2017	EV_AQ6	E302170														
3/18/2017	EV_AQ6	E302170														
3/18/2017	EV_AQ6	E302170														
3/19/2017	EV_AQ6	E302170														
3/20/2017	EV_AQ6	E302170														
3/21/2017	EV_AQ6	E302170														
3/22/2017	EV_AQ6	E302170														
3/23/2017	EV_AQ6	E302170														
3/24/2017	EV_AQ6	E302170														
3/28/2017	EV_AQ6	E302170														
3/31/2017	EV_AQ6	E302170														
4/4/2017	EV_AQ6	E302170	0	0	225	0.0034	0.245	0.23	0.28	0.23	0.37	0.176	0.179	< 0.020	< 0.020	< 0.000050
4/12/2017	EV_AQ6	E302170														
4/20/2017	EV_AQ6	E302170														
4/26/2017	EV_AQ6	E302170														
5/2/2017	EV_AQ6	E302170														
5/3/2017	EV_AQ6	E302170			241	< 0.0030	0.0587	0.23	0.22	0.18	0.21	0.205	0.209	< 0.020	< 0.020	< 0.000050
5/7/2017	EV_AQ6	E302170														
5/10/2017	EV_AQ6	E302170														
5/17/2017	EV_AQ6	E302170														
5/18/2017	EV_AQ6	E302170														
5/24/2017	EV_AQ6	E302170														
5/31/2017	EV_AQ6	E302170														
6/5/2017	EV_AQ6	E302170			243	0.0037	0.02	0.23	0.26	0.22	0.25	0.183	0.185	< 0.020	< 0.020	< 0.000050
6/14/2017	EV_AQ6	E302170														
6/21/2017	EV_AQ6	E302170														
6/28/2017	EV_AQ6	E302170														
7/5/2017	EV_AQ6	E302170														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
7/11/2017	EV_AQ6	E302170	0	0	261	0.0036	0.339	0.27	0.33	0.33	0.7	0.323	0.345	< 0.020	0.039	< 0.000050
8/2/2017	EV_AQ6	E302170				< 0.0030	0.0339	0.21	0.22	0.24	0.29	0.152	0.155	< 0.020	< 0.020	< 0.000050
8/2/2017	EV_AQ6	E302170			227											
8/10/2017	EV_AQ6	E302170														
9/12/2017	EV_AQ6	E302170			199	< 0.0030	0.0292	0.18	0.2	0.28	0.34	0.162	0.176	< 0.020	< 0.020	< 0.000050
10/3/2017	EV_AQ6	E302170	3	0	220	< 0.0030	0.014	0.15	0.18	0.22	0.26	0.178	0.176	< 0.020	< 0.020	< 0.000050
11/15/2017	EV_AQ6	E302170			243	< 0.0030	0.012	0.12	0.14	0.21	0.19	0.176	0.174	< 0.020	< 0.020	< 0.000050
11/23/2017	EV_AQ6	E302170														
11/23/2017	EV_AQ6	E302170														
11/24/2017	EV_AQ6	E302170														
12/6/2017	EV_AQ6	E302170			262	0.0031	0.0165	0.18	0.2	0.19	0.22	0.172	0.181	< 0.020	< 0.020	< 0.000050
1/10/2017	EV_BC1	E102685														
2/7/2017	EV_BC1	E102685														
3/7/2017	EV_BC1	E102685														
3/16/2017	EV_BC1	E102685														
3/17/2017	EV_BC1	E102685														
3/18/2017	EV_BC1	E102685														
3/18/2017	EV_BC1	E102685														
3/20/2017	EV_BC1	E102685	0	0	170	0.0034	0.0256	1.48	1.6	0.23	0.28	0.249	0.241	< 0.020	< 0.020	< 0.000050
3/29/2017	EV_BC1	E102685			203	0.0024	0.0382	1.05	1.29	0.27	0.32	0.149	0.167	< 0.020	< 0.020	< 0.000050
4/5/2017	EV_BC1	E102685	0	0	232	0.0031	0.0138	1.13	1.12	0.28	0.36	0.209	0.175	< 0.020	< 0.020	< 0.000050
4/7/2017	EV_BC1	E102685														
4/12/2017	EV_BC1	E102685														
4/20/2017	EV_BC1	E102685														
4/26/2017	EV_BC1	E102685														
5/2/2017	EV_BC1	E102685			214	0.0039	0.0286	1.18	1.25	0.28	0.51	0.0773	0.0816	< 0.040	< 0.040	< 0.00010
5/10/2017	EV_BC1	E102685														
5/18/2017	EV_BC1	E102685														
5/24/2017	EV_BC1	E102685														
5/31/2017	EV_BC1	E102685														
6/2/2017	EV_BC1	E102685														
6/6/2017	EV_BC1	E102685			224	< 0.0030	0.0138	2.86	2.97	0.19	0.25	0.184	0.217	< 0.020	< 0.020	< 0.000050
6/14/2017	EV_BC1	E102685														
6/21/2017	EV_BC1	E102685														
6/28/2017	EV_BC1	E102685														
7/5/2017	EV_BC1	E102685														
7/12/2017	EV_BC1	E102685	0	0	257	0.0016	0.0168	2.96	2.79	0.19	0.25	0.194	0.217	< 0.020	< 0.020	< 0.000050
8/3/2017	EV_BC1	E102685				< 0.0030	0.0126	2.87	2.86	0.24	0.3	0.123	0.15	< 0.020	< 0.020	< 0.000050
8/3/2017	EV_BC1	E102685			244											
8/9/2017	EV_BC1	E102685														
9/12/2017	EV_BC1	E102685														
10/2/2017	EV_BC1	E102685														
10/4/2017	EV_BC1	E102685	3	0	177	< 0.0030	0.0134	2.44	2.6	0.21	0.27	0.135	0.144	< 0.020	< 0.020	< 0.000050
11/10/2017	EV_BC1	E102685														
11/15/2017	EV_BC1	E102685			231	< 0.0030	0.0342	2.8	2.83	0.22	0.29	0.0867	0.102	< 0.020	< 0.020	< 0.000050
11/23/2017	EV_BC1	E102685														
12/6/2017	EV_BC1	E102685			242	< 0.0030	0.0121	3.61	3.59	0.21	0.26	0.0653	0.0652	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
1/9/2017	EV_BLM2	E298592			183	< 0.0030	0.0832	< 0.10	< 0.10	0.19	< 0.50	0.0979	0.1	< 0.020	< 0.020	< 0.000050
2/23/2017	EV_BLM2	E298592			187	0.0043	0.0663	< 0.10	0.19	0.19	0.26	0.106	0.11	< 0.020	< 0.020	< 0.000050
3/6/2017	EV_BLM2	E298592			190	0.0037	0.0922	< 0.10	< 0.10	0.19	0.26	0.0973	0.105	< 0.020	< 0.020	< 0.000050
3/15/2017	EV_BLM2	E298592														
3/22/2017	EV_BLM2	E298592														
3/28/2017	EV_BLM2	E298592														
4/3/2017	EV_BLM2	E298592			174	0.015	0.57	< 0.10	0.13	0.25	0.47	0.0904	0.105	< 0.020	0.047	< 0.000050
4/11/2017	EV_BLM2	E298592														
4/19/2017	EV_BLM2	E298592														
4/20/2017	EV_BLM2	E298592														
4/21/2017	EV_BLM2	E298592														
4/22/2017	EV_BLM2	E298592														
4/23/2017	EV_BLM2	E298592														
4/25/2017	EV_BLM2	E298592														
5/2/2017	EV_BLM2	E298592			156	0.0196	3.75	< 0.10	0.23	0.27	1.63	0.0936	0.175	< 0.020	0.248	< 0.000050
5/9/2017	EV_BLM2	E298592														
5/16/2017	EV_BLM2	E298592														
5/23/2017	EV_BLM2	E298592														
5/24/2017	EV_BLM2	E298592														
5/30/2017	EV_BLM2	E298592														
6/5/2017	EV_BLM2	E298592			137	0.0039	0.659	< 0.10	0.15	0.19	0.63	0.0876	0.111	< 0.020	0.058	< 0.000050
6/13/2017	EV_BLM2	E298592														
6/20/2017	EV_BLM2	E298592														
6/27/2017	EV_BLM2	E298592														
7/4/2017	EV_BLM2	E298592														
7/10/2017	EV_BLM2	E298592			167	0.0042	0.125	< 0.10	< 0.10	0.18	0.28	0.109	0.108	< 0.020	< 0.020	< 0.000050
8/1/2017	EV_BLM2	E298592			178	< 0.0030	0.126	< 0.10	0.1	0.22	0.27	0.118	0.111	< 0.020	< 0.020	< 0.000050
8/10/2017	EV_BLM2	E298592														
8/15/2017	EV_BLM2	E298592														
9/11/2017	EV_BLM2	E298592			192	< 0.0030	0.0599	< 0.10	< 0.10	0.19	0.28	0.11	0.115	< 0.020	< 0.020	< 0.000050
10/2/2017	EV_BLM2	E298592			165	< 0.0030	0.13	< 0.10	< 0.10	0.22	0.27	0.101	0.107	< 0.020	< 0.020	< 0.000050
11/14/2017	EV_BLM2	E298592			181	< 0.0050	0.059	< 0.50	< 0.50	< 0.50	< 0.50	0.0937	0.0997	< 0.10	< 0.10	< 0.00025
12/1/2017	EV_BLM2	E298592			186	< 0.0030	0.111	< 0.10	< 0.10	0.2	0.24	0.0926	0.0908	< 0.020	< 0.020	< 0.000050
1/9/2017	EV_DC1	E298590			355	< 0.0030	< 0.0030	0.26	0.3	0.2	< 0.20	0.0266	0.0271	< 0.020	< 0.020	< 0.000050
2/21/2017	EV_DC1	E298590			339	< 0.0030	< 0.0030	0.26	0.27	0.17	0.15	0.0292	0.0278	< 0.020	< 0.020	< 0.000050
3/6/2017	EV_DC1	E298590	10	0	340	< 0.0030	< 0.0030	0.29	0.29	0.13	0.16	0.0277	0.027	< 0.020	< 0.020	< 0.000050
3/15/2017	EV_DC1	E298590														
3/21/2017	EV_DC1	E298590														
3/28/2017	EV_DC1	E298590														
4/3/2017	EV_DC1	E298590	0	0	301	< 0.0030	0.0105	0.25	0.29	0.13	0.16	0.0222	0.023	< 0.020	< 0.020	< 0.000050
4/11/2017	EV_DC1	E298590														
4/19/2017	EV_DC1	E298590														
4/25/2017	EV_DC1	E298590														
5/1/2017	EV_DC1	E298590			276	0.0041	0.0275	0.23	0.27	0.12	0.16	0.0238	0.0225	< 0.020	< 0.020	< 0.000050
5/9/2017	EV_DC1	E298590														
5/16/2017	EV_DC1	E298590														
5/23/2017	EV_DC1	E298590														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
5/30/2017	EV_DC1	E298590														
6/5/2017	EV_DC1	E298590			311	< 0.0030	0.0042	0.28	0.31	0.15	0.15	0.0311	0.033	< 0.020	< 0.020	< 0.000050
6/13/2017	EV_DC1	E298590														
6/20/2017	EV_DC1	E298590														
6/27/2017	EV_DC1	E298590														
7/4/2017	EV_DC1	E298590														
7/10/2017	EV_DC1	E298590	3	0	305	< 0.0010	< 0.0030	0.3	0.32	0.13	0.22	0.0307	0.0292	< 0.020	< 0.020	< 0.000050
8/1/2017	EV_DC1	E298590			294	< 0.0030	< 0.0030	0.31	0.35	0.15	0.19	0.0336	0.0314	< 0.020	< 0.020	< 0.000050
9/11/2017	EV_DC1	E298590			319	< 0.0030	< 0.0030	0.35	0.34	0.15	0.23	0.0345	0.0338	< 0.020	< 0.020	< 0.000050
10/2/2017	EV_DC1	E298590														
10/4/2017	EV_DC1	E298590	7	0	254	< 0.0030	< 0.0030	0.29	0.32	0.14	0.14	0.0316	0.0325	< 0.020	< 0.020	< 0.000050
10/6/2017	EV_DC1	E298590														
11/14/2017	EV_DC1	E298590			348	< 0.0050	< 0.015	< 0.50	< 0.50	< 0.50	< 0.50	0.0293	0.03	< 0.10	< 0.10	< 0.00025
12/1/2017	EV_DC1	E298590			334	< 0.0030	0.0051	0.28	0.29	0.11	0.16	0.0264	0.0288	< 0.020	< 0.020	< 0.000050
1/18/2017	EV_EC1	200097			288	< 0.0030	< 0.0030	0.19	0.2	0.23	0.31	0.0631	0.0621	< 0.020	< 0.020	< 0.000050
2/23/2017	EV_EC1	200097			299	< 0.0010	< 0.0030	0.19	0.27	0.25	0.28	0.061	0.0612	< 0.020	< 0.020	< 0.000050
3/8/2017	EV_EC1	200097	0	0	294	< 0.0030	< 0.0030	0.18	0.23	0.24	0.23	0.0649	0.0587	< 0.020	< 0.020	< 0.000050
3/16/2017	EV_EC1	200097														
3/19/2017	EV_EC1	200097														
3/29/2017	EV_EC1	200097														
4/4/2017	EV_EC1	200097	0	0	302	< 0.0030	< 0.0030	0.18	0.19	0.24	0.25	0.0626	0.0618	< 0.020	< 0.020	< 0.000050
4/12/2017	EV_EC1	200097														
4/19/2017	EV_EC1	200097														
4/26/2017	EV_EC1	200097														
5/3/2017	EV_EC1	200097			298	< 0.0030	< 0.0030	0.18	0.18	0.24	0.23	0.06	0.0615	< 0.020	< 0.020	< 0.000050
5/10/2017	EV_EC1	200097														
5/17/2017	EV_EC1	200097														
5/24/2017	EV_EC1	200097														
5/31/2017	EV_EC1	200097														
6/7/2017	EV_EC1	200097														
6/14/2017	EV_EC1	200097			297	< 0.0030	< 0.0030	0.18	0.19	0.26	0.26	0.067	0.068	< 0.020	< 0.020	< 0.000050
6/21/2017	EV_EC1	200097														
6/28/2017	EV_EC1	200097														
7/5/2017	EV_EC1	200097														
7/11/2017	EV_EC1	200097	7	0	325	< 0.0010	< 0.0030	0.17	0.18	0.23	0.28	0.0576	0.0592	< 0.020	< 0.020	< 0.000050
8/2/2017	EV_EC1	200097				< 0.0030	< 0.0030	0.18	0.19	0.24	0.2	0.0571	0.0576	< 0.020	< 0.020	< 0.000050
8/2/2017	EV_EC1	200097			304											
9/12/2017	EV_EC1	200097			240	< 0.0030	0.0069	0.17	0.21	0.24	0.25	0.0563	0.0599	< 0.020	< 0.020	< 0.000050
10/3/2017	EV_EC1	200097	20	0	228	< 0.0030	< 0.0030	0.18	0.21	0.24	0.19	0.0584	0.0582	< 0.020	< 0.020	< 0.000050
11/15/2017	EV_EC1	200097			299	< 0.0030	0.004	0.17	0.19	0.25	0.28	0.0587	0.06	< 0.020	< 0.020	< 0.000050
12/6/2017	EV_EC1	200097			309	< 0.0030	< 0.0030	0.18	0.19	0.23	0.29	0.0584	0.0593	< 0.020	< 0.020	< 0.000050
1/10/2017	EV_ER1	200393			167	< 0.0030	0.0102	< 0.10	0.11	0.18	0.19	0.0858	0.0786	< 0.020	< 0.020	< 0.000050
2/7/2017	EV_ER1	200393			171	< 0.0030	0.0076	< 0.10	0.1	0.18	0.18	0.0835	0.0841	< 0.020	< 0.020	< 0.000050
2/20/2017	EV_ER1	200393			165	< 0.0010	0.0163	< 0.10	0.11	0.22	0.25	0.0852	0.0887	< 0.020	< 0.020	< 0.000050
3/7/2017	EV_ER1	200393			171	< 0.0030	0.0055	< 0.10	< 0.10	0.19	0.18	0.0802	0.0779	< 0.020	< 0.020	< 0.000050
3/16/2017	EV_ER1	200393			151	0.003	0.131	0.11	0.16	0.19	0.27	0.0839	0.0856	< 0.020	< 0.020	< 0.000050
3/19/2017	EV_ER1	200393														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
3/20/2017	EV_ER1	200393			143	0.0122	0.0983	< 0.10	< 0.10	0.16	0.23	0.084	0.0849	< 0.020	< 0.020	< 0.000050
3/29/2017	EV_ER1	200393			161	0.0035	0.0833	< 0.10	0.11	0.18	0.2	0.0867	0.08	< 0.020	< 0.020	< 0.000050
4/5/2017	EV_ER1	200393			169	< 0.0030	0.0449	< 0.10	< 0.10	0.16	0.22	0.099	0.0886	< 0.020	< 0.020	< 0.000050
4/12/2017	EV_ER1	200393			167	0.0037	0.0218	< 0.10	< 0.10	0.17	0.19	0.0976	0.0923	< 0.020	< 0.020	< 0.000050
4/20/2017	EV_ER1	200393			167	0.0076	0.0966	< 0.10	0.11	0.19	0.29	0.0902	0.0839	< 0.020	< 0.020	< 0.000050
4/26/2017	EV_ER1	200393			154	0.0056	0.127	< 0.10	< 0.10	0.17	0.27	0.0797	0.0885	< 0.020	< 0.020	< 0.000050
5/2/2017	EV_ER1	200393			158	0.004	0.133	< 0.10	0.11	0.16	0.26	0.0862	0.0883	< 0.020	< 0.020	< 0.000050
5/10/2017	EV_ER1	200393			136	0.013	0.618	< 0.10	0.11	0.19	0.42	0.0638	0.0748	< 0.020	0.028	< 0.000050
5/17/2017	EV_ER1	200393			135	0.0105	0.534	< 0.10	0.17	0.18	0.46	0.07	0.075	< 0.020	0.04	< 0.000050
5/24/2017	EV_ER1	200393			105	0.0197	4.61	< 0.10	0.4	0.28	3.34	0.06	0.169	< 0.020	0.37	< 0.000050
5/30/2017	EV_ER1	200393			115	0.0182	2.18	< 0.10	0.27	0.22	1.84	0.0508	0.103	< 0.020	0.191	< 0.000050
6/6/2017	EV_ER1	200393			111	0.0114	0.777	< 0.10	0.15	0.24	0.7	0.0543	0.0649	< 0.020	0.058	< 0.000050
6/13/2017	EV_ER1	200393			120	0.0056	0.532	< 0.10	0.12	0.2	0.42	0.0474	0.0581	< 0.020	0.036	< 0.000050
6/21/2017	EV_ER1	200393			122	0.0047	0.237	< 0.10	0.15	0.18	0.3	0.05	0.0534	< 0.020	< 0.020	< 0.000050
6/28/2017	EV_ER1	200393			135	< 0.0030	0.159	< 0.10	0.13	0.17	0.29	0.0587	0.0632	< 0.020	< 0.020	< 0.000050
7/5/2017	EV_ER1	200393			140	< 0.0030	0.0892	< 0.10	< 0.10	0.16	0.22	0.0647	0.0617	< 0.020	< 0.020	< 0.000050
7/12/2017	EV_ER1	200393			174	0.003	0.0311	< 0.10	0.11	0.17	0.2	0.0604	0.0598	< 0.020	< 0.020	< 0.000050
8/3/2017	EV_ER1	200393				< 0.0030	0.0148	< 0.10	0.11	0.2	0.22	0.0749	0.0726	< 0.020	< 0.020	< 0.000050
8/3/2017	EV_ER1	200393			156											
9/12/2017	EV_ER1	200393			162	< 0.0030	0.0079	< 0.10	< 0.10	0.18	0.23	0.0733	0.0773	< 0.020	< 0.020	< 0.000050
10/3/2017	EV_ER1	200393			163	< 0.0030	0.0067	< 0.10	0.13	0.16	0.21	0.086	0.086	< 0.020	< 0.020	< 0.000050
11/15/2017	EV_ER1	200393			174	< 0.0030	0.0041	< 0.10	< 0.10	0.19	0.21	0.0804	0.0829	< 0.020	< 0.020	< 0.000050
12/6/2017	EV_ER1	200393			164	< 0.0030	0.0128	0.11	0.11	0.18	0.22	0.0786	0.0791	< 0.020	< 0.020	< 0.000050
1/10/2017	EV_ER2	200111			166	< 0.0030	0.0111	< 0.10	< 0.10	0.21	0.22	0.0734	0.073	< 0.020	< 0.020	< 0.000050
2/7/2017	EV_ER2	200111			170	< 0.0030	0.0295	< 0.10	0.11	0.2	0.24	0.0718	0.0732	< 0.020	< 0.020	< 0.000050
3/6/2017	EV_ER2	200111			166	< 0.0030	0.217	< 0.10	< 0.10	0.21	0.42	0.0691	0.0757	< 0.020	0.022	< 0.000050
3/16/2017	EV_ER2	200111			156											
3/17/2017	EV_ER2	200111														
3/18/2017	EV_ER2	200111														
3/19/2017	EV_ER2	200111														
3/20/2017	EV_ER2	200111														
3/21/2017	EV_ER2	200111														
3/28/2017	EV_ER2	200111														
4/3/2017	EV_ER2	200111			174	< 0.0030	0.129	< 0.10	< 0.10	0.2	0.26	0.0759	0.0776	< 0.020	< 0.020	< 0.000050
4/11/2017	EV_ER2	200111														
4/20/2017	EV_ER2	200111														
4/25/2017	EV_ER2	200111														
5/4/2017	EV_ER2	200111			169	0.0043	0.0824	< 0.10	< 0.10	0.16	0.24	0.0731	0.0775	< 0.020	< 0.020	< 0.000050
5/9/2017	EV_ER2	200111														
5/16/2017	EV_ER2	200111														
5/23/2017	EV_ER2	200111														
5/31/2017	EV_ER2	200111														
6/5/2017	EV_ER2	200111			146	0.004	1.01	< 0.10	0.17	0.17	0.97	0.0482	0.0697	< 0.020	0.079	< 0.000050
6/13/2017	EV_ER2	200111														
6/20/2017	EV_ER2	200111														
6/27/2017	EV_ER2	200111														
7/4/2017	EV_ER2	200111														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
7/10/2017	EV_ER2	200111			152	0.0029	0.0391	< 0.10	< 0.10	0.16	0.23	0.0499	0.0495	< 0.020	< 0.020	< 0.000050
8/1/2017	EV_ER2	200111			140	< 0.0030	0.0218	< 0.10	< 0.10	0.18	0.23	0.0623	0.0591	< 0.020	< 0.020	< 0.000050
8/9/2017	EV_ER2	200111														
9/11/2017	EV_ER2	200111			165	< 0.0030	0.0053	< 0.10	< 0.10	0.17	0.23	0.0675	0.0691	< 0.020	< 0.020	< 0.000050
10/2/2017	EV_ER2	200111			129	< 0.0030	0.0071	< 0.10	< 0.10	0.22	0.22	0.0694	0.0708	< 0.020	< 0.020	< 0.000050
11/14/2017	EV_ER2	200111			169	< 0.0050	< 0.015	< 0.50	< 0.50	< 0.50	< 0.50	0.0764	0.0712	< 0.10	< 0.10	< 0.00025
12/7/2017	EV_ER2	200111			176	< 0.0030	0.0252	< 0.10	< 0.10	0.21	0.24	0.075	0.074	< 0.020	< 0.020	< 0.000050
1/10/2017	EV_ER4	200027			168	< 0.0030	0.0084	< 0.10	< 0.10	0.2	0.22	0.0802	0.0791	< 0.020	< 0.020	< 0.000050
2/21/2017	EV_ER4	200027			168	< 0.0030	0.0095	< 0.10	< 0.10	0.2	0.24	0.0778	0.0775	< 0.020	< 0.020	< 0.000050
3/6/2017	EV_ER4	200027			167	< 0.0030	0.0084	< 0.10	< 0.10	0.2	0.22	0.0768	0.0735	< 0.020	< 0.020	< 0.000050
3/15/2017	EV_ER4	200027			170	< 0.0030	0.0234	< 0.10	< 0.10	0.21	0.23	0.0776	0.0714	< 0.020	< 0.020	< 0.000050
3/19/2017	EV_ER4	200027														
3/20/2017	EV_ER4	200027			164	0.0024	0.0187	< 0.10	< 0.10	0.18	0.21	0.0711	0.0745	< 0.020	< 0.020	< 0.000050
3/28/2017	EV_ER4	200027			165	< 0.0030	0.0442	< 0.10	0.13	0.2	0.22	0.0771	0.0761	< 0.020	< 0.020	< 0.000050
4/3/2017	EV_ER4	200027			172	< 0.0030	0.0481	< 0.10	< 0.10	0.17	0.21	0.0782	0.0784	< 0.020	< 0.020	< 0.000050
4/11/2017	EV_ER4	200027			170	< 0.0030	0.0273	< 0.10	< 0.10	0.15	0.18	0.0783	0.0766	< 0.020	< 0.020	< 0.000050
4/19/2017	EV_ER4	200027			175	< 0.0030	0.0302	< 0.10	< 0.10	0.18	0.21	0.0789	0.0764	< 0.020	< 0.020	< 0.000050
4/24/2017	EV_ER4	200027			178	0.0071	0.0714	< 0.10	< 0.10	0.19	0.25	0.0841	0.0775	< 0.020	< 0.020	< 0.000050
5/1/2017	EV_ER4	200027			177	< 0.0030	0.0461	< 0.10	0.11	0.13	0.2	0.0724	0.077	< 0.020	< 0.020	< 0.000050
5/9/2017	EV_ER4	200027			164	0.004	0.628	< 0.10	0.11	0.17	0.47	0.0596	0.0717	< 0.020	0.034	< 0.000050
5/16/2017	EV_ER4	200027			156	0.0032	0.424	< 0.10	0.11	0.14	0.38	0.0584	0.0637	< 0.020	0.027	< 0.000050
5/23/2017	EV_ER4	200027			153	0.0038	0.554	< 0.10	0.1	0.16	0.52	0.0613	0.0655	< 0.020	0.038	< 0.000050
5/30/2017	EV_ER4	200027			152	0.0067	2.34	< 0.10	0.19	0.16	1.3	0.049	0.0832	< 0.020	0.131	< 0.000050
6/6/2017	EV_ER4	200027			143	0.0037	0.877	< 0.10	0.12	0.15	0.71	0.0483	0.0577	< 0.020	0.053	< 0.000050
6/13/2017	EV_ER4	200027			142	< 0.0030	0.641	0.12	0.11	0.15	0.52	0.046	0.0578	< 0.020	0.041	< 0.000050
6/20/2017	EV_ER4	200027			138	< 0.0030	0.248	< 0.10	< 0.10	0.17	0.34	0.0535	0.0528	< 0.020	< 0.020	< 0.000050
6/21/2017	EV_ER4	200027														
6/27/2017	EV_ER4	200027			145	< 0.0030	0.153	< 0.10	< 0.10	0.14	0.27	0.049	0.052	< 0.020	< 0.020	< 0.000050
7/4/2017	EV_ER4	200027			135	< 0.0030	0.12	< 0.10	< 0.10	0.14	0.24	0.0506	0.0542	< 0.020	< 0.020	< 0.000050
7/10/2017	EV_ER4	200027			142	0.0032	0.0501	< 0.10	< 0.10	0.14	0.22	0.0514	0.0504	< 0.020	< 0.020	< 0.000050
7/25/2017	EV_ER4	200027			155	< 0.0030	0.0487	< 0.10	< 0.10	0.16	0.22	0.0642	0.0599	< 0.020	< 0.020	< 0.000050
8/1/2017	EV_ER4	200027			148	< 0.0030	0.0267	< 0.10	< 0.10	0.16	0.2	0.0636	0.061	< 0.020	< 0.020	< 0.000050
8/15/2017	EV_ER4	200027														
9/11/2017	EV_ER4	200027			166	< 0.0030	0.0085	< 0.10	< 0.10	0.15	0.19	0.0693	0.0708	< 0.020	< 0.020	< 0.000050
10/2/2017	EV_ER4	200027			138	< 0.0030	0.0054	< 0.10	< 0.10	0.19	0.21	0.071	0.0748	< 0.020	< 0.020	< 0.000050
11/14/2017	EV_ER4	200027			170	< 0.0050	< 0.015	< 0.50	< 0.50	< 0.50	< 0.50	0.0744	0.0731	< 0.10	< 0.10	< 0.00025
12/7/2017	EV_ER4	200027			183	< 0.0030	0.0052	< 0.10	< 0.10	0.2	0.21	0.0768	0.0733	< 0.020	< 0.020	< 0.000050
1/9/2017	EV_FC1	E298591														
2/19/2017	EV_FC1	E298591														
3/6/2017	EV_FC1	E298591														
3/16/2017	EV_FC1	E298591			195	0.0091	1.45	0.1	0.18	0.38	1.33	0.0798	0.143	< 0.020	0.254	< 0.000050
3/21/2017	EV_FC1	E298591														
3/28/2017	EV_FC1	E298591														
4/3/2017	EV_FC1	E298591			206	0.0077	1.28	0.1	0.21	0.3	0.89	0.0816	0.115	< 0.020	0.072	< 0.000050
4/11/2017	EV_FC1	E298591														
4/19/2017	EV_FC1	E298591														
4/20/2017	EV_FC1	E298591														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
4/21/2017	EV_FC1	E298591														
4/25/2017	EV_FC1	E298591														
5/2/2017	EV_FC1	E298591			162	0.0259	0.732	0.14	0.17	0.3	0.48	0.0711	0.0781	< 0.020	0.036	< 0.000050
5/9/2017	EV_FC1	E298591														
5/16/2017	EV_FC1	E298591														
5/23/2017	EV_FC1	E298591														
5/30/2017	EV_FC1	E298591														
6/5/2017	EV_FC1	E298591			223	0.0034	0.109	0.11	0.17	0.3	0.38	0.088	0.0952	< 0.020	< 0.020	< 0.000050
6/13/2017	EV_FC1	E298591														
6/20/2017	EV_FC1	E298591														
6/27/2017	EV_FC1	E298591														
7/4/2017	EV_FC1	E298591														
7/10/2017	EV_FC1	E298591			269	0.0013	0.0334	0.13	0.16	0.39	0.41	0.125	0.121	< 0.020	< 0.020	< 0.000050
8/1/2017	EV_FC1	E298591			274	< 0.0030	0.0476	0.16	0.2	0.46	0.48	0.137	0.129	< 0.020	< 0.020	< 0.000050
8/15/2017	EV_FC1	E298591														
9/11/2017	EV_FC1	E298591			272	< 0.0030	0.018	0.19	0.21	0.49	0.53	0.131	0.135	< 0.020	< 0.020	< 0.000050
10/2/2017	EV_FC1	E298591			208	< 0.0030	0.137	0.14	0.18	0.5	0.56	0.123	0.132	< 0.020	< 0.020	< 0.000050
11/14/2017	EV_FC1	E298591			272	< 0.0050	0.024	< 0.50	< 0.50	< 0.50	< 0.50	0.101	0.107	< 0.10	< 0.10	< 0.00025
12/1/2017	EV_FC1	E298591			248	< 0.0030	0.0325	0.13	0.13	0.31	0.36	0.0951	0.0946	< 0.020	< 0.020	< 0.000050
1/19/2017	EV_GC2	E208043			251	0.0059	0.0695	0.43	0.51	0.18	0.23	0.0919	0.0997	< 0.020	< 0.020	< 0.000050
1/31/2017	EV_GC2	E208043			247	0.0036	0.0745	0.35	0.43	0.15	0.19	0.102	0.0968	< 0.020	< 0.020	< 0.000050
2/8/2017	EV_GC2	E208043			245	0.0037	0.135	0.37	0.49	0.17	0.2	0.0935	0.0974	< 0.020	< 0.020	< 0.000050
2/16/2017	EV_GC2	E208043														
2/16/2017	EV_GC2	E208043			209	0.0042	0.158	0.73	0.71	0.25	0.36	0.0909	0.0929	< 0.020	< 0.020	< 0.000050
2/17/2017	EV_GC2	E208043														
2/17/2017	EV_GC2	E208043														
3/6/2017	EV_GC2	E208043	0	0	230	0.0037	0.0773	0.66	0.63	0.22	0.24	0.0943	0.0978	< 0.020	< 0.020	< 0.000050
3/15/2017	EV_GC2	E208043														
3/15/2017	EV_GC2	E208043														
3/16/2017	EV_GC2	E208043														
3/17/2017	EV_GC2	E208043														
3/18/2017	EV_GC2	E208043														
3/18/2017	EV_GC2	E208043														
3/19/2017	EV_GC2	E208043														
3/20/2017	EV_GC2	E208043														
3/28/2017	EV_GC2	E208043														
4/5/2017	EV_GC2	E208043	0	0	232	0.0038	0.0781	0.32	0.35	0.2	0.3	0.126	0.131	< 0.020	< 0.020	< 0.000050
4/11/2017	EV_GC2	E208043														
4/20/2017	EV_GC2	E208043														
4/24/2017	EV_GC2	E208043														
5/2/2017	EV_GC2	E208043			223	0.0046	0.219	0.26	0.29	0.22	0.34	0.114	0.118	< 0.020	0.023	< 0.000050
5/3/2017	EV_GC2	E208043														
5/4/2017	EV_GC2	E208043			213	0.0038	0.289	0.24	0.29	0.21	0.37	0.121	0.138	< 0.020	0.023	< 0.000050
5/7/2017	EV_GC2	E208043														
5/11/2017	EV_GC2	E208043														
5/18/2017	EV_GC2	E208043														
5/23/2017	EV_GC2	E208043														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
5/30/2017	EV_GC2	E208043														
5/30/2017	EV_GC2	E208043			232	0.0044	0.155	0.42	0.55	0.18	0.33	0.0986	0.111	< 0.020	0.023	< 0.000050
6/6/2017	EV_GC2	E208043			231	0.0046	0.115	0.4	0.43	0.15	0.23	0.111	0.0991	< 0.020	< 0.020	< 0.000050
6/13/2017	EV_GC2	E208043														
6/20/2017	EV_GC2	E208043														
6/27/2017	EV_GC2	E208043														
7/4/2017	EV_GC2	E208043														
7/12/2017	EV_GC2	E208043	0	0	247	0.0041	0.0403	0.48	0.51	0.2	0.27	0.0901	0.0942	< 0.020	< 0.020	< 0.000050
7/24/2017	EV_GC2	E208043														
8/3/2017	EV_GC2	E208043				0.0039	0.0291	0.46	0.51	0.2	0.37	0.0763	0.078	< 0.020	< 0.020	< 0.000050
8/3/2017	EV_GC2	E208043			210											
8/9/2017	EV_GC2	E208043														
9/1/2017	EV_GC2	E208043														
9/11/2017	EV_GC2	E208043			288	< 0.0030	0.0268	0.51	0.59	0.18	0.25	0.0777	0.0823	< 0.020	< 0.020	< 0.000050
9/26/2017	EV_GC2	E208043														
9/27/2017	EV_GC2	E208043														
9/28/2017	EV_GC2	E208043														
10/3/2017	EV_GC2	E208043	7	0	195	0.0034	0.0171	0.46	0.49	0.18	0.2	0.0823	0.0853	< 0.020	< 0.020	< 0.000050
10/13/2017	EV_GC2	E208043	3	30	229	< 0.0030	0.0446	0.43	0.57	0.17	0.21	0.0815	0.0841	< 0.020	< 0.020	< 0.000050
10/16/2017	EV_GC2	E208043														
10/24/2017	EV_GC2	E208043														
10/30/2017	EV_GC2	E208043														
10/30/2017	EV_GC2	E208043		0	211	0.0103	0.0282	0.53	0.55	0.21	0.25	0.0903	0.092	< 0.020	< 0.020	< 0.000050
11/14/2017	EV_GC2	E208043			244	< 0.0050	0.055	< 0.50	< 0.50	< 0.50	< 0.50	0.0914	0.104	< 0.10	< 0.10	< 0.00025
11/23/2017	EV_GC2	E208043														
11/23/2017	EV_GC2	E208043														
11/24/2017	EV_GC2	E208043														
12/6/2017	EV_GC2	E208043			245	0.0035	0.142	0.39	0.44	0.18	0.26	0.103	0.105	< 0.020	< 0.020	< 0.000050
1/1/2017	EV_GH1	E296310														
1/2/2017	EV_GH1	E296310														
1/9/2017	EV_GH1	E296310														
1/16/2017	EV_GH1	E296310														
1/23/2017	EV_GH1	E296310														
1/30/2017	EV_GH1	E296310														
2/6/2017	EV_GH1	E296310														
2/13/2017	EV_GH1	E296310														
2/20/2017	EV_GH1	E296310														
2/27/2017	EV_GH1	E296310														
3/6/2017	EV_GH1	E296310														
3/13/2017	EV_GH1	E296310														
3/20/2017	EV_GH1	E296310														
3/27/2017	EV_GH1	E296310														
4/1/2017	EV_GH1	E296310														
4/3/2017	EV_GH1	E296310														
4/9/2017	EV_GH1	E296310			171	0.0015	3.37	0.14	0.79	0.13	2.85	0.0786	0.605	< 0.020	0.567	< 0.000050
4/10/2017	EV_GH1	E296310														
4/17/2017	EV_GH1	E296310														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
4/24/2017	EV_GH1	E296310														
5/1/2017	EV_GH1	E296310														
5/8/2017	EV_GH1	E296310														
5/15/2017	EV_GH1	E296310														
5/22/2017	EV_GH1	E296310														
5/29/2017	EV_GH1	E296310														
6/5/2017	EV_GH1	E296310														
6/12/2017	EV_GH1	E296310														
6/19/2017	EV_GH1	E296310														
6/26/2017	EV_GH1	E296310														
7/1/2017	EV_GH1	E296310														
7/3/2017	EV_GH1	E296310														
7/10/2017	EV_GH1	E296310														
7/17/2017	EV_GH1	E296310														
7/24/2017	EV_GH1	E296310														
7/31/2017	EV_GH1	E296310														
8/7/2017	EV_GH1	E296310														
8/14/2017	EV_GH1	E296310														
8/21/2017	EV_GH1	E296310														
8/28/2017	EV_GH1	E296310														
9/4/2017	EV_GH1	E296310														
9/11/2017	EV_GH1	E296310														
9/18/2017	EV_GH1	E296310														
9/25/2017	EV_GH1	E296310														
10/1/2017	EV_GH1	E296310														
10/2/2017	EV_GH1	E296310														
10/3/2017	EV_GH1	E296310			145	< 0.0030	207	10.9	27.4	0.98	111	0.087	53.2	< 0.020	32.5	< 0.000050
10/9/2017	EV_GH1	E296310														
10/16/2017	EV_GH1	E296310														
10/23/2017	EV_GH1	E296310														
10/30/2017	EV_GH1	E296310														
11/6/2017	EV_GH1	E296310														
11/13/2017	EV_GH1	E296310														
11/20/2017	EV_GH1	E296310														
11/27/2017	EV_GH1	E296310														
12/4/2017	EV_GH1	E296310														
12/11/2017	EV_GH1	E296310														
12/18/2017	EV_GH1	E296310														
12/25/2017	EV_GH1	E296310														
1/10/2017	EV_GT1	E206231			236	0.0101	0.0072	3.3	3.37	0.17	0.19	0.181	0.169	< 0.020	< 0.020	< 0.000050
1/31/2017	EV_GT1	E206231														
2/7/2017	EV_GT1	E206231			240	< 0.0030	0.0055	3.24	3.41	0.16	0.19	0.182	0.183	< 0.020	< 0.020	< 0.000050
2/17/2017	EV_GT1	E206231														
3/7/2017	EV_GT1	E206231	0	0	233	< 0.0030	0.0043	3.47	3.4	0.18	0.22	0.175	0.184	< 0.020	< 0.020	< 0.000050
3/16/2017	EV_GT1	E206231														
3/17/2017	EV_GT1	E206231														
3/18/2017	EV_GT1	E206231														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
3/18/2017	EV_GT1	E206231														
3/19/2017	EV_GT1	E206231														
3/19/2017	EV_GT1	E206231														
3/20/2017	EV_GT1	E206231														
3/29/2017	EV_GT1	E206231			209	0.0018	0.266	0.51	0.65	0.35	0.51	0.0542	0.0529	< 0.020	< 0.020	< 0.000050
4/5/2017	EV_GT1	E206231	0	0	223	< 0.0030	0.0328	0.61	0.61	0.37	0.41	0.0508	0.0487	< 0.020	< 0.020	< 0.000050
4/12/2017	EV_GT1	E206231														
4/20/2017	EV_GT1	E206231														
4/26/2017	EV_GT1	E206231														
5/2/2017	EV_GT1	E206231			240	< 0.0030	0.0564	0.51	0.54	0.28	0.38	0.0436	0.0469	< 0.020	< 0.020	< 0.000050
5/10/2017	EV_GT1	E206231														
5/17/2017	EV_GT1	E206231														
5/24/2017	EV_GT1	E206231														
5/31/2017	EV_GT1	E206231														
6/6/2017	EV_GT1	E206231			243	< 0.0030	0.0156	2.81	2.91	0.24	0.21	0.024	0.023	< 0.020	< 0.020	< 0.000050
6/14/2017	EV_GT1	E206231														
6/21/2017	EV_GT1	E206231														
6/28/2017	EV_GT1	E206231														
7/5/2017	EV_GT1	E206231														
7/12/2017	EV_GT1	E206231	3	0	266	0.002	0.0113	3.11	2.98	0.22	0.25	0.0222	0.024	< 0.020	< 0.020	< 0.000050
8/3/2017	EV_GT1	E206231				< 0.0030	0.0172	3.15	3.39	0.24	0.31	0.0311	0.035	< 0.020	< 0.020	< 0.000050
8/3/2017	EV_GT1	E206231			233											
9/12/2017	EV_GT1	E206231			243	< 0.0030	0.0111	2.89	3.19	0.21	0.24	0.077	0.084	< 0.020	< 0.020	< 0.000050
10/2/2017	EV_GT1	E206231	0	0	159	< 0.0030	0.0227	3.03	3.13	0.25	0.27	0.0736	0.157	< 0.020	< 0.020	< 0.000050
10/3/2017	EV_GT1	E206231														
10/4/2017	EV_GT1	E206231														
10/26/2017	EV_GT1	E206231														
10/27/2017	EV_GT1	E206231														
11/2/2017	EV_GT1	E206231														
11/3/2017	EV_GT1	E206231														
11/6/2017	EV_GT1	E206231														
11/7/2017	EV_GT1	E206231														
11/8/2017	EV_GT1	E206231														
11/9/2017	EV_GT1	E206231														
11/10/2017	EV_GT1	E206231														
11/15/2017	EV_GT1	E206231			233	< 0.0030	0.0969	3.12	3.1	0.26	0.36	0.205	0.196	< 0.020	< 0.020	< 0.000050
11/16/2017	EV_GT1	E206231														
11/23/2017	EV_GT1	E206231														
12/6/2017	EV_GT1	E206231			250	< 0.0030	0.0128	3.48	3.38	0.21	0.26	0.0673	0.0689	< 0.020	< 0.020	< 0.000050
1/9/2017	EV_HC1	E102682			200	< 0.0030	0.0089	< 0.10	0.1	0.14	< 0.20	0.0614	0.0632	< 0.020	< 0.020	< 0.000050
2/21/2017	EV_HC1	E102682			197	< 0.0030	0.0097	< 0.10	< 0.10	0.14	0.17	0.0645	0.0663	< 0.020	< 0.020	< 0.000050
3/6/2017	EV_HC1	E102682			196	< 0.0030	0.0056	< 0.10	0.11	0.15	0.14	0.0648	0.0656	< 0.020	< 0.020	< 0.000050
3/15/2017	EV_HC1	E102682			194	< 0.0030	0.0258	< 0.10	< 0.10	0.13	0.16	0.0668	0.0637	< 0.020	< 0.020	< 0.000050
3/21/2017	EV_HC1	E102682			199	0.0062	0.128	< 0.10	0.17	0.15	0.22	0.0612	0.0626	< 0.020	< 0.020	< 0.000050
3/24/2017	EV_HC1	E102682			191	0.006	0.0362	< 0.10	0.2	0.15	0.19	0.0605	0.0598	< 0.020	< 0.020	< 0.000050
3/28/2017	EV_HC1	E102682			199	0.0052	0.0518	< 0.10	0.14	0.13	0.17	0.0602	0.0619	< 0.020	< 0.020	< 0.000050
4/3/2017	EV_HC1	E102682			200	0.0084	0.0901	< 0.10	0.12	0.15	0.19	0.0586	0.0583	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
4/11/2017	EV_HC1	E102682			208	0.0062	0.0606	< 0.10	0.11	0.15	0.18	0.0575	0.0553	< 0.020	< 0.020	< 0.000050
4/19/2017	EV_HC1	E102682			204	0.0074	0.0868	< 0.10	0.1	0.16	0.19	0.0557	0.0547	< 0.020	< 0.020	< 0.000050
4/24/2017	EV_HC1	E102682			201	0.0078	0.0721	< 0.10	0.11	0.18	0.28	0.05	0.0505	< 0.020	< 0.020	< 0.000050
5/2/2017	EV_HC1	E102682			208	0.0046	0.0834	0.11	0.13	0.18	0.22	0.0556	0.054	< 0.020	< 0.020	< 0.000050
5/9/2017	EV_HC1	E102682			185	0.0089	0.317	< 0.10	< 0.10	0.17	0.29	0.0408	0.044	< 0.020	< 0.020	< 0.000050
5/16/2017	EV_HC1	E102682			178	0.0062	0.37	0.13	< 0.10	0.14	0.33	0.0428	0.0446	< 0.020	0.024	< 0.000050
5/23/2017	EV_HC1	E102682			156	0.0088	0.668	< 0.10	0.14	0.17	0.51	0.037	0.0476	< 0.020	0.051	< 0.000050
5/30/2017	EV_HC1	E102682			157	0.005	0.421	< 0.10	< 0.10	0.16	0.29	0.036	0.0382	< 0.020	0.023	< 0.000050
6/6/2017	EV_HC1	E102682			155	< 0.0030	0.121	< 0.10	< 0.10	0.19	0.24	0.0435	0.0401	< 0.020	< 0.020	< 0.000050
6/13/2017	EV_HC1	E102682			165	< 0.0030	0.037	< 0.10	< 0.10	0.14	0.17	0.0438	0.0425	< 0.020	< 0.020	< 0.000050
6/20/2017	EV_HC1	E102682			164	< 0.0030	0.0316	< 0.10	< 0.10	0.19	0.19	0.0539	0.0466	< 0.020	< 0.020	< 0.000050
6/27/2017	EV_HC1	E102682			173	< 0.0030	0.0121	< 0.10	< 0.10	0.15	0.18	0.0451	0.0463	< 0.020	< 0.020	< 0.000050
7/4/2017	EV_HC1	E102682			171	< 0.0030	0.0069	< 0.10	< 0.10	0.16	0.18	0.0492	0.0509	< 0.020	< 0.020	< 0.000050
7/10/2017	EV_HC1	E102682			173	0.0023	0.0072	< 0.10	0.1	0.16	0.19	0.0509	0.0479	< 0.020	< 0.020	< 0.000050
7/25/2017	EV_HC1	E102682			182	< 0.0030	0.0097	< 0.10	< 0.10	0.2	0.2	0.0608	0.0569	< 0.020	< 0.020	< 0.000050
8/1/2017	EV_HC1	E102682			175	< 0.0030	0.01	< 0.10	0.1	0.18	0.21	0.061	0.0552	< 0.020	< 0.020	< 0.000050
8/10/2017	EV_HC1	E102682														
9/11/2017	EV_HC1	E102682			191	< 0.0030	0.006	< 0.10	< 0.10	0.15	0.2	0.0636	0.0646	< 0.020	< 0.020	< 0.000050
10/2/2017	EV_HC1	E102682			171	< 0.0030	0.004	< 0.10	< 0.10	0.16	0.18	0.0632	0.0629	< 0.020	< 0.020	< 0.000050
10/10/2017	EV_HC1	E102682			192	< 0.0030	0.006	< 0.10	0.14	0.15	0.21	0.0617	0.0601	< 0.020	< 0.020	< 0.000050
10/17/2017	EV_HC1	E102682			186	< 0.0030	0.0056	< 0.10	0.11	0.14	0.16	0.0626	0.0618	< 0.020	< 0.020	< 0.000050
10/24/2017	EV_HC1	E102682			192	< 0.0030	0.0089	< 0.10	< 0.10	0.16	0.18	0.0676	0.0615	< 0.020	< 0.020	< 0.000050
10/31/2017	EV_HC1	E102682														
10/31/2017	EV_HC1	E102682			185	< 0.0030	0.0031	< 0.10	< 0.10	0.15	0.18	0.07	0.0622	< 0.020	< 0.020	< 0.000050
11/14/2017	EV_HC1	E102682			199	< 0.0050	< 0.015	< 0.50	< 0.50	< 0.50	< 0.50	0.0624	0.063	< 0.10	< 0.10	< 0.00025
12/1/2017	EV_HC1	E102682			196	< 0.0030	0.006	< 0.10	< 0.10	0.17	0.15	0.0577	0.0586	< 0.020	< 0.020	< 0.000050
1/19/2017	EV_LC1	E258135			464	< 0.0010	0.0066	0.27	0.32	0.15	0.25	0.102	0.1	< 0.020	< 0.020	< 0.000050
2/20/2017	EV_LC1	E258135			382	0.002	0.0293	0.54	0.6	0.23	0.31	0.126	0.135	< 0.020	< 0.020	< 0.000050
3/7/2017	EV_LC1	E258135	0	0	418	< 0.0030	0.247	0.42	0.43	0.19	0.35	0.111	0.132	< 0.020	< 0.020	< 0.000050
3/15/2017	EV_LC1	E258135														
3/16/2017	EV_LC1	E258135														
3/17/2017	EV_LC1	E258135														
3/20/2017	EV_LC1	E258135														
3/28/2017	EV_LC1	E258135			448	< 0.0030	0.0472	0.35	0.43	0.2	0.27	0.127	0.129	< 0.020	< 0.020	< 0.000050
4/5/2017	EV_LC1	E258135	0	0	497	< 0.0030	0.0126	0.32	0.34	0.18	0.26	0.127	0.129	< 0.020	< 0.020	< 0.000050
4/11/2017	EV_LC1	E258135														
4/19/2017	EV_LC1	E258135														
4/24/2017	EV_LC1	E258135														
5/2/2017	EV_LC1	E258135			471	< 0.0030	0.0206	0.32	0.35	0.17	0.25	0.108	0.12	< 0.020	< 0.020	< 0.000050
5/7/2017	EV_LC1	E258135														
5/11/2017	EV_LC1	E258135														
5/18/2017	EV_LC1	E258135														
5/23/2017	EV_LC1	E258135														
5/30/2017	EV_LC1	E258135														
6/6/2017	EV_LC1	E258135			439	0.003	0.0299	0.56	0.61	0.31	0.34	0.107	0.11	< 0.020	< 0.020	< 0.000050
6/13/2017	EV_LC1	E258135														
6/20/2017	EV_LC1	E258135														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
6/27/2017	EV_LC1	E258135														
7/4/2017	EV_LC1	E258135														
7/12/2017	EV_LC1	E258135	0	0	510	0.0017	0.0245	0.57	0.6	0.32	0.36	0.145	0.145	< 0.020	< 0.020	< 0.000050
8/3/2017	EV_LC1	E258135				< 0.0030	0.0065	0.2	0.24	0.19	0.22	0.145	0.15	< 0.020	< 0.020	< 0.000050
8/3/2017	EV_LC1	E258135			555											
8/9/2017	EV_LC1	E258135														
9/11/2017	EV_LC1	E258135			593	< 0.0030	0.0032	0.16	0.18	0.16	0.23	0.134	0.141	< 0.020	< 0.020	< 0.000050
10/2/2017	EV_LC1	E258135	0	0	440	< 0.0030	0.0052	0.15	0.18	0.14	0.19	0.0581	0.133	< 0.020	< 0.020	< 0.000050
11/14/2017	EV_LC1	E258135			452	< 0.0050	0.024	< 0.50	< 0.50	< 0.50	< 0.50	0.12	0.129	< 0.10	< 0.10	< 0.00025
12/6/2017	EV_LC1	E258135			434	< 0.0030	0.0112	0.21	0.2	0.15	0.19	0.123	0.121	< 0.020	< 0.020	< 0.000050
1/10/2017	EV_MC2	E300091			177	< 0.0030	0.0151	0.18	0.22	0.15	0.15	0.12	0.113	< 0.020	< 0.020	< 0.000050
1/31/2017	EV_MC2	E300091														
2/7/2017	EV_MC2	E300091			183	< 0.0030	0.0102	0.23	0.26	0.14	0.15	0.118	0.124	< 0.020	< 0.020	< 0.000050
2/21/2017	EV_MC2	E300091			176	< 0.0030	0.0222	0.23	0.22	0.12	0.17	0.117	0.119	< 0.020	< 0.020	< 0.000050
3/7/2017	EV_MC2	E300091			187	< 0.0030	0.0048	0.24	0.23	0.13	0.16	0.118	0.115	< 0.020	< 0.020	< 0.000050
3/16/2017	EV_MC2	E300091			156	0.0045	0.14	0.18	0.21	0.14	0.25	0.105	0.107	< 0.020	< 0.020	< 0.000050
3/17/2017	EV_MC2	E300091														
3/18/2017	EV_MC2	E300091														
3/19/2017	EV_MC2	E300091														
3/20/2017	EV_MC2	E300091			135	0.0241	0.127	0.1	0.11	0.16	0.23	0.0961	0.098	< 0.020	< 0.020	< 0.000050
3/22/2017	EV_MC2	E300091														
3/23/2017	EV_MC2	E300091														
3/24/2017	EV_MC2	E300091														
3/29/2017	EV_MC2	E300091			155	0.0049	0.0898	< 0.10	0.14	0.14	0.19	0.108	0.114	< 0.020	< 0.020	< 0.000050
4/5/2017	EV_MC2	E300091			167	0.0033	0.0518	0.11	0.12	0.15	0.22	0.116	0.112	< 0.020	< 0.020	< 0.000050
4/12/2017	EV_MC2	E300091			161	0.0043	0.0319	0.1	0.12	0.16	0.17	0.113	0.107	< 0.020	< 0.020	< 0.000050
4/20/2017	EV_MC2	E300091			155	0.0125	0.0836	< 0.10	< 0.10	0.18	0.26	0.105	0.096	< 0.020	< 0.020	< 0.000050
4/24/2017	EV_MC2	E300091			143	0.0181	0.111	0.1	0.12	0.21	0.29	0.0907	0.0907	< 0.020	< 0.020	< 0.000050
5/2/2017	EV_MC2	E300091			149	0.0093	0.172	0.11	0.13	0.15	0.25	0.0917	0.0956	< 0.020	< 0.020	< 0.000050
5/9/2017	EV_MC2	E300091			121	0.0219	0.913	< 0.10	0.14	0.2	0.48	0.0682	0.0784	< 0.020	0.042	< 0.000050
5/16/2017	EV_MC2	E300091			118	0.0144	0.325	0.12	0.15	0.19	0.31	0.0662	0.0708	< 0.020	< 0.020	< 0.000050
5/23/2017	EV_MC2	E300091			99.2	0.03	1.71	< 0.10	0.25	0.22	1.06	0.0521	0.088	< 0.020	0.113	< 0.000050
5/30/2017	EV_MC2	E300091			93.9	0.027	1.54	< 0.10	0.19	0.23	1.14	0.0521	0.0845	< 0.020	0.116	< 0.000050
6/6/2017	EV_MC2	E300091			95.3	0.0172	0.509	0.1	0.16	0.22	0.5	0.0542	0.0614	< 0.020	0.034	< 0.000050
6/14/2017	EV_MC2	E300091			96.7	0.0116	0.52	0.1	0.15	0.21	0.47	0.0524	0.0604	< 0.020	0.041	< 0.000050
6/21/2017	EV_MC2	E300091			111	0.0075	0.161	< 0.10	0.15	0.21	0.28	0.0536	0.0566	< 0.020	< 0.020	< 0.000050
6/28/2017	EV_MC2	E300091			132	< 0.0030	0.0378	0.15	0.16	0.22	0.24	0.0614	0.0686	< 0.020	< 0.020	< 0.000050
7/5/2017	EV_MC2	E300091			145	< 0.0030	0.0215	0.18	0.17	0.18	0.19	0.0796	0.0738	< 0.020	< 0.020	< 0.000050
7/12/2017	EV_MC2	E300091			177	0.0021	0.0092	0.22	0.22	0.17	0.2	0.0874	0.0875	< 0.020	< 0.020	< 0.000050
7/25/2017	EV_MC2	E300091			167	< 0.0030	0.0083	0.18	0.2	0.17	0.18	0.107	0.0984	< 0.020	< 0.020	< 0.000050
8/3/2017	EV_MC2	E300091				< 0.0030	0.005	0.2	0.22	0.18	0.23	0.108	0.106	< 0.020	< 0.020	< 0.000050
8/3/2017	EV_MC2	E300091			178											
9/12/2017	EV_MC2	E300091			197	< 0.0030	0.0074	0.23	0.26	0.16	0.18	0.108	0.116	< 0.020	< 0.020	< 0.000050
10/2/2017	EV_MC2	E300091			137	< 0.0030	0.0111	< 0.10	0.12	0.17	0.18	0.0939	0.118	< 0.020	< 0.020	< 0.000050
10/10/2017	EV_MC2	E300091			193	< 0.0030	< 0.0030	< 0.10	0.12	0.14	0.2	0.113	0.114	< 0.020	< 0.020	< 0.000050
10/16/2017	EV_MC2	E300091														
10/17/2017	EV_MC2	E300091			205	< 0.0030	0.0081	< 0.10	0.12	0.13	0.15	0.103	0.101	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
10/24/2017	EV_MC2	E300091			168	< 0.0030	0.0156	< 0.10	0.14	0.17	0.2	0.114	0.108	< 0.020	< 0.020	< 0.000050
10/31/2017	EV_MC2	E300091														
10/31/2017	EV_MC2	E300091			172	< 0.0030	0.0051	< 0.10	0.1	0.15	0.17	0.118	0.108	< 0.020	< 0.020	< 0.000050
11/15/2017	EV_MC2	E300091			191	< 0.0030	0.0041	0.15	0.19	0.14	0.16	0.109	0.107	< 0.020	< 0.020	< 0.000050
12/6/2017	EV_MC2	E300091			167	< 0.0030	0.0178	0.2	0.22	0.16	0.19	0.0906	0.0958	< 0.020	< 0.020	< 0.000050
1/10/2017	EV_MC2A	E310168			165	< 0.0030	0.029	< 0.10	< 0.10	0.13	0.17	0.121	0.117	< 0.020	< 0.020	< 0.000050
1/31/2017	EV_MC2A	E310168														
2/7/2017	EV_MC2A	E310168			168	< 0.0030	0.0111	< 0.10	< 0.10	0.15	0.16	0.124	0.122	< 0.020	< 0.020	< 0.000050
3/7/2017	EV_MC2A	E310168			172	< 0.0030	0.0066	< 0.10	< 0.10	0.14	0.15	0.121	0.125	< 0.020	< 0.020	< 0.000050
3/16/2017	EV_MC2A	E310168														
3/17/2017	EV_MC2A	E310168														
3/18/2017	EV_MC2A	E310168														
3/19/2017	EV_MC2A	E310168														
3/20/2017	EV_MC2A	E310168														
3/29/2017	EV_MC2A	E310168			144	0.0046	0.111	< 0.10	0.12	0.16	0.2	0.113	0.114	< 0.020	< 0.020	< 0.000050
4/5/2017	EV_MC2A	E310168			159	0.0034	0.0572	0.1	0.12	0.16	0.21	0.12	0.122	< 0.020	< 0.020	< 0.000050
5/2/2017	EV_MC2A	E310168			142	0.0091	0.142	< 0.10	0.13	0.17	0.26	0.0913	0.0976	< 0.020	< 0.020	< 0.000050
6/6/2017	EV_MC2A	E310168			86.1	0.0129	0.737	< 0.10	0.13	0.28	0.57	0.0529	0.0639	< 0.020	0.047	< 0.000050
7/12/2017	EV_MC2A	E310168			165	0.0023	0.0146	< 0.10	0.11	0.18	0.21	0.0879	0.0885	< 0.020	< 0.020	< 0.000050
8/3/2017	EV_MC2A	E310168				< 0.0030	0.0075	< 0.10	0.11	0.18	0.23	0.125	0.113	< 0.020	< 0.020	< 0.000050
8/3/2017	EV_MC2A	E310168			167											
9/12/2017	EV_MC2A	E310168			183	< 0.0030	0.0048	< 0.10	< 0.10	0.18	0.21	0.119	0.127	< 0.020	< 0.020	< 0.000050
10/2/2017	EV_MC2A	E310168			161	< 0.0030	0.0049	< 0.10	0.1	0.17	0.18	0.119	0.124	< 0.020	< 0.020	< 0.000050
11/15/2017	EV_MC2A	E310168														
11/15/2017	EV_MC2A	E310168			174	< 0.0030	< 0.0030	< 0.10	0.1	0.16	0.16	0.117	0.115	< 0.020	< 0.020	< 0.000050
12/6/2017	EV_MC2A	E310168			154	0.0032	0.0221	< 0.10	< 0.10	0.17	0.18	0.0915	0.0971	< 0.020	< 0.020	< 0.000050
1/20/2017	EV_MC3	200203			163	0.0012	0.0177	< 0.10	0.15	0.16	0.21	0.113	0.109	< 0.020	< 0.020	< 0.000050
2/7/2017	EV_MC3	200203			155	< 0.0030	0.0303	< 0.10	< 0.10	0.12	0.17	0.117	0.117	< 0.020	< 0.020	< 0.000050
3/7/2017	EV_MC3	200203			154	< 0.0030	0.0203	< 0.10	< 0.10	0.13	0.17	0.114	0.113	< 0.020	< 0.020	< 0.000050
3/16/2017	EV_MC3	200203			140	0.0086	1.07	< 0.10	0.16	0.16	0.97	0.101	0.113	< 0.020	0.095	< 0.000050
3/19/2017	EV_MC3	200203														
3/20/2017	EV_MC3	200203			108	0.0336	0.347	< 0.10	0.12	0.2	0.35	0.0924	0.0983	< 0.020	0.026	< 0.000050
3/29/2017	EV_MC3	200203			129	0.0067	0.135	< 0.10	0.11	0.17	0.23	0.131	0.113	< 0.020	< 0.020	< 0.000050
4/4/2017	EV_MC3	200203			146	0.0036	0.504	< 0.10	0.15	0.16	0.37	0.107	0.116	< 0.020	0.024	< 0.000050
4/12/2017	EV_MC3	200203			141	0.0051	0.0712	< 0.10	0.1	0.17	0.2	0.112	0.112	< 0.020	< 0.020	< 0.000050
4/20/2017	EV_MC3	200203			141	0.0136	0.15	< 0.10	0.11	0.19	0.3	0.104	0.0976	< 0.020	< 0.020	< 0.000050
4/26/2017	EV_MC3	200203			125	0.0125	0.294	< 0.10	0.12	0.18	0.31	0.088	0.096	< 0.020	0.02	< 0.000050
5/3/2017	EV_MC3	200203			131	0.0119	0.185	< 0.10	0.1	0.15	0.23	0.0782	0.088	< 0.020	< 0.020	< 0.000050
5/10/2017	EV_MC3	200203			96.3	0.0293	0.796	< 0.10	0.13	0.22	0.43	0.0647	0.0756	< 0.020	0.035	< 0.000050
5/17/2017	EV_MC3	200203			96.7	0.0266	0.797	0.1	0.19	0.22	0.63	0.0727	0.0896	< 0.020	0.057	< 0.000050
5/24/2017	EV_MC3	200203			73.3	0.0362	4.98	< 0.10	0.4	0.31	3.35	0.055	0.184	< 0.020	0.4	< 0.000050
5/30/2017	EV_MC3	200203			75.8	0.0394	1.35	< 0.10	0.2	0.25	1.03	0.0484	0.084	< 0.020	0.122	< 0.000050
6/6/2017	EV_MC3	200203			72.8	0.0229	0.71	< 0.10	0.15	0.23	0.59	0.0497	0.0614	< 0.020	0.049	< 0.000050
6/13/2017	EV_MC3	200203			81	0.011	0.241	< 0.10	0.1	0.22	0.32	0.0555	0.0536	< 0.020	< 0.020	< 0.000050
6/21/2017	EV_MC3	200203			83.2	0.0095	0.221	< 0.10	0.12	0.25	0.3	0.0477	0.052	< 0.020	< 0.020	< 0.000050
6/28/2017	EV_MC3	200203			101	0.0062	0.205	< 0.10	0.12	0.24	0.37	0.0652	0.0655	< 0.020	< 0.020	< 0.000050
7/5/2017	EV_MC3	200203			116	< 0.0030	0.0327	< 0.10	< 0.10	0.2	0.21	0.0778	0.0721	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
7/11/2017	EV_MC3	200203			122	0.0034	0.0201	< 0.10	0.11	0.19	0.24	0.0851	0.088	< 0.020	< 0.020	< 0.000050
8/2/2017	EV_MC3	200203				< 0.0030	0.0088	< 0.10	< 0.10	0.18	0.19	0.104	0.104	< 0.020	< 0.020	< 0.000050
8/2/2017	EV_MC3	200203			154											
9/12/2017	EV_MC3	200203			158	< 0.0030	0.0083	< 0.10	< 0.10	0.17	0.18	0.114	0.121	< 0.020	< 0.020	< 0.000050
10/2/2017	EV_MC3	200203			144	< 0.0030	0.0111	< 0.10	< 0.10	0.16	0.17	0.108	0.122	< 0.020	< 0.020	< 0.000050
11/15/2017	EV_MC3	200203			158	< 0.0030	0.0061	< 0.10	< 0.10	0.17	0.16	0.114	0.114	< 0.020	< 0.020	< 0.000050
12/6/2017	EV_MC3	200203			134	0.004	0.0195	< 0.10	< 0.10	0.17	0.19	0.0937	0.0932	< 0.020	< 0.020	< 0.000050
1/18/2017	EV_MG1	E208057			301	< 0.0030	0.0039	0.37	0.39	0.49	0.53	0.0983	0.101	< 0.020	< 0.020	< 0.000050
2/23/2017	EV_MG1	E208057			276	< 0.0010	< 0.0030	0.38	0.47	0.5	0.52	0.0866	0.0852	< 0.020	< 0.020	< 0.000050
3/8/2017	EV_MG1	E208057	0	0	279	< 0.0030	0.0041	0.34	0.37	0.47	0.4	0.0968	0.0815	< 0.020	< 0.020	< 0.000050
3/16/2017	EV_MG1	E208057														
3/19/2017	EV_MG1	E208057														
3/29/2017	EV_MG1	E208057														
4/4/2017	EV_MG1	E208057	0	0	234	< 0.0030	0.0668	0.3	0.33	0.39	0.45	0.0893	0.095	< 0.020	< 0.020	< 0.000050
4/12/2017	EV_MG1	E208057														
4/19/2017	EV_MG1	E208057														
4/26/2017	EV_MG1	E208057														
5/2/2017	EV_MG1	E208057														
5/3/2017	EV_MG1	E208057			236	< 0.0030	0.0414	0.43	0.4	0.41	0.43	0.0696	0.0711	< 0.020	< 0.020	< 0.000050
5/10/2017	EV_MG1	E208057														
5/17/2017	EV_MG1	E208057														
5/24/2017	EV_MG1	E208057														
5/31/2017	EV_MG1	E208057														
6/7/2017	EV_MG1	E208057														
6/14/2017	EV_MG1	E208057			222	< 0.0030	0.0164	0.5	0.51	0.45	0.47	0.0682	0.0661	< 0.020	< 0.020	< 0.000050
6/21/2017	EV_MG1	E208057														
6/28/2017	EV_MG1	E208057														
7/5/2017	EV_MG1	E208057														
7/11/2017	EV_MG1	E208057	0	0	275	< 0.0010	0.0082	0.42	0.44	0.72	0.83	0.0873	0.0845	< 0.020	< 0.020	< 0.000050
8/2/2017	EV_MG1	E208057				< 0.0030	0.0079	0.48	0.49	0.72	0.66	0.088	0.0864	< 0.020	< 0.020	< 0.000050
8/2/2017	EV_MG1	E208057			223											
8/10/2017	EV_MG1	E208057														
9/12/2017	EV_MG1	E208057			172	< 0.0030	0.0049	0.44	0.47	0.42	0.47	0.0707	0.075	< 0.020	< 0.020	< 0.000050
10/3/2017	EV_MG1	E208057	0	0	139	< 0.0030	0.0037	0.47	0.52	0.34	0.41	0.0716	0.0644	< 0.020	< 0.020	< 0.000050
10/17/2017	EV_MG1	E208057														
10/18/2017	EV_MG1	E208057														
11/15/2017	EV_MG1	E208057			262	< 0.0030	0.0068	0.46	0.48	0.44	0.47	0.106	0.104	< 0.020	< 0.020	< 0.000050
11/23/2017	EV_MG1	E208057														
12/6/2017	EV_MG1	E208057			268	< 0.0030	0.0037	0.38	0.39	0.39	0.44	0.107	0.112	< 0.020	< 0.020	< 0.000050
1/10/2017	EV_OC1	E102679			343	< 0.0030	0.0085	< 0.10	< 0.10	0.42	0.5	0.584	0.541	< 0.020	< 0.020	< 0.000050
2/8/2017	EV_OC1	E102679			354	< 0.0030	0.0074	< 0.10	< 0.10	0.77	0.99	0.585	0.592	< 0.020	< 0.020	< 0.000050
2/20/2017	EV_OC1	E102679			215	0.001	0.411	0.3	0.4	0.58	1.28	0.324	0.368	< 0.020	0.041	< 0.000050
2/21/2017	EV_OC1	E102679														
3/6/2017	EV_OC1	E102679	0	0	283	< 0.0030	0.0929	0.25	0.29	0.73	1.1	0.41	0.398	< 0.020	< 0.020	< 0.000050
3/14/2017	EV_OC1	E102679														
3/15/2017	EV_OC1	E102679														
3/15/2017	EV_OC1	E102679														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
3/16/2017	EV_OC1	E102679														
3/17/2017	EV_OC1	E102679	0	0	180	0.0045	1.11	0.3	0.63	0.36	1.31	0.17	0.234	< 0.020	0.122	< 0.000050
3/18/2017	EV_OC1	E102679														
3/19/2017	EV_OC1	E102679														
3/20/2017	EV_OC1	E102679														
3/21/2017	EV_OC1	E102679														
3/22/2017	EV_OC1	E102679														
3/28/2017	EV_OC1	E102679														
4/3/2017	EV_OC1	E102679	0	0	266	< 0.0030	0.253	0.2	0.24	0.54	0.9	0.226	0.236	< 0.020	< 0.020	< 0.000050
4/11/2017	EV_OC1	E102679														
4/20/2017	EV_OC1	E102679														
4/25/2017	EV_OC1	E102679														
5/4/2017	EV_OC1	E102679			275	0.0017	0.0353	0.18	0.2	0.53	0.7	0.241	0.262	< 0.020	< 0.020	< 0.000050
5/7/2017	EV_OC1	E102679														
5/9/2017	EV_OC1	E102679														
5/16/2017	EV_OC1	E102679														
5/23/2017	EV_OC1	E102679														
5/31/2017	EV_OC1	E102679														
6/5/2017	EV_OC1	E102679			294	< 0.0030	0.0259	0.14	0.17	0.63	0.86	0.267	0.286	< 0.020	< 0.020	< 0.000050
6/13/2017	EV_OC1	E102679														
6/20/2017	EV_OC1	E102679														
6/27/2017	EV_OC1	E102679														
7/4/2017	EV_OC1	E102679														
7/10/2017	EV_OC1	E102679	0	0	267	0.0018	0.0293	< 0.10	0.11	0.94	1.17	0.334	0.311	< 0.020	< 0.020	< 0.000050
8/1/2017	EV_OC1	E102679			250	< 0.0030	0.0238	< 0.10	0.11	0.75	1.17	0.342	0.33	< 0.020	< 0.020	< 0.000050
9/11/2017	EV_OC1	E102679			271	< 0.0030	0.0439	< 0.10	< 0.10	0.75	1.4	0.365	0.433	< 0.020	< 0.020	< 0.000050
10/2/2017	EV_OC1	E102679	0	0	193	< 0.0030	0.021	< 0.10	0.1	0.4	0.82	0.354	0.371	< 0.020	< 0.020	< 0.000050
11/14/2017	EV_OC1	E102679			310	< 0.0050	< 0.015	< 0.50	< 0.50	< 0.50	0.53	0.451	0.436	< 0.10	< 0.10	< 0.00025
12/7/2017	EV_OC1	E102679			310	< 0.0030	0.0153	< 0.10	0.1	0.6	0.85	0.386	0.421	< 0.020	< 0.020	< 0.000050
1/9/2017	EV_SM1	E102681			252	< 0.0030	0.159	< 0.10	0.12	0.16	< 0.30	0.0994	0.103	< 0.020	< 0.020	< 0.000050
2/23/2017	EV_SM1	E102681			238	0.0024	0.0732	0.11	0.2	0.18	0.22	0.0943	0.0804	< 0.020	< 0.020	< 0.000050
3/6/2017	EV_SM1	E102681	0	0	247	< 0.0030	0.101	< 0.10	0.14	0.16	0.2	0.0885	0.0859	< 0.020	< 0.020	< 0.000050
3/15/2017	EV_SM1	E102681														
3/19/2017	EV_SM1	E102681														
3/20/2017	EV_SM1	E102681														
3/21/2017	EV_SM1	E102681														
3/22/2017	EV_SM1	E102681														
3/23/2017	EV_SM1	E102681														
3/28/2017	EV_SM1	E102681														
3/29/2017	EV_SM1	E102681														
4/3/2017	EV_SM1	E102681	0	0	227	0.0038	0.521	< 0.10	0.13	0.17	0.34	0.0806	0.0844	< 0.020	0.034	< 0.000050
4/11/2017	EV_SM1	E102681														
4/19/2017	EV_SM1	E102681														
4/25/2017	EV_SM1	E102681														
5/2/2017	EV_SM1	E102681			229	0.0036	1.91	< 0.10	0.15	0.17	0.54	0.0952	0.116	< 0.020	0.071	< 0.000050
5/7/2017	EV_SM1	E102681														
5/8/2017	EV_SM1	E102681														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
5/9/2017	EV_SM1	E102681														
5/10/2017	EV_SM1	E102681														
5/11/2017	EV_SM1	E102681														
5/12/2017	EV_SM1	E102681														
5/13/2017	EV_SM1	E102681														
5/14/2017	EV_SM1	E102681														
5/15/2017	EV_SM1	E102681														
5/16/2017	EV_SM1	E102681														
5/17/2017	EV_SM1	E102681														
5/18/2017	EV_SM1	E102681														
5/19/2017	EV_SM1	E102681														
5/20/2017	EV_SM1	E102681														
5/23/2017	EV_SM1	E102681														
5/24/2017	EV_SM1	E102681														
5/25/2017	EV_SM1	E102681														
5/26/2017	EV_SM1	E102681														
5/27/2017	EV_SM1	E102681														
5/28/2017	EV_SM1	E102681														
5/29/2017	EV_SM1	E102681														
5/30/2017	EV_SM1	E102681														
6/5/2017	EV_SM1	E102681			206	0.0089	0.569	< 0.10	0.17	0.14	0.44	0.0913	0.105	< 0.020	0.046	< 0.000050
6/13/2017	EV_SM1	E102681														
6/20/2017	EV_SM1	E102681														
6/27/2017	EV_SM1	E102681														
7/4/2017	EV_SM1	E102681														
7/10/2017	EV_SM1	E102681	0	0	192	< 0.0010	0.0352	< 0.10	0.12	0.17	0.24	0.0917	0.087	< 0.020	< 0.020	< 0.000050
8/1/2017	EV_SM1	E102681			194	< 0.0030	0.0522	< 0.10	0.15	0.22	0.28	0.0939	0.0888	< 0.020	< 0.020	< 0.000050
9/11/2017	EV_SM1	E102681			202	< 0.0030	0.0912	0.14	0.12	0.25	0.29	0.087	0.0881	< 0.020	< 0.020	< 0.000050
10/2/2017	EV_SM1	E102681	0	0	196	< 0.0030	0.0364	< 0.10	0.12	0.24	0.25	0.0857	0.0871	< 0.020	< 0.020	< 0.000050
10/4/2017	EV_SM1	E102681														
10/6/2017	EV_SM1	E102681														
10/10/2017	EV_SM1	E102681														
11/14/2017	EV_SM1	E102681			220	< 0.0050	0.071	< 0.50	< 0.50	< 0.50	< 0.50	0.0901	0.0864	< 0.10	< 0.10	< 0.00025
11/23/2017	EV_SM1	E102681														
12/1/2017	EV_SM1	E102681			227	< 0.0030	0.208	0.1	0.11	0.18	0.21	0.0839	0.0818	< 0.020	< 0.020	< 0.000050
1/18/2017	EV_SP1	E296311			309	< 0.0030	< 0.0030	0.77	0.81	< 0.10	0.14	0.0114	0.0117	< 0.020	< 0.020	< 0.000050
2/23/2017	EV_SP1	E296311			321	< 0.0010	< 0.0030	0.78	0.83	< 0.10	0.12	0.0119	0.0115	< 0.020	< 0.020	< 0.000050
3/8/2017	EV_SP1	E296311	0	0	316	< 0.0030	0.0678	0.81	0.83	0.3	0.29	0.0607	0.0529	< 0.020	< 0.020	< 0.000050
3/16/2017	EV_SP1	E296311														
3/19/2017	EV_SP1	E296311														
3/29/2017	EV_SP1	E296311														
4/4/2017	EV_SP1	E296311	0	0	256	< 0.0030	0.0644	0.74	0.75	0.12	0.17	0.0166	0.0173	< 0.020	< 0.020	< 0.000050
4/12/2017	EV_SP1	E296311														
4/19/2017	EV_SP1	E296311														
4/26/2017	EV_SP1	E296311														
5/3/2017	EV_SP1	E296311			274	< 0.0030	0.0377	0.73	0.67	< 0.10	0.12	0.0128	0.0135	< 0.020	< 0.020	< 0.000050
5/10/2017	EV_SP1	E296311														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
5/17/2017	EV_SP1	E296311														
5/24/2017	EV_SP1	E296311														
5/31/2017	EV_SP1	E296311														
6/7/2017	EV_SP1	E296311														
6/14/2017	EV_SP1	E296311			299	< 0.0030	0.0681	0.76	0.83	< 0.10	0.12	0.0133	0.0147	< 0.020	< 0.020	< 0.000050
6/21/2017	EV_SP1	E296311														
6/28/2017	EV_SP1	E296311														
7/5/2017	EV_SP1	E296311														
7/11/2017	EV_SP1	E296311	3	0	332	0.0013	0.0039	0.79	0.79	< 0.10	0.14	0.0129	0.013	< 0.020	< 0.020	< 0.000050
8/2/2017	EV_SP1	E296311				< 0.0030	< 0.0030	0.87	0.87	< 0.10	< 0.10	0.013	0.0131	< 0.020	< 0.020	< 0.000050
8/2/2017	EV_SP1	E296311			318											
9/12/2017	EV_SP1	E296311			240	< 0.0030	0.0049	0.83	0.91	< 0.10	0.11	0.0124	0.0133	< 0.020	< 0.020	< 0.000050
10/3/2017	EV_SP1	E296311	37	0	216	< 0.0030	0.0092	0.86	0.95	< 0.10	0.19	0.0123	0.0135	< 0.020	< 0.020	< 0.000050
10/3/2017	EV_SP1	E296311	10													
10/17/2017	EV_SP1	E296311	17		218	< 0.0030	0.0057	0.86	0.89	< 0.10	0.14	0.012	0.0128	< 0.020	< 0.020	< 0.000050
11/15/2017	EV_SP1	E296311			322	< 0.0030	< 0.0030	0.8	0.84	< 0.10	0.14	0.0134	0.0127	< 0.020	< 0.020	< 0.000050
12/6/2017	EV_SP1	E296311			313	0.0032	0.0102	0.81	0.82	0.1	0.16	0.0133	0.0145	< 0.020	< 0.020	< 0.000050
1/10/2017	EV_SPR2	E298594			265	< 0.0030	0.0181	0.1	0.13	0.13	0.16	0.195	0.182	< 0.020	< 0.020	< 0.000050
2/8/2017	EV_SPR2	E298594			254	< 0.0030	0.0079	< 0.10	0.15	0.12	0.16	0.173	0.175	< 0.020	< 0.020	< 0.000050
2/23/2017	EV_SPR2	E298594			276	< 0.0010	< 0.0030	0.11	0.2	0.12	0.18	0.204	0.204	< 0.020	< 0.020	< 0.000050
3/7/2017	EV_SPR2	E298594			280	< 0.0030	0.0037	0.1	0.11	0.12	0.14	0.185	0.179	< 0.020	< 0.020	< 0.000050
3/15/2017	EV_SPR2	E298594														
3/22/2017	EV_SPR2	E298594														
3/28/2017	EV_SPR2	E298594			275	< 0.0030	0.0155	0.13	0.19	0.18	0.22	0.174	0.174	< 0.020	< 0.020	< 0.000050
4/4/2017	EV_SPR2	E298594			277	< 0.0030	0.0143	0.15	0.17	0.2	0.22	0.174	0.173	< 0.020	< 0.020	< 0.000050
5/3/2017	EV_SPR2	E298594			297	< 0.0030	0.0087	0.15	0.14	0.18	0.17	0.168	0.171	< 0.020	< 0.020	< 0.000050
6/5/2017	EV_SPR2	E298594			293	< 0.0030	0.0093	0.14	0.17	0.18	0.21	0.175	0.179	< 0.020	< 0.020	< 0.000050
7/11/2017	EV_SPR2	E298594			307	< 0.0010	0.0563	0.12	0.14	0.17	0.22	0.177	0.178	< 0.020	< 0.020	< 0.000050
8/2/2017	EV_SPR2	E298594				< 0.0030	0.0169	0.12	0.14	0.17	0.17	0.184	0.181	< 0.020	< 0.020	< 0.000050
8/2/2017	EV_SPR2	E298594			289											
9/12/2017	EV_SPR2	E298594			242	< 0.0030	0.0038	0.12	0.16	0.16	0.2	0.18	0.2	< 0.020	< 0.020	< 0.000050
10/3/2017	EV_SPR2	E298594			231	< 0.0030	0.0109	0.14	0.16	0.16	0.2	0.201	0.216	< 0.020	< 0.020	< 0.000050
11/15/2017	EV_SPR2	E298594			281	< 0.0030	< 0.0030	0.11	0.12	0.17	0.18	0.187	0.179	< 0.020	< 0.020	< 0.000050
12/6/2017	EV_SPR2	E298594			280	< 0.0030	0.0043	0.12	0.13	0.14	0.2	0.177	0.182	< 0.020	< 0.020	< 0.000050
1/18/2017	EV_TC1	E298593														
2/23/2017	EV_TC1	E298593														
3/8/2017	EV_TC1	E298593														
3/16/2017	EV_TC1	E298593			203	0.0029	0.0103	0.24	0.25	0.23	0.29	0.0742	0.0742	< 0.020	< 0.020	< 0.000050
3/19/2017	EV_TC1	E298593														
3/29/2017	EV_TC1	E298593														
4/4/2017	EV_TC1	E298593			175	0.0042	0.0128	0.3	0.33	0.29	0.3	0.0646	0.0631	< 0.020	< 0.020	< 0.000050
4/12/2017	EV_TC1	E298593														
4/19/2017	EV_TC1	E298593														
4/26/2017	EV_TC1	E298593														
5/3/2017	EV_TC1	E298593			155	0.0047	0.022	0.28	0.26	0.24	0.25	0.0523	0.0512	< 0.020	< 0.020	< 0.000050
5/10/2017	EV_TC1	E298593														
5/17/2017	EV_TC1	E298593														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
5/24/2017	EV_TC1	E298593														
5/31/2017	EV_TC1	E298593														
6/7/2017	EV_TC1	E298593														
6/14/2017	EV_TC1	E298593			183	< 0.0030	0.0124	0.38	0.38	0.22	0.24	0.0767	0.0754	< 0.020	< 0.020	< 0.000050
6/21/2017	EV_TC1	E298593														
6/28/2017	EV_TC1	E298593														
7/5/2017	EV_TC1	E298593														
7/11/2017	EV_TC1	E298593														
8/2/2017	EV_TC1	E298593														
9/12/2017	EV_TC1	E298593														
10/3/2017	EV_TC1	E298593														
11/15/2017	EV_TC1	E298593														
12/6/2017	EV_TC1	E298593														
1/31/2017	FR_3PIT	E217403														
2/28/2017	FR_3PIT	E217403														
3/7/2017	FR_3PIT	E217403														
3/16/2017	FR_3PIT	E217403														
3/23/2017	FR_3PIT	E217403														
3/31/2017	FR_3PIT	E217403														
4/3/2017	FR_3PIT	E217403														
4/10/2017	FR_3PIT	E217403														
4/18/2017	FR_3PIT	E217403														
4/24/2017	FR_3PIT	E217403														
5/1/2017	FR_3PIT	E217403														
5/8/2017	FR_3PIT	E217403														
5/15/2017	FR_3PIT	E217403														
5/23/2017	FR_3PIT	E217403														
5/29/2017	FR_3PIT	E217403														
6/6/2017	FR_3PIT	E217403														
6/16/2017	FR_3PIT	E217403														
6/22/2017	FR_3PIT	E217403														
6/29/2017	FR_3PIT	E217403														
7/3/2017	FR_3PIT	E217403														
7/10/2017	FR_3PIT	E217403														
8/7/2017	FR_3PIT	E217403														
9/4/2017	FR_3PIT	E217403														
10/2/2017	FR_3PIT	E217403														
11/6/2017	FR_3PIT	E217403														
12/4/2017	FR_3PIT	E217403														
1/23/2017	FR_CC1	E102481			225	< 0.0010	< 0.0030	0.8	0.89	0.11	0.14	0.0516	0.0578	< 0.020	< 0.020	< 0.000050
2/2/2017	FR_CC1	E102481			219	< 0.0010	< 0.0030	0.73	0.72	0.12	0.11	0.0575	0.0515	< 0.020	< 0.020	< 0.000050
3/9/2017	FR_CC1	E102481			218	< 0.0010	< 0.0030	0.76	0.88	< 0.10	0.1	0.051	0.047	< 0.020	< 0.020	< 0.000050
3/14/2017	FR_CC1	E102481	0	0	215	< 0.0010	< 0.0030	0.73	0.74	< 0.10	< 0.10	0.0509	0.0514	< 0.020	< 0.020	< 0.000050
3/23/2017	FR_CC1	E102481														
3/28/2017	FR_CC1	E102481														
4/3/2017	FR_CC1	E102481			223	< 0.0010	0.0087	0.74	0.77	< 0.10	0.13	0.0436	0.0426	< 0.020	< 0.020	< 0.000050
4/11/2017	FR_CC1	E102481														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
4/20/2017	FR_CC1	E102481														
4/26/2017	FR_CC1	E102481														
5/1/2017	FR_CC1	E102481	0	0	231	0.0012	0.0058	0.86	0.83	< 0.10	0.13	0.0299	0.031	< 0.020	< 0.020	< 0.000050
5/3/2017	FR_CC1	E102481														
5/6/2017	FR_CC1	E102481														
5/10/2017	FR_CC1	E102481														
5/15/2017	FR_CC1	E102481														
5/23/2017	FR_CC1	E102481														
5/29/2017	FR_CC1	E102481														
6/5/2017	FR_CC1	E102481			228	0.001	0.0034	0.81	0.82	< 0.10	0.12	0.03	0.0289	< 0.020	< 0.020	< 0.000050
6/15/2017	FR_CC1	E102481														
6/20/2017	FR_CC1	E102481														
6/27/2017	FR_CC1	E102481														
7/3/2017	FR_CC1	E102481			225	< 0.0010	0.004	0.81	0.81	0.1	0.19	0.0326	0.0326	< 0.020	< 0.020	< 0.000050
7/10/2017	FR_CC1	E102481														
8/8/2017	FR_CC1	E102481	0	0	213	< 0.0030	0.0045	0.92	0.86	< 0.10	0.18	0.0421	0.0393	< 0.020	< 0.020	< 0.000050
9/5/2017	FR_CC1	E102481			195	< 0.0030	0.0505	0.67	0.68	< 0.10	0.18	0.0524	0.0574	< 0.020	< 0.020	< 0.000050
10/11/2017	FR_CC1	E102481			141	< 0.0030	0.0478	0.5	0.53	< 0.10	0.16	0.0761	0.0797	< 0.020	< 0.020	< 0.000050
11/20/2017	FR_CC1	E102481	0	0	216	< 0.0030	< 0.0030	0.65	0.69	< 0.10	0.12	0.0572	0.0573	< 0.020	< 0.020	< 0.000050
12/6/2017	FR_CC1	E102481			231	< 0.0030	0.0076	0.77	0.74	< 0.10	0.14	0.0656	0.0572	< 0.020	< 0.020	< 0.000050
1/30/2017	FR_EC1	E102480														
2/28/2017	FR_EC1	E102480														
3/8/2017	FR_EC1	E102480														
3/16/2017	FR_EC1	E102480														
3/22/2017	FR_EC1	E102480	0	0	250	0.0023	0.198	0.59	0.63	0.15	0.22	0.0689	0.065	< 0.020	< 0.020	< 0.000050
3/23/2017	FR_EC1	E102480														
3/27/2017	FR_EC1	E102480														
4/3/2017	FR_EC1	E102480			231	0.0032	0.076	0.64	0.81	0.17	0.25	0.0576	0.061	< 0.020	< 0.020	< 0.000050
4/10/2017	FR_EC1	E102480														
4/19/2017	FR_EC1	E102480														
4/26/2017	FR_EC1	E102480														
5/1/2017	FR_EC1	E102480	0	0	309	0.0039	0.0264	0.54	0.55	0.22	0.28	0.0323	0.0349	< 0.020	< 0.020	< 0.000050
5/3/2017	FR_EC1	E102480														
5/6/2017	FR_EC1	E102480														
5/10/2017	FR_EC1	E102480														
5/15/2017	FR_EC1	E102480														
5/23/2017	FR_EC1	E102480														
5/29/2017	FR_EC1	E102480														
6/5/2017	FR_EC1	E102480			302	0.0019	0.0059	0.61	0.63	0.23	0.23	0.0229	0.0228	< 0.020	< 0.020	< 0.000050
6/13/2017	FR_EC1	E102480														
6/19/2017	FR_EC1	E102480														
6/26/2017	FR_EC1	E102480														
7/3/2017	FR_EC1	E102480			302	0.0017	0.0073	0.6	0.62	0.22	0.39	0.021	0.0211	< 0.020	< 0.020	< 0.000050
7/10/2017	FR_EC1	E102480														
8/7/2017	FR_EC1	E102480														
9/25/2017	FR_EC1	E102480														
10/31/2017	FR_EC1	E102480														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
11/28/2017	FR_EC1	E102480	0	0	287	< 0.0030	0.0372	0.66	0.71	0.22	0.26	0.0169	0.0179	< 0.040	< 0.020	< 0.00010
12/31/2017	FR_EC1	E102480														
8/31/2017	FR_EC1H	E310047			288	< 0.0030	0.0074	0.72	0.74	0.53	0.27	0.0132	0.0137	< 0.040	< 0.040	< 0.00010
9/25/2017	FR_EC1H	E310047	0	0	236	< 0.0030	< 0.0030	0.75	0.75	0.23	0.26	0.0118	0.0118	< 0.020	< 0.020	< 0.000050
10/30/2017	FR_EC1H	E310047			257	< 0.0030	0.0069	0.66	0.78	< 0.20	0.22	0.0107	0.0118	< 0.040	< 0.040	< 0.00010
11/23/2017	FR_EC1H	E310047			294	< 0.0030	< 0.0060	0.66	0.76	0.22	0.21	0.0117	0.0112	< 0.020	< 0.040	< 0.000050
12/11/2017	FR_EC1H	E310047			307	0.0074	0.031	0.77	0.73	< 0.20	0.22	0.0178	0.0209	< 0.040	< 0.020	< 0.00010
1/17/2017	FR_FR1	200251														
2/28/2017	FR_FR1	200251														
3/8/2017	FR_FR1	200251														
3/14/2017	FR_FR1	200251														
3/22/2017	FR_FR1	200251														
3/27/2017	FR_FR1	200251			137	0.002	0.0124	< 0.10	0.85	< 0.10	0.1	0.0472	0.0474	< 0.020	< 0.020	< 0.000050
4/4/2017	FR_FR1	200251			141	0.0015	0.0076	< 0.10	0.11	< 0.10	< 0.10	0.0546	0.05	< 0.020	< 0.020	< 0.000050
4/11/2017	FR_FR1	200251														
4/18/2017	FR_FR1	200251														
4/26/2017	FR_FR1	200251														
5/1/2017	FR_FR1	200251			135	0.0174	0.0269	< 0.10	< 0.10	< 0.10	0.12	0.0505	0.0519	< 0.020	< 0.020	< 0.000050
5/5/2017	FR_FR1	200251														
5/6/2017	FR_FR1	200251														
5/7/2017	FR_FR1	200251														
5/10/2017	FR_FR1	200251														
5/15/2017	FR_FR1	200251														
5/23/2017	FR_FR1	200251														
5/29/2017	FR_FR1	200251														
6/5/2017	FR_FR1	200251			102	0.0061	0.045	< 0.10	< 0.10	< 0.10	0.15	0.0275	0.0271	< 0.020	< 0.020	< 0.000050
6/14/2017	FR_FR1	200251														
6/20/2017	FR_FR1	200251														
6/28/2017	FR_FR1	200251														
7/3/2017	FR_FR1	200251			114	0.002	0.0113	< 0.10	< 0.10	< 0.10	0.15	0.0281	0.028	< 0.020	< 0.020	< 0.000050
7/11/2017	FR_FR1	200251														
8/9/2017	FR_FR1	200251			130	< 0.0030	0.006	< 0.10	0.1	0.11	0.14	0.0418	0.0451	< 0.020	< 0.020	< 0.000050
8/28/2017	FR_FR1	200251			150	< 0.0030	0.0044	< 0.10	0.11	< 0.10	0.13	0.0459	0.0524	< 0.020	< 0.020	< 0.000050
9/11/2017	FR_FR1	200251			147	< 0.0030	0.0064	< 0.10	0.13	< 0.10	< 0.10	0.0534	0.0499	< 0.020	< 0.020	< 0.000050
10/11/2017	FR_FR1	200251			134	< 0.0030	0.0066	< 0.10	0.1	< 0.10	< 0.10	0.0462	0.048	< 0.020	< 0.020	< 0.000050
11/29/2017	FR_FR1	200251			140	< 0.0030	0.0101	< 0.10	< 0.10	< 0.10	< 0.10	0.0538	0.0487	< 0.020	< 0.020	< 0.000050
12/4/2017	FR_FR1	200251														
1/16/2017	FR_FR2	200201			205	0.0038	0.005	0.2	0.23	< 0.10	0.26	0.103	0.105	< 0.020	< 0.020	< 0.000050
2/1/2017	FR_FR2	200201			218	< 0.0010	0.0052	0.18	0.22	< 0.10	0.1	0.1	0.0997	< 0.020	< 0.020	< 0.000050
3/9/2017	FR_FR2	200201			217	< 0.0030	0.0044	0.17	0.18	< 0.10	< 0.10	0.101	0.0868	< 0.020	< 0.020	< 0.000050
3/15/2017	FR_FR2	200201			207	0.0029	0.035	0.2	0.23	< 0.10	0.13	0.097	0.102	< 0.020	< 0.020	< 0.000050
3/22/2017	FR_FR2	200201			202	0.0019	0.0315	0.19	0.23	< 0.10	0.13	0.102	0.111	< 0.020	< 0.020	< 0.000050
3/29/2017	FR_FR2	200201			171	0.0024	0.0791	0.23	0.24	< 0.10	0.15	0.101	0.0942	< 0.020	< 0.020	< 0.000050
4/5/2017	FR_FR2	200201			200	0.0033	0.0321	0.19	0.21	< 0.10	0.1	0.0962	0.111	< 0.020	< 0.020	< 0.000050
4/5/2017	FR_FR2	200201			207	< 0.0030	0.0539	0.21	0.23	< 0.10	0.15	0.103	0.102	< 0.020	< 0.020	< 0.000050
4/12/2017	FR_FR2	200201			197	0.0022	0.0266	0.18	0.19	< 0.10	0.11	0.106	0.0981	< 0.020	< 0.020	< 0.000050
4/20/2017	FR_FR2	200201			173	0.0128	1.42	0.18	0.53	0.12	1.19	0.0852	0.138	< 0.020	0.138	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
4/25/2017	FR_FR2	200201			165	0.0147	0.288	0.18	0.22	0.13	0.26	0.078	0.0768	< 0.020	0.031	< 0.000050
5/2/2017	FR_FR2	200201			195	0.0049	0.212	0.2	0.23	< 0.10	0.19	0.0832	0.0844	< 0.020	< 0.020	< 0.000050
5/8/2017	FR_FR2	200201			147	0.0048	0.12	0.18	0.23	0.11	0.18	0.0598	0.0594	< 0.020	< 0.020	< 0.000050
5/16/2017	FR_FR2	200201			184	0.0026	0.0779	0.17	0.22	0.12	0.16	0.0583	0.0531	< 0.020	< 0.020	< 0.000050
5/23/2017	FR_FR2	200201			128	0.0025	0.124	0.13	0.14	0.11	0.21	0.0445	0.0475	< 0.020	< 0.020	< 0.000050
5/30/2017	FR_FR2	200201			126	0.0057	0.437	0.11	0.14	0.12	0.39	0.039	0.0484	< 0.020	0.04	< 0.000050
6/6/2017	FR_FR2	200201			125	0.0035	0.0604	0.15	0.13	0.1	0.16	0.0393	0.0399	< 0.020	< 0.020	< 0.000050
6/6/2017	FR_FR2	200201			130	< 0.0030	0.102	0.14	0.14	< 0.10	0.14	0.0381	0.0388	< 0.020	< 0.020	< 0.000050
6/13/2017	FR_FR2	200201			141	0.0059	0.035	0.13	0.13	< 0.10	0.15	0.0426	0.0417	< 0.020	< 0.020	< 0.000050
6/20/2017	FR_FR2	200201			140	0.0045	0.0175	0.14	0.14	< 0.10	0.17	0.0448	0.0446	< 0.020	< 0.020	< 0.000050
6/26/2017	FR_FR2	200201			141	0.0045	0.013	0.12	0.14	< 0.10	0.12	0.0448	0.0441	< 0.020	< 0.020	< 0.000050
7/5/2017	FR_FR2	200201			151	0.0022	0.0079	0.14	0.17	< 0.10	0.14	0.0529	0.0514	< 0.020	< 0.020	< 0.000050
7/5/2017	FR_FR2	200201			151	0.0021	0.0088	0.13	0.14	< 0.10	0.14	0.0534	0.0519	< 0.020	< 0.020	< 0.000050
7/11/2017	FR_FR2	200201			194	0.0021	0.0078	0.16	0.19	< 0.10	0.11	0.0523	0.0507	< 0.020	< 0.020	< 0.000050
7/17/2017	FR_FR2	200201														
8/10/2017	FR_FR2	200201			185	< 0.0030	0.0038	0.19	0.25	< 0.10	0.12	0.0829	0.0845	< 0.020	< 0.020	< 0.000050
8/28/2017	FR_FR2	200201			209	< 0.0030	0.0049	0.2	0.26	< 0.10	0.12	0.0858	0.104	< 0.020	< 0.020	< 0.000050
9/6/2017	FR_FR2	200201			193	< 0.0030	0.006	0.23	0.23	< 0.10	0.12	0.115	0.0963	< 0.020	< 0.020	< 0.000050
9/20/2017	FR_FR2	200201														
10/4/2017	FR_FR2	200201			152	< 0.0030	0.0044	0.21	0.33	< 0.10	< 0.10	0.0957	0.0981	< 0.020	< 0.020	< 0.000050
10/19/2017	FR_FR2	200201			167	< 0.0030	0.0042	0.18	0.23	< 0.10	0.14	0.0866	0.0883	< 0.020	< 0.020	< 0.000050
10/31/2017	FR_FR2	200201			202	< 0.0030	< 0.0030	0.24	0.17	< 0.10	0.13	0.0987	0.0897	< 0.020	< 0.020	< 0.000050
11/1/2017	FR_FR2	200201			194	< 0.0050	< 0.0030	< 0.50	0.22	< 0.50	0.12	0.0763	0.0872	< 0.10	< 0.020	< 0.00025
11/2/2017	FR_FR2	200201			199	< 0.0030	< 0.015	0.21	< 0.50	< 0.10	< 0.50	0.1	0.0808	< 0.020	< 0.10	< 0.000050
11/16/2017	FR_FR2	200201														
12/5/2017	FR_FR2	200201			208	< 0.0030	0.0072	0.18	0.24	< 0.10	0.12	0.0955	0.0896	< 0.020	< 0.020	< 0.000050
1/19/2017	FR_FRCP1	E300071														
2/21/2017	FR_FRCP1	E300071			251	< 0.0010	0.005	0.23	0.66	< 0.10	0.13	0.0724	0.0765	< 0.020	< 0.020	< 0.000050
2/28/2017	FR_FRCP1	E300071			253	< 0.0010	< 0.0030	0.24	0.26	< 0.10	0.15	0.0784	0.0828	< 0.020	< 0.020	< 0.000050
3/7/2017	FR_FRCP1	E300071			300	< 0.0010	< 0.0030	0.35	0.44	< 0.10	0.12	0.0679	0.0625	< 0.020	< 0.020	< 0.000050
3/14/2017	FR_FRCP1	E300071			232	< 0.0010	< 0.0030	0.25	0.23	< 0.10	< 0.10	0.0836	0.0718	< 0.020	< 0.020	< 0.000050
3/21/2017	FR_FRCP1	E300071			212	0.0015	0.0416	0.22	0.28	< 0.10	0.14	0.0817	0.0933	< 0.020	< 0.020	< 0.000050
3/28/2017	FR_FRCP1	E300071			209	0.0028	0.0746	0.2	0.24	< 0.10	0.16	0.0803	0.0745	< 0.020	< 0.020	< 0.000050
4/5/2017	FR_FRCP1	E300071			205	0.0027	0.0243	0.23	0.23	< 0.10	0.11	0.0969	0.101	< 0.020	< 0.020	< 0.000050
4/10/2017	FR_FRCP1	E300071			205	0.0039	0.0886	0.25	0.24	< 0.10	0.21	0.09	0.0882	< 0.020	< 0.020	< 0.000050
4/20/2017	FR_FRCP1	E300071			181	0.014	0.665	0.19	0.32	0.13	0.66	0.0833	0.0915	< 0.020	0.07	< 0.000050
4/24/2017	FR_FRCP1	E300071			169	0.0133	0.357	0.21	0.25	0.13	0.38	0.076	0.0812	< 0.020	0.031	< 0.000050
5/2/2017	FR_FRCP1	E300071			197	0.0081	0.115	0.23	0.3	0.13	0.23	0.0811	0.0831	< 0.020	< 0.020	< 0.000050
5/9/2017	FR_FRCP1	E300071			153	0.0041	0.192	0.17	0.17	0.12	0.26	0.0616	0.0634	< 0.020	< 0.020	< 0.000050
5/16/2017	FR_FRCP1	E300071			203	0.0021	0.0956	0.21	0.23	< 0.10	0.14	0.063	0.0577	< 0.020	< 0.020	< 0.000050
5/23/2017	FR_FRCP1	E300071			151	0.0023	0.349	0.15	0.18	0.11	0.34	0.0513	0.0602	< 0.020	0.033	< 0.000050
5/30/2017	FR_FRCP1	E300071			149	0.0057	0.493	0.19	0.18	0.12	0.45	0.0489	0.0584	< 0.020	0.042	< 0.000050
6/6/2017	FR_FRCP1	E300071			164	0.0021	0.0897	0.19	0.2	< 0.10	0.18	0.0449	0.0451	< 0.020	< 0.020	< 0.000050
6/13/2017	FR_FRCP1	E300071			166	0.002	0.051	0.22	0.22	< 0.10	0.16	0.0491	0.0459	< 0.020	< 0.020	< 0.000050
6/20/2017	FR_FRCP1	E300071			170	0.0026	0.0225	0.21	0.21	< 0.10	0.16	0.0524	0.0507	< 0.020	< 0.020	< 0.000050
6/26/2017	FR_FRCP1	E300071			165	0.0042	0.0163	0.18	0.19	< 0.10	0.13	0.0515	0.0496	< 0.020	< 0.020	< 0.000050
7/5/2017	FR_FRCP1	E300071			184	0.0021	0.0182	0.2	0.2	< 0.10	0.14	0.0614	0.0586	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
7/11/2017	FR_FRCP1	E300071			225	0.0012	0.0098	0.21	0.23	< 0.10	0.12	0.0592	0.0565	< 0.020	< 0.020	< 0.000050
7/25/2017	FR_FRCP1	E300071			196	0.0011	0.0082	0.2	0.27	< 0.10	0.12	0.0691	0.0692	< 0.020	< 0.020	< 0.000050
8/1/2017	FR_FRCP1	E300071			202	< 0.0030	0.0077	0.26	0.26	< 0.10	0.1	0.0768	0.0717	< 0.020	< 0.020	< 0.000050
8/8/2017	FR_FRCP1	E300071			211	< 0.0030	0.0035	0.26	0.26	< 0.10	0.17	0.0779	0.074	< 0.020	< 0.020	< 0.000050
8/15/2017	FR_FRCP1	E300071			207	< 0.0030	0.0052	0.25	0.27	< 0.10	< 0.10	0.0714	0.0746	< 0.020	< 0.020	< 0.000050
8/22/2017	FR_FRCP1	E300071			204	< 0.0030	0.0035	0.25	0.28	< 0.20	< 0.10	0.0734	0.0732	< 0.040	< 0.020	< 0.00010
9/11/2017	FR_FRCP1	E300071			192	< 0.0030	0.0041	0.28	0.33	0.11	0.13	0.0843	0.0829	< 0.020	< 0.020	< 0.000050
10/2/2017	FR_FRCP1	E300071			146	< 0.0030	< 0.0030	0.24	0.26	< 0.10	0.12	0.0704	0.0725	< 0.020	< 0.020	< 0.000050
10/10/2017	FR_FRCP1	E300071			151	< 0.0030	0.0642	0.24	0.24	< 0.10	0.18	0.077	0.0808	< 0.020	< 0.020	< 0.000050
10/17/2017	FR_FRCP1	E300071			193	< 0.0030	0.0038	0.24	0.28	< 0.10	0.11	0.0731	0.0752	< 0.020	< 0.020	< 0.000050
10/24/2017	FR_FRCP1	E300071			227	< 0.0030	< 0.0030	0.22	0.28	< 0.10	0.14	0.0676	0.0711	< 0.020	< 0.020	< 0.000050
10/31/2017	FR_FRCP1	E300071			234	< 0.0030	0.0039	0.25	0.22	< 0.10	0.1	0.0826	0.0777	< 0.020	< 0.020	< 0.000050
11/15/2017	FR_FRCP1	E300071			227	< 0.0030	< 0.0030	0.22	0.24	< 0.10	0.11	0.0837	0.0885	< 0.020	< 0.020	< 0.000050
12/5/2017	FR_FRCP1	E300071			256	< 0.0030	0.0049	0.3	0.32	< 0.10	0.14	0.0797	0.0829	< 0.020	< 0.020	< 0.000050
12/6/2017	FR_FRCP1	E300071			253	< 0.0030	0.0043	0.28	0.27	< 0.10	0.16	0.0764	0.0724	< 0.020	< 0.020	< 0.000050
12/12/2017	FR_FRCP1	E300071			295	< 0.0030	0.0052	0.32	0.3	< 0.10	0.12	0.0644	0.0708	< 0.020	< 0.020	< 0.000050
12/28/2017	FR_FRCP1	E300071			324	< 0.0030	0.0034	0.31	0.31	< 0.10	0.15	0.0772	0.0763	< 0.020	< 0.020	< 0.000050
1/19/2017	FR_FRRD	E300097			247	< 0.0010	< 0.0030	< 0.10	0.14	< 0.10	0.12	0.152	0.149	< 0.020	< 0.020	< 0.000050
2/22/2017	FR_FRRD	E300097			245	< 0.0030	< 0.0030	< 0.10	< 0.10	< 0.10	< 0.10	0.137	0.141	< 0.020	< 0.020	< 0.000050
3/15/2017	FR_FRRD	E300097			235	0.0013	0.0052	< 0.10	< 0.10	< 0.10	0.1	0.147	0.149	< 0.020	< 0.020	< 0.000050
4/25/2017	FR_FRRD	E300097			179	0.0141	0.41	0.17	0.22	< 0.10	0.32	0.0872	0.0883	< 0.020	0.031	< 0.000050
5/3/2017	FR_FRRD	E300097			201	0.0053	0.0516	0.19	0.22	< 0.10	0.19	0.0912	0.0931	< 0.020	< 0.020	< 0.000050
5/3/2017	FR_FRRD	E300097			207	0.151	0.139	0.27	0.23	0.11	0.14	0.0972	0.0906	< 0.020	< 0.020	< 0.000050
5/18/2017	FR_FRRD	E300097			191	0.0014	0.0524	0.18	0.19	< 0.10	0.15	0.0711	0.0728	< 0.020	< 0.020	< 0.000050
6/13/2017	FR_FRRD	E300097			180	0.0013	0.0593	0.21	0.21	< 0.10	0.19	0.055	0.0565	< 0.020	< 0.020	< 0.000050
7/13/2017	FR_FRRD	E300097			273	0.001	0.0101	0.23	0.24	< 0.10	0.15	0.0769	0.0775	< 0.020	< 0.020	< 0.000050
7/13/2017	FR_FRRD	E300097			196	< 0.0030	0.0128	0.15	0.19	< 0.10	< 0.10	0.0753	0.0752	< 0.020	< 0.020	< 0.000050
8/10/2017	FR_FRRD	E300097			242	< 0.0030	0.0038	0.14	0.18	< 0.10	0.12	0.111	0.113	< 0.020	< 0.020	< 0.000050
9/13/2017	FR_FRRD	E300097			203	< 0.0030	0.0532	0.15	0.2	< 0.10	0.13	0.107	0.111	< 0.020	< 0.020	< 0.000050
10/18/2017	FR_FRRD	E300097			196	< 0.0030	< 0.0030	0.2	0.21	< 0.10	0.11	0.103	0.0934	< 0.020	< 0.020	< 0.000050
11/6/2017	FR_FRRD	E300097			263	< 0.0050	< 0.0030	< 0.50	0.15	< 0.50	< 0.10	0.111	0.115	< 0.10	< 0.020	< 0.00025
12/5/2017	FR_FRRD	E300097			272	< 0.0030	< 0.0030	0.11	0.11	< 0.10	0.11	0.143	0.142	< 0.020	< 0.020	< 0.000050
1/9/2017	FR_HC1	E216778			142	0.0015	0.0055	< 0.10	0.11	< 0.10	0.14	0.0343	0.0356	< 0.020	< 0.020	< 0.000050
2/14/2017	FR_HC1	E216778			143	< 0.0010	< 0.0030	< 0.10	0.13	< 0.10	0.11	0.0367	0.0359	< 0.020	< 0.020	< 0.000050
3/7/2017	FR_HC1	E216778			139	< 0.0010	< 0.0030	< 0.10	0.14	< 0.10	< 0.10	0.0383	0.0404	< 0.020	< 0.020	< 0.000050
3/14/2017	FR_HC1	E216778			140	< 0.0010	< 0.0030	0.1	0.1	< 0.10	< 0.10	0.0379	0.0367	< 0.020	< 0.020	< 0.000050
3/22/2017	FR_HC1	E216778			148	0.0013	0.018	< 0.10	0.1	< 0.10	< 0.10	0.0378	0.0376	< 0.020	< 0.020	< 0.000050
3/28/2017	FR_HC1	E216778			146	0.002	0.0175	< 0.10	< 0.10	< 0.10	< 0.10	0.0366	0.0318	< 0.020	< 0.020	< 0.000050
4/4/2017	FR_HC1	E216778			141	0.0016	0.0058	< 0.10	0.11	< 0.10	< 0.10	0.0413	0.0362	< 0.020	< 0.020	< 0.000050
4/11/2017	FR_HC1	E216778			147	0.001	0.0056	< 0.10	0.1	< 0.10	< 0.10	0.041	0.035	< 0.020	< 0.020	< 0.000050
4/18/2017	FR_HC1	E216778			151	0.002	0.0097	< 0.10	0.11	< 0.10	0.16	0.0427	0.0409	< 0.020	< 0.020	< 0.000050
4/26/2017	FR_HC1	E216778			155	0.0015	0.0063	< 0.10	< 0.10	< 0.10	< 0.10	0.0407	0.0394	< 0.020	< 0.020	< 0.000050
5/1/2017	FR_HC1	E216778			149	0.0019	0.0046	< 0.10	< 0.10	< 0.10	0.1	0.0389	0.0373	< 0.020	< 0.020	< 0.000050
5/5/2017	FR_HC1	E216778														
5/6/2017	FR_HC1	E216778														
5/7/2017	FR_HC1	E216778														
5/9/2017	FR_HC1	E216778			130	0.0021	0.0133	< 0.10	< 0.10	0.1	0.12	0.0292	0.0263	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
5/15/2017	FR_HC1	E216778			132	0.0027	0.0277	< 0.10	0.13	< 0.10	0.12	0.0295	0.0273	< 0.020	< 0.020	< 0.000050
5/23/2017	FR_HC1	E216778			114	0.0028	0.212	< 0.10	< 0.10	< 0.10	0.25	0.0242	0.0359	< 0.020	0.02	< 0.000050
5/29/2017	FR_HC1	E216778			108	0.0056	0.218	< 0.10	< 0.10	0.1	0.22	0.022	0.0242	< 0.020	< 0.020	< 0.000050
6/5/2017	FR_HC1	E216778			104	0.0044	0.0521	< 0.10	< 0.10	< 0.10	0.14	0.021	0.0215	< 0.020	< 0.020	< 0.000050
6/14/2017	FR_HC1	E216778			98.8	0.0033	0.0657	< 0.10	< 0.10	< 0.10	0.12	0.0174	0.0173	< 0.020	< 0.020	< 0.000050
6/20/2017	FR_HC1	E216778			112	0.0035	0.0093	< 0.10	< 0.10	0.1	0.12	0.0215	0.0208	< 0.020	< 0.020	< 0.000050
6/27/2017	FR_HC1	E216778			105	0.0043	0.0157	< 0.10	0.14	< 0.10	0.1	0.0178	0.0174	< 0.020	< 0.020	< 0.000050
7/3/2017	FR_HC1	E216778			107	0.0027	0.0079	< 0.10	< 0.10	< 0.10	0.15	0.0188	0.0184	< 0.020	< 0.020	< 0.000050
7/11/2017	FR_HC1	E216778			118	0.0029	0.0091	< 0.10	< 0.10	< 0.10	0.11	0.0204	0.0203	< 0.020	< 0.020	< 0.000050
8/8/2017	FR_HC1	E216778			136	< 0.0030	0.0054	< 0.10	< 0.10	< 0.10	0.17	0.0327	0.0321	< 0.020	< 0.020	< 0.000050
9/5/2017	FR_HC1	E216778			143	< 0.0030	0.007	0.1	0.11	< 0.10	0.11	0.038	0.0373	< 0.020	< 0.020	< 0.000050
10/11/2017	FR_HC1	E216778			131	< 0.0030	0.022	< 0.10	0.1	< 0.10	< 0.10	0.0352	0.0361	< 0.020	< 0.020	< 0.000050
10/30/2017	FR_HC1	E216778														
11/7/2017	FR_HC1	E216778			140	< 0.0030	0.0037	< 0.10	< 0.10	< 0.10	< 0.10	0.0397	0.0388	< 0.020	< 0.020	< 0.000050
11/14/2017	FR_HC1	E216778														
12/6/2017	FR_HC1	E216778			142	0.0035	< 0.0030	< 0.10	< 0.10	< 0.10	0.12	0.0392	0.0366	< 0.020	< 0.020	< 0.000050
1/17/2017	FR_HC3	E300096			110	< 0.0030	0.0033	< 0.10	0.12	< 0.10	0.14	0.0151	0.0142	< 0.020	< 0.020	< 0.000050
2/14/2017	FR_HC3	E300096			109	< 0.0030	< 0.0030	< 0.10	< 0.10	< 0.10	0.1	0.0147	0.0161	< 0.020	< 0.020	< 0.000050
3/1/2017	FR_HC3	E300096			107	< 0.0010	< 0.0030	< 0.10	< 0.10	< 0.10	< 0.10	0.0152	0.015	< 0.020	< 0.020	< 0.000050
3/16/2017	FR_HC3	E300096														
3/23/2017	FR_HC3	E300096														
3/27/2017	FR_HC3	E300096														
4/4/2017	FR_HC3	E300096			106	< 0.0010	< 0.0030	< 0.10	< 0.10	< 0.10	0.11	0.0167	0.0149	< 0.020	< 0.020	< 0.000050
4/4/2017	FR_HC3	E300096			110	< 0.0030	0.0031	< 0.10	< 0.10	< 0.10	0.13	0.0164	0.0151	< 0.020	< 0.020	< 0.000050
4/11/2017	FR_HC3	E300096														
4/18/2017	FR_HC3	E300096														
4/26/2017	FR_HC3	E300096														
5/1/2017	FR_HC3	E300096			114	0.0015	0.0032	< 0.10	< 0.10	0.11	0.1	0.0158	0.0145	< 0.020	< 0.020	< 0.000050
5/1/2017	FR_HC3	E300096			115	< 0.0030	0.0042	< 0.10	< 0.10	< 0.10	0.15	0.0146	0.015	< 0.020	< 0.020	< 0.000050
5/10/2017	FR_HC3	E300096														
5/15/2017	FR_HC3	E300096														
5/24/2017	FR_HC3	E300096														
5/29/2017	FR_HC3	E300096														
6/5/2017	FR_HC3	E300096			87.7	0.0036	0.0235	< 0.10	< 0.10	< 0.10	0.1	0.00742	0.00744	< 0.020	< 0.020	< 0.000050
6/5/2017	FR_HC3	E300096			90.3	< 0.0030	0.0271	< 0.10	< 0.10	< 0.10	< 0.10	0.00762	0.00765	< 0.020	< 0.020	< 0.000050
6/14/2017	FR_HC3	E300096														
6/21/2017	FR_HC3	E300096														
6/27/2017	FR_HC3	E300096														
7/3/2017	FR_HC3	E300096			84.2	< 0.0030	0.0076	< 0.10	< 0.10	< 0.10	0.12	0.00795	0.00814	< 0.020	< 0.020	< 0.000050
7/3/2017	FR_HC3	E300096			84.5	0.0035	0.0077	< 0.10	< 0.10	< 0.10	0.17	0.00802	0.00828	< 0.020	< 0.020	< 0.000050
7/11/2017	FR_HC3	E300096														
8/9/2017	FR_HC3	E300096			100	< 0.0030	0.0045	< 0.10	< 0.10	0.1	0.13	0.0121	0.0125	< 0.020	< 0.020	< 0.000050
9/5/2017	FR_HC3	E300096			108	< 0.0030	0.0037	< 0.10	< 0.10	< 0.10	0.13	0.0141	0.0147	< 0.020	< 0.020	< 0.000050
10/11/2017	FR_HC3	E300096			96	< 0.0030	< 0.0030	< 0.10	< 0.10	< 0.10	< 0.10	0.0136	0.0139	< 0.020	< 0.020	< 0.000050
11/14/2017	FR_HC3	E300096			107	< 0.0030	< 0.0030	< 0.10	< 0.10	< 0.10	0.1	0.0147	0.0142	< 0.020	< 0.020	< 0.000050
12/21/2017	FR_HC3	E300096			112	< 0.0030	< 0.0030	< 0.10	< 0.10	< 0.10	< 0.10	0.0144	0.0145	< 0.020	< 0.020	< 0.000050
1/31/2017	FR_HP1	E216781														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
2/28/2017	FR_HP1	E216781														
3/8/2017	FR_HP1	E216781														
3/15/2017	FR_HP1	E216781														
3/22/2017	FR_HP1	E216781														
3/31/2017	FR_HP1	E216781														
4/3/2017	FR_HP1	E216781														
4/10/2017	FR_HP1	E216781														
4/17/2017	FR_HP1	E216781														
4/24/2017	FR_HP1	E216781														
5/1/2017	FR_HP1	E216781														
5/8/2017	FR_HP1	E216781														
5/15/2017	FR_HP1	E216781														
5/22/2017	FR_HP1	E216781														
5/29/2017	FR_HP1	E216781														
6/5/2017	FR_HP1	E216781														
6/15/2017	FR_HP1	E216781														
6/22/2017	FR_HP1	E216781														
6/29/2017	FR_HP1	E216781														
7/3/2017	FR_HP1	E216781														
7/10/2017	FR_HP1	E216781														
8/7/2017	FR_HP1	E216781														
9/4/2017	FR_HP1	E216781														
10/2/2017	FR_HP1	E216781														
11/6/2017	FR_HP1	E216781														
12/4/2017	FR_HP1	E216781														
1/19/2017	FR_KC1	200252			356	< 0.0010	< 0.0030	0.42	0.46	< 0.10	0.13	0.0365	0.0359	< 0.020	< 0.020	< 0.000050
2/1/2017	FR_KC1	200252			344	< 0.0010	< 0.0030	0.41	0.4	< 0.10	< 0.10	0.0373	0.0361	< 0.020	< 0.020	< 0.000050
3/6/2017	FR_KC1	200252			349	< 0.0010	< 0.0030	0.39	0.56	< 0.10	< 0.10	0.036	0.0401	< 0.020	< 0.020	< 0.000050
3/15/2017	FR_KC1	200252														
3/22/2017	FR_KC1	200252														
3/29/2017	FR_KC1	200252														
4/5/2017	FR_KC1	200252			324	< 0.0010	0.0035	0.36	0.34	< 0.10	< 0.10	0.0373	0.04	< 0.020	< 0.020	< 0.000050
4/12/2017	FR_KC1	200252														
4/20/2017	FR_KC1	200252														
4/25/2017	FR_KC1	200252														
5/2/2017	FR_KC1	200252			336	< 0.0010	0.0033	0.35	0.36	< 0.10	< 0.10	0.0325	0.0315	< 0.020	< 0.020	< 0.000050
5/7/2017	FR_KC1	200252														
5/8/2017	FR_KC1	200252														
5/16/2017	FR_KC1	200252														
5/23/2017	FR_KC1	200252														
5/30/2017	FR_KC1	200252														
6/6/2017	FR_KC1	200252			226	< 0.0010	0.008	0.55	0.56	< 0.10	0.12	0.0314	0.0315	< 0.020	< 0.020	< 0.000050
6/13/2017	FR_KC1	200252														
6/19/2017	FR_KC1	200252														
6/26/2017	FR_KC1	200252														
7/5/2017	FR_KC1	200252			299	< 0.0010	< 0.0030	0.6	0.6	< 0.10	< 0.10	0.0341	0.0327	< 0.020	< 0.020	< 0.000050
7/10/2017	FR_KC1	200252														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
8/8/2017	FR_KC1	200252			373	< 0.0030	< 0.0030	0.55	0.58	< 0.10	0.14	0.0368	0.0367	< 0.020	< 0.020	< 0.000050
9/6/2017	FR_KC1	200252			328	< 0.0030	< 0.0030	0.59	0.58	< 0.10	0.11	0.0456	0.0412	< 0.020	< 0.020	< 0.000050
9/20/2017	FR_KC1	200252														
10/4/2017	FR_KC1	200252			182	< 0.0030	< 0.0030	0.55	0.65	< 0.10	< 0.10	0.0418	0.0409	< 0.020	< 0.020	< 0.000050
10/19/2017	FR_KC1	200252			245	< 0.0030	< 0.0030	0.54	0.57	< 0.10	0.15	0.0402	0.0403	< 0.020	< 0.020	< 0.000050
11/1/2017	FR_KC1	200252			358	< 0.0030	< 0.0030	0.53	0.55	< 0.10	0.12	0.0444	0.0405	< 0.020	< 0.020	< 0.000050
11/16/2017	FR_KC1	200252														
12/12/2017	FR_KC1	200252			394	< 0.0030	< 0.0030	0.49	0.44	< 0.10	< 0.10	0.0352	0.0399	< 0.020	< 0.020	< 0.000050
1/10/2017	FR_LMP1	E306924			197	0.0014	0.0083	0.39	0.38	0.19	0.24	0.236	0.237	< 0.020	< 0.020	< 0.000050
1/10/2017	FR_LMP1	E306924			189		0.0076		0.43		0.22		0.225		< 0.020	
1/11/2017	FR_LMP1	E306924			192	0.0026	0.0181	0.35	0.43	0.2	0.24	0.224	0.227	< 0.020	< 0.020	< 0.000050
1/12/2017	FR_LMP1	E306924	0	0	193	0.0024	0.0157	0.37	0.45	0.19	0.24	0.222	0.225	< 0.020	< 0.020	< 0.000050
1/13/2017	FR_LMP1	E306924			198	0.0021	0.011	0.4	0.43	0.19	0.24	0.224	0.237	< 0.020	< 0.020	< 0.000050
1/14/2017	FR_LMP1	E306924			195	0.0019	0.0129	0.41	0.43	0.21	0.28	0.239	0.24	< 0.020	< 0.020	< 0.000050
1/15/2017	FR_LMP1	E306924			197	0.002	0.0087	0.42	0.45	0.19	0.29	0.257	0.263	< 0.020	< 0.020	< 0.000050
1/16/2017	FR_LMP1	E306924			203	0.0016	0.0123	0.46	0.48	0.18	0.32	0.295	0.303	< 0.020	< 0.020	< 0.000050
1/17/2017	FR_LMP1	E306924			209	0.002	0.0112	0.53	0.7	0.18	0.22	0.321	0.372	< 0.020	< 0.020	< 0.000050
1/24/2017	FR_LMP1	E306924	0	0	214	0.0018	0.007	0.59	0.65	0.17	0.19	0.386	0.352	< 0.020	< 0.020	< 0.000050
2/15/2017	FR_LMP1	E306924			217	0.0034	0.0165	0.41	0.44	0.37	0.18	0.221	0.229	< 0.020	< 0.020	< 0.000050
3/2/2017	FR_LMP1	E306924			216	0.0018	0.0068	0.36	0.39	0.16	0.19	0.186	0.208	< 0.020	< 0.020	< 0.000050
3/14/2017	FR_LMP1	E306924														
3/18/2017	FR_LMP1	E306924														
3/19/2017	FR_LMP1	E306924														
3/22/2017	FR_LMP1	E306924														
3/27/2017	FR_LMP1	E306924														
4/3/2017	FR_LMP1	E306924			189	0.0084	0.43	0.24	0.28	0.19	0.38	0.135	0.128	< 0.020	0.042	< 0.000050
4/3/2017	FR_LMP1	E306924			200	0.0148	0.49	0.25	0.36	0.17	0.48	0.138	0.137	< 0.020	0.047	< 0.000050
4/8/2017	FR_LMP1	E306924														
4/8/2017	FR_LMP1	E306924														
4/9/2017	FR_LMP1	E306924														
4/10/2017	FR_LMP1	E306924														
4/11/2017	FR_LMP1	E306924														
4/14/2017	FR_LMP1	E306924														
4/17/2017	FR_LMP1	E306924														
4/18/2017	FR_LMP1	E306924														
4/19/2017	FR_LMP1	E306924			157	0.0203	3.95	0.24	0.54	0.19	1.67	0.0861	0.154	< 0.020	0.268	< 0.000050
4/19/2017	FR_LMP1	E306924														
4/20/2017	FR_LMP1	E306924														
4/20/2017	FR_LMP1	E306924	0		149	0.0301	4.76	0.21	0.8	0.21	3.06	0.0686	0.197	< 0.020	0.388	< 0.000050
4/20/2017	FR_LMP1	E306924														
4/21/2017	FR_LMP1	E306924														
4/21/2017	FR_LMP1	E306924	93.3	0	135	0.0308	2.35	0.19	0.51	0.23	1.77	0.0707	0.122	< 0.020	0.212	< 0.000050
4/21/2017	FR_LMP1	E306924														
4/22/2017	FR_LMP1	E306924														
4/22/2017	FR_LMP1	E306924														
4/23/2017	FR_LMP1	E306924			162	0.0367	1.15	0.24	0.48	0.21	0.89	0.0855	0.111	< 0.020	0.095	< 0.000050
4/25/2017	FR_LMP1	E306924														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
4/27/2017	FR_LMP1	E306924	0	0	151	0.027	1.25	0.22	0.41	0.19	0.96	0.093	0.119	< 0.020	0.096	< 0.000050
4/27/2017	FR_LMP1	E306924														
5/1/2017	FR_LMP1	E306924	0	0	172	0.0282	0.6	0.23	0.29	0.18	0.51	0.0971	0.101	< 0.020	0.043	< 0.000050
5/1/2017	FR_LMP1	E306924			161	0.0416	0.734	0.23	0.32	0.18	0.6	0.0893	0.11	< 0.020	0.044	< 0.000050
5/2/2017	FR_LMP1	E306924														
5/3/2017	FR_LMP1	E306924														
5/4/2017	FR_LMP1	E306924														
5/5/2017	FR_LMP1	E306924														
5/5/2017	FR_LMP1	E306924	0	0	109	0.0347	2.21	0.19	0.45	0.23	1.72	0.0588	0.101	< 0.020	0.197	< 0.000050
5/5/2017	FR_LMP1	E306924														
5/5/2017	FR_LMP1	E306924														
5/6/2017	FR_LMP1	E306924														
5/6/2017	FR_LMP1	E306924	0	0	131	0.012	0.424	0.24	0.28	0.18	0.49	0.0857	0.092	< 0.020	0.044	< 0.000050
5/6/2017	FR_LMP1	E306924														
5/7/2017	FR_LMP1	E306924														
5/7/2017	FR_LMP1	E306924														
5/8/2017	FR_LMP1	E306924														
5/9/2017	FR_LMP1	E306924														
5/10/2017	FR_LMP1	E306924	0	0	152	0.0201	0.396	0.33	0.41	0.15	0.4	0.108	0.119	< 0.020	0.025	< 0.000050
5/15/2017	FR_LMP1	E306924														
5/23/2017	FR_LMP1	E306924														
5/29/2017	FR_LMP1	E306924														
6/5/2017	FR_LMP1	E306924			129	0.0078	0.202	0.53	0.55	0.15	0.28	0.0785	0.0824	< 0.020	0.022	< 0.000050
6/5/2017	FR_LMP1	E306924			135	0.0131	0.339	0.59	0.61	0.15	0.27	0.0805	0.0847	< 0.020	0.022	< 0.000050
6/15/2017	FR_LMP1	E306924														
6/20/2017	FR_LMP1	E306924														
6/26/2017	FR_LMP1	E306924														
7/3/2017	FR_LMP1	E306924			158	0.0127	0.0454	0.55	0.56	0.19	0.3	0.12	0.122	< 0.020	< 0.020	< 0.000050
7/3/2017	FR_LMP1	E306924			159	0.0032	0.0856	0.57	0.66	0.17	0.3	0.11	0.106	< 0.020	< 0.020	< 0.000050
7/10/2017	FR_LMP1	E306924														
8/8/2017	FR_LMP1	E306924	0	0	196	< 0.0030	0.0347	0.45	0.43	0.25	0.33	0.137	0.133	< 0.020	< 0.020	< 0.000050
9/4/2017	FR_LMP1	E306924														
10/2/2017	FR_LMP1	E306924														
11/20/2017	FR_LMP1	E306924	0	0	237	< 0.0030	0.0113	0.17	0.19	0.2	0.25	0.136	0.137	< 0.020	< 0.020	< 0.000050
12/11/2017	FR_LMP1	E306924			220	0.0043	0.0813	0.27	0.23	0.17	0.25	0.111	0.132	< 0.020	< 0.020	< 0.000050
12/14/2017	FR_LMP1	E306924														
1/11/2017	FR_LP1	E304835														
1/11/2017	FR_LP1	E304835														
1/12/2017	FR_LP1	E304835														
1/16/2017	FR_LP1	E304835			329	0.0023	0.0487	0.53	0.59	0.25	0.51	0.0449	0.0549	< 0.020	< 0.020	< 0.000050
2/16/2017	FR_LP1	E304835			255	< 0.0050	0.41	0.37	0.43	0.22	0.46	0.0586	0.0621	< 0.020	0.04	< 0.000050
3/2/2017	FR_LP1	E304835			309	0.0023	0.0154	0.44	0.45	0.23	0.27	0.0637	0.0807	< 0.020	< 0.020	< 0.000050
3/9/2017	FR_LP1	E304835														
3/14/2017	FR_LP1	E304835	0	0	310	0.0027	0.0181	0.43	0.38	0.2	0.2	0.0678	0.0608	< 0.020	< 0.020	< 0.000050
3/18/2017	FR_LP1	E304835														
3/19/2017	FR_LP1	E304835														
3/20/2017	FR_LP1	E304835														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
3/29/2017	FR_LP1	E304835														
4/3/2017	FR_LP1	E304835			268	0.0027	0.0858	0.58	0.54	0.24	0.3	0.128	0.119	< 0.020	0.023	< 0.000050
4/3/2017	FR_LP1	E304835			275	0.0031	0.0424	0.58	0.61	0.2	0.29	0.132	0.122	< 0.020	< 0.020	< 0.000050
4/10/2017	FR_LP1	E304835														
4/19/2017	FR_LP1	E304835														
4/26/2017	FR_LP1	E304835														
5/1/2017	FR_LP1	E304835	0	0	297	0.0043	0.0125	0.45	0.45	0.21	0.25	0.054	0.0533	< 0.020	< 0.020	< 0.000050
5/1/2017	FR_LP1	E304835			287	< 0.0030	0.0318	0.45	0.48	0.22	0.28	0.0515	0.0539	< 0.020	< 0.020	< 0.000050
5/7/2017	FR_LP1	E304835														
5/10/2017	FR_LP1	E304835														
5/15/2017	FR_LP1	E304835														
5/23/2017	FR_LP1	E304835														
5/29/2017	FR_LP1	E304835														
6/5/2017	FR_LP1	E304835			228	0.0051	0.0109	0.4	0.41	0.24	0.28	0.03	0.0294	< 0.020	< 0.020	< 0.000050
6/5/2017	FR_LP1	E304835			238	0.0037	0.018	0.44	0.45	0.24	0.25	0.0296	0.0299	< 0.020	< 0.020	< 0.000050
6/13/2017	FR_LP1	E304835														
6/19/2017	FR_LP1	E304835														
6/26/2017	FR_LP1	E304835														
7/3/2017	FR_LP1	E304835														
7/10/2017	FR_LP1	E304835														
8/7/2017	FR_LP1	E304835														
9/25/2017	FR_LP1	E304835	0	0	276	0.0073	0.0095	0.7	0.69	0.38	0.38	0.0467	0.0483	< 0.020	< 0.020	< 0.000050
10/2/2017	FR_LP1	E304835														
11/20/2017	FR_LP1	E304835	0	0	290	0.0038	0.0105	0.54	0.59	0.28	0.32	0.0477	0.0499	< 0.020	< 0.020	< 0.000050
12/11/2017	FR_LP1	E304835			314	< 0.0030	0.0321	0.63	0.6	0.31	0.34	0.0462	0.0552	< 0.020	< 0.020	< 0.000050
12/14/2017	FR_LP1	E304835														
12/18/2017	FR_LP1	E304835			325	0.0076	0.265	0.51	0.6	0.32	0.65	0.0514	0.0664	< 0.020	0.026	< 0.000050
12/19/2017	FR_LP1	E304835			367	< 0.0030	0.068	0.5	0.47	0.27	0.31	0.051	0.0553	< 0.020	< 0.020	< 0.000050
12/20/2017	FR_LP1	E304835			419	0.008	0.0439	0.39	0.39	0.21	0.25	0.0383	0.0419	< 0.020	< 0.020	< 0.000050
12/21/2017	FR_LP1	E304835			428	< 0.0030	0.0421	0.33	0.35	0.15	0.23	0.0311	0.0362	< 0.020	< 0.020	< 0.000050
7/26/2017	FR_LP1H	E310052			315	0.0102	0.131	0.48	0.42	0.21	0.35	0.0432	0.0455	< 0.020	< 0.020	< 0.000050
8/28/2017	FR_LP1H	E310052			261	0.0035	0.0347	0.63	0.74	0.32	0.42	0.0367	0.0462	< 0.020	< 0.020	< 0.000050
10/30/2017	FR_LP1H	E310052			303	0.0135	0.0253	0.51	0.58	0.3	0.33	0.0411	0.0407	< 0.020	< 0.020	< 0.000050
1/31/2017	FR_MS1	E102478														
2/28/2017	FR_MS1	E102478														
3/7/2017	FR_MS1	E102478														
3/16/2017	FR_MS1	E102478														
3/23/2017	FR_MS1	E102478														
3/31/2017	FR_MS1	E102478														
4/4/2017	FR_MS1	E102478														
4/10/2017	FR_MS1	E102478														
4/17/2017	FR_MS1	E102478														
4/24/2017	FR_MS1	E102478														
5/1/2017	FR_MS1	E102478														
5/8/2017	FR_MS1	E102478														
5/15/2017	FR_MS1	E102478														
5/25/2017	FR_MS1	E102478														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
5/29/2017	FR_MS1	E102478														
6/5/2017	FR_MS1	E102478														
6/16/2017	FR_MS1	E102478														
6/22/2017	FR_MS1	E102478														
6/27/2017	FR_MS1	E102478														
7/3/2017	FR_MS1	E102478														
7/10/2017	FR_MS1	E102478														
8/7/2017	FR_MS1	E102478														
9/4/2017	FR_MS1	E102478														
10/2/2017	FR_MS1	E102478														
11/6/2017	FR_MS1	E102478														
12/4/2017	FR_MS1	E102478														
1/31/2017	FR_NL1	E102476														
2/28/2017	FR_NL1	E102476														
3/7/2017	FR_NL1	E102476														
3/11/2017	FR_NL1	E102476														
3/21/2017	FR_NL1	E102476														
3/28/2017	FR_NL1	E102476	3	0	280	< 0.0010	0.0751	< 0.10	0.18	0.18	0.39	0.114	0.105	< 0.020	< 0.020	< 0.000050
4/4/2017	FR_NL1	E102476	0	0	284	< 0.0010	0.0034	< 0.10	0.13	0.26	0.34	0.116	0.111	< 0.020	< 0.020	< 0.000050
4/11/2017	FR_NL1	E102476														
4/18/2017	FR_NL1	E102476														
4/25/2017	FR_NL1	E102476														
5/1/2017	FR_NL1	E102476														
5/8/2017	FR_NL1	E102476														
5/17/2017	FR_NL1	E102476														
5/25/2017	FR_NL1	E102476														
5/29/2017	FR_NL1	E102476														
6/5/2017	FR_NL1	E102476														
6/16/2017	FR_NL1	E102476														
6/22/2017	FR_NL1	E102476														
6/26/2017	FR_NL1	E102476														
7/3/2017	FR_NL1	E102476														
7/10/2017	FR_NL1	E102476														
8/7/2017	FR_NL1	E102476														
9/4/2017	FR_NL1	E102476														
10/2/2017	FR_NL1	E102476														
11/27/2017	FR_NL1	E102476	0	0	185	0.0066	0.0492	1.79	1.64	0.36	0.43	0.0733	0.0733	< 0.020	< 0.020	< 0.000050
12/4/2017	FR_NL1	E102476			195	< 0.0030	0.0078	1.13	1.04	0.16	0.31	0.0822	0.0877	< 0.020	< 0.020	< 0.000050
7/26/2017	FR_NL1H	E310046			131	0.0114	0.0605	0.97	0.94	0.21	0.26	0.0598	0.0608	< 0.020	< 0.020	< 0.000050
8/28/2017	FR_NL1H	E310046			142	0.0052	0.017	0.92	1.03	0.14	0.18	0.0602	0.073	< 0.020	< 0.020	< 0.000050
9/25/2017	FR_NL1H	E310046			138	0.0135	0.0141	0.77	0.77	0.15	0.17	0.0764	0.0688	< 0.020	< 0.020	< 0.000050
10/23/2017	FR_NL1H	E310046			135	0.0059	0.0368	0.59	0.64	0.12	0.15	0.0657	0.064	< 0.020	< 0.020	< 0.000050
9/4/2017	FR_PP1	E304750														
1/31/2017	FR_SKP1	E208394														
2/28/2017	FR_SKP1	E208394														
3/6/2017	FR_SKP1	E208394														
3/15/2017	FR_SKP1	E208394														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
3/21/2017	FR_SKP1	E208394														
3/28/2017	FR_SKP1	E208394														
4/3/2017	FR_SKP1	E208394														
4/10/2017	FR_SKP1	E208394														
4/17/2017	FR_SKP1	E208394														
4/24/2017	FR_SKP1	E208394														
5/1/2017	FR_SKP1	E208394														
5/9/2017	FR_SKP1	E208394														
5/17/2017	FR_SKP1	E208394														
5/23/2017	FR_SKP1	E208394														
5/31/2017	FR_SKP1	E208394														
6/5/2017	FR_SKP1	E208394														
6/16/2017	FR_SKP1	E208394														
6/19/2017	FR_SKP1	E208394														
6/27/2017	FR_SKP1	E208394														
7/3/2017	FR_SKP1	E208394														
7/10/2017	FR_SKP1	E208394														
8/7/2017	FR_SKP1	E208394														
9/4/2017	FR_SKP1	E208394														
10/2/2017	FR_SKP1	E208394														
11/6/2017	FR_SKP1	E208394														
12/4/2017	FR_SKP1	E208394														
7/26/2017	FR_SKP1H	E310049			256	0.006	0.015	0.62	0.6	< 0.10	< 0.10	0.0319	0.0297	< 0.020	< 0.020	< 0.000050
8/28/2017	FR_SKP1H	E310049			286	< 0.0030	0.0104	0.53	0.68	< 0.10	< 0.10	0.0307	0.0359	< 0.020	< 0.020	< 0.000050
9/25/2017	FR_SKP1H	E310049			288	0.0046	0.0049	0.6	0.66	< 0.10	< 0.10	0.0364	0.0367	< 0.020	< 0.020	< 0.000050
10/23/2017	FR_SKP1H	E310049			206	< 0.0030	0.0037	0.53	0.56	< 0.10	0.1	0.0347	0.0329	< 0.020	< 0.020	< 0.000050
11/22/2017	FR_SKP1H	E310049			292	< 0.0030	0.007	0.56	0.72	0.15	0.17	0.0396	0.0378	< 0.020	< 0.020	< 0.000050
12/12/2017	FR_SKP1H	E310049			351	< 0.0030	0.0044	0.69	0.62	< 0.10	< 0.10	0.0366	0.0425	< 0.020	< 0.020	< 0.000050
1/31/2017	FR_SKP2	E208395														
2/28/2017	FR_SKP2	E208395														
3/6/2017	FR_SKP2	E208395														
3/15/2017	FR_SKP2	E208395														
3/21/2017	FR_SKP2	E208395														
3/28/2017	FR_SKP2	E208395														
4/3/2017	FR_SKP2	E208395														
4/10/2017	FR_SKP2	E208395														
4/17/2017	FR_SKP2	E208395														
4/24/2017	FR_SKP2	E208395														
5/2/2017	FR_SKP2	E208395														
5/9/2017	FR_SKP2	E208395														
5/16/2017	FR_SKP2	E208395														
5/23/2017	FR_SKP2	E208395														
5/30/2017	FR_SKP2	E208395	0	0	255	< 0.0010	0.008	0.45	0.46	< 0.10	< 0.10	0.0319	0.0328	< 0.020	< 0.020	< 0.000050
6/6/2017	FR_SKP2	E208395			230	0.0015	0.0053	0.57	0.57	< 0.10	< 0.10	0.0347	0.0358	< 0.020	< 0.020	< 0.000050
6/13/2017	FR_SKP2	E208395														
6/19/2017	FR_SKP2	E208395														
6/27/2017	FR_SKP2	E208395														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
7/3/2017	FR_SKP2	E208395														
7/10/2017	FR_SKP2	E208395														
8/7/2017	FR_SKP2	E208395														
9/4/2017	FR_SKP2	E208395														
10/2/2017	FR_SKP2	E208395														
11/6/2017	FR_SKP2	E208395														
12/4/2017	FR_SKP2	E208395														
7/26/2017	FR_SKP2H	E310050			302	0.0011	0.0053	0.5	0.47	< 0.10	< 0.10	0.0366	0.0341	< 0.020	< 0.020	< 0.000050
8/28/2017	FR_SKP2H	E310050			316	< 0.0030	< 0.0030	0.56	0.64	< 0.10	< 0.10	0.031	0.0375	< 0.020	< 0.020	< 0.000050
9/25/2017	FR_SKP2H	E310050			283	0.0031	0.0039	0.6	0.6	< 0.10	< 0.10	0.0331	0.0368	< 0.020	< 0.020	< 0.000050
10/23/2017	FR_SKP2H	E310050			219	< 0.0030	< 0.0030	0.5	0.51	< 0.10	0.11	0.0337	0.0375	< 0.020	< 0.020	< 0.000050
11/22/2017	FR_SKP2H	E310050			314	< 0.0030	< 0.0030	0.45	0.57	< 0.10	< 0.10	0.0309	0.0356	< 0.020	< 0.020	< 0.000050
12/12/2017	FR_SKP2H	E310050			365	< 0.0030	< 0.0030	0.47	0.47	< 0.10	< 0.10	0.0299	0.0384	< 0.020	< 0.020	< 0.000050
1/18/2017	FR_SP1	E261897			420	< 0.0010	0.0049	< 0.10	0.13	< 0.10	< 0.10	0.0183	0.0186	< 0.020	< 0.020	< 0.000050
2/15/2017	FR_SP1	E261897			432	< 0.0010	< 0.0030	< 0.10	0.14	< 0.10	< 0.10	0.0211	0.0178	< 0.020	< 0.020	< 0.000050
3/2/2017	FR_SP1	E261897			436	< 0.0010	< 0.0030	0.11	0.12	< 0.10	< 0.10	0.0179	0.0191	< 0.020	< 0.020	< 0.000050
3/16/2017	FR_SP1	E261897														
3/22/2017	FR_SP1	E261897	0	0	437	< 0.0010	0.0072	< 0.10	0.12	< 0.10	< 0.10	0.0195	0.0196	< 0.020	< 0.020	< 0.000050
3/27/2017	FR_SP1	E261897														
4/3/2017	FR_SP1	E261897			426	0.0011	0.0043	0.11	0.12	< 0.10	< 0.10	0.0206	0.0191	< 0.020	< 0.020	< 0.000050
4/10/2017	FR_SP1	E261897														
4/20/2017	FR_SP1	E261897														
4/26/2017	FR_SP1	E261897														
5/1/2017	FR_SP1	E261897	0	0	421	< 0.0010	< 0.0030	0.11	0.11	< 0.10	< 0.10	0.017	0.016	< 0.020	< 0.020	< 0.000050
5/2/2017	FR_SP1	E261897														
5/7/2017	FR_SP1	E261897														
5/8/2017	FR_SP1	E261897														
5/15/2017	FR_SP1	E261897														
5/24/2017	FR_SP1	E261897														
5/29/2017	FR_SP1	E261897														
6/5/2017	FR_SP1	E261897			372	0.0011	< 0.0030	0.11	0.12	< 0.10	< 0.10	0.0184	0.018	< 0.020	< 0.020	< 0.000050
6/13/2017	FR_SP1	E261897														
6/19/2017	FR_SP1	E261897														
6/26/2017	FR_SP1	E261897														
7/3/2017	FR_SP1	E261897			395	< 0.0010	< 0.0030	< 0.10	< 0.10	< 0.10	0.13	0.02	0.0197	< 0.020	< 0.020	< 0.000050
7/10/2017	FR_SP1	E261897														
8/8/2017	FR_SP1	E261897	0	0	427	< 0.0030	< 0.0030	0.11	0.11	< 0.10	0.14	0.0221	0.0204	< 0.020	< 0.020	< 0.000050
9/6/2017	FR_SP1	E261897			381	< 0.0030	< 0.0030	< 0.10	0.11	< 0.10	< 0.10	0.0186	0.0197	< 0.020	< 0.020	< 0.000050
10/11/2017	FR_SP1	E261897			261	< 0.0030	< 0.0030	0.1	0.12	< 0.10	< 0.10	0.0183	0.0192	< 0.020	< 0.020	< 0.000050
11/20/2017	FR_SP1	E261897	0	0	338	< 0.0030	< 0.0030	< 0.10	0.1	< 0.10	< 0.10	0.0174	0.0177	< 0.020	< 0.020	< 0.000050
12/11/2017	FR_SP1	E261897			405	< 0.0030	< 0.0030	0.11	< 0.10	< 0.10	< 0.10	0.0161	0.0194	< 0.020	< 0.020	< 0.000050
1/31/2017	FR_TP1	E102475														
3/31/2017	FR_TP1	E102475														
10/2/2017	FR_TP1	E102475														
1/31/2017	FR_TP3	E206660														
3/31/2017	FR_TP3	E206660														
1/9/2017	FR_UFR1	E216777			138	0.0012	0.004	< 0.10	< 0.10	0.11	0.16	0.0709	0.0745	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
2/21/2017	FR_UFR1	E216777			146	< 0.0010	0.0046	< 0.10	0.26	< 0.10	0.12	0.0725	0.0734	< 0.020	< 0.020	< 0.000050
2/28/2017	FR_UFR1	E216777			143	0.001	0.0055	< 0.10	< 0.10	< 0.10	0.11	0.071	0.0752	< 0.020	< 0.020	< 0.000050
3/7/2017	FR_UFR1	E216777			138	< 0.0010	0.0047	< 0.10	0.11	< 0.10	< 0.10	0.0788	0.0779	< 0.020	< 0.020	< 0.000050
3/14/2017	FR_UFR1	E216777			137	< 0.0010	0.0052	< 0.10	< 0.10	< 0.10	0.12	0.0798	0.0978	< 0.020	< 0.020	< 0.000050
3/21/2017	FR_UFR1	E216777			133	0.0032	0.0182	< 0.10	< 0.10	< 0.10	0.12	0.0669	0.0835	< 0.020	< 0.020	< 0.000050
3/27/2017	FR_UFR1	E216777														
4/4/2017	FR_UFR1	E216777			127	0.0042	0.0208	< 0.10	< 0.10	0.1	0.13	0.0732	0.0635	< 0.020	< 0.020	< 0.000050
4/11/2017	FR_UFR1	E216777														
4/18/2017	FR_UFR1	E216777														
4/24/2017	FR_UFR1	E216777			113	0.0885	0.154	< 0.10	< 0.10	0.15	0.19	0.053	0.0506	< 0.020	< 0.020	< 0.000050
5/2/2017	FR_UFR1	E216777			118	0.0276	0.0505	< 0.10	< 0.10	0.14	0.15	0.0572	0.0553	< 0.020	< 0.020	< 0.000050
5/5/2017	FR_UFR1	E216777														
5/6/2017	FR_UFR1	E216777														
5/7/2017	FR_UFR1	E216777														
5/9/2017	FR_UFR1	E216777			115	0.0069	0.0951	< 0.10	< 0.10	0.12	0.16	0.0434	0.0434	< 0.020	< 0.020	< 0.000050
5/16/2017	FR_UFR1	E216777			129	0.0046	0.0609	< 0.10	0.14	0.14	0.14	0.0411	0.0369	< 0.020	< 0.020	< 0.000050
5/23/2017	FR_UFR1	E216777			105	0.0039	0.3	< 0.10	< 0.10	0.12	0.26	0.0372	0.0416	< 0.020	< 0.020	< 0.000050
5/30/2017	FR_UFR1	E216777			108	0.0089	0.276	< 0.10	< 0.10	0.13	0.28	0.035	0.0393	< 0.020	0.023	< 0.000050
6/6/2017	FR_UFR1	E216777			107	0.0036	0.0547	< 0.10	< 0.10	0.11	0.15	0.0373	0.0398	< 0.020	< 0.020	< 0.000050
6/14/2017	FR_UFR1	E216777														
6/20/2017	FR_UFR1	E216777														
6/27/2017	FR_UFR1	E216777														
7/3/2017	FR_UFR1	E216777			132	0.0015	0.0119	< 0.10	< 0.10	< 0.10	0.17	0.0536	0.052	< 0.020	< 0.020	< 0.000050
7/11/2017	FR_UFR1	E216777														
7/25/2017	FR_UFR1	E216777			148	0.0015	0.0071	< 0.10	0.11	< 0.10	0.13	0.068	0.0693	< 0.020	< 0.020	< 0.000050
8/1/2017	FR_UFR1	E216777			144	< 0.0030	0.0071	< 0.10	< 0.10	< 0.10	< 0.10	0.078	0.0734	< 0.020	< 0.020	< 0.000050
8/8/2017	FR_UFR1	E216777			151	< 0.0030	0.0045	< 0.10	< 0.10	< 0.10	0.15	0.0767	0.0746	< 0.020	< 0.020	< 0.000050
8/15/2017	FR_UFR1	E216777			145	< 0.0030	0.0045	< 0.10	< 0.10	< 0.10	0.12	0.0745	0.0733	< 0.020	< 0.020	< 0.000050
8/22/2017	FR_UFR1	E216777			148	< 0.0030	0.0051	< 0.10	< 0.10	< 0.10	< 0.10	0.0779	0.0755	< 0.020	< 0.020	< 0.000050
9/5/2017	FR_UFR1	E216777			148	< 0.0030	0.0056	< 0.10	< 0.10	< 0.10	0.14	0.0829	0.0842	< 0.020	< 0.020	< 0.000050
10/2/2017	FR_UFR1	E216777			138	< 0.0030	0.0037	< 0.10	< 0.10	< 0.10	0.11	0.0722	0.0724	< 0.020	< 0.020	< 0.000050
10/10/2017	FR_UFR1	E216777			146	< 0.0030	< 0.0030	< 0.10	< 0.10	< 0.10	0.12	0.0753	0.0786	< 0.020	< 0.020	< 0.000050
10/17/2017	FR_UFR1	E216777			149	< 0.0030	0.0033	< 0.10	< 0.10	< 0.10	0.1	0.077	0.0778	< 0.020	< 0.020	< 0.000050
10/24/2017	FR_UFR1	E216777			143	< 0.0030	< 0.0030	< 0.10	< 0.10	< 0.10	0.12	0.0666	0.0654	< 0.020	< 0.020	< 0.000050
10/31/2017	FR_UFR1	E216777			144	< 0.0030	0.0035	< 0.10	< 0.10	< 0.10	< 0.10	0.0796	0.0727	< 0.020	< 0.020	< 0.000050
11/7/2017	FR_UFR1	E216777			148	< 0.0030	0.0045	< 0.10	< 0.10	< 0.10	0.1	0.0797	0.0803	< 0.020	< 0.020	< 0.000050
12/21/2017	FR_UFR1	E216777			145	< 0.0030	0.008	< 0.10	< 0.10	< 0.10	0.11	0.0697	0.0714	< 0.020	< 0.020	< 0.000050
1/16/2017	GH_BR_F	E287437														
2/14/2017	GH_BR_F	E287437														
3/6/2017	GH_BR_F	E287437														
3/16/2017	GH_BR_F	E287437														
3/21/2017	GH_BR_F	E287437			124	0.0095	0.0331	< 0.10	0.1	0.18	0.2	0.12	0.11	< 0.020	< 0.020	< 0.000050
3/27/2017	GH_BR_F	E287437														
4/4/2017	GH_BR_F	E287437														
4/10/2017	GH_BR_F	E287437														
4/18/2017	GH_BR_F	E287437			113	0.0324	0.146	0.1	0.11	0.19	0.22	0.115	0.106	< 0.020	< 0.020	< 0.000050
4/25/2017	GH_BR_F	E287437														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
5/1/2017	GH_BR_F	E287437			121	0.0314	0.177	< 0.10	0.15	0.15	0.24	0.118	0.118	< 0.020	< 0.020	< 0.000050
5/8/2017	GH_BR_F	E287437														
5/15/2017	GH_BR_F	E287437														
5/24/2017	GH_BR_F	E287437														
5/29/2017	GH_BR_F	E287437														
6/5/2017	GH_BR_F	E287437			135	0.0068	0.0364	0.1	0.14	0.19	0.2	0.124	0.122	< 0.020	< 0.020	< 0.000050
6/12/2017	GH_BR_F	E287437														
6/20/2017	GH_BR_F	E287437														
6/27/2017	GH_BR_F	E287437														
7/4/2017	GH_BR_F	E287437														
7/10/2017	GH_BR_F	E287437														
8/1/2017	GH_BR_F	E287437														
9/12/2017	GH_BR_F	E287437														
10/3/2017	GH_BR_F	E287437														
11/6/2017	GH_BR_F	E287437														
12/6/2017	GH_BR_F	E287437														
1/10/2017	GH_CC1	E0200384			467	< 0.0030	< 0.0060	0.51	0.54	< 0.20	< 0.20	0.0215	0.0212	< 0.040	< 0.040	< 0.00010
2/9/2017	GH_CC1	E0200384			451	< 0.0010	< 0.0030	0.52	0.6	0.17	0.24	0.0222	0.0223	< 0.020	< 0.020	< 0.000050
3/6/2017	GH_CC1	E0200384			445	< 0.0010	< 0.0030	0.52	0.64	0.11	0.18	0.021	0.0237	< 0.020	< 0.020	< 0.000050
3/15/2017	GH_CC1	E0200384														
3/21/2017	GH_CC1	E0200384	90	0	438	< 0.0010	< 0.0030	0.45	0.52	0.16	0.22	0.0238	0.0255	< 0.020	< 0.020	< 0.000050
3/29/2017	GH_CC1	E0200384														
4/5/2017	GH_CC1	E0200384			397	< 0.0010	< 0.0030	0.46	0.43	0.13	0.14	0.0266	0.0273	< 0.020	< 0.020	< 0.000050
4/5/2017	GH_CC1	E0200384			396	< 0.0030	< 0.0060	0.48	0.48	< 0.20	< 0.20	0.0276	0.026	< 0.040	< 0.040	< 0.00010
4/12/2017	GH_CC1	E0200384														
4/20/2017	GH_CC1	E0200384														
4/25/2017	GH_CC1	E0200384														
5/2/2017	GH_CC1	E0200384														
5/3/2017	GH_CC1	E0200384			401	< 0.0010	< 0.0030	0.5	0.51	0.15	0.22	0.0238	0.0236	< 0.020	< 0.020	< 0.000050
5/3/2017	GH_CC1	E0200384			371	< 0.0030	< 0.0060	0.53	0.53	< 0.20	< 0.20	0.0248	0.0252	< 0.040	< 0.040	< 0.00010
5/7/2017	GH_CC1	E0200384														
5/8/2017	GH_CC1	E0200384	100	0	391	< 0.0010	0.0097	0.5	0.6	0.15	0.2	0.0292	0.0279	< 0.020	< 0.020	< 0.000050
5/17/2017	GH_CC1	E0200384														
5/23/2017	GH_CC1	E0200384														
5/31/2017	GH_CC1	E0200384														
6/6/2017	GH_CC1	E0200384			361	0.0012	< 0.0030	0.51	0.52	0.16	0.25	0.0256	0.0251	< 0.020	< 0.020	< 0.000050
6/6/2017	GH_CC1	E0200384			410	< 0.0030	< 0.0060	0.55	0.55	< 0.20	1.13	0.0241	0.025	< 0.040	< 0.040	< 0.00010
6/13/2017	GH_CC1	E0200384														
6/19/2017	GH_CC1	E0200384														
6/27/2017	GH_CC1	E0200384														
7/5/2017	GH_CC1	E0200384			382	< 0.0010	< 0.0030	0.52	0.54	0.18	0.36	0.0198	0.0247	< 0.020	< 0.020	< 0.000050
7/5/2017	GH_CC1	E0200384			397	< 0.0030	< 0.0060	0.48	0.58	< 0.20	< 0.20	0.0165	0.0231	< 0.040	< 0.040	< 0.00010
7/10/2017	GH_CC1	E0200384														
8/8/2017	GH_CC1	E0200384	67	10	466	< 0.0030	< 0.0060	0.6	0.57	< 0.20	0.23	0.0172	0.0227	< 0.040	< 0.040	< 0.00010
9/6/2017	GH_CC1	E0200384			402	< 0.0030	< 0.0060	0.57	0.56	0.14	< 0.20	0.0195	0.0227	< 0.020	< 0.040	< 0.000050
9/20/2017	GH_CC1	E0200384														
10/4/2017	GH_CC1	E0200384			285	< 0.0030	< 0.0030	0.52	0.64	0.11	0.14	0.0181	0.02	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
10/19/2017	GH_CC1	E0200384			269	< 0.0030	< 0.0060	0.51	0.58	< 0.20	0.23	0.016	0.0211	< 0.040	< 0.040	< 0.00010
11/1/2017	GH_CC1	E0200384	100	0	422	< 0.0030	< 0.0030	0.57	0.57	< 0.20	0.25	0.0177	0.0203	< 0.040	< 0.020	< 0.00010
11/16/2017	GH_CC1	E0200384														
12/5/2017	GH_CC1	E0200384			511	< 0.0030	< 0.0060	0.59	0.66	0.15	< 0.20	0.0188	0.0214	< 0.020	< 0.040	< 0.000050
1/16/2017	GH_COUGAR	E287432														
2/15/2017	GH_COUGAR	E287432														
3/6/2017	GH_COUGAR	E287432														
3/16/2017	GH_COUGAR	E287432			185	0.0098	0.0627	< 0.10	< 0.10	0.23	0.24	0.106	0.0955	< 0.020	< 0.020	< 0.000050
3/22/2017	GH_COUGAR	E287432														
3/27/2017	GH_COUGAR	E287432														
4/4/2017	GH_COUGAR	E287432														
4/10/2017	GH_COUGAR	E287432														
4/18/2017	GH_COUGAR	E287432			160	0.0149	0.343	< 0.10	0.11	0.19	0.34	0.102	0.101	< 0.020	0.024	< 0.000050
4/25/2017	GH_COUGAR	E287432														
5/1/2017	GH_COUGAR	E287432			181	0.0121	0.329	< 0.10	0.15	0.18	0.38	0.1	0.12	< 0.020	0.025	< 0.000050
5/8/2017	GH_COUGAR	E287432														
5/15/2017	GH_COUGAR	E287432														
5/24/2017	GH_COUGAR	E287432														
5/29/2017	GH_COUGAR	E287432														
6/5/2017	GH_COUGAR	E287432	0	0	214	0.0038	0.0428	< 0.10	0.13	0.24	0.25	0.138	0.123	< 0.020	< 0.020	< 0.000050
6/12/2017	GH_COUGAR	E287432														
6/20/2017	GH_COUGAR	E287432														
6/27/2017	GH_COUGAR	E287432														
7/4/2017	GH_COUGAR	E287432														
7/10/2017	GH_COUGAR	E287432														
8/2/2017	GH_COUGAR	E287432														
9/12/2017	GH_COUGAR	E287432														
10/3/2017	GH_COUGAR	E287432														
11/6/2017	GH_COUGAR	E287432														
12/6/2017	GH_COUGAR	E287432														
1/16/2017	GH_ER1	206661			165	< 0.0030	< 0.0030	< 0.10	< 0.10	< 0.10	< 0.10	0.0593	0.0654	< 0.020	< 0.020	< 0.000050
2/14/2017	GH_ER1	206661			152	< 0.0030	< 0.0030	< 0.10	< 0.10	< 0.10	0.1	0.0633	0.0648	< 0.020	< 0.020	< 0.000050
2/21/2017	GH_ER1	206661														
3/6/2017	GH_ER1	206661			154	< 0.0030	< 0.0030	< 0.10	< 0.10	< 0.10	< 0.10	0.0606	0.0611	< 0.020	< 0.020	< 0.000050
3/16/2017	GH_ER1	206661			149	0.0024	0.0224	< 0.10	< 0.10	< 0.10	0.11	0.0599	0.0617	< 0.020	< 0.020	< 0.000050
3/21/2017	GH_ER1	206661			152	< 0.0030	0.0148	< 0.10	< 0.10	< 0.10	< 0.10	0.0637	0.06	< 0.020	< 0.020	< 0.000050
3/27/2017	GH_ER1	206661			157	< 0.0030	0.0105	< 0.10	< 0.10	< 0.10	< 0.10	0.0621	0.0633	< 0.020	< 0.020	< 0.000050
4/4/2017	GH_ER1	206661			158	< 0.0030	0.0155	< 0.10	< 0.10	< 0.10	0.1	0.0611	0.0611	< 0.020	< 0.020	< 0.000050
4/10/2017	GH_ER1	206661			161	< 0.0030	0.0156	< 0.10	< 0.10	< 0.10	0.13	0.0609	0.0609	< 0.020	< 0.020	< 0.000050
4/20/2017	GH_ER1	206661			156	0.0019	0.0094	0.11	0.23	0.11	< 0.10	0.0649	0.0546	< 0.020	< 0.020	< 0.000050
4/25/2017	GH_ER1	206661			157	< 0.0030	0.0572	< 0.10	< 0.10	< 0.10	0.23	0.0624	0.0602	< 0.020	< 0.020	< 0.000050
5/1/2017	GH_ER1	206661			162	< 0.0030	0.0293	< 0.10	0.11	< 0.10	0.13	0.0707	0.0628	< 0.020	< 0.020	< 0.000050
5/8/2017	GH_ER1	206661			156	0.0044	0.603	< 0.10	0.11	0.13	0.48	0.0485	0.0574	< 0.020	0.042	< 0.000050
5/15/2017	GH_ER1	206661			154	0.0035	0.405	< 0.10	0.1	0.13	0.41	0.0492	0.056	< 0.020	0.041	< 0.000050
5/24/2017	GH_ER1	206661			174	0.0068	3.36	< 0.10	0.27	0.15	2.95	0.0488	0.124	< 0.020	0.317	< 0.000050
5/29/2017	GH_ER1	206661			151	0.0073	1.37	< 0.10	0.14	0.14	1.13	0.0466	0.0674	< 0.020	0.094	< 0.000050
6/6/2017	GH_ER1	206661			142	0.007	1.01	< 0.10	0.13	0.14	0.84	0.0433	0.0604	< 0.020	0.077	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
6/12/2017	GH_ER1	206661			136	0.0055	0.661	< 0.10	< 0.10	0.13	0.67	0.045	0.0561	< 0.020	0.066	< 0.000050
6/20/2017	GH_ER1	206661			129	0.0029	0.178	< 0.10	< 0.10	0.15	0.28	0.0445	0.0463	< 0.020	< 0.020	< 0.000050
6/27/2017	GH_ER1	206661			139	0.0033	0.25	< 0.10	0.14	0.11	0.33	0.0453	0.0467	< 0.020	< 0.020	< 0.000050
7/4/2017	GH_ER1	206661			133	0.0047	0.199	< 0.10	< 0.10	0.14	0.31	0.0427	0.0449	< 0.020	< 0.020	< 0.000050
7/11/2017	GH_ER1	206661			149	0.0023	0.121	< 0.10	< 0.10	0.11	0.16	0.044	0.0441	< 0.020	< 0.020	< 0.000050
8/2/2017	GH_ER1	206661			135	< 0.0030	0.0279	< 0.10	< 0.10	0.11	0.16	0.055	0.0597	< 0.020	< 0.020	< 0.000050
9/5/2017	GH_ER1	206661			143	0.0032	0.0044	< 0.10	< 0.10	< 0.10	< 0.10	0.0604	0.0563	< 0.020	< 0.020	< 0.000050
9/11/2017	GH_ER1	206661			153	< 0.0030	0.01	< 0.10	< 0.10	< 0.10	0.1	0.0537	0.0556	< 0.020	< 0.020	< 0.000050
10/4/2017	GH_ER1	206661			152	< 0.0030	0.0036	< 0.10	< 0.10	< 0.10	< 0.10	0.0595	0.0602	< 0.020	< 0.020	< 0.000050
11/6/2017	GH_ER1	206661			152	< 0.0030	< 0.015	< 0.10	< 0.50	< 0.10	< 0.50	0.0661	0.0578	< 0.020	< 0.10	< 0.000050
12/5/2017	GH_ER1	206661			161	< 0.0030	0.0033	< 0.10	< 0.10	< 0.10	0.11	0.0605	0.0575	< 0.020	< 0.020	< 0.000050
1/16/2017	GH_ER1A	E305876			157	< 0.0030	0.0065	< 0.10	< 0.10	< 0.10	< 0.10	0.046	0.0501	0.021	< 0.020	< 0.000050
2/15/2017	GH_ER1A	E305876			155	< 0.0030	0.0057	< 0.10	< 0.10	< 0.10	0.11	0.0503	0.0472	< 0.020	< 0.020	< 0.000050
3/6/2017	GH_ER1A	E305876														
3/16/2017	GH_ER1A	E305876														
3/21/2017	GH_ER1A	E305876														
3/27/2017	GH_ER1A	E305876														
4/4/2017	GH_ER1A	E305876														
4/10/2017	GH_ER1A	E305876														
4/18/2017	GH_ER1A	E305876			187	< 0.0030	0.024	0.14	0.13	< 0.10	0.11	0.064	0.062	< 0.020	< 0.020	< 0.000050
4/25/2017	GH_ER1A	E305876														
5/1/2017	GH_ER1A	E305876			177	< 0.0030	0.053	0.19	0.24	0.1	0.16	0.0662	0.0621	< 0.020	< 0.020	< 0.000050
5/8/2017	GH_ER1A	E305876														
5/15/2017	GH_ER1A	E305876														
5/24/2017	GH_ER1A	E305876														
5/29/2017	GH_ER1A	E305876														
6/6/2017	GH_ER1A	E305876			128	0.0037	0.735	< 0.10	0.11	0.12	0.66	0.043	0.0476	< 0.020	0.06	< 0.000050
6/12/2017	GH_ER1A	E305876														
6/19/2017	GH_ER1A	E305876			127	0.0025	0.271	< 0.10	< 0.10	0.14	0.33	0.0404	0.0428	< 0.020	0.024	< 0.000050
6/27/2017	GH_ER1A	E305876														
7/11/2017	GH_ER1A	E305876			139	0.0024	0.152	< 0.10	< 0.10	0.1	0.19	0.0381	0.0379	< 0.020	< 0.020	< 0.000050
8/2/2017	GH_ER1A	E305876			133	< 0.0030	0.0414	< 0.10	< 0.10	< 0.10	0.16	0.0457	0.0435	< 0.020	< 0.020	< 0.000050
9/8/2017	GH_ER1A	E305876			145	< 0.0030	0.0114	< 0.10	< 0.10	< 0.10	0.13	0.0475	0.0477	< 0.020	< 0.020	< 0.000050
9/12/2017	GH_ER1A	E305876			142	< 0.0030	0.0112	< 0.10	< 0.10	< 0.10	0.11	0.0475	0.0472	< 0.020	< 0.020	< 0.000050
10/3/2017	GH_ER1A	E305876			150	< 0.0030	0.0131	< 0.10	< 0.10	< 0.10	0.12	0.0522	0.0481	< 0.020	< 0.020	< 0.000050
11/28/2017	GH_ER1A	E305876			153	< 0.0030	0.0122	< 0.10	< 0.10	< 0.10	< 0.10	0.0497	0.0509	< 0.020	< 0.020	< 0.000050
12/12/2017	GH_ER1A	E305876														
1/16/2017	GH_ER2	200389			154	< 0.0030	0.0042	< 0.10	< 0.10	< 0.10	< 0.10	0.0452	0.0489	< 0.020	< 0.020	< 0.000050
2/14/2017	GH_ER2	200389			146	< 0.0030	0.0065	< 0.10	< 0.10	< 0.10	0.13	0.0472	0.0479	< 0.020	< 0.020	< 0.000050
2/21/2017	GH_ER2	200389														
3/6/2017	GH_ER2	200389			148	< 0.0030	0.0038	< 0.10	< 0.10	< 0.10	< 0.10	0.0495	0.0464	< 0.020	< 0.020	< 0.000050
3/16/2017	GH_ER2	200389			138	0.0019	0.0324	< 0.10	< 0.10	< 0.10	< 0.10	0.0487	0.0411	< 0.020	< 0.020	< 0.000050
3/21/2017	GH_ER2	200389														
3/27/2017	GH_ER2	200389														
4/4/2017	GH_ER2	200389														
4/10/2017	GH_ER2	200389														
4/18/2017	GH_ER2	200389			150	< 0.0030	0.0189	< 0.10	< 0.10	< 0.10	< 0.10	0.0493	0.0479	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
4/24/2017	GH_ER2	200389														
4/25/2017	GH_ER2	200389			153	< 0.0030	0.0774	< 0.10	< 0.10	< 0.10	0.14	0.0495	0.0509	< 0.020	< 0.020	< 0.000050
5/2/2017	GH_ER2	200389			154	< 0.0030	0.0356	< 0.10	< 0.10	< 0.10	0.12	0.046	0.0477	< 0.020	< 0.020	< 0.000050
5/9/2017	GH_ER2	200389			152	0.0035	0.239	< 0.10	< 0.10	0.12	0.24	0.044	0.0496	< 0.020	< 0.020	< 0.000050
5/16/2017	GH_ER2	200389			145	0.0033	0.2	< 0.10	< 0.10	0.13	0.25	0.0527	0.0454	< 0.020	0.021	< 0.000050
5/23/2017	GH_ER2	200389			148	0.0049	0.784	< 0.10	< 0.10	0.14	0.6	0.0448	0.0531	< 0.020	0.061	< 0.000050
5/30/2017	GH_ER2	200389			144	0.0083	1.63	< 0.10	0.15	0.14	1.39	0.0399	0.0707	< 0.020	0.13	< 0.000050
6/11/2017	GH_ER2	200389			126	0.0033	0.673	< 0.10	< 0.10	0.1	0.69	0.035	0.0485	< 0.020	0.064	< 0.000050
6/13/2017	GH_ER2	200389			137	0.0026	0.267	< 0.10	< 0.10	0.12	0.37	0.0369	0.0429	< 0.020	0.022	< 0.000050
6/20/2017	GH_ER2	200389														
6/27/2017	GH_ER2	200389														
7/4/2017	GH_ER2	200389														
7/10/2017	GH_ER2	200389			120	0.0025	0.0349	< 0.10	< 0.10	< 0.10	0.15	0.0379	0.0376	< 0.020	< 0.020	< 0.000050
7/25/2017	GH_ER2	200389			130	0.0027	0.0124	< 0.10	0.19	0.11	0.12	0.0427	0.0431	< 0.020	< 0.020	< 0.000050
8/1/2017	GH_ER2	200389			138	< 0.0030	0.0186	< 0.10	< 0.10	0.11	0.12	0.0477	0.0446	< 0.020	< 0.020	< 0.000050
8/8/2017	GH_ER2	200389			141	< 0.0030	0.0168	< 0.10	< 0.10	0.12	0.13	0.0494	0.0462	< 0.020	< 0.020	< 0.000050
8/15/2017	GH_ER2	200389			136	< 0.0030	0.0093	< 0.10	< 0.10	0.1	0.11	0.0495	0.0486	< 0.020	< 0.020	< 0.000050
8/22/2017	GH_ER2	200389			153	< 0.0030	0.0105	< 0.10	< 0.10	0.1	0.12	0.0511	0.0507	< 0.020	< 0.020	< 0.000050
9/10/2017	GH_ER2	200389			138	< 0.0030	0.0121	< 0.10	< 0.10	0.1	0.11	0.0412	0.0455	< 0.020	< 0.020	< 0.000050
9/12/2017	GH_ER2	200389			129	< 0.0030	0.022	< 0.10	< 0.10	< 0.10	0.12	0.0437	0.0432	< 0.020	< 0.020	< 0.000050
10/2/2017	GH_ER2	200389			155	< 0.0030	0.0061	< 0.10	< 0.10	< 0.10	0.11	0.0486	0.0481	< 0.020	< 0.020	< 0.000050
10/10/2017	GH_ER2	200389			142	< 0.0030	0.0078	< 0.10	< 0.10	< 0.10	0.14	0.0506	0.0506	< 0.020	< 0.020	< 0.000050
10/16/2017	GH_ER2	200389			144	< 0.0030	0.0094	< 0.10	< 0.10	< 0.10	0.11	0.0485	0.0489	< 0.020	< 0.020	< 0.000050
10/17/2017	GH_ER2	200389			151	< 0.0030	0.0086	< 0.10	< 0.10	< 0.10	< 0.10	0.049	0.0494	< 0.020	< 0.020	< 0.000050
10/24/2017	GH_ER2	200389			139	< 0.0030	0.0041	< 0.10	< 0.10	< 0.10	0.11	0.0431	0.0427	< 0.020	< 0.020	< 0.000050
10/31/2017	GH_ER2	200389			147	< 0.0030	0.0074	< 0.10	< 0.10	< 0.10	< 0.10	0.0491	0.0435	< 0.020	< 0.020	< 0.000050
11/6/2017	GH_ER2	200389			146	< 0.0030	< 0.015	< 0.10	< 0.50	< 0.10	< 0.50	0.0505	0.0473	< 0.020	< 0.10	< 0.000050
12/6/2017	GH_ER2	200389			152	< 0.0030	0.0086	< 0.10	< 0.10	< 0.10	< 0.10	0.0505	0.0498	< 0.020	< 0.020	< 0.000050
1/16/2017	GH_ERC	E300090			161	< 0.0030	< 0.0030	< 0.10	< 0.10	< 0.10	< 0.10	0.0614	0.067	< 0.020	< 0.020	< 0.000050
2/1/2017	GH_ERC	E300090			161	< 0.0030	0.0093	< 0.10	< 0.10	< 0.10	0.16	0.0653	0.0652	< 0.020	< 0.020	< 0.000050
2/14/2017	GH_ERC	E300090			156	< 0.0030	< 0.0030	< 0.10	< 0.10	< 0.10	0.13	0.0651	0.0658	< 0.020	< 0.020	< 0.000050
2/21/2017	GH_ERC	E300090			156	< 0.0030	0.0065	< 0.10	< 0.10	< 0.10	< 0.10	0.0615	0.0638	< 0.020	< 0.020	< 0.000050
3/6/2017	GH_ERC	E300090			152	< 0.0030	0.0048	< 0.10	< 0.10	< 0.10	< 0.10	0.058	0.0575	< 0.020	< 0.020	< 0.000050
3/16/2017	GH_ERC	E300090			144	0.0016	0.172	< 0.10	< 0.10	< 0.10	0.2	0.0565	0.0569	< 0.020	< 0.020	< 0.000050
3/21/2017	GH_ERC	E300090			151	0.0035	0.0106	< 0.10	< 0.10	< 0.10	< 0.10	0.0615	0.0547	< 0.020	< 0.020	< 0.000050
3/28/2017	GH_ERC	E300090			153	< 0.0030	0.0729	< 0.10	< 0.10	< 0.10	0.11	0.0564	0.0614	0.037	< 0.020	< 0.000050
4/4/2017	GH_ERC	E300090			154	< 0.0030	0.0283	< 0.10	< 0.10	< 0.10	< 0.10	0.0625	0.0597	< 0.020	< 0.020	< 0.000050
4/10/2017	GH_ERC	E300090			154	0.0037	0.0352	< 0.10	< 0.10	0.1	0.13	0.0601	0.0617	< 0.020	< 0.020	< 0.000050
4/20/2017	GH_ERC	E300090			160	0.0017	0.0149	< 0.10	< 0.10	< 0.10	0.13	0.0632	0.0624	< 0.020	< 0.020	< 0.000050
4/24/2017	GH_ERC	E300090			157	< 0.0030	0.117	< 0.10	< 0.10	< 0.10	0.17	0.0574	0.063	< 0.020	< 0.020	< 0.000050
5/2/2017	GH_ERC	E300090			161	< 0.0030	0.0469	< 0.10	< 0.10	< 0.10	0.15	0.0611	0.0574	< 0.020	< 0.020	< 0.000050
5/9/2017	GH_ERC	E300090			159	0.0041	0.443	< 0.10	0.15	0.12	0.42	0.0533	0.0576	< 0.020	0.035	< 0.000050
5/16/2017	GH_ERC	E300090			150	< 0.0030	0.344	< 0.10	< 0.10	0.11	0.34	0.054	0.0554	< 0.020	0.034	< 0.000050
5/23/2017	GH_ERC	E300090			150	0.0056	0.962	< 0.10	0.12	0.12	0.76	0.0496	0.0595	< 0.020	0.072	< 0.000050
5/30/2017	GH_ERC	E300090			150	0.0076	1.75	< 0.10	0.15	0.14	1.54	0.0459	0.0795	< 0.020	0.139	< 0.000050
6/11/2017	GH_ERC	E300090			138	0.0047	0.85	< 0.10	0.11	0.12	0.82	0.042	0.0574	< 0.020	0.081	< 0.000050
6/13/2017	GH_ERC	E300090			143	0.003	0.652	< 0.10	< 0.10	0.13	0.65	0.0444	0.0545	< 0.020	0.049	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
6/19/2017	GH_ERC	E300090			129	0.0033	0.204	< 0.10	< 0.10	0.1	0.28	0.0421	0.0446	< 0.020	< 0.020	< 0.000050
6/27/2017	GH_ERC	E300090			135	0.0026	0.28	< 0.10	0.12	0.13	0.36	0.0424	0.0451	< 0.020	< 0.020	< 0.000050
7/4/2017	GH_ERC	E300090			132	0.0036	0.237	< 0.10	< 0.10	0.12	0.29	0.0405	0.0452	< 0.020	< 0.020	< 0.000050
7/11/2017	GH_ERC	E300090			141	0.0025	0.102	< 0.10	< 0.10	0.11	0.18	0.042	0.0409	< 0.020	< 0.020	< 0.000050
7/25/2017	GH_ERC	E300090			140	0.0031	0.0424	< 0.10	0.16	0.11	0.15	0.0468	0.0476	< 0.020	< 0.020	< 0.000050
8/1/2017	GH_ERC	E300090			134	< 0.0030	0.0326	< 0.10	< 0.10	< 0.10	0.12	0.0497	0.0489	< 0.020	< 0.020	< 0.000050
9/5/2017	GH_ERC	E300090			143	< 0.0030	0.0071	< 0.10	< 0.10	< 0.10	0.1	0.0558	0.0534	< 0.020	< 0.020	< 0.000050
9/11/2017	GH_ERC	E300090			148	< 0.0030	0.01	< 0.10	< 0.10	< 0.10	< 0.10	0.0517	0.0527	< 0.020	< 0.020	< 0.000050
10/2/2017	GH_ERC	E300090			145	< 0.0030	0.0045	< 0.10	< 0.10	< 0.10	< 0.10	0.0557	0.0544	< 0.020	< 0.020	< 0.000050
10/10/2017	GH_ERC	E300090			148	< 0.0030	0.0047	< 0.10	< 0.10	< 0.10	0.13	0.0612	0.0592	< 0.020	< 0.020	< 0.000050
10/17/2017	GH_ERC	E300090			155	< 0.0030	0.0041	< 0.10	< 0.10	< 0.10	0.12	0.0563	0.058	< 0.020	< 0.020	< 0.000050
10/24/2017	GH_ERC	E300090			143	< 0.0030	0.0038	< 0.10	< 0.10	< 0.10	0.12	0.0517	0.0514	< 0.020	< 0.020	< 0.000050
10/31/2017	GH_ERC	E300090			150	< 0.0030	0.005	< 0.10	< 0.10	< 0.10	0.1	0.061	0.0538	< 0.020	< 0.020	< 0.000050
11/14/2017	GH_ERC	E300090			147	< 0.0030	0.0094	< 0.10	< 0.10	< 0.10	0.12	0.0531	0.0555	< 0.020	< 0.020	< 0.000050
12/5/2017	GH_ERC	E300090			150	< 0.0030	0.0049	< 0.10	< 0.10	< 0.10	0.11	0.0597	0.0594	< 0.020	< 0.020	< 0.000050
1/16/2017	GH_ERSC2	E305877														
2/15/2017	GH_ERSC2	E305877														
3/6/2017	GH_ERSC2	E305877														
3/16/2017	GH_ERSC2	E305877														
3/22/2017	GH_ERSC2	E305877														
3/29/2017	GH_ERSC2	E305877														
4/5/2017	GH_ERSC2	E305877														
4/10/2017	GH_ERSC2	E305877														
4/20/2017	GH_ERSC2	E305877														
4/25/2017	GH_ERSC2	E305877			176	0.0057	0.243	0.12	0.13	0.16	0.33	0.0639	0.0674	< 0.020	< 0.020	< 0.000050
5/3/2017	GH_ERSC2	E305877			177	0.0047	0.154	0.13	0.15	0.16	0.25	0.0771	0.0655	< 0.020	< 0.020	< 0.000050
5/10/2017	GH_ERSC2	E305877														
5/15/2017	GH_ERSC2	E305877														
5/24/2017	GH_ERSC2	E305877														
5/29/2017	GH_ERSC2	E305877														
6/7/2017	GH_ERSC2	E305877			131	0.103	0.467	< 0.10	0.1	0.28	0.45	0.0491	0.0467	0.024	0.038	< 0.000050
6/12/2017	GH_ERSC2	E305877														
6/19/2017	GH_ERSC2	E305877			132	0.0027	0.338	< 0.10	< 0.10	0.14	0.39	0.0442	0.0471	< 0.020	0.028	< 0.000050
6/27/2017	GH_ERSC2	E305877														
7/4/2017	GH_ERSC2	E305877														
7/11/2017	GH_ERSC2	E305877			131	0.0024	0.343	< 0.10	< 0.10	0.11	0.33	0.0386	0.0414	< 0.020	0.024	< 0.000050
8/2/2017	GH_ERSC2	E305877			134	0.0032	0.196	< 0.10	< 0.10	0.11	0.23	0.0482	0.0499	< 0.020	< 0.020	< 0.000050
9/13/2017	GH_ERSC2	E305877														
10/3/2017	GH_ERSC2	E305877														
11/14/2017	GH_ERSC2	E305877														
12/18/2017	GH_ERSC2	E305877														
1/16/2017	GH_ERSC4	E305878			254	< 0.0030	0.0051	< 0.10	< 0.10	0.12	0.16	0.0784	0.0867	< 0.020	< 0.020	< 0.000050
2/15/2017	GH_ERSC4	E305878			154	< 0.0030	0.0081	< 0.10	< 0.10	0.17	0.11	0.0512	0.0508	< 0.020	< 0.020	< 0.000050
3/6/2017	GH_ERSC4	E305878														
3/16/2017	GH_ERSC4	E305878														
3/21/2017	GH_ERSC4	E305878														
3/29/2017	GH_ERSC4	E305878														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
4/4/2017	GH_ERSC4	E305878														
4/10/2017	GH_ERSC4	E305878														
4/20/2017	GH_ERSC4	E305878			158	0.0023	0.0224	< 0.10	< 0.10	0.1	0.13	0.0553	0.0509	< 0.020	< 0.020	< 0.000050
4/25/2017	GH_ERSC4	E305878														
5/1/2017	GH_ERSC4	E305878			162	< 0.0030	0.0492	< 0.10	0.11	< 0.10	0.15	0.0544	0.0551	< 0.020	< 0.020	< 0.000050
5/10/2017	GH_ERSC4	E305878														
5/15/2017	GH_ERSC4	E305878														
5/24/2017	GH_ERSC4	E305878														
5/29/2017	GH_ERSC4	E305878														
6/5/2017	GH_ERSC4	E305878			133	0.0051	1.09	< 0.10	0.13	0.15	0.95	0.0411	0.0566	< 0.020	0.084	< 0.000050
6/12/2017	GH_ERSC4	E305878														
6/19/2017	GH_ERSC4	E305878														
6/27/2017	GH_ERSC4	E305878														
7/10/2017	GH_ERSC4	E305878			123	0.0033	0.072	< 0.10	< 0.10	0.11	0.19	0.0387	0.0389	< 0.020	< 0.020	< 0.000050
8/2/2017	GH_ERSC4	E305878			134	< 0.0030	0.039	< 0.10	< 0.10	0.1	0.16	0.0443	0.0451	< 0.020	< 0.020	< 0.000050
9/8/2017	GH_ERSC4	E305878			146	< 0.0030	0.0079	< 0.10	< 0.10	< 0.10	0.14	0.047	0.0473	< 0.020	< 0.020	< 0.000050
9/12/2017	GH_ERSC4	E305878			139	< 0.0030	0.151	< 0.10	< 0.10	0.1	0.2	0.0476	0.0493	< 0.020	< 0.020	< 0.000050
10/3/2017	GH_ERSC4	E305878			118	< 0.0030	0.0052	< 0.10	< 0.10	< 0.10	0.11	0.0532	0.0489	< 0.020	< 0.020	< 0.000050
11/14/2017	GH_ERSC4	E305878			156	< 0.0030	0.0058	< 0.10	< 0.10	0.1	0.11	0.0446	0.0477	< 0.020	< 0.020	< 0.000050
12/12/2017	GH_ERSC4	E305878			162	< 0.0030	0.0042	< 0.10	< 0.10	< 0.10	0.1	0.0535	0.0534	< 0.020	< 0.020	< 0.000050
1/9/2017	GH_FR1	200378			210	< 0.0030	0.0192	0.13	0.14	< 0.10	< 0.10	0.115	0.115	< 0.020	< 0.020	< 0.000050
2/1/2017	GH_FR1	200378			217	< 0.0030	0.0045	0.12	0.19	< 0.10	0.18	0.117	0.115	< 0.020	< 0.020	< 0.000050
2/14/2017	GH_FR1	200378			201	< 0.0030	0.0067	0.1	0.11	< 0.10	0.11	0.125	0.124	< 0.020	< 0.020	< 0.000050
2/21/2017	GH_FR1	200378			202	< 0.0030	0.0085	0.12	0.11	< 0.10	0.11	0.116	0.119	< 0.020	< 0.020	< 0.000050
2/28/2017	GH_FR1	200378			206	< 0.0030	0.007	0.11	0.13	< 0.10	< 0.10	0.125	0.123	< 0.020	< 0.020	< 0.000050
3/7/2017	GH_FR1	200378			212	< 0.0030	< 0.0030	0.12	0.13	< 0.10	0.11	0.113	0.113	< 0.020	< 0.020	< 0.000050
3/14/2017	GH_FR1	200378			197	< 0.0030	0.0077	< 0.10	0.13	< 0.10	< 0.10	0.127	0.115	< 0.020	< 0.020	< 0.000050
3/16/2017	GH_FR1	200378			205	0.0015	0.0236	0.18	0.21	< 0.10	0.13	0.111	0.113	< 0.020	< 0.020	< 0.000050
3/21/2017	GH_FR1	200378			203	< 0.0030	0.0346	0.14	0.16	< 0.10	0.13	0.122	0.119	< 0.020	< 0.020	< 0.000050
3/27/2017	GH_FR1	200378			209	< 0.0030	0.0397	0.13	0.15	< 0.10	0.11	0.117	0.125	< 0.020	< 0.020	< 0.000050
4/4/2017	GH_FR1	200378			209	< 0.0030	0.0372	0.17	0.22	0.11	0.12	0.116	0.116	< 0.020	< 0.020	< 0.000050
4/11/2017	GH_FR1	200378			207	< 0.0030	0.0323	0.15	0.19	0.11	0.14	0.117	0.118	< 0.020	< 0.020	< 0.000050
4/18/2017	GH_FR1	200378			214	< 0.0030	0.0276	0.17	0.21	0.11	0.14	0.115	0.107	< 0.020	< 0.020	< 0.000050
4/24/2017	GH_FR1	200378			194	0.0069	0.711	0.22	0.27	0.15	0.38	0.0812	0.0946	< 0.020	0.038	< 0.000050
5/2/2017	GH_FR1	200378			194	< 0.0030	0.113	0.18	0.2	0.12	0.18	0.0891	0.0885	< 0.020	< 0.020	< 0.000050
5/9/2017	GH_FR1	200378			165	0.0053	0.347	0.19	0.25	0.15	0.33	0.0738	0.0842	< 0.020	0.026	< 0.000050
5/16/2017	GH_FR1	200378			163	0.0045	0.158	0.16	0.17	0.11	0.25	0.0798	0.0786	< 0.020	< 0.020	< 0.000050
5/23/2017	GH_FR1	200378			158	0.0031	0.452	0.15	0.2	0.13	0.41	0.0672	0.077	< 0.020	0.038	< 0.000050
5/30/2017	GH_FR1	200378			146	0.0044	0.679	0.13	0.18	0.14	0.49	0.0616	0.0731	< 0.020	0.047	< 0.000050
6/11/2017	GH_FR1	200378			164	0.0032	0.1	0.16	0.17	0.12	0.24	0.0694	0.0713	< 0.020	< 0.020	< 0.000050
6/13/2017	GH_FR1	200378			174	0.0014	0.074	0.18	0.17	0.13	0.22	0.0691	0.0682	< 0.020	< 0.020	< 0.000050
6/19/2017	GH_FR1	200378			176	< 0.0010	0.0316	0.15	0.16	0.11	0.18	0.0758	0.0707	< 0.020	< 0.020	< 0.000050
6/27/2017	GH_FR1	200378			179	< 0.0010	0.0225	0.16	0.18	0.11	0.17	0.0768	0.0762	< 0.020	< 0.020	< 0.000050
7/4/2017	GH_FR1	200378			176	0.0026	0.0131	0.17	0.17	0.13	0.21	0.0783	0.0772	< 0.020	< 0.020	< 0.000050
7/11/2017	GH_FR1	200378			183	0.0015	0.0103	0.16	0.17	0.1	0.13	0.0866	0.0842	< 0.020	< 0.020	< 0.000050
7/25/2017	GH_FR1	200378			191	0.0017	0.007	0.16	0.23	< 0.10	0.12	0.103	0.102	< 0.020	< 0.020	< 0.000050
8/1/2017	GH_FR1	200378			197	< 0.0030	0.0079	0.15	0.17	< 0.10	0.12	0.0995	0.1	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
8/8/2017	GH_FR1	200378			194	< 0.0030	0.0061	0.15	0.17	< 0.10	0.11	0.107	0.101	< 0.020	< 0.020	< 0.000050
8/15/2017	GH_FR1	200378			183	< 0.0030	0.0062	0.16	0.18	< 0.10	0.11	0.113	0.109	< 0.020	< 0.020	< 0.000050
8/22/2017	GH_FR1	200378			203	< 0.0030	0.0063	0.16	0.16	< 0.10	< 0.10	0.112	0.109	< 0.020	< 0.020	< 0.000050
9/5/2017	GH_FR1	200378			193	< 0.0030	0.004	0.18	0.19	< 0.10	0.11	0.119	0.119	< 0.020	< 0.020	< 0.000050
9/11/2017	GH_FR1	200378			195	< 0.0030	0.0064	0.12	0.16	< 0.10	0.1	0.114	0.12	< 0.020	< 0.020	< 0.000050
10/2/2017	GH_FR1	200378			160	< 0.0030	< 0.0030	0.15	0.15	< 0.10	< 0.10	0.114	0.109	< 0.020	< 0.020	< 0.000050
10/10/2017	GH_FR1	200378			151	< 0.0030	0.0069	0.22	0.26	0.11	0.17	0.115	0.114	< 0.020	< 0.020	< 0.000050
10/17/2017	GH_FR1	200378			201	< 0.0030	0.0075	0.17	0.19	< 0.10	0.11	0.114	0.113	< 0.020	< 0.020	< 0.000050
10/24/2017	GH_FR1	200378			197	< 0.0030	< 0.0030	0.17	0.21	< 0.10	0.14	0.103	0.104	< 0.020	< 0.020	< 0.000050
10/31/2017	GH_FR1	200378			197	< 0.0030	0.0072	0.13	0.14	< 0.10	< 0.10	0.124	0.114	< 0.020	< 0.020	< 0.000050
11/7/2017	GH_FR1	200378			207	< 0.0030	< 0.0030	0.16	0.17	0.11	0.12	0.117	0.115	< 0.020	< 0.020	< 0.000050
11/14/2017	GH_FR1	200378			208	< 0.0030	0.0034	0.12	0.14	< 0.10	0.12	0.109	0.113	< 0.020	< 0.020	< 0.000050
11/21/2017	GH_FR1	200378			206	< 0.0030	< 0.0030	0.12	0.13	< 0.10	0.12	0.12	0.117	< 0.020	< 0.020	< 0.000050
12/5/2017	GH_FR1	200378			198	< 0.0030	0.003	< 0.10	0.12	< 0.10	0.11	0.117	0.12	< 0.020	< 0.020	< 0.000050
1/9/2017	GH_GH1	E102709	0	0	308	< 0.0030	0.0158	0.76	0.75	0.22	0.21	0.0566	0.0577	< 0.020	< 0.020	< 0.000050
2/15/2017	GH_GH1	E102709			334	< 0.0030	0.0035	0.76	0.8	0.23	0.26	0.0598	0.059	< 0.020	< 0.020	< 0.000050
3/7/2017	GH_GH1	E102709			312	< 0.0030	0.0072	0.68	0.73	0.19	0.23	0.0518	0.0519	< 0.020	< 0.020	< 0.000050
3/14/2017	GH_GH1	E102709			298	< 0.0030	0.0124	0.69	0.72	0.19	0.2	0.0584	0.0525	< 0.020	< 0.020	< 0.000050
3/16/2017	GH_GH1	E102709														
3/21/2017	GH_GH1	E102709														
3/27/2017	GH_GH1	E102709														
4/4/2017	GH_GH1	E102709														
4/11/2017	GH_GH1	E102709														
4/18/2017	GH_GH1	E102709			259	< 0.0030	0.135	0.44	0.46	0.2	0.24	0.0501	0.0516	< 0.020	< 0.020	< 0.000050
4/24/2017	GH_GH1	E102709														
4/27/2017	GH_GH1	E102709														
5/2/2017	GH_GH1	E102709			197	0.0048	0.255	0.39	0.37	0.18	0.33	0.0524	0.0596	< 0.020	< 0.020	< 0.000050
5/3/2017	GH_GH1	E102709														
5/9/2017	GH_GH1	E102709			153	0.0156	0.784	0.38	0.5	0.22	0.72	0.0517	0.0686	< 0.020	0.068	< 0.000050
5/10/2017	GH_GH1	E102709														
5/15/2017	GH_GH1	E102709														
5/24/2017	GH_GH1	E102709														
5/29/2017	GH_GH1	E102709														
6/7/2017	GH_GH1	E102709			254	0.0032	0.044	0.71	0.77	0.22	0.24	0.0725	0.0678	< 0.020	< 0.020	< 0.000050
6/8/2017	GH_GH1	E102709	0	0	270	0.0041	0.0371	0.64	0.66	0.21	0.26	0.0692	0.0684	< 0.020	< 0.020	< 0.000050
6/12/2017	GH_GH1	E102709														
6/19/2017	GH_GH1	E102709														
6/27/2017	GH_GH1	E102709														
7/4/2017	GH_GH1	E102709														
7/11/2017	GH_GH1	E102709	0	0	290	0.0023	0.0168	0.97	0.93	0.24	0.27	0.0574	0.0577	< 0.020	< 0.020	< 0.000050
8/3/2017	GH_GH1	E102709			235	< 0.0030	0.0046	1.05	1.26	0.21	0.28	0.0518	0.0534	< 0.020	< 0.020	< 0.000050
9/11/2017	GH_GH1	E102709			223	< 0.0030	0.0098	0.92	0.98	0.23	0.21	0.0504	0.0548	< 0.020	< 0.020	< 0.000050
10/4/2017	GH_GH1	E102709	0	0	217	< 0.0030	0.0043	0.82	0.87	0.2	0.21	0.0505	0.0486	< 0.020	< 0.020	< 0.000050
11/7/2017	GH_GH1	E102709			235	< 0.0030	0.0036	0.69	0.75	0.19	0.27	0.0483	0.0487	< 0.020	< 0.020	< 0.000050
12/11/2017	GH_GH1	E102709			319	< 0.0030	0.0035	0.7	0.72	0.19	0.22	0.0558	0.0608	< 0.020	< 0.020	< 0.000050
5/9/2017	GH_GH2	E309911			155	0.0141	0.775	0.38	0.52	0.2	0.69	0.0499	0.069	< 0.020	0.069	< 0.000050
6/7/2017	GH_GH2	E309911			251	0.0032	0.0392	0.67	0.7	0.21	0.25	0.072	0.0658	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
6/19/2017	GH_GH2	E309911			274	0.002	0.0299	0.77	0.78	0.24	0.3	0.0715	0.0678	< 0.020	< 0.020	< 0.000050
7/11/2017	GH_GH2	E309911			271	0.0019	0.0139	0.91	0.9	0.2	0.25	0.0617	0.06	< 0.020	< 0.020	< 0.000050
8/3/2017	GH_GH2	E309911														
8/7/2017	GH_GH2	E309911			234	< 0.0030	0.0069	0.98	1.04	0.22	0.28	0.0569	0.059	< 0.020	< 0.020	< 0.000050
9/12/2017	GH_GH2	E309911			202	< 0.0030	0.016	0.9	0.94	0.22	0.26	0.0593	0.0587	< 0.020	< 0.020	< 0.000050
10/25/2017	GH_GH2	E309911			222	< 0.0030	0.0127	0.73	0.72	0.19	0.22	0.0489	0.0466	< 0.020	< 0.020	< 0.000050
11/7/2017	GH_GH2	E309911	0	0	234	< 0.0030	0.0044	0.67	0.71	0.2	0.27	0.0526	0.0511	< 0.020	< 0.020	< 0.000050
12/11/2017	GH_GH2	E309911			315	< 0.0030	0.0077	0.69	0.66	0.18	0.22	0.0638	0.0661	< 0.020	< 0.020	< 0.000050
1/16/2017	GH_LC1	E257796														
2/14/2017	GH_LC1	E257796			298	< 0.0030	0.0251	2.57	2.39	0.7	0.68	0.048	0.0499	< 0.020	< 0.020	< 0.000050
2/21/2017	GH_LC1	E257796	0	0	298	< 0.0030	0.0345	3.1	3.03	0.69	0.68	0.048	0.0514	< 0.020	< 0.020	< 0.000050
3/6/2017	GH_LC1	E257796			301	< 0.0030	0.0223	4.26	4.01	0.63	0.65	0.0509	0.0578	< 0.020	< 0.020	< 0.000050
3/16/2017	GH_LC1	E257796														
3/21/2017	GH_LC1	E257796														
3/27/2017	GH_LC1	E257796														
4/4/2017	GH_LC1	E257796														
4/10/2017	GH_LC1	E257796														
4/18/2017	GH_LC1	E257796			277	< 0.0030	0.0168	2.46	2.56	0.47	0.5	0.0444	0.0506	< 0.020	< 0.020	< 0.000050
4/25/2017	GH_LC1	E257796														
5/1/2017	GH_LC1	E257796			287	< 0.0030	0.0621	3.04	3.11	0.43	0.57	0.048	0.0497	< 0.020	< 0.020	< 0.000050
5/8/2017	GH_LC1	E257796														
5/15/2017	GH_LC1	E257796														
5/24/2017	GH_LC1	E257796														
5/29/2017	GH_LC1	E257796														
6/5/2017	GH_LC1	E257796	0	0	258	< 0.0030	0.0235	3.37	3.33	0.45	0.5	0.0456	0.0446	< 0.020	< 0.020	< 0.000050
6/12/2017	GH_LC1	E257796														
6/19/2017	GH_LC1	E257796														
6/20/2017	GH_LC1	E257796														
6/27/2017	GH_LC1	E257796														
7/4/2017	GH_LC1	E257796														
7/10/2017	GH_LC1	E257796	0	0	284	0.0013	0.0132	3.85	3.74	0.49	0.51	0.0456	0.0455	< 0.020	< 0.020	< 0.000050
8/2/2017	GH_LC1	E257796			293	< 0.0030	< 0.0060	4.01	4.03	0.55	0.54	0.0467	0.0447	< 0.040	< 0.040	< 0.00010
9/11/2017	GH_LC1	E257796			262	< 0.0030	0.0077	3.37	3.46	0.44	0.48	0.0469	0.0489	< 0.020	< 0.020	< 0.000050
10/3/2017	GH_LC1	E257796	0	0	266	< 0.0030	0.0047	3.23	3.25	0.41	0.52	0.0515	0.0482	< 0.020	< 0.020	< 0.000050
11/6/2017	GH_LC1	E257796														
12/12/2017	GH_LC1	E257796														
1/16/2017	GH_MC1	200388														
2/15/2017	GH_MC1	200388														
3/6/2017	GH_MC1	200388														
3/16/2017	GH_MC1	200388			241	0.0032	0.0175	0.41	0.38	0.22	0.23	0.0556	0.0503	< 0.020	< 0.020	< 0.000050
3/22/2017	GH_MC1	200388	0	0	258	< 0.0030	0.0541	0.41	0.51	0.21	0.33	0.051	0.0608	< 0.020	< 0.020	< 0.000050
3/27/2017	GH_MC1	200388														
4/4/2017	GH_MC1	200388														
4/10/2017	GH_MC1	200388														
4/18/2017	GH_MC1	200388			225	0.0073	0.0754	0.3	0.32	0.2	0.24	0.0599	0.0617	< 0.020	< 0.020	< 0.000050
4/25/2017	GH_MC1	200388														
5/1/2017	GH_MC1	200388			204	0.0138	0.123	0.27	0.33	0.17	0.28	0.0733	0.0691	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
5/8/2017	GH_MC1	200388														
5/15/2017	GH_MC1	200388														
5/24/2017	GH_MC1	200388														
5/29/2017	GH_MC1	200388														
6/5/2017	GH_MC1	200388	0	0	227	< 0.0030	0.0104	0.42	0.4	0.2	0.25	0.0766	0.0707	< 0.020	< 0.020	< 0.000050
6/12/2017	GH_MC1	200388														
6/20/2017	GH_MC1	200388														
6/27/2017	GH_MC1	200388														
7/4/2017	GH_MC1	200388														
7/10/2017	GH_MC1	200388			226	0.0023	0.0047	0.53	0.52	0.21	0.24	0.0778	0.0748	< 0.020	< 0.020	< 0.000050
8/2/2017	GH_MC1	200388														
9/12/2017	GH_MC1	200388														
10/3/2017	GH_MC1	200388														
11/28/2017	GH_MC1	200388			265	< 0.0030	0.0054	0.4	0.4	0.23	0.21	0.0735	0.0728	< 0.020	< 0.020	< 0.000050
12/6/2017	GH_MC1	200388			261	< 0.0030	0.0038	0.4	0.4	0.17	0.17	0.0829	0.0833	< 0.020	< 0.020	< 0.000050
1/16/2017	GH_NNC	E305875			256	0.0038	0.0483	< 0.10	< 0.10	0.17	0.21	0.107	0.12	< 0.020	< 0.020	< 0.000050
2/15/2017	GH_NNC	E305875														
3/6/2017	GH_NNC	E305875			244	< 0.0030	0.185	< 0.10	0.12	0.15	0.27	0.117	0.116	< 0.020	0.026	< 0.000050
3/16/2017	GH_NNC	E305875														
3/22/2017	GH_NNC	E305875														
3/28/2017	GH_NNC	E305875														
4/4/2017	GH_NNC	E305875														
4/10/2017	GH_NNC	E305875														
4/20/2017	GH_NNC	E305875			187	0.0042	0.0977	< 0.10	< 0.10	0.15	0.19	0.0926	0.0886	< 0.020	< 0.020	< 0.000050
4/25/2017	GH_NNC	E305875														
5/1/2017	GH_NNC	E305875			200	0.0046	0.0467	< 0.10	0.11	0.14	0.19	0.101	0.0951	< 0.020	< 0.020	< 0.000050
5/8/2017	GH_NNC	E305875														
5/15/2017	GH_NNC	E305875														
5/24/2017	GH_NNC	E305875														
5/29/2017	GH_NNC	E305875														
6/5/2017	GH_NNC	E305875			228	0.0033	0.175	< 0.10	< 0.10	0.15	0.22	0.119	0.111	< 0.020	< 0.020	< 0.000050
6/12/2017	GH_NNC	E305875														
6/19/2017	GH_NNC	E305875														
6/26/2017	GH_NNC	E305875														
7/4/2017	GH_NNC	E305875														
7/10/2017	GH_NNC	E305875			236	0.0028	0.0402	< 0.10	< 0.10	0.15	0.2	0.137	0.132	< 0.020	< 0.020	< 0.000050
8/2/2017	GH_NNC	E305875			257	0.0072	0.0734	< 0.10	< 0.10	0.27	0.33	0.154	0.139	< 0.020	< 0.020	< 0.000050
9/12/2017	GH_NNC	E305875														
10/3/2017	GH_NNC	E305875														
11/28/2017	GH_NNC	E305875			246	0.0031	0.0217	< 0.10	< 0.10	0.18	0.2	0.116	0.124	< 0.020	< 0.020	< 0.000050
12/6/2017	GH_NNC	E305875			253	< 0.0030	0.0127	< 0.10	< 0.10	0.17	0.19	0.128	0.126	< 0.020	< 0.020	< 0.000050
1/9/2017	GH_PC1	200385			199	< 0.0030	0.0056	< 0.10	< 0.10	0.23	< 0.30	0.0887	0.0896	< 0.020	< 0.020	< 0.000050
2/9/2017	GH_PC1	200385			188	0.0011	0.0038	< 0.10	0.13	0.24	0.26	0.0917	0.0939	< 0.020	< 0.020	< 0.000050
2/9/2017	GH_PC1	200385	40	0												
3/6/2017	GH_PC1	200385			190	< 0.0030	0.0045	< 0.10	< 0.10	0.21	0.23	0.0933	0.0867	< 0.020	< 0.020	< 0.000050
3/15/2017	GH_PC1	200385														
3/21/2017	GH_PC1	200385			198	0.0014	0.0048	< 0.10	< 0.10	0.2	0.26	0.0804	0.0933	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
3/29/2017	GH_PC1	200385														
4/5/2017	GH_PC1	200385			193	< 0.0030	0.0062	< 0.10	< 0.10	0.22	0.26	0.082	0.076	< 0.020	< 0.020	< 0.000050
4/12/2017	GH_PC1	200385														
4/20/2017	GH_PC1	200385														
4/25/2017	GH_PC1	200385														
5/3/2017	GH_PC1	200385			208	0.017	0.0207	0.15	0.12	0.22	0.24	0.077	0.0763	< 0.020	< 0.020	< 0.000050
5/8/2017	GH_PC1	200385	0	0	203	0.0026	0.281	0.14	0.47	0.21	0.5	0.0648	0.0747	< 0.020	0.047	< 0.000050
5/17/2017	GH_PC1	200385														
5/23/2017	GH_PC1	200385														
5/31/2017	GH_PC1	200385														
6/6/2017	GH_PC1	200385			247	0.0024	0.0219	< 0.10	< 0.10	0.22	0.29	0.0898	0.0888	< 0.020	< 0.020	< 0.000050
6/13/2017	GH_PC1	200385														
6/19/2017	GH_PC1	200385														
6/27/2017	GH_PC1	200385														
7/5/2017	GH_PC1	200385			221	< 0.0030	0.0074	< 0.10	< 0.10	0.2	0.23	0.0887	0.0857	< 0.020	< 0.020	< 0.000050
7/10/2017	GH_PC1	200385														
7/27/2017	GH_PC1	200385			214	0.0019	0.0055	< 0.10	< 0.10	0.21	0.24	0.0949	0.0883	< 0.020	< 0.020	< 0.000050
8/8/2017	GH_PC1	200385	3	0												
8/8/2017	GH_PC1	200385			208	< 0.0030	0.0062	< 0.10	0.12	0.2	0.28	0.0934	0.088	< 0.020	< 0.020	< 0.000050
12/5/2017	GH_PC1	200385														
1/9/2017	GH_RLP	E207437														
2/7/2017	GH_RLP	E207437														
3/16/2017	GH_RLP	E207437			52.9	0.0072	2.66	2.12	2.1	0.24	1.76	0.0708	0.16	< 0.020	0.308	< 0.000050
3/21/2017	GH_RLP	E207437														
3/27/2017	GH_RLP	E207437														
4/4/2017	GH_RLP	E207437														
4/11/2017	GH_RLP	E207437														
4/18/2017	GH_RLP	E207437			93.7	0.0036	0.0501	2.3	2.38	0.3	0.31	0.0682	0.0719	< 0.020	< 0.020	< 0.000050
4/25/2017	GH_RLP	E207437														
5/3/2017	GH_RLP	E207437			173	0.0041	0.124	2.37	2.2	0.32	0.37	0.0818	0.0788	< 0.020	< 0.020	< 0.000050
5/10/2017	GH_RLP	E207437														
5/15/2017	GH_RLP	E207437														
5/24/2017	GH_RLP	E207437														
5/29/2017	GH_RLP	E207437														
6/7/2017	GH_RLP	E207437														
6/12/2017	GH_RLP	E207437														
6/22/2017	GH_RLP	E207437														
6/27/2017	GH_RLP	E207437														
7/4/2017	GH_RLP	E207437														
7/11/2017	GH_RLP	E207437														
7/27/2017	GH_RLP	E207437			138	0.0135	0.0349	3.32	3.12	0.79	0.82	0.0442	0.0451	< 0.020	< 0.020	< 0.000050
8/3/2017	GH_RLP	E207437														
9/27/2017	GH_RLP	E207437														
10/25/2017	GH_RLP	E207437														
11/14/2017	GH_RLP	E207437														
12/7/2017	GH_RLP	E207437			179	< 0.0030	0.0142	4.07	4.47	0.41	0.48	0.0803	0.0744	< 0.020	< 0.020	< 0.000050
1/10/2017	GH_SC1	E221329			303	< 0.0010	0.0035	0.82	0.85	0.17	0.25	0.0173	0.0174	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
2/9/2017	GH_SC1	E221329			305	< 0.0010	0.008	0.81	0.91	0.15	0.23	0.0171	0.0179	< 0.020	< 0.020	< 0.000050
3/6/2017	GH_SC1	E221329			287	< 0.0010	< 0.0030	0.85	0.84	0.12	0.2	0.0173	0.0189	< 0.020	< 0.020	< 0.000050
3/15/2017	GH_SC1	E221329														
3/21/2017	GH_SC1	E221329	36.7	0	277	0.0023	0.082	0.64	0.78	0.16	0.27	0.0274	0.0299	< 0.020	< 0.020	< 0.000050
3/29/2017	GH_SC1	E221329														
4/5/2017	GH_SC1	E221329			264	0.0031	0.15	0.63	0.62	0.16	0.25	0.0346	0.0427	< 0.020	< 0.020	< 0.000050
4/12/2017	GH_SC1	E221329														
4/20/2017	GH_SC1	E221329														
4/25/2017	GH_SC1	E221329														
5/2/2017	GH_SC1	E221329														
5/3/2017	GH_SC1	E221329			279	0.0026	0.0602	0.71	0.7	0.16	0.26	0.0268	0.0291	< 0.020	< 0.020	< 0.000050
5/8/2017	GH_SC1	E221329	0	0	255	0.0029	0.0961	0.79	0.85	0.16	0.32	0.0252	0.0291	< 0.020	< 0.020	< 0.000050
5/17/2017	GH_SC1	E221329														
5/17/2017	GH_SC1	E221329														
5/17/2017	GH_SC1	E221329														
5/18/2017	GH_SC1	E221329														
5/23/2017	GH_SC1	E221329														
5/31/2017	GH_SC1	E221329														
6/6/2017	GH_SC1	E221329			274	0.0031	0.0283	0.81	0.78	0.16	0.24	0.0201	0.0204	< 0.020	< 0.020	< 0.000050
6/13/2017	GH_SC1	E221329														
6/19/2017	GH_SC1	E221329														
6/27/2017	GH_SC1	E221329														
7/5/2017	GH_SC1	E221329			261	0.0021	0.007	0.82	0.81	0.13	0.24	0.0196	0.0201	< 0.020	< 0.020	< 0.000050
7/10/2017	GH_SC1	E221329														
8/8/2017	GH_SC1	E221329	0	10	292	< 0.0030	0.0085	0.91	0.85	< 0.20	0.21	0.0215	0.0212	< 0.040	< 0.040	< 0.00010
9/6/2017	GH_SC1	E221329			280	< 0.0030	0.0198	0.89	0.88	0.16	0.26	0.0243	0.024	< 0.020	< 0.020	< 0.000050
9/20/2017	GH_SC1	E221329														
10/4/2017	GH_SC1	E221329			292	< 0.0030	0.0075	0.86	0.9	0.16	0.17	0.0199	0.0205	< 0.020	< 0.020	< 0.000050
10/19/2017	GH_SC1	E221329			220	< 0.0030	0.0119	0.8	0.88	< 0.20	0.27	0.0191	0.0226	< 0.040	< 0.040	< 0.00010
11/1/2017	GH_SC1	E221329	93	0	323	< 0.0030	0.0039	0.79	0.87	< 0.20	0.32	0.024	0.0226	< 0.040	< 0.020	< 0.00010
11/16/2017	GH_SC1	E221329														
12/5/2017	GH_SC1	E221329			344	< 0.0030	0.0067	0.9	0.97	0.18	0.23	0.0261	0.0229	< 0.020	< 0.040	< 0.000050
1/1/2017	GH_SC2	E105061														
2/1/2017	GH_SC2	E105061														
3/1/2017	GH_SC2	E105061														
4/1/2017	GH_SC2	E105061														
5/1/2017	GH_SC2	E105061														
6/1/2017	GH_SC2	E105061														
7/1/2017	GH_SC2	E105061														
8/1/2017	GH_SC2	E105061														
9/4/2017	GH_SC2	E105061														
10/2/2017	GH_SC2	E105061														
11/6/2017	GH_SC2	E105061														
12/4/2017	GH_SC2	E105061														
1/10/2017	GH_TC1	E102714	0	0	253	< 0.0030	0.0219	0.15	0.22	0.19	0.21	0.0892	0.083	< 0.020	< 0.020	< 0.000050
2/15/2017	GH_TC1	E102714			241	< 0.0030	0.0185	0.26	0.29	0.22	0.27	0.0948	0.0959	< 0.020	< 0.020	< 0.000050
3/6/2017	GH_TC1	E102714			230	< 0.0030	0.0119	0.17	0.19	0.2	0.21	0.0843	0.08	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
3/16/2017	GH_TC1	E102714														
3/21/2017	GH_TC1	E102714														
3/27/2017	GH_TC1	E102714														
4/4/2017	GH_TC1	E102714														
4/10/2017	GH_TC1	E102714														
4/20/2017	GH_TC1	E102714			175	0.0081	0.196	0.11	0.13	0.18	0.3	0.0681	0.0695	< 0.020	< 0.020	< 0.000050
4/25/2017	GH_TC1	E102714														
5/3/2017	GH_TC1	E102714			178	0.0056	0.141	0.12	0.14	0.17	0.25	0.074	0.0681	< 0.020	< 0.020	< 0.000050
5/10/2017	GH_TC1	E102714														
5/15/2017	GH_TC1	E102714														
5/24/2017	GH_TC1	E102714														
5/29/2017	GH_TC1	E102714														
6/7/2017	GH_TC1	E102714			202	< 0.0030	0.0731	0.17	0.18	0.21	0.21	0.097	0.0839	< 0.020	< 0.020	< 0.000050
6/12/2017	GH_TC1	E102714														
6/19/2017	GH_TC1	E102714	0	0	218	0.0014	0.049	0.16	0.18	0.22	0.31	0.0882	0.0859	< 0.020	< 0.020	< 0.000050
6/27/2017	GH_TC1	E102714														
7/4/2017	GH_TC1	E102714														
7/10/2017	GH_TC1	E102714	0	0	176	0.0027	0.035	0.19	0.19	0.25	0.3	0.0784	0.0789	< 0.020	< 0.020	< 0.000050
8/2/2017	GH_TC1	E102714			173	< 0.0030	0.0312	0.2	0.22	0.29	0.36	0.0873	0.0941	< 0.020	< 0.020	< 0.000050
9/13/2017	GH_TC1	E102714			166	< 0.0030	0.0273	0.2	0.22	0.23	0.24	0.0935	0.0945	< 0.020	< 0.020	< 0.000050
10/4/2017	GH_TC1	E102714	0	0	191	< 0.0030	0.0117	0.17	0.2	0.15	0.18	0.0835	0.0837	< 0.020	< 0.020	< 0.000050
11/6/2017	GH_TC1	E102714			229	< 0.0030	< 0.015	0.14	< 0.50	0.2	< 0.50	0.0911	0.0847	< 0.020	< 0.10	< 0.000050
12/12/2017	GH_TC1	E102714			257	< 0.0030	0.0267	0.13	0.15	0.18	0.21	0.0887	0.0901	< 0.020	< 0.020	< 0.000050
1/10/2017	GH_TC2	E207436	0	10	248	< 0.0030	0.0251	0.14	0.2	0.18	0.27	0.0879	0.0862	< 0.020	< 0.020	< 0.000050
2/9/2017	GH_TC2	E207436			229	0.0015	0.0518	0.18	0.19	0.26	0.34	0.0921	0.0943	< 0.020	< 0.020	< 0.000050
2/15/2017	GH_TC2	E207436			246	< 0.0030	0.0185	0.25	0.31	0.22	0.25	0.101	0.101	< 0.020	< 0.020	< 0.000050
3/6/2017	GH_TC2	E207436			232	< 0.0030	0.0144	0.17	0.2	0.19	0.22	0.0836	0.0767	< 0.020	< 0.020	< 0.000050
3/16/2017	GH_TC2	E207436														
3/21/2017	GH_TC2	E207436														
3/28/2017	GH_TC2	E207436														
4/4/2017	GH_TC2	E207436														
4/10/2017	GH_TC2	E207436														
4/20/2017	GH_TC2	E207436			163	0.0089	0.222	0.12	0.14	0.18	0.33	0.0661	0.0705	< 0.020	< 0.020	< 0.000050
4/25/2017	GH_TC2	E207436														
5/3/2017	GH_TC2	E207436			184	0.0057	0.181	0.11	0.14	0.18	0.26	0.0746	0.0709	< 0.020	< 0.020	< 0.000050
5/10/2017	GH_TC2	E207436														
5/15/2017	GH_TC2	E207436														
5/24/2017	GH_TC2	E207436														
5/29/2017	GH_TC2	E207436														
6/7/2017	GH_TC2	E207436			186	< 0.0030	0.0376	0.18	0.18	0.19	0.21	0.0919	0.0837	< 0.020	< 0.020	< 0.000050
6/12/2017	GH_TC2	E207436														
6/19/2017	GH_TC2	E207436	0	0	208	0.0012	0.0256	0.16	0.17	0.21	0.3	0.0886	0.0882	< 0.020	< 0.020	< 0.000050
6/27/2017	GH_TC2	E207436														
7/4/2017	GH_TC2	E207436														
7/10/2017	GH_TC2	E207436	0	0	162	0.0023	0.0126	0.19	0.19	0.25	0.27	0.0686	0.069	< 0.020	< 0.020	< 0.000050
8/2/2017	GH_TC2	E207436			172	< 0.0030	0.0091	0.2	0.21	0.3	0.36	0.091	0.0856	< 0.020	< 0.020	< 0.000050
9/12/2017	GH_TC2	E207436			166	< 0.0030	0.0195	0.22	0.23	0.23	0.3	0.0889	0.0904	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
10/3/2017	GH_TC2	E207436	0	0	190	< 0.0030	0.0106	0.18	0.2	0.19	0.27	0.0835	0.0814	< 0.020	< 0.020	< 0.000050
11/14/2017	GH_TC2	E207436			231	< 0.0030	0.0101	0.14	0.15	0.19	0.2	0.0777	0.083	< 0.020	< 0.020	< 0.000050
12/6/2017	GH_TC2	E207436			245	< 0.0030	0.0103	0.15	0.17	0.18	0.2	0.0904	0.0885	< 0.020	< 0.020	< 0.000050
6/7/2017	GH_TPS	E287438			146	< 0.0030	0.0361	4.51	4.69	0.44	0.5	0.143	0.133	< 0.020	< 0.020	< 0.000050
6/19/2017	GH_TPS	E287438			153	0.0024	0.235	4.74	4.66	0.56	0.76	0.154	0.174	< 0.020	< 0.10	< 0.000050
11/21/2017	GH_TPS	E287438			235	0.0065	0.0042	8.68	10.8	0.44	0.53	0.112	0.114	< 0.020	< 0.020	< 0.000050
1/10/2017	GH_WADE	E287433														
2/14/2017	GH_WADE	E287433														
3/6/2017	GH_WADE	E287433														
3/16/2017	GH_WADE	E287433			199	0.0163	0.433	0.15	0.18	0.23	0.54	0.117	0.132	< 0.020	0.043	< 0.000050
3/22/2017	GH_WADE	E287433	0	0	211	0.0086	0.092	0.14	0.17	0.21	0.28	0.112	0.115	< 0.020	< 0.020	< 0.000050
3/27/2017	GH_WADE	E287433														
3/28/2017	GH_WADE	E287433														
3/30/2017	GH_WADE	E287433														
4/4/2017	GH_WADE	E287433														
4/4/2017	GH_WADE	E287433														
4/10/2017	GH_WADE	E287433														
4/18/2017	GH_WADE	E287433			207	0.0089	0.101	0.14	0.15	0.22	0.3	0.108	0.133	< 0.020	< 0.020	< 0.000050
4/25/2017	GH_WADE	E287433														
5/1/2017	GH_WADE	E287433			197	0.0099	0.132	0.14	0.18	0.25	0.31	0.126	0.117	< 0.020	< 0.020	< 0.000050
5/8/2017	GH_WADE	E287433														
5/15/2017	GH_WADE	E287433														
5/24/2017	GH_WADE	E287433														
5/29/2017	GH_WADE	E287433														
6/5/2017	GH_WADE	E287433	0	0	239	0.0048	0.0251	0.16	0.18	0.28	0.27	0.141	0.132	< 0.020	< 0.020	< 0.000050
6/12/2017	GH_WADE	E287433														
6/20/2017	GH_WADE	E287433														
6/27/2017	GH_WADE	E287433														
7/4/2017	GH_WADE	E287433														
7/10/2017	GH_WADE	E287433	0	0	252	0.0045	0.0092	0.2	0.19	0.27	0.29	0.172	0.172	< 0.020	< 0.020	< 0.000050
8/2/2017	GH_WADE	E287433														
9/12/2017	GH_WADE	E287433														
10/3/2017	GH_WADE	E287433														
11/28/2017	GH_WADE	E287433	0	0	274	< 0.0030	0.0058	0.17	0.19	0.26	0.29	0.142	0.15	< 0.020	< 0.020	< 0.000050
12/6/2017	GH_WADE	E287433														
1/10/2017	GH_WC1	E257795														
2/15/2017	GH_WC1	E257795														
3/6/2017	GH_WC1	E257795														
3/16/2017	GH_WC1	E257795														
3/21/2017	GH_WC1	E257795														
3/27/2017	GH_WC1	E257795	0	0	163	0.0068	0.2	0.56	0.56	0.28	0.36	0.0751	0.0736	< 0.020	< 0.020	< 0.000050
4/4/2017	GH_WC1	E257795														
4/10/2017	GH_WC1	E257795														
4/20/2017	GH_WC1	E257795			271	0.0027	0.021	1.96	1.85	0.31	0.33	0.11	0.0971	< 0.020	< 0.020	< 0.000050
4/25/2017	GH_WC1	E257795														
5/1/2017	GH_WC1	E257795			289	< 0.0030	0.0802	3.56	3.39	0.31	0.39	0.14	0.126	< 0.020	< 0.020	< 0.000050
5/3/2017	GH_WC1	E257795														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
5/8/2017	GH_WC1	E257795														
5/15/2017	GH_WC1	E257795														
5/24/2017	GH_WC1	E257795														
5/29/2017	GH_WC1	E257795														
6/5/2017	GH_WC1	E257795	0	10	245	< 0.0030	0.0194	1.93	1.91	0.28	0.31	0.139	0.125	< 0.020	< 0.020	< 0.000050
6/12/2017	GH_WC1	E257795														
6/19/2017	GH_WC1	E257795														
6/27/2017	GH_WC1	E257795														
7/4/2017	GH_WC1	E257795														
7/10/2017	GH_WC1	E257795														
8/2/2017	GH_WC1	E257795														
9/11/2017	GH_WC1	E257795														
10/3/2017	GH_WC1	E257795														
11/6/2017	GH_WC1	E257795														
12/12/2017	GH_WC1	E257795	0	0	281	< 0.0030	0.0066	5.49	5.65	0.24	0.31	0.062	0.0681	< 0.020	< 0.020	< 0.000050
1/16/2017	GH_WILLOW_SP1	E305854														
2/14/2017	GH_WILLOW_SP1	E305854														
3/6/2017	GH_WILLOW_SP1	E305854														
3/16/2017	GH_WILLOW_SP1	E305854														
3/22/2017	GH_WILLOW_SP1	E305854														
3/27/2017	GH_WILLOW_SP1	E305854														
4/4/2017	GH_WILLOW_SP1	E305854														
4/10/2017	GH_WILLOW_SP1	E305854														
4/18/2017	GH_WILLOW_SP1	E305854			174	0.0105	0.0755	< 0.10	< 0.10	0.15	0.17	0.135	0.12	< 0.020	< 0.020	< 0.000050
4/25/2017	GH_WILLOW_SP1	E305854														
5/3/2017	GH_WILLOW_SP1	E305854			167	0.0097	0.0971	< 0.10	0.1	0.16	0.2	0.127	0.113	< 0.020	< 0.020	< 0.000050
5/8/2017	GH_WILLOW_SP1	E305854														
5/15/2017	GH_WILLOW_SP1	E305854														
5/24/2017	GH_WILLOW_SP1	E305854														
5/29/2017	GH_WILLOW_SP1	E305854														
6/5/2017	GH_WILLOW_SP1	E305854	0	0	192	< 0.0030	0.0468	< 0.10	0.11	0.15	0.2	0.182	0.178	< 0.020	< 0.020	< 0.000050
6/12/2017	GH_WILLOW_SP1	E305854														
6/20/2017	GH_WILLOW_SP1	E305854														
6/27/2017	GH_WILLOW_SP1	E305854														
7/4/2017	GH_WILLOW_SP1	E305854														
7/10/2017	GH_WILLOW_SP1	E305854														
8/2/2017	GH_WILLOW_SP1	E305854														
9/12/2017	GH_WILLOW_SP1	E305854														
10/3/2017	GH_WILLOW_SP1	E305854														
11/6/2017	GH_WILLOW_SP1	E305854														
12/6/2017	GH_WILLOW_SP1	E305854														
1/10/2017	GH_WOLF_SP1	E305855														
2/14/2017	GH_WOLF_SP1	E305855														
3/6/2017	GH_WOLF_SP1	E305855														
3/16/2017	GH_WOLF_SP1	E305855														
3/22/2017	GH_WOLF_SP1	E305855														
3/27/2017	GH_WOLF_SP1	E305855														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
4/4/2017	GH_WOLF_SP1	E305855														
4/10/2017	GH_WOLF_SP1	E305855														
4/20/2017	GH_WOLF_SP1	E305855														
4/24/2017	GH_WOLF_SP1	E305855														
5/1/2017	GH_WOLF_SP1	E305855														
5/8/2017	GH_WOLF_SP1	E305855														
5/15/2017	GH_WOLF_SP1	E305855														
5/22/2017	GH_WOLF_SP1	E305855														
5/29/2017	GH_WOLF_SP1	E305855														
6/5/2017	GH_WOLF_SP1	E305855														
6/12/2017	GH_WOLF_SP1	E305855														
6/20/2017	GH_WOLF_SP1	E305855														
6/27/2017	GH_WOLF_SP1	E305855														
7/4/2017	GH_WOLF_SP1	E305855														
7/10/2017	GH_WOLF_SP1	E305855														
8/1/2017	GH_WOLF_SP1	E305855														
9/12/2017	GH_WOLF_SP1	E305855														
10/3/2017	GH_WOLF_SP1	E305855														
11/6/2017	GH_WOLF_SP1	E305855														
12/6/2017	GH_WOLF_SP1	E305855														
1/12/2017	LC_LC1	E216142														
2/14/2017	LC_LC1	E216142														
3/9/2017	LC_LC1	E216142														
3/14/2017	LC_LC1	E216142														
3/21/2017	LC_LC1	E216142														
3/29/2017	LC_LC1	E216142														
4/5/2017	LC_LC1	E216142														
4/11/2017	LC_LC1	E216142														
4/20/2017	LC_LC1	E216142														
4/25/2017	LC_LC1	E216142			122	< 0.0010	0.0033	< 0.10	< 0.10	0.15	0.18	0.0437	0.0454	< 0.020	< 0.020	< 0.000050
5/1/2017	LC_LC1	E216142			121	0.0014	0.006	< 0.10	< 0.10	0.16	0.16	0.0467	0.0456	< 0.020	< 0.020	< 0.000050
5/5/2017	LC_LC1	E216142														
5/6/2017	LC_LC1	E216142														
5/9/2017	LC_LC1	E216142														
5/9/2017	LC_LC1	E216142														
5/16/2017	LC_LC1	E216142														
5/24/2017	LC_LC1	E216142														
5/30/2017	LC_LC1	E216142														
6/6/2017	LC_LC1	E216142														
6/7/2017	LC_LC1	E216142			108	0.0033	0.025	< 0.10	< 0.10	0.13	0.17	0.0334	0.0334	< 0.020	< 0.020	< 0.000050
6/13/2017	LC_LC1	E216142														
6/20/2017	LC_LC1	E216142														
6/20/2017	LC_LC1	E216142														
6/26/2017	LC_LC1	E216142														
7/6/2017	LC_LC1	E216142			99.8	0.002	0.0051	< 0.10	< 0.10	0.14	0.18	0.037	0.0349	< 0.020	< 0.020	< 0.000050
7/10/2017	LC_LC1	E216142														
7/11/2017	LC_LC1	E216142														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
8/2/2017	LC_LC1	E216142			115	< 0.0030	0.0044	< 0.10	< 0.10	0.13	0.2	0.044	0.0447	< 0.020	< 0.020	< 0.000050
8/2/2017	LC_LC1	E216142														
8/8/2017	LC_LC1	E216142														
8/15/2017	LC_LC1	E216142														
8/18/2017	LC_LC1	E216142														
8/18/2017	LC_LC1	E216142														
8/21/2017	LC_LC1	E216142														
8/24/2017	LC_LC1	E216142														
8/24/2017	LC_LC1	E216142														
8/27/2017	LC_LC1	E216142														
8/30/2017	LC_LC1	E216142														
9/2/2017	LC_LC1	E216142														
9/5/2017	LC_LC1	E216142			117	< 0.0030	< 0.0030	< 0.10	< 0.10	0.15	0.16	0.0525	0.0515	< 0.020	< 0.020	< 0.000050
9/5/2017	LC_LC1	E216142														
9/8/2017	LC_LC1	E216142														
10/3/2017	LC_LC1	E216142			125	< 0.0030	< 0.0030	< 0.10	< 0.10	0.21	0.19	0.05	0.0503	< 0.020	< 0.020	< 0.000050
11/8/2017	LC_LC1	E216142			119	< 0.0030	0.005	< 0.10	< 0.10	0.12	0.15	0.051	0.05	< 0.020	< 0.020	< 0.000050
11/8/2017	LC_LC1	E216142														
11/30/2017	LC_LC1	E216142														
12/4/2017	LC_LC1	E216142			127	< 0.0030	< 0.0030	< 0.10	< 0.10	0.14	0.17	0.0479	0.0517	< 0.020	< 0.020	< 0.000050
12/4/2017	LC_LC1	E216142														
1/9/2017	LC_LC12	E223240														
2/15/2017	LC_LC12	E223240														
3/6/2017	LC_LC12	E223240														
3/14/2017	LC_LC12	E223240														
3/20/2017	LC_LC12	E223240														
3/27/2017	LC_LC12	E223240														
4/3/2017	LC_LC12	E223240														
4/10/2017	LC_LC12	E223240														
4/17/2017	LC_LC12	E223240														
4/24/2017	LC_LC12	E223240														
5/1/2017	LC_LC12	E223240														
5/9/2017	LC_LC12	E223240			158	< 0.0010	0.006	0.2	0.16	0.13	0.16	0.0676	0.0603	< 0.020	< 0.020	< 0.000050
5/16/2017	LC_LC12	E223240														
5/23/2017	LC_LC12	E223240														
5/30/2017	LC_LC12	E223240														
6/6/2017	LC_LC12	E223240			148	0.0012	0.0069	0.14	0.14	0.1	0.16	0.0366	0.0351	< 0.020	< 0.020	< 0.000050
6/13/2017	LC_LC12	E223240														
6/20/2017	LC_LC12	E223240														
6/26/2017	LC_LC12	E223240														
7/5/2017	LC_LC12	E223240			161	< 0.0010	0.0043	0.12	0.11	< 0.10	0.14	0.0617	0.0625	< 0.020	< 0.020	< 0.000050
7/11/2017	LC_LC12	E223240														
1/9/2017	LC_LC2	200335			140	< 0.0030	0.0054	< 0.10	< 0.10	< 0.70	0.12	0.0892	0.0928	< 0.020	< 0.020	< 0.000050
2/14/2017	LC_LC2	200335			141	< 0.0010	0.0048	< 0.10	< 0.10	< 0.10	0.11	0.0943	0.0977	< 0.020	< 0.020	< 0.000050
3/6/2017	LC_LC2	200335			145	< 0.0030	0.0054	< 0.10	< 0.10	< 0.10	< 0.10	0.0989	0.0982	< 0.020	< 0.020	< 0.000050
3/13/2017	LC_LC2	200335														
3/16/2017	LC_LC2	200335														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
3/17/2017	LC_LC2	200335			136	< 0.0010	0.0049	< 0.10	< 0.10	< 0.10	< 0.10	0.0989	0.0986	< 0.020	< 0.020	< 0.000050
3/18/2017	LC_LC2	200335														
3/19/2017	LC_LC2	200335														
3/20/2017	LC_LC2	200335														
3/21/2017	LC_LC2	200335														
3/22/2017	LC_LC2	200335														
3/23/2017	LC_LC2	200335														
3/24/2017	LC_LC2	200335														
3/25/2017	LC_LC2	200335														
3/26/2017	LC_LC2	200335														
3/27/2017	LC_LC2	200335														
4/4/2017	LC_LC2	200335			135	0.0012	0.0058	< 0.10	0.1	< 0.10	< 0.10	0.102	0.12	< 0.020	< 0.020	< 0.000050
4/4/2017	LC_LC2	200335														
4/10/2017	LC_LC2	200335														
4/18/2017	LC_LC2	200335														
4/25/2017	LC_LC2	200335														
5/1/2017	LC_LC2	200335			139	< 0.0010	0.0082	< 0.10	< 0.10	< 0.10	0.12	0.0902	0.0888	< 0.020	< 0.020	< 0.000050
5/5/2017	LC_LC2	200335														
5/6/2017	LC_LC2	200335														
5/7/2017	LC_LC2	200335														
5/9/2017	LC_LC2	200335														
5/11/2017	LC_LC2	200335														
5/13/2017	LC_LC2	200335														
5/16/2017	LC_LC2	200335														
5/18/2017	LC_LC2	200335														
5/23/2017	LC_LC2	200335														
5/24/2017	LC_LC2	200335														
5/25/2017	LC_LC2	200335														
5/30/2017	LC_LC2	200335														
6/1/2017	LC_LC2	200335														
6/5/2017	LC_LC2	200335														
6/6/2017	LC_LC2	200335			117	0.0027	0.0523	< 0.10	< 0.10	0.11	0.18	0.0442	0.0534	< 0.020	< 0.020	< 0.000050
6/13/2017	LC_LC2	200335														
6/20/2017	LC_LC2	200335														
6/26/2017	LC_LC2	200335														
7/5/2017	LC_LC2	200335			118	0.0018	0.0117	< 0.10	< 0.10	0.1	0.17	0.053	0.0546	< 0.020	< 0.020	< 0.000050
7/6/2017	LC_LC2	200335														
7/10/2017	LC_LC2	200335														
7/11/2017	LC_LC2	200335														
8/2/2017	LC_LC2	200335			135	< 0.0030	0.0042	< 0.10	< 0.10	< 0.10	0.14	0.0832	0.08	< 0.020	< 0.020	< 0.000050
8/2/2017	LC_LC2	200335														
9/6/2017	LC_LC2	200335			142	< 0.0030	< 0.0030	< 0.10	< 0.10	< 0.10	0.11	0.0965	0.0975	< 0.020	< 0.020	< 0.000050
10/3/2017	LC_LC2	200335			150	< 0.0030	< 0.0030	< 0.10	< 0.10	0.2	0.14	0.0999	0.0995	< 0.020	< 0.020	< 0.000050
11/8/2017	LC_LC2	200335			141	< 0.0030	0.0065	< 0.10	< 0.10	< 0.10	< 0.10	0.105	0.103	< 0.020	< 0.020	< 0.000050
11/8/2017	LC_LC2	200335														
12/4/2017	LC_LC2	200335			149	< 0.0030	0.003	< 0.10	0.12	< 0.10	0.12	0.104	0.109	< 0.020	< 0.020	< 0.000050
1/2/2017	LC_LC3	200337			218	< 0.0010	0.004	0.39	0.46	0.11	0.18	0.0608	0.073	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
1/2/2017	LC_LC3	200337														
1/9/2017	LC_LC3	200337			218	< 0.0030	< 0.0030	0.35	0.39	< 0.10	0.12	0.0624	0.065	< 0.020	< 0.020	< 0.000050
1/16/2017	LC_LC3	200337			226	< 0.0030	< 0.0030	0.36	0.44	0.11	0.1	0.0634	0.0706	< 0.020	< 0.020	< 0.000050
1/23/2017	LC_LC3	200337			218	< 0.0030	0.0038	0.32	0.36	< 0.10	0.11	0.0605	0.0662	< 0.020	< 0.020	< 0.000050
1/31/2017	LC_LC3	200337			221	< 0.0030	0.0033	0.31	0.37	0.11	0.12	0.0649	0.0684	< 0.020	< 0.020	< 0.000050
2/7/2017	LC_LC3	200337			207	< 0.0010	0.0032	0.37	0.36	0.11	0.2	0.0689	0.0692	< 0.020	< 0.020	< 0.000050
2/14/2017	LC_LC3	200337			212	< 0.0010	0.0038	0.31	0.34	< 0.10	0.13	0.0675	0.0674	< 0.020	< 0.020	< 0.000050
2/20/2017	LC_LC3	200337			222	< 0.0010	0.0048	0.45	0.87	< 0.10	0.15	0.0725	0.0738	< 0.020	< 0.020	< 0.000050
2/24/2017	LC_LC3	200337			216	< 0.0010	0.003	0.32	0.44	< 0.10	0.14	0.0753	0.0776	< 0.020	< 0.020	< 0.000050
2/27/2017	LC_LC3	200337			221	< 0.0010	< 0.0030	0.31	0.35	< 0.10	0.14	0.0677	0.0708	< 0.020	< 0.020	< 0.000050
3/1/2017	LC_LC3	200337														
3/6/2017	LC_LC3	200337			222	< 0.0030	0.0035	0.31	0.36	< 0.10	< 0.10	0.0723	0.0705	< 0.020	< 0.020	< 0.000050
3/13/2017	LC_LC3	200337			205	< 0.0010	0.0079	0.31	0.33	< 0.10	0.1	0.0811	0.0697	< 0.020	< 0.020	< 0.000050
3/16/2017	LC_LC3	200337														
3/16/2017	LC_LC3	200337														
3/17/2017	LC_LC3	200337			193	0.0024	0.183	0.49	0.57	0.11	0.26	0.0722	0.0831	< 0.020	0.023	< 0.000050
3/18/2017	LC_LC3	200337														
3/19/2017	LC_LC3	200337														
3/20/2017	LC_LC3	200337			184	0.0015	0.132	0.41	0.54	0.13	0.25	0.0721	0.0757	< 0.020	< 0.020	< 0.000050
3/21/2017	LC_LC3	200337														
3/22/2017	LC_LC3	200337														
3/23/2017	LC_LC3	200337														
3/24/2017	LC_LC3	200337														
3/25/2017	LC_LC3	200337														
3/26/2017	LC_LC3	200337														
3/27/2017	LC_LC3	200337			210	0.0014	0.0438	0.44	0.54	0.11	0.21	0.0736	0.0702	< 0.020	< 0.020	< 0.000050
3/28/2017	LC_LC3	200337														
3/29/2017	LC_LC3	200337														
3/30/2017	LC_LC3	200337														
4/3/2017	LC_LC3	200337			210	< 0.0010	0.0141	0.4	0.41	0.11	0.13	0.0749	0.0834	< 0.020	< 0.020	< 0.000050
4/4/2017	LC_LC3	200337														
4/10/2017	LC_LC3	200337			222	0.0014	0.0196	0.47	0.46	0.13	0.16	0.081	0.0741	< 0.020	< 0.020	< 0.000050
4/18/2017	LC_LC3	200337			220	0.0012	0.0114	0.4	0.46	0.12	0.14	0.0777	0.0724	< 0.020	< 0.020	< 0.000050
4/25/2017	LC_LC3	200337			222	0.0013	0.0125	0.45	0.45	0.16	0.16	0.0622	0.0603	< 0.020	< 0.020	< 0.000050
5/1/2017	LC_LC3	200337			212	0.0013	0.0093	0.45	0.41	0.13	0.15	0.0586	0.0554	< 0.020	< 0.020	< 0.000050
5/4/2017	LC_LC3	200337														
5/7/2017	LC_LC3	200337														
5/9/2017	LC_LC3	200337			166	< 0.0010	0.0111	0.43	0.39	0.14	0.16	0.0297	0.0287	< 0.020	< 0.020	< 0.000050
5/16/2017	LC_LC3	200337			170	< 0.0010	0.0056	0.39	0.38	0.15	0.15	0.0293	0.0304	< 0.020	< 0.020	< 0.000050
5/18/2017	LC_LC3	200337														
5/23/2017	LC_LC3	200337			185	< 0.0010	0.0054	0.37	0.38	0.14	0.17	0.0316	0.0304	< 0.020	< 0.020	< 0.000050
5/30/2017	LC_LC3	200337			161	< 0.0010	0.0048	0.35	0.36	0.14	0.18	0.028	0.0289	< 0.020	< 0.020	< 0.000050
6/6/2017	LC_LC3	200337														
6/7/2017	LC_LC3	200337			185	0.0011	0.0054	0.33	0.38	0.12	0.16	0.0284	0.0267	< 0.020	< 0.020	< 0.000050
6/13/2017	LC_LC3	200337			189	0.0032	0.0043	0.36	0.35	0.12	0.16	0.0338	0.0325	< 0.020	< 0.020	< 0.000050
6/19/2017	LC_LC3	200337			182	< 0.0010	0.0035	0.39	0.38	0.12	0.15	0.0351	0.0328	< 0.020	< 0.020	< 0.000050
6/26/2017	LC_LC3	200337			185	0.0011	0.0041	0.38	0.37	0.13	0.15	0.0397	0.0361	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
7/6/2017	LC_LC3	200337														
7/6/2017	LC_LC3	200337			192	< 0.0010	< 0.0030	0.36	0.34	< 0.10	0.19	0.0404	0.0442	< 0.020	< 0.020	< 0.000050
7/11/2017	LC_LC3	200337														
7/11/2017	LC_LC3	200337			194	< 0.0010	0.0042	0.41	0.4	0.11	0.16	0.0497	0.0457	< 0.020	< 0.020	< 0.000050
7/13/2017	LC_LC3	200337														
7/14/2017	LC_LC3	200337	0	0	263	< 0.0010	0.0349	0.42	0.47	0.15	1.23	0.0548	0.0563	< 0.020	< 0.020	< 0.000050
7/14/2017	LC_LC3	200337														
7/18/2017	LC_LC3	200337			209	0.001	0.0032	0.42	0.35	0.12	0.15	0.0574	0.0541	< 0.020	< 0.020	< 0.000050
7/25/2017	LC_LC3	200337														
7/25/2017	LC_LC3	200337			225	< 0.0010	0.0036	0.41	0.39	0.12	0.11	0.0574	0.0546	< 0.020	< 0.020	< 0.000050
7/26/2017	LC_LC3	200337	0	0		< 0.0010	0.0034	0.44	0.38	0.1	0.1	0.0573	0.0553	< 0.020	< 0.020	< 0.000050
8/2/2017	LC_LC3	200337														
8/2/2017	LC_LC3	200337			219	< 0.0030	< 0.0030	0.39	0.43	< 0.10	0.15	0.0653	0.0624	< 0.020	< 0.020	< 0.000050
8/8/2017	LC_LC3	200337														
8/8/2017	LC_LC3	200337			220	< 0.0030	0.0038	0.4	0.43	0.1	0.15	0.068	0.0667	< 0.020	< 0.020	< 0.000050
8/12/2017	LC_LC3	200337	0	0	216	< 0.0010	< 0.0030	0.41	0.43	0.11	0.11	0.0594	0.058	< 0.020	< 0.020	< 0.000050
8/12/2017	LC_LC3	200337														
8/15/2017	LC_LC3	200337														
8/15/2017	LC_LC3	200337			221	< 0.0030	0.0056	0.35	0.41	< 0.10	0.12	0.0581	0.0584	< 0.020	< 0.020	< 0.000050
8/18/2017	LC_LC3	200337														
8/21/2017	LC_LC3	200337			213	< 0.0030	0.0052	0.4	0.43	< 0.10	0.16	0.0682	0.0627	< 0.020	< 0.020	< 0.000050
8/24/2017	LC_LC3	200337														
8/24/2017	LC_LC3	200337														
8/25/2017	LC_LC3	200337														
8/27/2017	LC_LC3	200337														
8/27/2017	LC_LC3	200337														
8/30/2017	LC_LC3	200337														
8/30/2017	LC_LC3	200337			218	< 0.0030	< 0.0030	0.38	0.42	< 0.10	0.11	0.0617	0.0575	< 0.020	< 0.020	< 0.000050
9/2/2017	LC_LC3	200337														
9/2/2017	LC_LC3	200337														
9/5/2017	LC_LC3	200337														
9/5/2017	LC_LC3	200337			215	< 0.0030	< 0.0030	0.38	0.38	< 0.10	0.12	0.0622	0.063	< 0.020	< 0.020	< 0.000050
9/5/2017	LC_LC3	200337														
9/8/2017	LC_LC3	200337														
9/12/2017	LC_LC3	200337			237	< 0.0030	0.0131	0.36	0.46	< 0.10	0.15	0.0638	0.0671	< 0.020	< 0.020	< 0.000050
9/20/2017	LC_LC3	200337														
9/20/2017	LC_LC3	200337			189	< 0.0030	0.0033	0.37	0.5	< 0.10	< 0.10	0.064	0.0609	< 0.020	< 0.020	< 0.000050
9/21/2017	LC_LC3	200337	0	0	221	< 0.0030	< 0.0030	0.41	0.56	< 0.10	0.1	0.0629	0.0626	< 0.020	< 0.020	< 0.000050
9/25/2017	LC_LC3	200337														
9/25/2017	LC_LC3	200337			216	< 0.0030	< 0.0030	0.38	0.39	< 0.10	< 0.10	0.0643	0.0654	< 0.020	< 0.020	< 0.00010
9/25/2017	LC_LC3	200337	3	0	208	< 0.0030	0.0034	0.35	0.4	< 0.10	0.11	0.0652	0.0636	< 0.020	< 0.020	< 0.000050
10/2/2017	LC_LC3	200337			149	< 0.0030	0.0032	0.38	0.4	0.18	0.18	0.0651	0.0649	< 0.020	< 0.020	< 0.000050
10/10/2017	LC_LC3	200337			173	< 0.0030	0.0035	0.35	0.36	< 0.10	0.13	0.0645	0.0655	< 0.020	< 0.020	< 0.000050
10/10/2017	LC_LC3	200337														
10/17/2017	LC_LC3	200337			198	< 0.0030	0.0035	0.4	0.46	0.1	0.14	0.0745	0.0742	< 0.020	< 0.020	< 0.000050
10/24/2017	LC_LC3	200337			224	< 0.0030	0.0132	0.43	0.43	0.12	0.13	0.0725	0.0738	< 0.020	< 0.020	< 0.000050
10/24/2017	LC_LC3	200337														

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Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
10/31/2017	LC_LC3	200337			216	< 0.0030	0.0063	0.43	0.43	0.11	0.11	0.069	0.0675	< 0.020	< 0.020	< 0.000050
10/31/2017	LC_LC3	200337														
11/6/2017	LC_LC3	200337			216	< 0.0030	0.0056	0.41	0.44	0.11	0.12	0.0745	0.0746	< 0.020	< 0.020	< 0.000050
11/8/2017	LC_LC3	200337														
11/9/2017	LC_LC3	200337			216	0.0045	0.0049	0.42	0.47	0.14	0.15	0.0707	0.0705	< 0.020	< 0.020	< 0.00010
11/14/2017	LC_LC3	200337			212	< 0.0030	0.0045	0.39	0.45	0.11	0.14	0.0696	0.0689	< 0.020	< 0.020	< 0.000050
11/21/2017	LC_LC3	200337			217	< 0.0030	< 0.0030	0.4	0.47	0.11	0.12	0.067	0.0691	< 0.020	< 0.020	< 0.000050
11/28/2017	LC_LC3	200337			212	< 0.0030	0.0081	0.46	0.47	0.11	0.11	0.0667	0.0669	< 0.020	< 0.020	< 0.000050
12/4/2017	LC_LC3	200337			223	< 0.0030	0.0069	0.46	0.57	0.12	0.16	0.073	0.0763	< 0.020	< 0.020	< 0.000050
12/12/2017	LC_LC3	200337			220	< 0.0030	0.0044	0.45	0.47	0.14	0.19	0.0741	0.0712	< 0.020	< 0.020	< 0.000050
12/18/2017	LC_LC3	200337			218	< 0.0030	0.0047	0.42	0.4	0.11	0.12	0.0688	0.0751	< 0.020	< 0.020	< 0.000050
12/27/2017	LC_LC3	200337			225	< 0.0030	0.0036	0.45	0.47	0.13	0.23	0.0766	0.0698	< 0.020	< 0.020	< 0.000050
12/27/2017	LC_LC3	200337														
1/9/2017	LC_LC4	200044			183	< 0.0030	< 0.0030	0.17	0.2	< 0.20	0.13	0.0742	0.0783	< 0.020	< 0.020	< 0.000050
2/14/2017	LC_LC4	200044			178	< 0.0010	0.0032	0.16	0.17	0.11	0.14	0.0804	0.0776	< 0.020	< 0.020	< 0.000050
2/24/2017	LC_LC4	200044			171	< 0.0010	0.0054	0.16	0.25	0.12	0.14	0.0847	0.0859	< 0.020	< 0.020	< 0.000050
2/27/2017	LC_LC4	200044			178	< 0.0010	0.0192	0.15	0.2	0.11	0.12	0.0833	0.0872	< 0.020	< 0.020	< 0.000050
3/6/2017	LC_LC4	200044			182	< 0.0030	0.0068	0.15	0.19	< 0.10	0.12	0.084	0.0888	< 0.020	< 0.020	< 0.000050
3/13/2017	LC_LC4	200044			172	0.003	0.0241	0.15	0.18	0.11	0.14	0.0871	0.0832	< 0.020	< 0.020	< 0.000050
3/15/2017	LC_LC4	200044														
3/16/2017	LC_LC4	200044														
3/17/2017	LC_LC4	200044			168	0.0015	0.0964	0.21	0.23	< 0.10	0.2	0.0785	0.0853	< 0.020	< 0.020	< 0.000050
3/18/2017	LC_LC4	200044														
3/19/2017	LC_LC4	200044														
3/20/2017	LC_LC4	200044			168	0.0023	0.0469	0.18	0.23	0.11	0.16	0.0819	0.0856	< 0.020	< 0.020	< 0.000050
3/21/2017	LC_LC4	200044														
3/22/2017	LC_LC4	200044														
3/23/2017	LC_LC4	200044														
3/24/2017	LC_LC4	200044														
3/25/2017	LC_LC4	200044														
3/26/2017	LC_LC4	200044														
3/27/2017	LC_LC4	200044			176	0.0013	0.015	0.22	0.29	0.11	0.18	0.0859	0.0773	< 0.020	< 0.020	< 0.000050
4/3/2017	LC_LC4	200044			175	< 0.0010	0.0071	0.2	0.23	0.12	0.12	0.0877	0.0924	< 0.020	< 0.020	< 0.000050
4/10/2017	LC_LC4	200044			178	0.0016	0.0204	0.23	0.23	0.12	0.14	0.0906	0.0839	< 0.020	< 0.020	< 0.000050
4/18/2017	LC_LC4	200044			181	0.0012	0.0058	0.2	0.23	0.12	0.12	0.0863	0.0772	< 0.020	< 0.020	< 0.000050
4/24/2017	LC_LC4	200044			180	0.003	0.0224	0.19	0.21	0.12	0.16	0.0761	0.0756	< 0.020	< 0.020	< 0.000050
4/27/2017	LC_LC4	200044														
5/1/2017	LC_LC4	200044			186	0.0022	0.0173	0.24	0.26	0.12	0.16	0.0741	0.0743	< 0.020	< 0.020	< 0.000050
5/5/2017	LC_LC4	200044														
5/6/2017	LC_LC4	200044														
5/7/2017	LC_LC4	200044														
5/8/2017	LC_LC4	200044														
5/8/2017	LC_LC4	200044			151	0.0028	0.202	0.24	0.23	0.17	0.31	0.0446	0.0463	< 0.020	0.035	< 0.000050
5/10/2017	LC_LC4	200044														
5/11/2017	LC_LC4	200044														
5/13/2017	LC_LC4	200044														
5/14/2017	LC_LC4	200044														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
5/15/2017	LC_LC4	200044			153	0.0019	0.26	0.25	1.34	0.14	0.3	0.0401	0.045	< 0.020	< 0.020	< 0.000050
5/16/2017	LC_LC4	200044														
5/17/2017	LC_LC4	200044														
5/18/2017	LC_LC4	200044														
5/19/2017	LC_LC4	200044														
5/23/2017	LC_LC4	200044			137	0.003	0.147	0.15	0.17	0.13	0.25	0.0403	0.0419	< 0.020	< 0.020	< 0.000050
5/24/2017	LC_LC4	200044														
5/25/2017	LC_LC4	200044														
5/30/2017	LC_LC4	200044			128	0.0034	0.197	0.16	0.16	0.14	0.3	0.0345	0.0471	< 0.020	0.021	< 0.000050
5/31/2017	LC_LC4	200044														
6/1/2017	LC_LC4	200044														
6/2/2017	LC_LC4	200044														
6/7/2017	LC_LC4	200044			150	0.0031	0.064	0.16	0.2	0.12	0.16	0.035	0.0352	< 0.020	< 0.020	< 0.000050
6/13/2017	LC_LC4	200044			155	0.0103	0.0079	0.19	0.18	0.1	0.15	0.0395	0.0373	< 0.020	< 0.020	< 0.000050
6/19/2017	LC_LC4	200044			151	0.0027	0.0142	0.2	0.2	0.13	0.14	0.0418	0.0398	< 0.020	< 0.020	< 0.000050
6/26/2017	LC_LC4	200044			154	0.0023	0.0073	0.17	0.18	0.12	0.16	0.0462	0.0431	< 0.020	< 0.020	< 0.000050
7/5/2017	LC_LC4	200044			161	0.0011	0.005	0.19	0.17	< 0.10	0.16	0.0516	0.0504	< 0.020	< 0.020	< 0.000050
7/11/2017	LC_LC4	200044			160	0.0012	0.0062	0.2	0.21	0.1	0.13	0.0554	0.0516	< 0.020	< 0.020	< 0.000050
7/18/2017	LC_LC4	200044			174	< 0.0010	0.0039	0.22	0.19	0.11	0.16	0.064	0.0604	< 0.020	< 0.020	< 0.000050
7/25/2017	LC_LC4	200044			186	0.0011	0.0048	0.21	0.2	0.13	0.13	0.0634	0.0613	< 0.020	< 0.020	< 0.000050
8/2/2017	LC_LC4	200044			178	< 0.0030	0.004	0.2	0.24	0.1	0.16	0.0708	0.0699	< 0.020	< 0.020	< 0.000050
8/8/2017	LC_LC4	200044			185	< 0.0030	0.0032	0.21	0.25	0.12	0.15	0.0791	0.0733	< 0.020	< 0.020	< 0.000050
8/15/2017	LC_LC4	200044			184	< 0.0030	0.0054	0.2	0.22	0.1	0.11	0.0712	0.0713	< 0.020	< 0.020	< 0.000050
8/18/2017	LC_LC4	200044														
8/21/2017	LC_LC4	200044			179	< 0.0030	0.0036	0.22	0.23	< 0.10	0.13	0.0815	0.0741	< 0.020	< 0.020	< 0.000050
8/24/2017	LC_LC4	200044														
8/27/2017	LC_LC4	200044														
8/30/2017	LC_LC4	200044			190	< 0.0030	0.0037	0.21	0.24	0.11	0.1	0.0707	0.0666	< 0.020	< 0.020	< 0.000050
9/2/2017	LC_LC4	200044														
9/5/2017	LC_LC4	200044														
9/5/2017	LC_LC4	200044			180	< 0.0030	0.0041	0.2	0.22	0.1	0.15	0.0785	0.0784	< 0.020	< 0.020	< 0.000050
9/8/2017	LC_LC4	200044														
9/12/2017	LC_LC4	200044			190	< 0.0030	0.0043	0.19	0.24	0.11	0.13	0.0883	0.0825	< 0.020	< 0.020	< 0.000050
9/20/2017	LC_LC4	200044			163	< 0.0030	< 0.0030	0.21	0.31	< 0.10	0.1	0.0768	0.0735	< 0.020	< 0.020	< 0.000050
9/25/2017	LC_LC4	200044			194	< 0.0030	0.0036	0.2	0.22	0.1	0.11	0.0812	0.0776	< 0.020	< 0.020	< 0.000050
10/2/2017	LC_LC4	200044			150	< 0.0030	0.0038	0.2	0.22	0.21	0.17	0.0786	0.0756	< 0.020	< 0.020	< 0.000050
10/10/2017	LC_LC4	200044			167	< 0.0030	< 0.0030	0.18	0.18	< 0.10	0.14	0.0779	0.0744	< 0.020	< 0.020	< 0.000050
10/17/2017	LC_LC4	200044			175	< 0.0030	0.0036	0.17	0.25	< 0.10	0.13	0.0816	0.0797	< 0.020	< 0.020	< 0.000050
10/24/2017	LC_LC4	200044			187	< 0.0030	0.0035	0.2	0.2	0.11	0.12	0.0842	0.0829	< 0.020	< 0.020	< 0.000050
10/31/2017	LC_LC4	200044			188	< 0.0030	0.0044	0.22	0.24	0.11	0.11	0.0827	0.0799	< 0.020	< 0.020	< 0.000050
11/6/2017	LC_LC4	200044			183	< 0.0030	0.0052	0.2	0.21	0.11	0.12	0.0824	0.0802	< 0.020	< 0.020	< 0.000050
11/10/2017	LC_LC4	200044			180	< 0.0030	< 0.015	0.21	< 0.50	0.11	< 0.50	0.0838	0.0739	< 0.020	< 0.10	< 0.000050
11/14/2017	LC_LC4	200044			185	< 0.0030	< 0.0030	0.2	0.22	0.11	0.12	0.0856	0.0783	< 0.020	< 0.020	< 0.000050
11/21/2017	LC_LC4	200044			185	< 0.0030	< 0.0030	0.2	0.24	0.1	0.1	0.0787	0.0805	< 0.020	< 0.020	< 0.000050
11/23/2017	LC_LC4	200044														
11/28/2017	LC_LC4	200044			179	< 0.0030	< 0.0030	0.22	0.28	0.12	0.13	0.0723	0.0697	< 0.020	< 0.020	< 0.000050
12/4/2017	LC_LC4	200044			196	< 0.0030	0.0033	0.27	0.29	0.11	0.14	0.0785	0.0875	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
12/12/2017	LC_LC4	200044			193	< 0.0030	0.0041	0.21	0.23	0.11	0.17	0.0832	0.0809	< 0.020	< 0.020	< 0.000050
12/18/2017	LC_LC4	200044			186	< 0.0030	0.0047	0.2	0.19	0.1	0.13	0.0776	0.083	< 0.020	< 0.020	< 0.000050
12/27/2017	LC_LC4	200044			191	< 0.0030	0.0071	0.21	0.22	0.11	0.15	0.0877	0.0824	< 0.020	< 0.020	< 0.000050
1/2/2017	LC_LC5	200028			201	< 0.0010	0.004	0.11	0.14	< 0.10	0.13	0.0912	0.103	< 0.020	< 0.020	< 0.000050
1/9/2017	LC_LC5	200028			189	< 0.0030	0.0137	< 0.10	0.11	< 0.10	< 0.10	0.0993	0.103	< 0.020	< 0.020	< 0.000050
1/16/2017	LC_LC5	200028	0	0	196	< 0.0030	0.057	< 0.10	0.12	< 0.10	0.12	0.0915	0.103	< 0.020	< 0.020	< 0.000050
2/14/2017	LC_LC5	200028			192	0.0013	0.0459	< 0.10	0.12	< 0.10	0.17	0.103	0.108	< 0.020	< 0.020	< 0.000050
3/6/2017	LC_LC5	200028			191	< 0.0030	0.0109	< 0.10	0.1	< 0.10	0.12	0.103	0.105	< 0.020	< 0.020	< 0.000050
3/13/2017	LC_LC5	200028			186	< 0.0010	0.0292	< 0.10	0.1	< 0.10	0.1	0.105	0.101	< 0.020	< 0.020	< 0.000050
3/16/2017	LC_LC5	200028														
3/20/2017	LC_LC5	200028			179	0.0011	0.0489	< 0.10	0.13	< 0.10	0.17	0.105	0.139	< 0.020	< 0.020	< 0.000050
3/27/2017	LC_LC5	200028			182	0.001	0.0309	0.11	0.18	< 0.10	0.15	0.115	0.0959	< 0.020	< 0.020	< 0.000050
4/3/2017	LC_LC5	200028			181	0.0013	0.0182	0.1	0.13	< 0.10	0.14	0.112	0.123	< 0.020	< 0.020	< 0.000050
4/10/2017	LC_LC5	200028			182	0.0014	0.013	0.11	0.13	< 0.10	0.11	0.112	0.102	< 0.020	< 0.020	< 0.000050
4/18/2017	LC_LC5	200028			193	0.0015	0.0107	0.11	0.13	< 0.10	0.11	0.109	0.0959	< 0.020	< 0.020	< 0.000050
4/25/2017	LC_LC5	200028			183	0.0065	0.0686	0.12	0.14	< 0.10	0.21	0.101	0.0927	< 0.020	< 0.020	< 0.000050
5/1/2017	LC_LC5	200028			181	0.0034	0.0259	0.13	0.16	0.1	0.13	0.0962	0.0963	< 0.020	< 0.020	< 0.000050
5/8/2017	LC_LC5	200028			155	0.0023	0.267	0.14	0.16	0.16	0.32	0.0678	0.0695	< 0.020	0.027	< 0.000050
5/15/2017	LC_LC5	200028			159	0.0023	0.382	0.16	0.21	0.13	0.33	0.0647	0.0651	< 0.020	0.022	< 0.000050
5/24/2017	LC_LC5	200028			154	0.0022	1.48	0.12	0.23	0.14	1.59	0.0598	0.119	< 0.020	0.176	< 0.000050
5/31/2017	LC_LC5	200028			138	0.0039	0.793	0.12	0.17	0.13	0.75	0.0532	0.0716	< 0.020	0.076	< 0.000050
6/6/2017	LC_LC5	200028			163	0.0027	0.137	0.14	0.17	< 0.10	0.24	0.0548	0.0609	< 0.020	< 0.020	< 0.000050
6/13/2017	LC_LC5	200028			171	0.0101	0.0187	0.18	0.17	0.12	0.15	0.0396	0.0383	< 0.020	< 0.020	< 0.000050
6/19/2017	LC_LC5	200028			158	0.0024	0.027	0.14	0.16	< 0.10	0.13	0.0672	0.0618	< 0.020	< 0.020	< 0.000050
6/26/2017	LC_LC5	200028			167	0.0018	0.0141	0.14	0.15	< 0.10	0.17	0.0704	0.0673	< 0.020	< 0.020	< 0.000050
7/6/2017	LC_LC5	200028			170	< 0.0010	0.0106	0.13	0.12	0.11	0.14	0.077	0.0737	< 0.020	< 0.020	< 0.000050
7/10/2017	LC_LC5	200028			181	0.0011	0.0115	0.13	0.16	< 0.10	0.14	0.0795	0.0751	< 0.020	< 0.020	< 0.000050
7/18/2017	LC_LC5	200028			185	< 0.0010	0.0068	0.14	0.12	0.1	0.13	0.0872	0.0809	< 0.020	< 0.020	< 0.000050
7/25/2017	LC_LC5	200028			185	0.0012	0.0048	0.14	0.12	0.1	< 0.10	0.0865	0.0834	< 0.020	< 0.020	< 0.000050
8/2/2017	LC_LC5	200028			177	< 0.0030	0.0237	0.13	0.17	< 0.10	0.17	0.0966	0.0961	< 0.020	< 0.020	< 0.000050
8/8/2017	LC_LC5	200028														
8/15/2017	LC_LC5	200028	0	0	184	< 0.0030	0.007	0.12	0.14	< 0.10	0.12	0.0979	0.0968	< 0.020	< 0.020	< 0.000050
8/18/2017	LC_LC5	200028														
8/21/2017	LC_LC5	200028														
8/24/2017	LC_LC5	200028														
8/27/2017	LC_LC5	200028														
8/30/2017	LC_LC5	200028														
9/2/2017	LC_LC5	200028														
9/5/2017	LC_LC5	200028														
9/5/2017	LC_LC5	200028	0	0	182	< 0.0030	0.0046	0.12	0.14	< 0.10	0.13	0.109	0.103	< 0.020	< 0.020	< 0.000050
9/8/2017	LC_LC5	200028														
9/12/2017	LC_LC5	200028			185	< 0.0030	0.0043	0.12	0.24	< 0.10	0.11	0.11	0.08	< 0.020	< 0.020	< 0.000050
10/2/2017	LC_LC5	200028	0	10	146	< 0.0030	< 0.0030	0.12	0.12	0.15	0.14	0.0987	0.102	< 0.020	< 0.020	< 0.000050
11/7/2017	LC_LC5	200028			189	< 0.0030	0.0061	0.1	0.12	< 0.10	< 0.10	0.109	0.0998	< 0.020	< 0.020	< 0.000050
11/28/2017	LC_LC5	200028	0	0	192	< 0.0030	0.0065	0.12	0.53	< 0.10	0.12	0.0988	0.0725	< 0.020	< 0.020	< 0.000050
11/30/2017	LC_LC5	200028														
12/4/2017	LC_LC5	200028	0	0	192	< 0.0030	0.005	0.15	0.16	< 0.10	0.11	0.102	0.106	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
1/9/2017	LC_LC7	E216144														
2/14/2017	LC_LC7	E216144														
3/6/2017	LC_LC7	E216144														
3/13/2017	LC_LC7	E216144														
3/17/2017	LC_LC7	E216144														
3/18/2017	LC_LC7	E216144														
3/19/2017	LC_LC7	E216144														
3/20/2017	LC_LC7	E216144														
3/21/2017	LC_LC7	E216144			202	0.0087	0.339	0.6	0.74	0.17	0.53	0.172	0.17	< 0.020	0.062	< 0.000050
3/21/2017	LC_LC7	E216144	0	0												
3/22/2017	LC_LC7	E216144														
3/23/2017	LC_LC7	E216144														
3/25/2017	LC_LC7	E216144														
3/26/2017	LC_LC7	E216144														
3/27/2017	LC_LC7	E216144	0	0	228	0.0042	0.0796	0.83	0.85	0.17	0.28	0.171	0.16	< 0.020	< 0.020	< 0.000050
3/28/2017	LC_LC7	E216144														
3/29/2017	LC_LC7	E216144														
3/30/2017	LC_LC7	E216144														
3/31/2017	LC_LC7	E216144														
4/4/2017	LC_LC7	E216144	0	0	246	0.0049	0.0337	0.86	0.86	0.17	0.2	0.167	0.173	< 0.020	< 0.020	< 0.000050
4/11/2017	LC_LC7	E216144														
4/18/2017	LC_LC7	E216144														
4/25/2017	LC_LC7	E216144														
5/1/2017	LC_LC7	E216144			224	0.0074	0.0181	0.99	0.98	0.12	0.17	0.129	0.129	< 0.020	< 0.020	< 0.000050
5/1/2017	LC_LC7	E216144														
5/5/2017	LC_LC7	E216144														
5/6/2017	LC_LC7	E216144	0	0	149	0.0049	0.372	0.55	0.6	0.24	0.59	0.102	0.12	< 0.020	0.041	< 0.000050
5/7/2017	LC_LC7	E216144														
5/8/2017	LC_LC7	E216144														
5/11/2017	LC_LC7	E216144														
5/16/2017	LC_LC7	E216144														
5/23/2017	LC_LC7	E216144														
5/30/2017	LC_LC7	E216144														
5/31/2017	LC_LC7	E216144														
6/6/2017	LC_LC7	E216144			138	0.005	0.0196	0.19	0.22	0.18	0.2	0.0746	0.0742	< 0.020	< 0.020	< 0.000050
6/13/2017	LC_LC7	E216144														
6/20/2017	LC_LC7	E216144														
6/26/2017	LC_LC7	E216144														
7/5/2017	LC_LC7	E216144			130	0.0015	0.0066	0.11	0.11	0.14	0.16	0.0695	0.0685	< 0.020	< 0.020	< 0.000050
7/7/2017	LC_LC7	E216144	0	0												
7/11/2017	LC_LC7	E216144														
7/11/2017	LC_LC7	E216144														
7/13/2017	LC_LC7	E216144														
8/2/2017	LC_LC7	E216144			130	< 0.0030	0.0141	< 0.10	0.13	0.12	0.18	0.074	0.0745	< 0.020	< 0.020	< 0.000050
8/2/2017	LC_LC7	E216144														
8/8/2017	LC_LC7	E216144			126											
8/8/2017	LC_LC7	E216144				< 0.0030	0.0066	< 0.10	0.11	0.12	0.16	0.0774	0.077	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
9/6/2017	LC_LC7	E216144			132	< 0.0030	0.0052	< 0.10	0.1	0.13	0.17	0.0842	0.0803	< 0.020	< 0.020	< 0.000050
9/6/2017	LC_LC7	E216144														
10/3/2017	LC_LC7	E216144	0	10	134	0.0037	0.007	< 0.10	< 0.10	0.16	0.17	0.0885	0.0869	< 0.020	< 0.020	< 0.000050
10/3/2017	LC_LC7	E216144														
11/8/2017	LC_LC7	E216144			142	< 0.0030	0.0039	0.14	0.19	0.15	0.13	0.104	0.097	< 0.020	< 0.020	< 0.000050
12/4/2017	LC_LC7	E216144			166	< 0.0030	0.0049	0.29	0.3	0.11	0.15	0.11	0.116	< 0.020	< 0.020	< 0.000050
12/21/2017	LC_LC7	E216144														
5/23/2017	LC_LC7DSTF	E304613														
6/6/2017	LC_LC7DSTF	E304613			137	0.0056	0.0237	0.15	0.2	0.18	0.19	0.0718	0.0699	< 0.020	< 0.020	< 0.000050
7/6/2017	LC_LC7DSTF	E304613			129	0.0014	0.0073	0.11	0.11	0.13	0.18	0.0726	0.0727	< 0.020	< 0.020	< 0.000050
8/2/2017	LC_LC7DSTF	E304613			126											
8/8/2017	LC_LC7DSTF	E304613			126											
8/8/2017	LC_LC7DSTF	E304613				< 0.0030	0.0112	< 0.10	0.15	0.12	0.17	0.0799	0.0805	< 0.020	< 0.020	< 0.000050
1/9/2017	LC_LC8	E219411														
2/14/2017	LC_LC8	E219411														
3/6/2017	LC_LC8	E219411														
3/13/2017	LC_LC8	E219411														
3/21/2017	LC_LC8	E219411														
3/27/2017	LC_LC8	E219411														
4/3/2017	LC_LC8	E219411														
4/11/2017	LC_LC8	E219411														
4/18/2017	LC_LC8	E219411														
4/25/2017	LC_LC8	E219411														
5/1/2017	LC_LC8	E219411														
5/9/2017	LC_LC8	E219411														
5/16/2017	LC_LC8	E219411														
5/23/2017	LC_LC8	E219411														
5/30/2017	LC_LC8	E219411														
6/6/2017	LC_LC8	E219411														
6/13/2017	LC_LC8	E219411														
6/19/2017	LC_LC8	E219411														
6/26/2017	LC_LC8	E219411														
10/3/2017	LC_LC8	E219411														
11/8/2017	LC_LC8	E219411														
12/4/2017	LC_LC8	E219411														
1/9/2017	LC_LC9	E221268														
2/14/2017	LC_LC9	E221268														
3/13/2017	LC_LC9	E221268														
3/16/2017	LC_LC9	E221268														
3/17/2017	LC_LC9	E221268														
3/18/2017	LC_LC9	E221268														
3/19/2017	LC_LC9	E221268														
3/21/2017	LC_LC9	E221268			68.9	0.0036	0.207	1.95	2.14	0.22	0.41	0.104	0.115	< 0.020	0.026	< 0.000050
3/21/2017	LC_LC9	E221268	0	0												
3/22/2017	LC_LC9	E221268														
3/23/2017	LC_LC9	E221268														
3/24/2017	LC_LC9	E221268														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
3/25/2017	LC_LC9	E221268														
3/26/2017	LC_LC9	E221268														
3/27/2017	LC_LC9	E221268														
3/28/2017	LC_LC9	E221268														
3/29/2017	LC_LC9	E221268														
3/30/2017	LC_LC9	E221268														
3/31/2017	LC_LC9	E221268														
4/4/2017	LC_LC9	E221268	0	0	86.3	0.0049	0.0221	1.29	1.27	0.24	0.26	0.126	0.135	< 0.020	< 0.020	< 0.000050
4/5/2017	LC_LC9	E221268														
4/11/2017	LC_LC9	E221268														
4/18/2017	LC_LC9	E221268														
4/25/2017	LC_LC9	E221268														
5/1/2017	LC_LC9	E221268														
5/9/2017	LC_LC9	E221268														
5/16/2017	LC_LC9	E221268														
5/23/2017	LC_LC9	E221268														
5/30/2017	LC_LC9	E221268														
6/6/2017	LC_LC9	E221268														
6/13/2017	LC_LC9	E221268														
6/19/2017	LC_LC9	E221268														
6/26/2017	LC_LC9	E221268														
10/3/2017	LC_LC9	E221268														
11/8/2017	LC_LC9	E221268														
12/4/2017	LC_LC9	E221268														
1/2/2017	LC_LCDSSLCC	E297110			195	< 0.0010	< 0.0030	0.29	0.32	0.13	0.16	0.0788	0.0784	< 0.020	< 0.020	< 0.000050
1/5/2017	LC_LCDSSLCC	E297110														
1/9/2017	LC_LCDSSLCC	E297110			194	< 0.0030	< 0.0030	0.21	0.24	< 0.10	0.1	0.0734	0.0765	< 0.020	< 0.020	< 0.000050
1/13/2017	LC_LCDSSLCC	E297110														
1/16/2017	LC_LCDSSLCC	E297110	0	0	196	< 0.0030	< 0.0030	0.24	0.29	< 0.10	0.11	0.0783	0.0775	< 0.020	< 0.020	< 0.000050
1/18/2017	LC_LCDSSLCC	E297110														
1/23/2017	LC_LCDSSLCC	E297110			196	< 0.0030	< 0.0030	0.2	0.24	< 0.10	0.11	0.0738	0.0795	< 0.020	< 0.020	< 0.000050
1/31/2017	LC_LCDSSLCC	E297110			201	< 0.0030	0.0033	0.19	0.24	< 0.10	0.11	0.0785	0.0774	< 0.020	< 0.020	< 0.000050
2/7/2017	LC_LCDSSLCC	E297110			184	< 0.0010	< 0.0030	0.2	0.23	0.13	0.17	0.0958	0.082	< 0.020	< 0.020	< 0.000050
2/14/2017	LC_LCDSSLCC	E297110			192	< 0.0010	< 0.0030	0.21	0.25	< 0.10	0.14	0.0807	0.085	< 0.020	< 0.020	< 0.000050
2/21/2017	LC_LCDSSLCC	E297110			196	< 0.0030	0.0086	0.21	0.24	< 0.10	0.1	0.084	0.0838	< 0.020	< 0.020	< 0.000050
2/21/2017	LC_LCDSSLCC	E297110														
2/22/2017	LC_LCDSSLCC	E297110														
2/27/2017	LC_LCDSSLCC	E297110			196	< 0.0010	0.0038	0.2	0.22	0.11	0.12	0.0821	0.0856	< 0.020	< 0.020	< 0.000050
3/6/2017	LC_LCDSSLCC	E297110			199	< 0.0030	0.0174	0.2	0.23	< 0.10	0.11	0.0846	0.0915	< 0.020	< 0.020	< 0.000050
3/9/2017	LC_LCDSSLCC	E297110														
3/13/2017	LC_LCDSSLCC	E297110			188	0.0018	0.0504	0.21	0.25	< 0.10	0.15	0.0907	0.0898	< 0.020	< 0.020	< 0.000050
3/15/2017	LC_LCDSSLCC	E297110														
3/20/2017	LC_LCDSSLCC	E297110	0	0	177	0.0013	0.0353	0.25	0.29	0.12	0.15	0.0811	0.0754	< 0.020	< 0.020	< 0.000050
3/21/2017	LC_LCDSSLCC	E297110														
3/27/2017	LC_LCDSSLCC	E297110			191	< 0.0010	0.0089	0.28	0.35	0.1	0.17	0.0829	0.0734	< 0.020	< 0.020	< 0.000050
4/3/2017	LC_LCDSSLCC	E297110			188	0.0011	0.0059	0.27	0.27	0.11	0.11	0.086	0.0952	< 0.020	< 0.020	< 0.000050
4/10/2017	LC_LCDSSLCC	E297110			194	< 0.0010	0.007	0.29	0.28	0.1	0.13	0.0886	0.0789	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
4/18/2017	LC_LCDSSLCC	E297110			203	< 0.0010	0.0068	0.27	0.29	0.1	0.12	0.0851	0.073	< 0.020	< 0.020	< 0.000050
4/24/2017	LC_LCDSSLCC	E297110														
4/25/2017	LC_LCDSSLCC	E297110			199	0.0011	0.0142	0.28	0.28	0.12	0.15	0.073	0.0704	< 0.020	< 0.020	< 0.000050
4/27/2017	LC_LCDSSLCC	E297110														
5/2/2017	LC_LCDSSLCC	E297110			195	< 0.0010	0.0156	0.28	0.28	0.12	0.15	0.0697	0.0687	< 0.020	< 0.020	< 0.000050
5/5/2017	LC_LCDSSLCC	E297110														
5/9/2017	LC_LCDSSLCC	E297110			157	0.001	0.0265	0.26	0.24	0.14	0.18	0.0384	0.0381	< 0.020	< 0.020	< 0.000050
5/16/2017	LC_LCDSSLCC	E297110			163	0.001	0.0115	0.26	0.24	0.13	0.14	0.0362	0.0365	< 0.020	< 0.020	< 0.000050
5/17/2017	LC_LCDSSLCC	E297110														
5/23/2017	LC_LCDSSLCC	E297110			149	0.0016	0.0305	0.18	0.19	0.14	0.15	0.0357	0.0346	< 0.020	< 0.020	< 0.000050
5/30/2017	LC_LCDSSLCC	E297110			132	0.0028	0.0514	0.18	0.17	0.13	0.19	0.0309	0.0317	< 0.020	< 0.020	< 0.000050
6/7/2017	LC_LCDSSLCC	E297110			154	0.0021	0.0154	0.19	0.22	0.11	0.18	0.0317	0.0311	< 0.020	< 0.020	< 0.000050
6/12/2017	LC_LCDSSLCC	E297110			155	0.0014	0.0145	0.23	0.23	0.11	0.14	0.0324	0.0319	< 0.020	< 0.020	< 0.000050
6/13/2017	LC_LCDSSLCC	E297110														
6/19/2017	LC_LCDSSLCC	E297110			159	0.0026	0.0088	0.24	0.21	0.11	0.13	0.04	0.0383	< 0.020	< 0.020	< 0.000050
6/20/2017	LC_LCDSSLCC	E297110														
6/20/2017	LC_LCDSSLCC	E297110			160	0.0016	0.0075	0.21	0.23	0.13	0.14	0.0406	0.0376	< 0.020	< 0.020	< 0.000050
6/26/2017	LC_LCDSSLCC	E297110			163	0.0015	0.0048	0.22	0.21	0.13	0.14	0.0423	0.0409	< 0.020	< 0.020	< 0.000050
7/6/2017	LC_LCDSSLCC	E297110			167	0.0012	0.0044	0.22	0.2	0.1	0.15	0.0505	0.0472	< 0.020	< 0.020	< 0.000050
7/11/2017	LC_LCDSSLCC	E297110														
7/11/2017	LC_LCDSSLCC	E297110			175	0.0013	0.0094	0.24	0.25	0.12	0.13	0.0531	0.0496	< 0.020	< 0.020	< 0.000050
7/13/2017	LC_LCDSSLCC	E297110														
7/18/2017	LC_LCDSSLCC	E297110			192	< 0.0010	0.0036	0.25	0.24	0.11	0.14	0.0613	0.0582	< 0.020	< 0.020	< 0.000050
7/21/2017	LC_LCDSSLCC	E297110														
7/25/2017	LC_LCDSSLCC	E297110														
7/25/2017	LC_LCDSSLCC	E297110			192	0.0015	0.0031	0.26	0.24	< 0.10	0.12	0.062	0.0588	< 0.020	< 0.020	< 0.000050
8/2/2017	LC_LCDSSLCC	E297110														
8/2/2017	LC_LCDSSLCC	E297110			195	< 0.0030	0.0038	0.26	0.29	< 0.10	0.16	0.0691	0.066	< 0.020	< 0.020	< 0.000050
8/8/2017	LC_LCDSSLCC	E297110														
8/8/2017	LC_LCDSSLCC	E297110			200	< 0.0030	0.0055	0.25	0.31	0.11	0.14	0.0774	0.072	< 0.020	< 0.020	< 0.000050
8/15/2017	LC_LCDSSLCC	E297110														
8/15/2017	LC_LCDSSLCC	E297110	0	0	193	< 0.0030	0.0041	0.25	0.29	< 0.10	0.12	0.0675	0.0685	< 0.020	< 0.020	< 0.000050
8/18/2017	LC_LCDSSLCC	E297110														
8/21/2017	LC_LCDSSLCC	E297110			193	< 0.0030	0.0031	0.3	0.29	< 0.10	0.16	0.0713	0.0716	< 0.020	< 0.020	< 0.000050
8/24/2017	LC_LCDSSLCC	E297110														
8/24/2017	LC_LCDSSLCC	E297110														
8/27/2017	LC_LCDSSLCC	E297110														
8/27/2017	LC_LCDSSLCC	E297110														
8/30/2017	LC_LCDSSLCC	E297110														
8/30/2017	LC_LCDSSLCC	E297110			191	< 0.0030	< 0.0030	0.27	0.32	< 0.10	0.15	0.0713	0.0696	< 0.020	< 0.020	< 0.000050
9/2/2017	LC_LCDSSLCC	E297110														
9/5/2017	LC_LCDSSLCC	E297110														
9/5/2017	LC_LCDSSLCC	E297110	3	0	236	< 0.0030	0.0031	0.27	0.29	0.12	0.12	0.073	0.077	< 0.020	< 0.020	< 0.000050
9/8/2017	LC_LCDSSLCC	E297110														
9/12/2017	LC_LCDSSLCC	E297110														
9/12/2017	LC_LCDSSLCC	E297110			205	< 0.0030	0.0031	0.24	0.29	0.1	0.11	0.0866	0.0766	< 0.020	< 0.020	< 0.000050
9/13/2017	LC_LCDSSLCC	E297110														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
9/20/2017	LC_LCDSSLCC	E297110														
9/20/2017	LC_LCDSSLCC	E297110			192	< 0.0030	< 0.0030	0.29	0.32	< 0.10	0.12	0.0735	0.0701	< 0.020	< 0.020	< 0.000050
9/25/2017	LC_LCDSSLCC	E297110			195	< 0.0030	< 0.0030	0.26	0.27	0.11	< 0.10	0.0751	0.0772	< 0.020	< 0.020	< 0.000050
9/25/2017	LC_LCDSSLCC	E297110														
9/26/2017	LC_LCDSSLCC	E297110														
10/2/2017	LC_LCDSSLCC	E297110	0	0	156	< 0.0030	0.0038	0.26	0.29	0.14	0.18	0.0739	0.0747	< 0.020	< 0.020	< 0.000050
10/3/2017	LC_LCDSSLCC	E297110														
10/10/2017	LC_LCDSSLCC	E297110			191	< 0.0030	0.0055	0.23	0.24	< 0.10	0.14	0.0769	0.0742	< 0.020	< 0.020	< 0.000050
10/10/2017	LC_LCDSSLCC	E297110														
10/17/2017	LC_LCDSSLCC	E297110			180	< 0.0030	0.0042	0.23	0.29	< 0.10	0.13	0.0809	0.0796	< 0.020	< 0.020	< 0.000050
10/18/2017	LC_LCDSSLCC	E297110														
10/24/2017	LC_LCDSSLCC	E297110			204	< 0.0030	0.0041	0.25	0.27	0.1	0.11	0.0811	0.0805	< 0.020	< 0.020	< 0.000050
10/24/2017	LC_LCDSSLCC	E297110														
10/31/2017	LC_LCDSSLCC	E297110			197	< 0.0030	0.0041	0.31	0.3	< 0.10	0.1	0.0801	0.077	< 0.020	< 0.020	< 0.000050
11/6/2017	LC_LCDSSLCC	E297110			192	< 0.0030	0.0036	0.25	0.28	0.1	0.1	0.0818	0.0772	< 0.020	< 0.020	< 0.000050
11/10/2017	LC_LCDSSLCC	E297110			197	< 0.0030	< 0.015	0.27	< 0.50	0.1	< 0.50	0.0836	0.0752	< 0.020	< 0.10	< 0.000050
11/14/2017	LC_LCDSSLCC	E297110			200	< 0.0030	0.0039	0.26	0.29	< 0.10	0.13	0.0805	0.0747	< 0.020	< 0.020	< 0.000050
11/16/2017	LC_LCDSSLCC	E297110														
11/21/2017	LC_LCDSSLCC	E297110			200	< 0.0030	0.0041	0.26	0.32	< 0.10	0.12	0.0761	0.0796	< 0.020	< 0.020	< 0.000050
11/28/2017	LC_LCDSSLCC	E297110														
11/28/2017	LC_LCDSSLCC	E297110	0	0	196	< 0.0030	0.0046	0.28	0.28	0.11	< 0.10	0.0694	0.0718	< 0.020	< 0.020	< 0.000050
11/30/2017	LC_LCDSSLCC	E297110														
12/4/2017	LC_LCDSSLCC	E297110	0	0	205	< 0.0030	0.0037	0.3	0.34	< 0.10	0.16	0.0804	0.0808	< 0.020	< 0.020	< 0.000050
12/12/2017	LC_LCDSSLCC	E297110			206	< 0.0030	0.0038	0.29	0.31	0.11	0.16	0.0818	0.0761	< 0.020	< 0.020	< 0.000050
12/12/2017	LC_LCDSSLCC	E297110														
12/14/2017	LC_LCDSSLCC	E297110														
12/18/2017	LC_LCDSSLCC	E297110			204	< 0.0030	< 0.0030	0.27	0.25	0.12	0.12	0.0768	0.0813	< 0.020	< 0.020	< 0.000050
12/18/2017	LC_LCDSSLCC	E297110														
12/27/2017	LC_LCDSSLCC	E297110														
12/27/2017	LC_LCDSSLCC	E297110			204	< 0.0030	< 0.0030	0.28	0.3	0.1	0.15	0.0871	0.0814	< 0.020	< 0.020	< 0.000050
1/2/2017	LC_LCUSWLC	E293369			206	< 0.0010	0.0034	0.47	0.57	0.11	0.17	0.0743	0.077	< 0.020	< 0.020	< 0.000050
1/9/2017	LC_LCUSWLC	E293369			205	< 0.0030	0.0037	0.44	0.42	0.12	0.13	0.0781	0.0703	< 0.020	< 0.020	< 0.000050
1/16/2017	LC_LCUSWLC	E293369			217	< 0.0030	< 0.0030	0.43	0.51	0.12	0.13	0.0695	0.0754	< 0.020	< 0.020	< 0.000050
2/14/2017	LC_LCUSWLC	E293369			200	< 0.0010	0.0033	0.38	0.4	0.12	0.16	0.0784	0.0788	< 0.020	< 0.020	< 0.000050
2/24/2017	LC_LCUSWLC	E293369			202	< 0.0010	0.0037	0.41	0.54	0.13	0.2	0.0851	0.0884	< 0.020	< 0.020	< 0.000050
2/27/2017	LC_LCUSWLC	E293369			200	< 0.0010	< 0.0030	0.4	0.46	0.14	0.16	0.0825	0.0843	< 0.020	< 0.020	< 0.000050
3/6/2017	LC_LCUSWLC	E293369			209	< 0.0030	0.0035	0.39	0.42	0.12	0.14	0.0817	0.0831	< 0.020	< 0.020	< 0.000050
3/13/2017	LC_LCUSWLC	E293369			201	< 0.0010	0.0032	0.37	0.4	0.12	0.14	0.0838	0.0834	< 0.020	< 0.020	< 0.000050
3/16/2017	LC_LCUSWLC	E293369														
3/18/2017	LC_LCUSWLC	E293369														
3/19/2017	LC_LCUSWLC	E293369														
3/20/2017	LC_LCUSWLC	E293369			176	0.0028	0.202	0.56	0.62	0.13	0.25	0.0701	0.0771	< 0.020	0.023	< 0.000050
3/22/2017	LC_LCUSWLC	E293369														
3/23/2017	LC_LCUSWLC	E293369														
3/24/2017	LC_LCUSWLC	E293369														
3/25/2017	LC_LCUSWLC	E293369														
3/26/2017	LC_LCUSWLC	E293369														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
3/27/2017	LC_LCUSWLC	E293369			197	0.0017	0.0871	0.53	0.57	0.13	0.22	0.0804	0.0774	< 0.020	< 0.020	< 0.000050
3/28/2017	LC_LCUSWLC	E293369														
3/29/2017	LC_LCUSWLC	E293369														
3/30/2017	LC_LCUSWLC	E293369														
4/3/2017	LC_LCUSWLC	E293369			205	0.0017	0.0103	0.47	0.46	0.15	0.16	0.0863	0.088	< 0.020	< 0.020	< 0.000050
4/10/2017	LC_LCUSWLC	E293369			207	0.0011	0.0175	0.52	0.48	0.14	0.15	0.0875	0.0738	< 0.020	< 0.020	< 0.000050
4/18/2017	LC_LCUSWLC	E293369			231	0.001	0.0191	0.48	0.49	0.13	0.14	0.085	0.0736	< 0.020	< 0.020	< 0.000050
4/25/2017	LC_LCUSWLC	E293369			205	< 0.0010	0.0269	0.47	0.48	0.15	0.17	0.0617	0.0601	< 0.020	0.021	< 0.000050
5/1/2017	LC_LCUSWLC	E293369			194	< 0.0010	0.0057	0.46	0.47	0.16	0.18	0.0593	0.0571	< 0.020	< 0.020	< 0.000050
5/9/2017	LC_LCUSWLC	E293369			157	< 0.0010	0.0069	0.39	0.38	0.16	0.17	0.0301	0.0283	< 0.020	< 0.020	< 0.000050
5/16/2017	LC_LCUSWLC	E293369			153	0.0011	0.0058	0.38	0.36	0.14	0.14	0.0295	0.03	< 0.020	< 0.020	< 0.000050
5/23/2017	LC_LCUSWLC	E293369			162	< 0.0010	0.0057	0.36	0.35	0.13	0.15	0.0321	0.0303	< 0.020	< 0.020	< 0.000050
5/30/2017	LC_LCUSWLC	E293369			139	< 0.0010	0.0072	0.34	0.35	0.12	0.13	0.0277	0.0265	< 0.020	< 0.020	< 0.000050
6/7/2017	LC_LCUSWLC	E293369			155	0.001	0.0039	0.3	0.31	0.11	0.15	0.0336	0.0278	< 0.020	< 0.020	< 0.000050
6/13/2017	LC_LCUSWLC	E293369			167	0.0049	0.0048	0.33	0.32	0.13	0.15	0.0353	0.0334	< 0.020	< 0.020	< 0.000050
6/19/2017	LC_LCUSWLC	E293369			166	< 0.0010	0.0036	0.37	0.36	0.15	0.15	0.0355	0.0333	< 0.020	< 0.020	< 0.000050
6/26/2017	LC_LCUSWLC	E293369			181	0.0014	0.0036	0.38	0.35	0.15	0.16	0.0411	0.0376	< 0.020	< 0.020	< 0.000050
7/6/2017	LC_LCUSWLC	E293369			169	< 0.0010	0.0044	0.35	0.33	0.12	0.17	0.0462	0.0457	< 0.020	< 0.020	< 0.000050
7/11/2017	LC_LCUSWLC	E293369			187	0.0011	0.0041	0.41	0.4	0.13	0.17	0.0518	0.0488	< 0.020	< 0.020	< 0.000050
7/18/2017	LC_LCUSWLC	E293369			198	< 0.0010	0.0037	0.4	0.36	0.13	0.13	0.061	0.0573	< 0.020	< 0.020	< 0.000050
7/25/2017	LC_LCUSWLC	E293369			197	< 0.0010	0.0042	0.42	0.41	0.12	0.13	0.0638	0.0621	< 0.020	< 0.020	< 0.000050
8/2/2017	LC_LCUSWLC	E293369			203	< 0.0030	0.0042	0.44	0.48	0.11	0.16	0.0737	0.0697	< 0.020	< 0.020	< 0.000050
8/8/2017	LC_LCUSWLC	E293369			202	< 0.0030	0.0039	0.44	0.47	0.13	0.16	0.0783	0.0723	< 0.020	< 0.020	< 0.000050
8/15/2017	LC_LCUSWLC	E293369			194	< 0.0030	< 0.0030	0.44	0.48	0.15	0.19	0.0277	0.0273	< 0.020	< 0.020	< 0.000050
8/18/2017	LC_LCUSWLC	E293369														
8/21/2017	LC_LCUSWLC	E293369			186	< 0.0030	0.0038	0.48	0.45	0.12	0.16	0.0687	0.0676	< 0.020	< 0.020	< 0.000050
8/24/2017	LC_LCUSWLC	E293369														
8/27/2017	LC_LCUSWLC	E293369														
8/30/2017	LC_LCUSWLC	E293369			195	< 0.0030	0.0041	0.44	0.48	0.12	0.14	0.0657	0.0663	< 0.020	< 0.020	< 0.000050
9/2/2017	LC_LCUSWLC	E293369														
9/5/2017	LC_LCUSWLC	E293369														
9/5/2017	LC_LCUSWLC	E293369			203	< 0.0030	0.0045	0.45	0.47	0.12	0.13	0.0689	0.0704	< 0.020	< 0.020	< 0.000050
9/8/2017	LC_LCUSWLC	E293369														
9/12/2017	LC_LCUSWLC	E293369			201	< 0.0030	0.008	0.41	0.46	0.11	0.14	0.0751	0.0686	< 0.020	< 0.020	< 0.000050
9/20/2017	LC_LCUSWLC	E293369			194	< 0.0030	0.0041	0.46	0.48	< 0.10	0.12	0.0684	0.0683	< 0.020	< 0.020	< 0.000050
9/25/2017	LC_LCUSWLC	E293369			190	< 0.0030	0.0035	0.42	0.46	0.11	0.1	0.0734	0.0706	< 0.020	< 0.020	< 0.000050
10/2/2017	LC_LCUSWLC	E293369			165	< 0.0030	< 0.0030	0.44	0.49	0.15	0.18	0.0701	0.0682	< 0.020	< 0.020	< 0.000050
10/10/2017	LC_LCUSWLC	E293369			188	< 0.0030	0.0053	0.41	0.41	0.1	0.15	0.075	0.072	< 0.020	< 0.020	< 0.000050
10/17/2017	LC_LCUSWLC	E293369			196	< 0.0030	0.0033	0.4	0.45	< 0.10	0.14	0.078	0.0749	< 0.020	< 0.020	< 0.000050
10/24/2017	LC_LCUSWLC	E293369			212	< 0.0030	0.005	0.46	0.47	< 0.10	0.13	0.0801	0.0827	< 0.020	< 0.020	< 0.000050
10/31/2017	LC_LCUSWLC	E293369			201	< 0.0030	0.0041	0.49	0.49	0.12	0.12	0.0784	0.0724	< 0.020	< 0.020	< 0.000050
11/6/2017	LC_LCUSWLC	E293369			205	< 0.0030	0.0043	0.46	0.48	0.11	0.12	0.0818	0.0752	< 0.020	< 0.020	< 0.000050
11/9/2017	LC_LCUSWLC	E293369			208	0.0076	0.005	0.48	0.55	0.11	0.13	0.0726	0.0761	< 0.020	< 0.020	< 0.000050
11/14/2017	LC_LCUSWLC	E293369			212	< 0.0030	0.0049	0.45	0.5	0.11	0.13	0.0782	0.0707	< 0.020	< 0.020	< 0.000050
11/21/2017	LC_LCUSWLC	E293369			211	< 0.0030	0.0031	0.45	0.54	0.11	0.13	0.0725	0.0772	< 0.020	< 0.020	< 0.000050
11/28/2017	LC_LCUSWLC	E293369			210	< 0.0030	0.0051	0.51	0.21	0.1	0.11	0.0722	0.0768	< 0.020	< 0.020	< 0.000050
12/4/2017	LC_LCUSWLC	E293369			212	< 0.0030	0.005	0.51	0.56	0.13	0.17	0.0761	0.0747	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
12/12/2017	LC_LCUSWLC	E293369			216	< 0.0030	0.0037	0.5	0.55	0.13	0.21	0.0805	0.0766	< 0.020	< 0.020	< 0.000050
12/18/2017	LC_LCUSWLC	E293369			209	< 0.0030	0.0048	0.49	0.47	0.11	0.13	0.0734	0.0802	< 0.020	< 0.020	< 0.000050
12/27/2017	LC_LCUSWLC	E293369			214	< 0.0030	0.0032	0.5	0.52	0.12	0.17	0.0795	0.0762	< 0.020	< 0.020	< 0.000050
1/9/2017	LC_SLC	E282149														
1/9/2017	LC_SLC	E282149			142	< 0.0030	< 0.0030	< 0.10	< 0.10	0.1	0.11	0.0461	0.0403	< 0.020	< 0.020	< 0.000050
2/14/2017	LC_SLC	E282149			139	< 0.0010	< 0.0030	< 0.10	< 0.10	0.11	0.14	0.0491	0.0444	< 0.020	< 0.020	< 0.000050
2/14/2017	LC_SLC	E282149														
3/6/2017	LC_SLC	E282149			147	< 0.0030	< 0.0030	< 0.10	< 0.10	< 0.10	0.12	0.046	0.0453	< 0.020	0.026	< 0.000050
3/9/2017	LC_SLC	E282149														
4/3/2017	LC_SLC	E282149			142	< 0.0010	< 0.0030	< 0.10	< 0.10	0.12	0.12	0.0501	0.0531	< 0.020	< 0.020	< 0.000050
4/3/2017	LC_SLC	E282149														
5/1/2017	LC_SLC	E282149			151	0.0011	0.0052	< 0.10	< 0.10	0.14	0.15	0.0466	0.0452	< 0.020	< 0.020	< 0.000050
5/6/2017	LC_SLC	E282149														
5/7/2017	LC_SLC	E282149														
5/17/2017	LC_SLC	E282149														
5/24/2017	LC_SLC	E282149														
6/7/2017	LC_SLC	E282149			115	0.0047	0.0292	< 0.10	< 0.10	0.1	0.14	0.0254	0.025	< 0.020	< 0.020	< 0.000050
6/22/2017	LC_SLC	E282149														
7/6/2017	LC_SLC	E282149			117	0.0016	0.0086	< 0.10	< 0.10	0.1	0.15	0.0322	0.0315	< 0.020	< 0.020	< 0.000050
7/13/2017	LC_SLC	E282149														
8/2/2017	LC_SLC	E282149			134	< 0.0030	0.0046	< 0.10	< 0.10	0.11	0.16	0.0416	0.0407	< 0.020	< 0.020	< 0.000050
8/8/2017	LC_SLC	E282149														
8/15/2017	LC_SLC	E282149														
8/18/2017	LC_SLC	E282149														
8/21/2017	LC_SLC	E282149														
8/24/2017	LC_SLC	E282149														
8/24/2017	LC_SLC	E282149														
8/27/2017	LC_SLC	E282149														
8/30/2017	LC_SLC	E282149														
9/2/2017	LC_SLC	E282149														
9/5/2017	LC_SLC	E282149														
9/5/2017	LC_SLC	E282149			140	< 0.0030	0.0031	< 0.10	< 0.10	0.1	0.15	0.0483	0.0467	< 0.020	< 0.020	< 0.000050
9/5/2017	LC_SLC	E282149														
9/8/2017	LC_SLC	E282149														
9/29/2017	LC_SLC	E282149														
10/2/2017	LC_SLC	E282149			143	< 0.0030	0.0032	< 0.10	< 0.10	0.12	0.15	0.0463	0.0461	< 0.020	< 0.020	< 0.000050
10/18/2017	LC_SLC	E282149														
11/8/2017	LC_SLC	E282149			137	< 0.0030	0.0044	< 0.10	< 0.10	0.1	0.11	0.0491	0.0427	< 0.020	< 0.020	< 0.000050
11/8/2017	LC_SLC	E282149														
11/16/2017	LC_SLC	E282149														
12/4/2017	LC_SLC	E282149			140	< 0.0030	0.0043	< 0.10	< 0.10	0.1	0.14	0.045	0.0434	< 0.020	< 0.020	< 0.000050
12/14/2017	LC_SLC	E282149														
1/9/2017	LC_WLC	E261958			322	< 0.0030	< 0.0030	0.53	0.5	0.26	0.26	0.026	0.024	< 0.020	< 0.020	< 0.000050
2/14/2017	LC_WLC	E261958			316	0.0011	< 0.0030	0.5	0.52	0.31	0.38	0.0262	0.0265	< 0.020	< 0.020	< 0.000050
3/6/2017	LC_WLC	E261958			330	< 0.0030	< 0.0030	0.51	0.55	0.25	0.32	0.0248	0.0272	< 0.020	< 0.020	< 0.000050
3/13/2017	LC_WLC	E261958			326	< 0.0010	< 0.0030	0.49	0.51	0.27	0.29	0.0263	0.0248	< 0.020	< 0.020	< 0.000050
3/18/2017	LC_WLC	E261958														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
3/19/2017	LC_WLC	E261958														
3/20/2017	LC_WLC	E261958			314	< 0.0010	0.0238	0.46	0.53	0.27	0.32	0.0267	0.0292	< 0.020	< 0.020	< 0.000050
3/21/2017	LC_WLC	E261958														
3/25/2017	LC_WLC	E261958														
3/26/2017	LC_WLC	E261958														
3/27/2017	LC_WLC	E261958			314	< 0.0010	0.0056	0.56	0.58	0.28	0.37	0.0282	0.0249	< 0.020	< 0.020	< 0.000050
4/3/2017	LC_WLC	E261958			326	0.0011	0.0032	0.51	0.5	0.27	0.38	0.0271	0.0415	< 0.020	< 0.020	< 0.000050
4/10/2017	LC_WLC	E261958			326	< 0.0010	< 0.0030	0.54	0.51	0.27	0.29	0.0277	0.0243	< 0.020	< 0.020	< 0.000050
4/18/2017	LC_WLC	E261958			332	0.0014	0.0048	0.51	0.51	0.26	0.27	0.0262	0.0233	< 0.020	< 0.020	< 0.000050
4/25/2017	LC_WLC	E261958			337	0.0011	0.0035	0.52	0.51	0.27	0.32	0.0262	0.0244	< 0.020	< 0.020	< 0.000050
4/26/2017	LC_WLC	E261958														
5/1/2017	LC_WLC	E261958			304	< 0.0010	0.0035	0.51	0.48	0.27	0.34	0.0253	0.0247	< 0.020	< 0.020	< 0.000050
5/1/2017	LC_WLC	E261958														
5/9/2017	LC_WLC	E261958			314	< 0.0010	< 0.0030	0.53	0.51	0.27	0.3	0.0227	0.0217	< 0.020	< 0.020	< 0.000050
5/16/2017	LC_WLC	E261958			325	< 0.0010	< 0.0030	0.58	0.56	0.23	0.2	0.0181	0.019	< 0.020	< 0.020	< 0.000050
5/23/2017	LC_WLC	E261958			290	< 0.0010	< 0.0030	0.48	0.5	0.21	0.25	0.019	0.0182	< 0.020	< 0.020	< 0.000050
5/30/2017	LC_WLC	E261958			307	< 0.0010	0.0096	0.53	0.55	0.17	0.15	0.0171	0.0162	< 0.020	< 0.020	< 0.000050
6/6/2017	LC_WLC	E261958			317	< 0.0010	< 0.0030	0.5	0.52	0.11	0.16	0.0167	0.0158	< 0.020	< 0.020	< 0.000050
6/13/2017	LC_WLC	E261958			344	0.001	< 0.0030	0.53	0.48	0.15	0.16	0.0181	0.0165	< 0.020	< 0.020	< 0.000050
6/19/2017	LC_WLC	E261958			341	< 0.0010	< 0.0030	0.5	0.47	0.14	0.15	0.0188	0.0168	< 0.020	< 0.020	< 0.000050
6/26/2017	LC_WLC	E261958			352	< 0.0010	< 0.0030	0.47	0.44	0.18	0.21	0.0192	0.0183	< 0.020	< 0.020	< 0.000050
7/6/2017	LC_WLC	E261958														
7/6/2017	LC_WLC	E261958			351	< 0.0010	< 0.0030	0.42	0.41	0.15	0.25	0.0219	0.0208	< 0.020	< 0.020	< 0.000050
7/11/2017	LC_WLC	E261958														
7/11/2017	LC_WLC	E261958			353	< 0.0010	< 0.0030	0.44	0.45	0.14	0.19	0.0208	0.0202	< 0.020	< 0.020	< 0.000050
7/18/2017	LC_WLC	E261958			383	< 0.0010	< 0.0030	0.41	0.39	0.13	0.18	0.0231	0.0217	< 0.020	< 0.020	< 0.000050
7/25/2017	LC_WLC	E261958														
7/25/2017	LC_WLC	E261958			388	< 0.0010	< 0.0030	0.45	0.43	0.13	0.16	0.0222	0.0218	< 0.020	< 0.020	< 0.000050
8/2/2017	LC_WLC	E261958			379	< 0.0030	< 0.0030	0.45	0.47	0.14	0.22	0.0245	0.0242	< 0.020	< 0.020	< 0.000050
8/3/2017	LC_WLC	E261958														
8/8/2017	LC_WLC	E261958														
8/8/2017	LC_WLC	E261958			394	< 0.0030	< 0.0030	0.47	0.48	0.13	0.2	0.0277	0.0252	< 0.020	< 0.020	< 0.000050
8/15/2017	LC_WLC	E261958														
8/15/2017	LC_WLC	E261958			411	< 0.0030	0.0055	0.43	0.45	0.11	0.13	0.0652	0.0645	< 0.020	< 0.020	< 0.000050
8/21/2017	LC_WLC	E261958			392	< 0.0030	< 0.0030	0.46	0.49	0.14	0.25	0.0301	0.0276	< 0.020	< 0.020	< 0.000050
8/30/2017	LC_WLC	E261958														
8/30/2017	LC_WLC	E261958			428	< 0.0030	< 0.0030	0.48	0.5	0.15	0.15	0.0267	0.0249	< 0.020	< 0.020	< 0.000050
9/5/2017	LC_WLC	E261958														
9/5/2017	LC_WLC	E261958			364	< 0.0030	< 0.0060	0.46	0.52	0.16	< 0.20	0.0289	0.0284	< 0.020	< 0.040	< 0.000050
9/5/2017	LC_WLC	E261958														
9/12/2017	LC_WLC	E261958			425	< 0.0030	< 0.0030	0.46	0.54	0.17	0.23	0.0306	0.029	< 0.020	< 0.020	< 0.000050
9/20/2017	LC_WLC	E261958														
9/20/2017	LC_WLC	E261958			291	< 0.0030	< 0.0030	0.48	0.58	0.16	0.15	0.0293	0.0263	< 0.020	< 0.020	< 0.000050
9/25/2017	LC_WLC	E261958														
9/25/2017	LC_WLC	E261958			383	< 0.0030	< 0.0030	0.51	0.51	0.16	0.18	0.0275	0.0265	< 0.020	< 0.020	< 0.000050
10/3/2017	LC_WLC	E261958			250	< 0.0030	< 0.0030	0.5	0.53	0.22	0.31	0.0237	0.027	< 0.020	< 0.020	< 0.000050
10/10/2017	LC_WLC	E261958			221	< 0.0030	< 0.0030	0.48	0.49	0.18	0.26	0.027	0.0263	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
10/10/2017	LC_WLC	E261958														
10/17/2017	LC_WLC	E261958			264	< 0.0030	< 0.0030	0.51	0.56	0.19	0.23	0.025	0.0257	< 0.020	< 0.020	< 0.000050
10/24/2017	LC_WLC	E261958			380	< 0.0030	< 0.0060	0.47	0.5	< 0.20	0.22	0.0257	0.0275	< 0.040	< 0.040	< 0.00010
10/31/2017	LC_WLC	E261958														
10/31/2017	LC_WLC	E261958			370	< 0.0030	< 0.0060	0.52	0.53	0.26	0.23	0.0247	0.0264	< 0.040	< 0.040	< 0.00010
11/8/2017	LC_WLC	E261958			334	< 0.0030	< 0.0060	0.52	0.53	0.21	0.24	0.0259	0.0263	< 0.020	< 0.040	< 0.000050
11/8/2017	LC_WLC	E261958														
11/14/2017	LC_WLC	E261958			345	< 0.0030	< 0.0030	0.48	0.61	0.23	0.26	0.0272	0.025	< 0.020	< 0.020	< 0.000050
11/21/2017	LC_WLC	E261958			341	< 0.0030	0.0034	0.54	0.58	< 0.20	0.28	0.0257	0.0268	< 0.040	< 0.020	< 0.00010
11/28/2017	LC_WLC	E261958			347	< 0.0030	< 0.0030	0.51	0.67	0.25	0.29	0.0279	0.0245	< 0.040	< 0.040	< 0.00010
11/28/2017	LC_WLC	E261958														
12/4/2017	LC_WLC	E261958			344	< 0.0030	< 0.0060	0.61	0.54	0.26	0.29	0.0277	0.0271	< 0.020	< 0.040	< 0.000050
12/12/2017	LC_WLC	E261958			337	< 0.0030	< 0.0060	0.52	0.56	0.25	0.37	0.027	0.0253	< 0.040	< 0.040	< 0.00010
12/18/2017	LC_WLC	E261958			340	< 0.0030	< 0.0030	0.52	0.52	0.25	0.26	0.0241	0.0267	< 0.020	< 0.020	< 0.000050
12/18/2017	LC_WLC	E261958														
12/27/2017	LC_WLC	E261958			329	< 0.0030	< 0.0060	0.58	0.6	0.26	0.32	0.0262	0.0252	< 0.020	< 0.040	< 0.000050
4/11/2017	RG_BORDER	E300094			142	0.133	0.659	< 0.10	0.12	0.99	1.26	0.0841	0.0914	< 0.020	0.039	< 0.000050
4/11/2017	RG_BORDER	E300094			145	0.137	0.565	< 0.10	0.14	0.91	1.17	0.0855	0.0906	< 0.020	0.029	< 0.000050
4/11/2017	RG_BORDER	E300094			143	0.0083	0.607	< 0.10	0.17	0.63	1.21	0.0813	0.0884	< 0.020	0.034	< 0.000050
4/17/2017	RG_BORDER	E300094			139	0.0088	0.706	< 0.10	0.12	0.62	1.35	0.0641	0.074	< 0.020	0.038	< 0.000050
4/17/2017	RG_BORDER	E300094			141	0.0111	0.652	< 0.10	0.12	0.66	1.26	0.0671	0.0754	< 0.020	0.035	< 0.000050
4/17/2017	RG_BORDER	E300094			142	0.0103	0.634	< 0.10	0.14	0.67	1.29	0.0644	0.0749	< 0.020	0.036	< 0.000050
4/24/2017	RG_BORDER	E300094			132	0.0128	2.32	0.1	0.15	0.8	1.7	0.0677	0.0919	< 0.020	0.101	< 0.000050
4/24/2017	RG_BORDER	E300094			136	0.0116	1.49	0.1	0.14	0.83	1.56	0.073	0.0877	< 0.020	0.069	< 0.000050
4/24/2017	RG_BORDER	E300094			134	0.0089	1.35	0.11	0.14	0.67	1.58	0.0565	0.0856	< 0.020	0.061	< 0.000050
5/2/2017	RG_BORDER	E300094			129	0.0142	1.33	< 0.10	0.16	0.76	1.42	0.0593	0.0743	< 0.020	0.062	< 0.000050
5/2/2017	RG_BORDER	E300094			136	0.0122	0.964	< 0.10	0.18	0.76	1.34	0.0639	0.073	< 0.020	0.046	< 0.000050
5/9/2017	RG_BORDER	E300094			116	0.0296	2.03	< 0.10	0.14	0.68	1.69	0.0441	0.0653	< 0.020	0.102	< 0.000050
5/9/2017	RG_BORDER	E300094			113	0.0298	2.12	0.14	0.15	0.64	1.7	0.0435	0.0669	< 0.020	0.103	< 0.000050
5/9/2017	RG_BORDER	E300094			115	0.0298	2.15	< 0.10	0.14	0.69	1.71	0.0432	0.0676	< 0.020	0.11	< 0.000050
5/16/2017	RG_BORDER	E300094			109	0.0198	0.897	< 0.10	< 0.10	0.42	0.81	0.039	0.0476	< 0.020	0.047	< 0.000050
5/16/2017	RG_BORDER	E300094			108	0.0203	0.965	< 0.10	< 0.10	0.37	0.84	0.0368	0.0483	< 0.020	0.044	< 0.000050
5/16/2017	RG_BORDER	E300094			109	0.0194	0.827	< 0.10	< 0.10	0.39	0.78	0.0388	0.0488	< 0.020	0.037	< 0.000050
5/23/2017	RG_BORDER	E300094			115	0.0145	0.243	< 0.10	< 0.10	0.36	0.57	0.0407	0.0478	< 0.020	< 0.020	< 0.000050
5/23/2017	RG_BORDER	E300094			112	0.0146	0.351	< 0.10	< 0.10	0.37	0.53	0.0396	0.0471	< 0.020	< 0.020	< 0.000050
5/23/2017	RG_BORDER	E300094			114	0.014	0.138	< 0.10	< 0.10	0.38	0.49	0.0416	0.0469	< 0.020	< 0.020	< 0.000050
5/30/2017	RG_BORDER	E300094			111	0.0204	1.09	< 0.10	< 0.10	0.37	0.7	0.038	0.0476	< 0.020	0.052	< 0.000050
5/30/2017	RG_BORDER	E300094			107	0.022	0.777	< 0.10	< 0.10	0.35	0.71	0.0354	0.0433	< 0.020	0.038	< 0.000050
5/30/2017	RG_BORDER	E300094			105	0.0226	0.506	< 0.10	< 0.10	0.36	0.63	0.034	0.0384	< 0.020	0.029	< 0.000050
6/6/2017	RG_BORDER	E300094			105	0.029	1.27	< 0.10	< 0.10	0.33	0.79	0.0302	0.0422	< 0.020	0.056	< 0.000050
6/6/2017	RG_BORDER	E300094			105	0.0265	1.39	< 0.10	< 0.10	0.35	0.84	0.0291	0.0418	< 0.020	0.063	< 0.000050
6/6/2017	RG_BORDER	E300094			107	0.0123	0.0818	< 0.10	< 0.10	0.42	0.4	0.04	0.0373	< 0.020	< 0.020	< 0.000050
6/13/2017	RG_BORDER	E300094			94.8	0.323	0.883	< 0.10	< 0.10	0.37	0.75	0.0293	0.0375	< 0.020	0.044	< 0.000050
6/13/2017	RG_BORDER	E300094			99	0.0139	0.0909	< 0.10	< 0.10	0.37	0.41	0.0408	0.0361	< 0.020	< 0.020	< 0.000050
6/13/2017	RG_BORDER	E300094			101	0.0183	1.25	< 0.10	< 0.10	0.32	0.89	0.0288	0.0414	< 0.020	0.061	< 0.000050
6/20/2017	RG_BORDER	E300094			97.4	0.0146	0.596	< 0.10	< 0.10	0.25	0.57	0.0314	0.0387	< 0.020	0.032	< 0.000050
6/20/2017	RG_BORDER	E300094			93.8	0.0137	0.29	< 0.10	< 0.10	0.28	0.45	0.0292	0.0339	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
6/20/2017	RG_BORDER	E300094			92.7	0.0124	0.067	< 0.10	< 0.10	0.34	0.38	0.0348	0.0361	< 0.020	< 0.020	< 0.000050
6/27/2017	RG_BORDER	E300094			103	0.0127	0.311	< 0.10	0.1	0.35	0.61	0.0396	0.0426	< 0.020	< 0.020	< 0.000050
6/27/2017	RG_BORDER	E300094			96.1	0.0113	0.205	< 0.10	0.1	0.26	0.46	0.0368	0.0365	< 0.020	< 0.020	< 0.000050
6/27/2017	RG_BORDER	E300094			95.9	0.0122	0.0439	< 0.10	0.12	0.34	0.44	0.0404	0.0365	< 0.020	< 0.020	< 0.000050
7/4/2017	RG_BORDER	E300094			93.3	0.0117	0.273	< 0.10	< 0.10	0.32	0.46	0.0395	0.0385	< 0.020	< 0.020	< 0.000050
7/4/2017	RG_BORDER	E300094			86.2	0.0102	0.13	< 0.10	< 0.10	0.3	0.33	0.0337	0.0293	< 0.020	< 0.020	< 0.000050
7/4/2017	RG_BORDER	E300094			90.3	0.0095	0.0367	< 0.10	< 0.10	0.35	0.36	0.0389	0.0361	< 0.020	< 0.020	< 0.000050
7/11/2017	RG_BORDER	E300094			95.6	0.0094	0.109	< 0.10	< 0.10	0.34	0.38	0.0383	0.0318	< 0.020	< 0.020	< 0.000050
7/11/2017	RG_BORDER	E300094			88.5	0.0096	0.0569	< 0.10	< 0.10	0.28	0.32	0.0329	0.0325	< 0.020	< 0.020	< 0.000050
7/11/2017	RG_BORDER	E300094			94	0.0091	0.0345	< 0.10	< 0.10	0.34	0.37	0.0406	0.0385	< 0.020	< 0.020	< 0.000050
8/8/2017	RG_BORDER	E300094			96.8	0.0074	0.0231	< 0.10	< 0.10	0.28	0.3	0.0355	0.0345	< 0.020	< 0.020	< 0.000050
8/8/2017	RG_BORDER	E300094			97.6	0.0124	0.0611	< 0.10	< 0.10	0.33	0.34	0.0383	0.0368	< 0.020	< 0.020	< 0.000050
8/8/2017	RG_BORDER	E300094			102	0.0053	0.0209	< 0.10	< 0.10	0.32	0.3	0.0409	0.0377	< 0.020	< 0.020	< 0.000050
9/18/2017	RG_BORDER	E300094			97.6	0.0072	0.0283	< 0.10	< 0.10	0.35	0.37	0.0383	0.0373	< 0.020	< 0.020	< 0.000050
9/18/2017	RG_BORDER	E300094			111	0.0039	0.0126	< 0.10	< 0.10	0.36	0.42	0.0457	0.0458	< 0.020	< 0.020	< 0.000050
9/18/2017	RG_BORDER	E300094			111	0.0038	0.0128	< 0.10	< 0.10	0.39	0.39	0.0471	0.0445	< 0.020	< 0.020	< 0.000050
10/3/2017	RG_BORDER	E300094			119	0.0038	0.0247	< 0.10	< 0.10	0.4	0.44	0.0496	0.0491	< 0.020	< 0.020	< 0.000050
10/3/2017	RG_BORDER	E300094			110	0.0035	0.0114	< 0.10	< 0.10	0.35	0.37	0.0466	0.0464	< 0.020	< 0.020	< 0.000050
10/3/2017	RG_BORDER	E300094			110	0.0035	0.0112	< 0.10	< 0.10	0.34	0.39	0.0471	0.045	< 0.020	< 0.020	< 0.000050
11/8/2017	RG_BORDER	E300094			115	0.0032	0.0173	< 0.10	< 0.10	0.36	0.42	0.0489	0.0515	< 0.020	< 0.020	< 0.000050
11/8/2017	RG_BORDER	E300094			112	0.0032	0.0131	< 0.10	< 0.10	0.37	0.42	0.0462	0.0514	< 0.020	< 0.020	< 0.000050
11/8/2017	RG_BORDER	E300094			113	< 0.0030	0.0144	< 0.10	< 0.10	0.34	0.39	0.0482	0.0503	< 0.020	< 0.020	< 0.000050
12/5/2017	RG_BORDER	E300094			120	0.0047	0.0402	< 0.10	< 0.10	0.36	0.42	0.0574	0.0556	< 0.020	< 0.020	< 0.000050
12/5/2017	RG_BORDER	E300094			114	0.0037	0.0181	< 0.10	< 0.10	0.37	0.43	0.0547	0.0518	< 0.020	< 0.020	< 0.000050
12/5/2017	RG_BORDER	E300094			114	0.0034	0.0163	< 0.10	< 0.10	0.39	0.39	0.0515	0.0497	< 0.020	< 0.020	< 0.000050
4/4/2017	RG_DSELK	E300230			145	0.0099	1.62	< 0.10	0.17	0.63	1.58	0.0853	0.106	< 0.020	0.104	< 0.000050
4/11/2017	RG_DSELK	E300230			154	0.0117	2.84	< 0.10	0.17	0.68	2.37	0.0708	0.108	< 0.020	0.163	< 0.000050
4/17/2017	RG_DSELK	E300230			154	0.0112	0.706	< 0.10	< 0.10	0.74	1.99	0.0653	0.101	< 0.020	0.151	< 0.000050
4/24/2017	RG_DSELK	E300230			135	0.0159	8.15	0.11	0.3	0.91	5.41	0.0664	0.163	< 0.020	0.418	< 0.000050
5/2/2017	RG_DSELK	E300230			141	0.0127	2.66	< 0.10	0.2	0.6	2.03	0.0569	0.0877	< 0.020	0.136	< 0.000050
5/9/2017	RG_DSELK	E300230			128	0.0211	4.91	< 0.10	0.2	0.57	3.25	0.0424	0.101	< 0.020	0.264	< 0.000050
5/16/2017	RG_DSELK	E300230			111	0.0155	1.19	< 0.10	0.1	0.41	1.04	0.0357	0.0476	< 0.020	0.064	< 0.000050
5/23/2017	RG_DSELK	E300230			111	0.0161	1.08	< 0.10	< 0.10	0.45	1.03	0.0315	0.0444	< 0.020	0.063	< 0.000050
5/30/2017	RG_DSELK	E300230			112	0.0242	2.61	< 0.10	0.18	0.48	1.85	0.0409	0.0727	< 0.020	0.144	< 0.000050
6/6/2017	RG_DSELK	E300230			108	0.021	1.2	< 0.10	< 0.10	0.27	0.72	0.0388	0.0532	< 0.020	0.069	< 0.000050
6/6/2017	RG_DSELK	E300230			106	0.0264	0.798	< 0.10	< 0.10	0.3	0.61	0.0288	0.0387	< 0.020	0.049	< 0.000050
6/6/2017	RG_DSELK	E300230			105	0.0277	1.23	< 0.10	< 0.10	0.33	0.76	0.0287	0.0394	< 0.020	0.057	< 0.000050
6/13/2017	RG_DSELK	E300230			102	0.0171	1.14	< 0.10	< 0.10	0.29	0.8	0.0287	0.0361	< 0.020	0.059	< 0.000050
6/13/2017	RG_DSELK	E300230			105	0.0147	1.02	< 0.10	< 0.10	0.22	0.75	0.0269	0.0372	< 0.020	0.055	< 0.000050
6/13/2017	RG_DSELK	E300230			111	0.0106	0.745	< 0.10	< 0.10	0.23	0.59	0.046	0.0522	< 0.020	0.047	< 0.000050
6/20/2017	RG_DSELK	E300230			102	0.0135	0.484	< 0.10	< 0.10	0.27	0.47	0.029	0.036	< 0.020	0.024	< 0.000050
6/20/2017	RG_DSELK	E300230			98	0.013	0.358	< 0.10	< 0.10	0.26	0.42	0.0308	0.036	< 0.020	0.021	< 0.000050
6/20/2017	RG_DSELK	E300230			93.5	0.0136	0.161	< 0.10	< 0.10	0.27	0.36	0.0283	0.0281	< 0.020	< 0.020	< 0.000050
6/27/2017	RG_DSELK	E300230			94.1	0.0115	0.0599	< 0.10	< 0.10	0.27	0.3	0.0341	0.0329	< 0.020	< 0.020	< 0.000050
6/27/2017	RG_DSELK	E300230			94.9	0.0098	0.221	< 0.10	< 0.10	0.26	0.54	0.0294	0.0472	< 0.020	< 0.020	< 0.000050
6/27/2017	RG_DSELK	E300230			95.1	0.0097	0.0989	< 0.10	< 0.10	0.28	0.33	0.033	0.0343	< 0.020	< 0.020	< 0.000050
7/4/2017	RG_DSELK	E300230			88.5	0.009	0.105	< 0.10	< 0.10	0.25	0.31	0.0276	0.0315	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
7/4/2017	RG_DSELK	E300230			93.7	0.0083	0.0418	< 0.10	< 0.10	0.27	0.28	0.0384	0.039	< 0.020	< 0.020	< 0.000050
7/4/2017	RG_DSELK	E300230			92.6	0.0094	0.0338	< 0.10	< 0.10	0.33	0.37	0.0362	0.0369	< 0.020	< 0.020	< 0.000050
7/11/2017	RG_DSELK	E300230			88.4	0.01	0.0556	< 0.10	< 0.10	0.27	0.33	0.0341	0.0319	< 0.020	< 0.020	< 0.000050
7/11/2017	RG_DSELK	E300230			95.2	0.0068	0.0493	< 0.10	< 0.10	0.28	0.31	0.0505	0.051	< 0.020	< 0.020	< 0.000050
7/11/2017	RG_DSELK	E300230			91.9	0.0091	0.0244	< 0.10	< 0.10	0.33	0.35	0.0395	0.0361	< 0.020	< 0.020	< 0.000050
8/8/2017	RG_DSELK	E300230			112	0.0047	0.0164	< 0.10	< 0.10	0.34	0.34	0.0434	0.0403	< 0.020	< 0.020	< 0.000050
8/8/2017	RG_DSELK	E300230			104	0.008	0.0926	< 0.10	< 0.10	0.31	0.37	0.0423	0.0384	< 0.020	< 0.020	< 0.000050
9/18/2017	RG_DSELK	E300230			125	0.0038	0.0262	< 0.10	< 0.10	0.44	0.4	0.0534	0.048	< 0.020	< 0.020	< 0.000050
9/18/2017	RG_DSELK	E300230			117	0.0043	0.0114	< 0.10	< 0.10	0.4	0.38	0.0488	0.0448	< 0.020	< 0.020	< 0.000050
9/18/2017	RG_DSELK	E300230			118	0.004	0.0134	< 0.10	< 0.10	0.39	0.39	0.0481	0.0451	< 0.020	< 0.020	< 0.000050
10/3/2017	RG_DSELK	E300230			128	0.0032	0.0233	< 0.10	< 0.10	0.36	0.41	0.0547	0.054	< 0.020	< 0.020	< 0.000050
10/3/2017	RG_DSELK	E300230			115	0.0038	0.008	< 0.10	< 0.10	0.37	0.39	0.0454	0.0441	< 0.020	< 0.020	< 0.000050
10/3/2017	RG_DSELK	E300230			112	0.0037	0.0158	< 0.10	0.59	0.36	0.87	0.0453	0.0438	< 0.020	0.049	< 0.000050
11/8/2017	RG_DSELK	E300230			125	< 0.0030	0.0193	< 0.10	< 0.10	0.38	0.45	0.0535	0.0545	< 0.020	< 0.020	< 0.000050
11/8/2017	RG_DSELK	E300230			123	< 0.0030	0.0145	< 0.10	< 0.10	0.36	0.44	0.0508	0.053	< 0.020	< 0.020	< 0.000050
11/8/2017	RG_DSELK	E300230			117	< 0.0030	0.0095	< 0.10	< 0.10	0.35	0.39	0.051	0.0525	< 0.020	< 0.020	< 0.000050
12/5/2017	RG_DSELK	E300230			127	0.0049	0.053	< 0.10	< 0.10	0.33	0.33	0.0686	0.0666	< 0.020	< 0.020	< 0.000050
12/5/2017	RG_DSELK	E300230			126	0.0048	0.0444	< 0.10	< 0.10	0.36	0.4	0.0644	0.0592	< 0.020	< 0.020	< 0.000050
12/5/2017	RG_DSELK	E300230			118	0.0055	0.0263	< 0.10	< 0.10	0.39	0.41	0.0575	0.0556	< 0.020	< 0.020	< 0.000050
1/3/2017	RG_ELKORES	E294312			180	0.0032	0.214	0.11	0.11	0.24	0.35	0.0966	0.102	< 0.020	< 0.020	< 0.000050
2/8/2017	RG_ELKORES	E294312			180	< 0.0030	0.176	< 0.10	0.14	0.25	0.34	0.0989	0.102	< 0.020	< 0.020	< 0.000050
3/7/2017	RG_ELKORES	E294312			151	0.0041	0.296	< 0.10	0.16	0.18	0.35	0.0962	0.108	< 0.020	< 0.020	< 0.000050
3/14/2017	RG_ELKORES	E294312			125	0.0067	0.435	< 0.10	0.17	0.14	0.35	0.0599	0.0514	< 0.020	0.035	< 0.000050
3/21/2017	RG_ELKORES	E294312			142	0.0085	0.581	< 0.10	0.12	0.21	0.48	0.0845	0.0905	< 0.020	0.04	< 0.000050
3/28/2017	RG_ELKORES	E294312			157	< 0.0030	0.207	< 0.10	< 0.10	0.17	0.26	0.0967	0.0996	< 0.020	< 0.020	< 0.000050
4/4/2017	RG_ELKORES	E294312			163	0.0114	0.204	< 0.10	< 0.10	0.18	0.27	0.0981	0.0965	< 0.020	< 0.020	< 0.000050
4/11/2017	RG_ELKORES	E294312			157	0.0119	0.197	< 0.10	0.14	0.19	0.25	0.105	0.0992	< 0.020	< 0.020	< 0.000050
4/18/2017	RG_ELKORES	E294312			161	0.011	0.172	< 0.10	< 0.10	0.17	0.24	0.0907	0.0934	< 0.020	< 0.020	< 0.000050
4/25/2017	RG_ELKORES	E294312			146	0.0115	0.479	< 0.10	0.14	0.15	0.41	0.0899	0.0943	< 0.020	0.033	< 0.000050
5/1/2017	RG_ELKORES	E294312			157	0.0166	0.213	< 0.10	0.12	0.18	0.28	0.0854	0.0881	< 0.020	< 0.020	< 0.000050
5/9/2017	RG_ELKORES	E294312			141	0.013	0.799	< 0.10	0.12	0.2	0.64	0.068	0.0815	< 0.020	0.055	< 0.000050
5/16/2017	RG_ELKORES	E294312			140	0.0107	0.602	< 0.10	0.14	0.19	0.53	0.0674	0.0733	< 0.020	0.041	< 0.000050
5/23/2017	RG_ELKORES	E294312			124	0.106	1.01	< 0.10	0.17	0.34	0.8	0.0701	0.0778	0.038	0.073	< 0.000050
5/30/2017	RG_ELKORES	E294312			126	0.021	2.27	< 0.10	0.2	0.2	1.84	0.0562	0.116	< 0.020	0.145	< 0.000050
6/6/2017	RG_ELKORES	E294312			124	0.0094	1.25	< 0.10	0.16	0.18	1.01	0.0515	0.074	< 0.020	0.083	< 0.000050
6/13/2017	RG_ELKORES	E294312			126	0.0057	0.655	< 0.10	0.11	0.2	0.6	0.0547	0.0644	< 0.020	0.042	< 0.000050
6/20/2017	RG_ELKORES	E294312			130	0.0064	0.342	< 0.10	< 0.10	0.19	0.38	0.0531	0.0608	< 0.020	0.024	< 0.000050
6/27/2017	RG_ELKORES	E294312			130	0.0044	0.161	< 0.10	< 0.20	0.18	< 0.40	0.0611	0.0658	< 0.020	< 0.020	< 0.000050
7/4/2017	RG_ELKORES	E294312			137	< 0.0030	0.0875	< 0.10	< 0.10	0.19	0.23	0.0676	0.0652	< 0.020	< 0.020	< 0.000050
7/11/2017	RG_ELKORES	E294312			144	< 0.0030	0.492	< 0.10	0.1	0.18	0.5	0.0624	0.0636	< 0.020	0.038	< 0.000050
8/1/2017	RG_ELKORES	E294312			157	< 0.0030	0.0401	< 0.10	0.1	0.2	0.27	0.0752	0.0717	< 0.020	< 0.020	< 0.000050
9/19/2017	RG_ELKORES	E294312			167	< 0.0030	0.011	< 0.10	0.11	0.2	0.22	0.0872	0.0841	< 0.020	< 0.020	< 0.000050
10/3/2017	RG_ELKORES	E294312			164	< 0.0030	0.0148	< 0.10	0.12	0.19	0.2	0.0847	0.0865	< 0.020	< 0.020	< 0.000050
11/8/2017	RG_ELKORES	E294312			177	< 0.0030	0.033	< 0.10	< 0.10	0.17	0.24	0.0942	0.101	< 0.020	< 0.020	< 0.000050
12/5/2017	RG_ELKORES	E294312			164	0.0042	0.0333	< 0.10	0.11	0.16	0.2	0.0912	0.0879	< 0.020	< 0.020	< 0.000050
4/4/2017	RG_GRASMERE	E300092			143	0.0098	0.71	< 0.10	0.12	0.67	1.15	0.0767	0.0864	< 0.020	0.033	< 0.000050
4/4/2017	RG_GRASMERE	E300092			145	0.0093	0.741	< 0.10	0.13	0.66	1.14	0.077	0.089	< 0.020	0.032	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
4/11/2017	RG_GRASMERE	E300092			144	0.0124	1.22	< 0.10	0.13	0.64	1.46	0.0676	0.0848	< 0.020	0.064	< 0.000050
4/17/2017	RG_GRASMERE	E300092			147	0.0102	1.2	< 0.10	0.12	0.72	1.44	0.0646	0.0756	< 0.020	0.067	< 0.000050
4/24/2017	RG_GRASMERE	E300092			157	0.0077	1.15	0.11	0.16	0.88	2.24	0.0818	0.0981	< 0.020	0.06	< 0.000050
5/2/2017	RG_GRASMERE	E300092			160	0.0136	7.05	< 0.10	0.35	0.71	4.75	0.0641	0.145	< 0.020	0.365	< 0.000050
5/9/2017	RG_GRASMERE	E300092			122	0.0218	4.09	< 0.10	0.24	0.58	2.82	0.0445	0.0864	< 0.020	0.2	< 0.000050
5/16/2017	RG_GRASMERE	E300092			111	0.0145	0.703	< 0.10	< 0.10	0.41	0.7	0.037	0.0438	< 0.020	0.029	< 0.000050
5/23/2017	RG_GRASMERE	E300092			107	0.0161	0.381	< 0.10	< 0.10	0.45	0.64	0.0346	0.0435	< 0.020	0.024	< 0.000050
5/30/2017	RG_GRASMERE	E300092			109	0.0252	1.41	< 0.10	< 0.10	0.42	1.12	0.0278	0.039	< 0.020	0.071	< 0.000050
6/6/2017	RG_GRASMERE	E300092			107	0.0247	0.765	< 0.10	< 0.10	0.32	0.6	0.0354	0.043	< 0.020	0.049	< 0.000050
6/6/2017	RG_GRASMERE	E300092			99.1	0.0271	1.56	< 0.10	< 0.10	0.33	0.77	0.0293	0.0433	< 0.020	0.061	< 0.000050
6/6/2017	RG_GRASMERE	E300092			99.6	0.0268	0.769	< 0.10	< 0.10	0.31	0.63	0.0246	0.0322	< 0.020	0.043	< 0.000050
6/13/2017	RG_GRASMERE	E300092			105	0.0161	1.26	< 0.10	< 0.10	0.27	0.85	0.0278	0.0391	< 0.020	0.066	< 0.000050
6/13/2017	RG_GRASMERE	E300092			105	0.015	1.08	< 0.10	< 0.10	0.26	0.8	0.0302	0.0401	< 0.020	0.055	< 0.000050
6/13/2017	RG_GRASMERE	E300092			105	0.0137	0.547	< 0.10	< 0.10	0.28	0.55	0.0366	0.0401	< 0.020	0.031	< 0.000050
6/20/2017	RG_GRASMERE	E300092			103	0.0142	0.471	< 0.10	< 0.10	0.26	0.48	0.0329	0.0404	< 0.020	0.022	< 0.000050
6/20/2017	RG_GRASMERE	E300092			93.4	0.0134	0.302	< 0.10	< 0.10	0.27	0.43	0.0283	0.0328	< 0.020	< 0.020	< 0.000050
6/20/2017	RG_GRASMERE	E300092			92.2	0.0123	0.0749	< 0.10	< 0.10	0.31	0.38	0.0321	0.0339	< 0.020	< 0.020	< 0.000050
6/27/2017	RG_GRASMERE	E300092			104	0.0095	0.182	< 0.10	< 0.10	0.28	0.37	0.0384	0.0395	< 0.020	< 0.020	< 0.000050
6/27/2017	RG_GRASMERE	E300092			97.5	0.0106	0.114	< 0.10	< 0.10	0.27	0.33	0.0347	0.0363	< 0.020	< 0.020	< 0.000050
6/27/2017	RG_GRASMERE	E300092			94.6	0.0108	0.0469	< 0.10	< 0.10	0.32	0.34	0.0338	0.0333	< 0.020	< 0.020	< 0.000050
7/4/2017	RG_GRASMERE	E300092			88.6	0.0102	0.0897	< 0.10	< 0.10	0.26	0.28	0.0322	0.0343	< 0.020	< 0.020	< 0.000050
7/4/2017	RG_GRASMERE	E300092			89.9	0.0089	0.0334	< 0.10	< 0.10	0.29	0.31	0.0323	0.033	< 0.020	< 0.020	< 0.000050
7/4/2017	RG_GRASMERE	E300092			92	0.0106	0.0287	< 0.10	< 0.10	0.33	0.33	0.0378	0.0361	< 0.020	< 0.020	< 0.000050
7/11/2017	RG_GRASMERE	E300092			91.7	0.0103	0.119	< 0.10	< 0.10	0.3	0.34	0.038	0.0357	< 0.020	< 0.020	< 0.000050
7/11/2017	RG_GRASMERE	E300092			84.9	0.01	0.125	< 0.10	< 0.10	0.27	0.54	0.0294	0.0293	< 0.020	< 0.020	< 0.000050
7/11/2017	RG_GRASMERE	E300092			94.4	0.0087	0.0261	< 0.10	< 0.10	0.32	0.34	0.038	0.0355	< 0.020	< 0.020	< 0.000050
8/8/2017	RG_GRASMERE	E300092			108	0.0064	0.0257	< 0.10	< 0.10	0.35	0.35	0.0408	0.0416	< 0.020	< 0.020	< 0.000050
8/8/2017	RG_GRASMERE	E300092			107	0.0069	0.0147	< 0.10	< 0.10	0.36	0.31	0.0439	0.0375	< 0.020	< 0.020	< 0.000050
9/18/2017	RG_GRASMERE	E300092			122	0.0036	0.0218	< 0.10	< 0.10	0.42	0.4	0.0502	0.0476	< 0.020	< 0.020	< 0.000050
9/18/2017	RG_GRASMERE	E300092			118	0.004	0.0107	< 0.10	< 0.10	0.35	0.37	0.0471	0.0451	< 0.020	< 0.020	< 0.000050
9/18/2017	RG_GRASMERE	E300092			116	0.0045	0.0097	< 0.10	< 0.10	0.37	0.37	0.0479	0.0448	< 0.020	< 0.020	< 0.000050
10/3/2017	RG_GRASMERE	E300092			111	0.0041	0.0198	< 0.10	< 0.10	0.38	0.39	0.0487	0.0468	< 0.020	< 0.020	< 0.000050
10/3/2017	RG_GRASMERE	E300092			113	0.0042	0.0103	< 0.10	< 0.10	0.36	0.35	0.045	0.0453	< 0.020	< 0.020	< 0.000050
10/3/2017	RG_GRASMERE	E300092			115	0.0041	0.0083	< 0.10	< 0.10	0.37	0.36	0.0462	0.044	< 0.020	< 0.020	< 0.000050
11/8/2017	RG_GRASMERE	E300092			120	< 0.0030	0.0133	< 0.10	< 0.10	0.39	0.43	0.0529	0.0527	< 0.020	< 0.020	< 0.000050
11/8/2017	RG_GRASMERE	E300092			119	0.0032	0.0148	< 0.10	< 0.10	0.35	0.46	0.0504	0.0495	< 0.020	< 0.020	< 0.000050
11/8/2017	RG_GRASMERE	E300092			116	< 0.0030	0.0141	< 0.10	< 0.10	0.37	0.37	0.0508	0.0522	< 0.020	< 0.020	< 0.000050
12/5/2017	RG_GRASMERE	E300092			128	0.0043	0.0334	< 0.10	< 0.10	0.41	0.43	0.057	0.0535	< 0.020	< 0.020	< 0.000050
12/5/2017	RG_GRASMERE	E300092			121	0.0046	0.0354	< 0.10	< 0.10	0.37	0.44	0.0601	0.0554	< 0.020	< 0.020	< 0.000050
12/5/2017	RG_GRASMERE	E300092			119	0.0037	0.0199	< 0.10	< 0.10	0.4	0.41	0.0541	0.0529	< 0.020	< 0.020	< 0.000050
4/24/2017	RG_KERRRD	E300095			129	0.0098	1.24	< 0.10	< 0.10	0.53	1.13	0.0411	0.0516	< 0.020	0.051	< 0.000050
5/2/2017	RG_KERRRD	E300095			121	0.0092	0.492	< 0.10	0.11	0.45	0.67	0.0426	0.0455	< 0.020	0.024	< 0.000050
5/9/2017	RG_KERRRD	E300095			112	0.0205	1.97	< 0.10	< 0.10	0.38	1.42	0.0304	0.0464	< 0.020	0.089	< 0.000050
5/16/2017	RG_KERRRD	E300095			105	0.0167	0.84	< 0.10	< 0.10	0.34	0.67	0.0294	0.0381	< 0.020	0.037	< 0.000050
5/23/2017	RG_KERRRD	E300095			109	0.0476	2.08	< 0.10	< 0.10	0.37	1.43	0.0287	0.0472	< 0.020	0.088	< 0.000050
5/30/2017	RG_KERRRD	E300095			110	0.0309	2.6	< 0.10	0.12	0.4	1.84	0.0237	0.0461	< 0.020	0.121	< 0.000050
6/6/2017	RG_KERRRD	E300095			107	0.0276	1.57	< 0.10	< 0.10	0.37	0.99	0.0239	0.0368	< 0.020	0.074	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
6/6/2017	RG_KERRRD	E300095			99.7	0.0316	1.48	< 0.10	< 0.10	0.35	1.05	0.0258	0.0347	< 0.020	0.071	< 0.000050
6/13/2017	RG_KERRRD	E300095			106	0.0151	0.924	< 0.10	< 0.10	0.3	0.69	0.0265	0.0329	< 0.020	0.052	< 0.000050
6/13/2017	RG_KERRRD	E300095			106	0.0158	0.903	< 0.10	< 0.10	0.28	0.7	0.0277	0.0333	< 0.020	0.047	< 0.000050
6/20/2017	RG_KERRRD	E300095			92.8	0.0131	0.351	< 0.10	< 0.10	0.26	0.47	0.0243	0.0258	< 0.020	0.023	< 0.000050
6/20/2017	RG_KERRRD	E300095			89.5	0.0135	0.37	< 0.10	0.1	0.28	0.42	0.0253	0.0268	< 0.020	< 0.020	< 0.000050
6/20/2017	RG_KERRRD	E300095			92.7	0.0133	0.354	< 0.10	< 0.10	0.29	0.45	0.0249	0.0263	< 0.020	< 0.020	< 0.000050
6/27/2017	RG_KERRRD	E300095			89.7	0.0097	0.152	< 0.10	< 0.10	0.27	0.41	0.0277	0.0276	< 0.020	< 0.020	< 0.000050
6/27/2017	RG_KERRRD	E300095			90.4	0.0109	0.237	< 0.10	< 0.10	0.28	0.37	0.0274	0.0282	< 0.020	< 0.020	< 0.000050
6/27/2017	RG_KERRRD	E300095			89.6	0.0102	0.266	< 0.10	< 0.10	0.27	0.34	0.0269	0.0281	< 0.020	< 0.020	< 0.000050
7/4/2017	RG_KERRRD	E300095			83.6	0.0105	0.082	< 0.10	< 0.10	0.28	0.31	0.0262	0.0279	< 0.020	< 0.020	< 0.000050
7/4/2017	RG_KERRRD	E300095			83.1	0.0109	0.0823	< 0.10	< 0.10	0.29	0.32	0.0267	0.0278	< 0.020	< 0.020	< 0.000050
7/4/2017	RG_KERRRD	E300095			85.3	0.0097	0.0406	< 0.10	< 0.10	0.29	0.33	0.0296	0.0295	< 0.020	< 0.020	< 0.000050
7/11/2017	RG_KERRRD	E300095			83.7	0.0103	0.118	< 0.10	< 0.10	0.26	0.35	0.0277	0.0276	< 0.020	< 0.020	< 0.000050
7/11/2017	RG_KERRRD	E300095			85.1	0.0102	0.0862	< 0.10	< 0.10	0.28	0.33	0.029	0.0276	< 0.020	< 0.020	< 0.000050
7/11/2017	RG_KERRRD	E300095			90.4	0.0096	0.0403	< 0.10	< 0.10	0.33	0.35	0.031	0.0339	< 0.020	< 0.020	< 0.000050
8/8/2017	RG_KERRRD	E300095			107	0.0076	0.0344	< 0.10	< 0.10	0.46	0.41	0.0431	0.0355	< 0.020	< 0.020	< 0.000050
8/8/2017	RG_KERRRD	E300095			109	0.0059	0.0239	< 0.10	< 0.10	0.38	0.39	0.0395	0.0363	< 0.020	< 0.020	< 0.000050
8/8/2017	RG_KERRRD	E300095			104	0.0057	0.0175	< 0.10	< 0.10	0.36	0.35	0.0344	0.0357	< 0.020	< 0.020	< 0.000050
9/18/2017	RG_KERRRD	E300095			121	0.0034	0.0292	< 0.10	< 0.10	0.45	0.45	0.0448	0.0419	< 0.020	< 0.020	< 0.000050
9/18/2017	RG_KERRRD	E300095			117	0.0042	0.0126	< 0.10	< 0.10	0.42	0.39	0.0456	0.0415	< 0.020	< 0.020	< 0.000050
9/18/2017	RG_KERRRD	E300095			116	0.0042	0.0079	< 0.10	< 0.10	0.41	0.37	0.0461	0.0403	< 0.020	< 0.020	< 0.000050
10/3/2017	RG_KERRRD	E300095			130	0.0033	0.0304	< 0.10	0.1	0.41	0.5	0.0441	0.044	< 0.020	< 0.020	< 0.000050
10/3/2017	RG_KERRRD	E300095			118	0.0037	0.0077	< 0.10	0.12	0.36	0.39	0.0446	0.0441	< 0.020	< 0.020	< 0.000050
10/3/2017	RG_KERRRD	E300095			118	0.0041	0.0086	< 0.10	< 0.10	0.37	0.36	0.0454	0.0441	< 0.020	< 0.020	< 0.000050
11/8/2017	RG_KERRRD	E300095			127	< 0.0030	0.0152	< 0.10	< 0.10	0.42	0.47	0.0468	0.0483	< 0.020	< 0.020	< 0.000050
11/8/2017	RG_KERRRD	E300095			127	< 0.0030	0.0147	< 0.10	< 0.10	0.41	0.48	0.0474	0.0477	< 0.020	< 0.020	< 0.000050
11/8/2017	RG_KERRRD	E300095			127	< 0.0030	0.0181	< 0.10	< 0.10	0.41	0.42	0.0467	0.0545	< 0.020	< 0.020	< 0.000050
12/5/2017	RG_KERRRD	E300095			119	0.0042	0.069	< 0.10	< 0.10	0.42	0.43	0.0433	0.0426	< 0.020	< 0.020	< 0.000050
12/5/2017	RG_KERRRD	E300095			117	0.0045	0.0756	< 0.10	< 0.10	0.38	0.44	0.0464	0.0419	< 0.020	< 0.020	< 0.000050
12/5/2017	RG_KERRRD	E300095			116	0.0052	0.076	< 0.10	< 0.10	0.4	0.45	0.0443	0.0409	< 0.020	< 0.020	< 0.000050
4/4/2017	RG_USGOLD	E300093			144	0.0078	0.519	< 0.10	0.12	0.63	1.04	0.0774	0.0855	< 0.020	0.025	< 0.000050
4/4/2017	RG_USGOLD	E300093			144	0.0078	0.43	< 0.10	0.11	0.61	0.96	0.0762	0.0826	< 0.020	0.021	< 0.000050
4/11/2017	RG_USGOLD	E300093			146	0.0104	0.577	< 0.10	0.11	0.68	1.24	0.0701	0.0792	< 0.020	0.047	< 0.000050
4/17/2017	RG_USGOLD	E300093			146	0.0113	0.63	< 0.10	0.11	0.74	1.28	0.0615	0.0713	< 0.020	0.042	< 0.000050
4/24/2017	RG_USGOLD	E300093			138	0.0113	3.55	0.12	0.2	0.85	2.87	0.0682	0.106	< 0.020	0.174	< 0.000050
5/2/2017	RG_USGOLD	E300093			153	0.0094	2.62	< 0.10	0.21	0.61	1.93	0.0795	0.108	< 0.020	0.138	< 0.000050
5/9/2017	RG_USGOLD	E300093			118	0.0233	1.86	< 0.10	0.13	0.55	1.58	0.0433	0.0623	< 0.020	0.093	< 0.000050
5/16/2017	RG_USGOLD	E300093			110	0.0151	0.752	< 0.10	< 0.10	0.42	0.79	0.0375	0.0444	< 0.020	0.037	< 0.000050
5/23/2017	RG_USGOLD	E300093			108	0.0183	0.546	< 0.10	< 0.10	0.42	0.78	0.035	0.0448	< 0.020	0.033	< 0.000050
5/30/2017	RG_USGOLD	E300093			107	0.0253	1.38	< 0.10	< 0.10	0.36	1.1	0.0349	0.0506	< 0.020	0.072	< 0.000050
5/30/2017	RG_USGOLD	E300093			97.7	0.0254	1.27	< 0.10	< 0.10	0.37	1.04	0.0405	0.053	< 0.020	0.069	< 0.000050
5/30/2017	RG_USGOLD	E300093			107	0.022	1.05	< 0.10	< 0.10	0.36	0.85	0.0412	0.0519	< 0.020	0.054	< 0.000050
6/6/2017	RG_USGOLD	E300093			111	0.0232	1.05	< 0.10	0.11	0.32	0.72	0.0389	0.0521	< 0.020	0.055	< 0.000050
6/6/2017	RG_USGOLD	E300093			101	0.0262	1.17	< 0.10	< 0.10	0.35	0.73	0.0257	0.0353	< 0.020	0.054	< 0.000050
6/6/2017	RG_USGOLD	E300093			105	0.0196	0.578	< 0.10	< 0.10	0.33	0.57	0.0373	0.0394	< 0.020	0.028	< 0.000050
6/13/2017	RG_USGOLD	E300093			105	0.0156	1.38	< 0.10	0.11	0.28	0.95	0.0265	0.0404	< 0.020	0.074	< 0.000050
6/13/2017	RG_USGOLD	E300093			107	0.0136	0.796	< 0.10	< 0.10	0.28	0.74	0.035	0.0402	< 0.020	0.046	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
6/13/2017	RG_USGOLD	E300093			96.3	0.0119	0.0957	< 0.10	< 0.10	0.29	0.41	0.0336	0.0351	< 0.020	< 0.020	< 0.000050
6/20/2017	RG_USGOLD	E300093			105	0.0135	0.513	< 0.10	< 0.10	0.26	0.51	0.0339	0.0408	< 0.020	0.029	< 0.000050
6/20/2017	RG_USGOLD	E300093			92.8	0.0138	0.417	< 0.10	< 0.10	0.3	0.4	0.0305	0.0332	< 0.020	< 0.020	< 0.000050
6/20/2017	RG_USGOLD	E300093			94.8	0.0116	0.0656	< 0.10	< 0.10	0.34	0.36	0.0332	0.0359	< 0.020	< 0.020	< 0.000050
6/27/2017	RG_USGOLD	E300093			105	0.0092	0.23	< 0.10	0.16	0.25	0.39	0.0421	0.0438	< 0.020	< 0.020	< 0.000050
6/27/2017	RG_USGOLD	E300093			92.8	0.0108	0.123	< 0.10	< 0.10	0.26	0.36	0.0311	0.0318	< 0.020	< 0.020	< 0.000050
6/27/2017	RG_USGOLD	E300093			96.6	0.0103	0.0434	< 0.10	< 0.10	0.32	0.37	0.0365	0.0347	< 0.020	< 0.020	< 0.000050
7/4/2017	RG_USGOLD	E300093			85.7	0.0105	0.124	< 0.10	< 0.10	0.27	0.34	0.0346	0.0337	< 0.020	< 0.020	< 0.000050
7/4/2017	RG_USGOLD	E300093			88.7	0.0085	0.0521	< 0.10	< 0.10	0.28	0.3	0.0356	0.0337	< 0.020	< 0.020	< 0.000050
7/4/2017	RG_USGOLD	E300093			92.9	0.01	0.0269	< 0.10	< 0.10	0.37	0.4	0.0371	0.0379	< 0.020	< 0.020	< 0.000050
7/11/2017	RG_USGOLD	E300093			94	0.0109	0.0706	< 0.10	< 0.10	0.29	0.35	0.0402	0.0393	< 0.020	< 0.020	< 0.000050
7/11/2017	RG_USGOLD	E300093			87.1	0.0099	0.0578	< 0.10	< 0.10	0.28	0.33	0.0317	0.0305	< 0.020	< 0.020	< 0.000050
7/11/2017	RG_USGOLD	E300093			92	0.0092	0.026	< 0.10	< 0.10	0.36	0.36	0.04	0.0374	< 0.020	< 0.020	< 0.000050
8/8/2017	RG_USGOLD	E300093			99.4	0.0097	0.0415	< 0.10	< 0.10	0.33	0.33	0.0374	0.0357	< 0.020	< 0.020	< 0.000050
8/8/2017	RG_USGOLD	E300093			118	0.0038	0.0217	< 0.10	< 0.10	0.32	0.35	0.0523	0.0528	< 0.020	< 0.020	< 0.000050
8/8/2017	RG_USGOLD	E300093			107	0.0055	0.0169	< 0.10	< 0.10	0.37	0.36	0.0409	0.0403	< 0.020	< 0.020	< 0.000050
9/18/2017	RG_USGOLD	E300093			112	0.004	0.0377	< 0.10	< 0.10	0.4	0.37	0.0512	0.0475	< 0.020	< 0.020	< 0.000050
9/18/2017	RG_USGOLD	E300093			111	0.0044	0.0142	< 0.10	< 0.10	0.38	0.34	0.0498	0.0444	< 0.020	< 0.020	< 0.000050
9/18/2017	RG_USGOLD	E300093			111	0.0042	0.0127	< 0.10	< 0.10	0.39	0.38	0.0485	0.0445	< 0.020	< 0.020	< 0.000050
10/3/2017	RG_USGOLD	E300093			123	0.0038	0.0301	< 0.10	< 0.10	0.39	0.46	0.0492	0.0489	< 0.020	< 0.020	< 0.000050
10/3/2017	RG_USGOLD	E300093			111	0.004	0.0094	< 0.10	< 0.10	0.35	0.36	0.0458	0.0441	< 0.020	< 0.020	< 0.000050
10/3/2017	RG_USGOLD	E300093			111	0.0053	0.008	< 0.10	< 0.10	0.36	0.36	0.045	0.0443	< 0.020	< 0.020	< 0.000050
11/8/2017	RG_USGOLD	E300093			119	< 0.0030	0.0274	< 0.10	< 0.10	0.38	0.42	0.0509	0.0499	< 0.020	< 0.020	< 0.000050
11/8/2017	RG_USGOLD	E300093			118	0.003	0.0122	< 0.10	< 0.10	0.37	0.4	0.0534	0.0526	< 0.020	< 0.020	< 0.000050
11/8/2017	RG_USGOLD	E300093			116	< 0.0030	0.0104	< 0.10	< 0.10	0.34	0.4	0.0506	0.0516	< 0.020	< 0.020	< 0.000050
12/5/2017	RG_USGOLD	E300093			126	0.0046	0.0472	< 0.10	< 0.10	0.36	0.42	0.0603	0.0568	< 0.020	< 0.020	< 0.000050
12/5/2017	RG_USGOLD	E300093			116	0.0037	0.0217	< 0.10	< 0.10	0.37	0.42	0.0556	0.0532	< 0.020	< 0.020	< 0.000050
12/5/2017	RG_USGOLD	E300093			116	0.0039	0.0205	< 0.10	< 0.10	0.4	0.42	0.0605	0.0524	< 0.020	< 0.020	< 0.000050
1/1/2017	WL_BFWB_OUT_SP21	E291569				0.0015	0.0046	0.25	0.26	< 0.10	< 0.10	0.0284	0.0277	< 0.020	< 0.020	< 0.000050
1/2/2017	WL_BFWB_OUT_SP21	E291569				0.0011	0.005	0.25	0.28	< 0.10	0.1	0.0301	0.0283	< 0.020	< 0.020	< 0.000050
1/3/2017	WL_BFWB_OUT_SP21	E291569	0	0		0.0024	0.0041	0.23	0.25	< 0.10	0.1	0.029	0.0293	< 0.020	< 0.020	< 0.000050
1/4/2017	WL_BFWB_OUT_SP21	E291569														
1/5/2017	WL_BFWB_OUT_SP21	E291569				0.0011	0.0033	0.22	0.29	< 0.10	0.13	0.0268	0.0249	< 0.020	< 0.020	< 0.000050
1/6/2017	WL_BFWB_OUT_SP21	E291569														
1/7/2017	WL_BFWB_OUT_SP21	E291569														
1/8/2017	WL_BFWB_OUT_SP21	E291569				0.0018	0.0044	0.25	0.31	< 0.10	0.16	0.0283	0.0291	< 0.020	< 0.020	< 0.000050
1/9/2017	WL_BFWB_OUT_SP21	E291569	0	0	249	< 0.0010	< 0.0030	0.27	0.29	< 0.10	0.17	0.027	0.0277	< 0.020	< 0.020	< 0.000050
1/10/2017	WL_BFWB_OUT_SP21	E291569				0.003	0.0245	0.27	0.33	< 0.10	0.11	0.0265	0.0286	< 0.020	< 0.020	< 0.000050
1/11/2017	WL_BFWB_OUT_SP21	E291569														
1/12/2017	WL_BFWB_OUT_SP21	E291569				0.0013	0.0035	0.24	0.28	< 0.10	0.15	0.0282	0.0298	< 0.020	< 0.020	< 0.000050
1/12/2017	WL_BFWB_OUT_SP21	E291569														
1/13/2017	WL_BFWB_OUT_SP21	E291569														
1/14/2017	WL_BFWB_OUT_SP21	E291569														
1/15/2017	WL_BFWB_OUT_SP21	E291569				0.005	0.0083	0.24	0.28	< 0.10	0.26	0.0272	0.0292	< 0.020	< 0.020	< 0.000050
1/16/2017	WL_BFWB_OUT_SP21	E291569	0	0		0.0014	0.0039	0.23	0.28	< 0.10	0.19	0.0272	0.0306	< 0.020	< 0.020	< 0.000050
1/17/2017	WL_BFWB_OUT_SP21	E291569				0.0016	< 0.0030	0.23	0.29	< 0.10	0.12	0.0274	0.0341	< 0.020	< 0.020	< 0.000050
1/18/2017	WL_BFWB_OUT_SP21	E291569														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
1/19/2017	WL_BFWB_OUT_SP21	E291569				0.0013	< 0.0030	0.22	0.27	< 0.10	0.12	0.0282	0.0294	< 0.020	< 0.020	< 0.000050
1/20/2017	WL_BFWB_OUT_SP21	E291569														
1/21/2017	WL_BFWB_OUT_SP21	E291569														
1/22/2017	WL_BFWB_OUT_SP21	E291569				0.0021	0.139	0.24	0.26	< 0.10	0.11	0.031	0.0326	< 0.020	< 0.020	< 0.000050
1/23/2017	WL_BFWB_OUT_SP21	E291569	0	10		0.002	< 0.0030	0.25	0.29	< 0.10	0.11	0.0297	0.0297	< 0.020	< 0.020	< 0.000050
1/24/2017	WL_BFWB_OUT_SP21	E291569				0.0011	0.0047	0.27	0.39	< 0.10	0.12	0.032	0.0324	< 0.020	< 0.020	< 0.000050
1/25/2017	WL_BFWB_OUT_SP21	E291569														
1/26/2017	WL_BFWB_OUT_SP21	E291569				0.0015	0.0047	0.25	0.26	< 0.10	0.21	0.029	0.0272	< 0.020	< 0.020	< 0.000050
1/27/2017	WL_BFWB_OUT_SP21	E291569														
1/28/2017	WL_BFWB_OUT_SP21	E291569														
1/29/2017	WL_BFWB_OUT_SP21	E291569				0.0026	0.0048	0.23	0.23	< 0.10	0.12	0.0316	0.0323	< 0.020	< 0.020	< 0.000050
1/30/2017	WL_BFWB_OUT_SP21	E291569				0.0061	0.024	< 0.50	< 0.50	< 0.50	< 0.50	0.0296	0.0322	< 0.10	< 0.10	< 0.00025
1/31/2017	WL_BFWB_OUT_SP21	E291569	0	0		0.0067	< 0.015	< 0.50	< 0.50	< 0.50	< 0.50	0.0373	0.032	< 0.10	< 0.10	< 0.00025
1/31/2017	WL_BFWB_OUT_SP21	E291569														
2/1/2017	WL_BFWB_OUT_SP21	E291569														
2/1/2017	WL_BFWB_OUT_SP21	E291569														
2/2/2017	WL_BFWB_OUT_SP21	E291569				0.0029	0.0078	0.27	0.25	< 0.10	0.12	0.0316	0.0331	< 0.020	< 0.020	< 0.000050
2/2/2017	WL_BFWB_OUT_SP21	E291569														
2/3/2017	WL_BFWB_OUT_SP21	E291569														
2/3/2017	WL_BFWB_OUT_SP21	E291569														
2/4/2017	WL_BFWB_OUT_SP21	E291569														
2/4/2017	WL_BFWB_OUT_SP21	E291569														
2/5/2017	WL_BFWB_OUT_SP21	E291569				0.0093	0.0093	0.24	0.27	< 0.10	0.11	0.0306	0.0306	< 0.020	< 0.020	< 0.000050
2/6/2017	WL_BFWB_OUT_SP21	E291569				0.0035	0.0083	0.21	0.26	< 0.10	0.11	0.0312	0.0328	< 0.020	< 0.020	< 0.000050
2/6/2017	WL_BFWB_OUT_SP21	E291569														
2/7/2017	WL_BFWB_OUT_SP21	E291569	0	0	249	0.0027	0.006	0.23	0.27	< 0.10	0.12	0.0356	0.0346	< 0.020	< 0.020	< 0.000050
2/8/2017	WL_BFWB_OUT_SP21	E291569														
2/8/2017	WL_BFWB_OUT_SP21	E291569														
2/9/2017	WL_BFWB_OUT_SP21	E291569				0.0064	0.0058	0.25	0.28	< 0.10	0.11	0.0333	0.0351	< 0.020	< 0.020	< 0.000050
2/10/2017	WL_BFWB_OUT_SP21	E291569														
2/10/2017	WL_BFWB_OUT_SP21	E291569														
2/11/2017	WL_BFWB_OUT_SP21	E291569														
2/11/2017	WL_BFWB_OUT_SP21	E291569														
2/12/2017	WL_BFWB_OUT_SP21	E291569				0.0064	0.0077	0.22	0.25	< 0.10	0.12	0.0305	0.0319	< 0.020	< 0.020	< 0.000050
2/12/2017	WL_BFWB_OUT_SP21	E291569														
2/13/2017	WL_BFWB_OUT_SP21	E291569				0.0037	0.0059	0.23	0.26	< 0.10	0.12	0.0298	0.0337	< 0.020	< 0.020	< 0.000050
2/13/2017	WL_BFWB_OUT_SP21	E291569														
2/14/2017	WL_BFWB_OUT_SP21	E291569	0	0		0.0017	< 0.0030	0.23	0.28	< 0.10	< 0.10	0.0307	0.0318	< 0.020	< 0.020	< 0.000050
2/14/2017	WL_BFWB_OUT_SP21	E291569														
2/15/2017	WL_BFWB_OUT_SP21	E291569														
2/16/2017	WL_BFWB_OUT_SP21	E291569				0.0022	0.006	0.25	0.27	< 0.10	0.3	0.0322	0.0337	< 0.020	< 0.020	< 0.000050
2/16/2017	WL_BFWB_OUT_SP21	E291569														
2/17/2017	WL_BFWB_OUT_SP21	E291569														
2/17/2017	WL_BFWB_OUT_SP21	E291569														
2/18/2017	WL_BFWB_OUT_SP21	E291569														
2/18/2017	WL_BFWB_OUT_SP21	E291569														
2/19/2017	WL_BFWB_OUT_SP21	E291569														

Sample Date	Location	EMS Number	Analyte	48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
			Fraction Result Unit	N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
2/19/2017	WL_BFWB_OUT_SP21	E291569					0.0023	0.0101	0.24	0.29	0.12	0.45	0.0314	0.034	< 0.020	< 0.020	< 0.000050
2/19/2017	WL_BFWB_OUT_SP21	E291569															
2/20/2017	WL_BFWB_OUT_SP21	E291569					0.003	< 0.0030	0.27	0.3	0.11	0.36	0.0316	0.0323	< 0.020	< 0.020	< 0.000050
2/20/2017	WL_BFWB_OUT_SP21	E291569															
2/21/2017	WL_BFWB_OUT_SP21	E291569		0													
2/21/2017	WL_BFWB_OUT_SP21	E291569		0	0		< 0.0010	< 0.0030	0.22	0.59	< 0.10	< 0.10	0.0283	0.031	< 0.020	< 0.020	< 0.000050
2/21/2017	WL_BFWB_OUT_SP21	E291569															
2/22/2017	WL_BFWB_OUT_SP21	E291569															
2/22/2017	WL_BFWB_OUT_SP21	E291569															
2/23/2017	WL_BFWB_OUT_SP21	E291569					0.0019	0.0034	0.25	0.39	< 0.10	0.12	0.034	0.0351	< 0.020	< 0.020	< 0.000050
2/23/2017	WL_BFWB_OUT_SP21	E291569															
2/24/2017	WL_BFWB_OUT_SP21	E291569															
2/24/2017	WL_BFWB_OUT_SP21	E291569															
2/25/2017	WL_BFWB_OUT_SP21	E291569															
2/25/2017	WL_BFWB_OUT_SP21	E291569															
2/26/2017	WL_BFWB_OUT_SP21	E291569					0.002	0.004	0.25	0.33	< 0.10	< 0.10	0.0365	0.0376	< 0.020	< 0.020	< 0.000050
2/26/2017	WL_BFWB_OUT_SP21	E291569															
2/27/2017	WL_BFWB_OUT_SP21	E291569		16.7	0		0.0017	0.0039	0.21	0.28	< 0.10	0.17	0.0353	0.0484	< 0.020	< 0.020	< 0.000050
2/27/2017	WL_BFWB_OUT_SP21	E291569															
2/28/2017	WL_BFWB_OUT_SP21	E291569					0.0021	0.0045	0.22	0.24	< 0.10	< 0.10	0.034	0.0366	< 0.020	< 0.020	< 0.000050
2/28/2017	WL_BFWB_OUT_SP21	E291569															
3/1/2017	WL_BFWB_OUT_SP21	E291569															
3/2/2017	WL_BFWB_OUT_SP21	E291569					0.0018	0.0034	0.2	0.26	< 0.10	< 0.10	0.0362	0.0362	< 0.020	< 0.020	< 0.000050
3/2/2017	WL_BFWB_OUT_SP21	E291569															
3/3/2017	WL_BFWB_OUT_SP21	E291569															
3/3/2017	WL_BFWB_OUT_SP21	E291569															
3/4/2017	WL_BFWB_OUT_SP21	E291569															
3/4/2017	WL_BFWB_OUT_SP21	E291569															
3/5/2017	WL_BFWB_OUT_SP21	E291569															
3/5/2017	WL_BFWB_OUT_SP21	E291569					0.0043	0.0034	0.22	0.27	< 0.10	0.17	0.0359	0.0405	< 0.020	< 0.020	< 0.000050
3/5/2017	WL_BFWB_OUT_SP21	E291569															
3/6/2017	WL_BFWB_OUT_SP21	E291569		0	0	218	0.001	< 0.0030	0.23	0.29	< 0.10	< 0.10	0.0376	0.0399	< 0.020	< 0.020	< 0.000050
3/6/2017	WL_BFWB_OUT_SP21	E291569															
3/7/2017	WL_BFWB_OUT_SP21	E291569					0.0021	0.0031	0.26	0.37	< 0.10	< 0.10	0.036	0.0369	< 0.020	< 0.020	< 0.000050
3/7/2017	WL_BFWB_OUT_SP21	E291569															
3/8/2017	WL_BFWB_OUT_SP21	E291569															
3/8/2017	WL_BFWB_OUT_SP21	E291569															
3/8/2017	WL_BFWB_OUT_SP21	E291569															
3/9/2017	WL_BFWB_OUT_SP21	E291569															
3/9/2017	WL_BFWB_OUT_SP21	E291569					0.0012	< 0.0030	0.22	0.32	< 0.10	< 0.10	0.0343	0.0353	< 0.020	< 0.020	< 0.000050
3/9/2017	WL_BFWB_OUT_SP21	E291569															
3/10/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	0.0052	0.21	0.24	< 0.10	< 0.10	0.0345	0.0356	< 0.020	< 0.020	< 0.000050
3/10/2017	WL_BFWB_OUT_SP21	E291569															
3/11/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.2	0.3	< 0.10	< 0.10	0.0342	0.0345	< 0.020	< 0.020	< 0.000050
3/11/2017	WL_BFWB_OUT_SP21	E291569															
3/12/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.22	0.23	< 0.10	< 0.10	0.0358	0.0334	< 0.020	< 0.020	< 0.000050
3/12/2017	WL_BFWB_OUT_SP21	E291569															

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
3/12/2017	WL_BFWB_OUT_SP21	E291569														
3/13/2017	WL_BFWB_OUT_SP21	E291569	0	0		< 0.0030	< 0.0030	0.23	0.23	< 0.10	< 0.10	0.0349	0.0373	< 0.020	< 0.020	< 0.000050
3/13/2017	WL_BFWB_OUT_SP21	E291569														
3/14/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0032	0.24	0.28	< 0.10	< 0.10	0.0392	0.0373	< 0.020	< 0.020	< 0.000050
3/14/2017	WL_BFWB_OUT_SP21	E291569														
3/15/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0063	0.26	0.25	< 0.10	< 0.10	0.0361	0.0335	0.048	< 0.020	< 0.000050
3/15/2017	WL_BFWB_OUT_SP21	E291569														
3/16/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0086	0.21	0.27	< 0.10	< 0.10	0.0348	0.0335	< 0.020	< 0.020	< 0.000050
3/16/2017	WL_BFWB_OUT_SP21	E291569														
3/20/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0216	0.21	0.23	< 0.10	< 0.10	0.0306	0.0321	< 0.020	< 0.020	< 0.000050
3/20/2017	WL_BFWB_OUT_SP21	E291569														
3/21/2017	WL_BFWB_OUT_SP21	E291569	0													
3/21/2017	WL_BFWB_OUT_SP21	E291569	0	0		< 0.0010	0.0121	0.2	0.27	< 0.10	0.14	0.0314	0.0409	< 0.020	< 0.020	< 0.000050
3/21/2017	WL_BFWB_OUT_SP21	E291569														
3/22/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0117	0.2	0.23	< 0.10	< 0.10	0.0327	0.0338	< 0.020	< 0.020	< 0.000050
3/22/2017	WL_BFWB_OUT_SP21	E291569														
3/23/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0182	0.23	0.23	< 0.10	< 0.10	0.0325	0.0323	< 0.020	< 0.020	< 0.000050
3/23/2017	WL_BFWB_OUT_SP21	E291569														
3/24/2017	WL_BFWB_OUT_SP21	E291569				0.0032	0.0348	0.21	0.25	< 0.10	< 0.10	0.0318	0.0312	< 0.020	< 0.020	< 0.000050
3/24/2017	WL_BFWB_OUT_SP21	E291569														
3/25/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0136	0.24	0.24	< 0.10	< 0.10	0.0291	0.0296	< 0.020	< 0.020	< 0.000050
3/25/2017	WL_BFWB_OUT_SP21	E291569														
3/26/2017	WL_BFWB_OUT_SP21	E291569														
3/26/2017	WL_BFWB_OUT_SP21	E291569														
3/27/2017	WL_BFWB_OUT_SP21	E291569	0	0		< 0.0030	0.0098	0.24	0.25	< 0.10	< 0.10	0.0275	0.0301	< 0.020	< 0.020	< 0.000050
3/27/2017	WL_BFWB_OUT_SP21	E291569														
3/28/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0104	0.23	0.25	< 0.10	< 0.10	0.0306	0.029	< 0.020	< 0.020	< 0.000050
3/28/2017	WL_BFWB_OUT_SP21	E291569														
3/29/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0078	0.23	0.25	< 0.10	< 0.10	0.0289	0.0306	< 0.020	< 0.020	< 0.000050
3/29/2017	WL_BFWB_OUT_SP21	E291569														
3/30/2017	WL_BFWB_OUT_SP21	E291569				0.0013	0.0059	0.25	0.3	< 0.10	< 0.10	0.0309	0.0297	< 0.020	< 0.020	< 0.000050
3/31/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0041	0.25	0.38	< 0.10	< 0.10	0.0324	0.0298	< 0.020	< 0.020	< 0.000050
3/31/2017	WL_BFWB_OUT_SP21	E291569														
4/1/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0057	0.23	0.27	< 0.10	< 0.10	0.0311	0.0316	< 0.020	< 0.020	< 0.000050
4/1/2017	WL_BFWB_OUT_SP21	E291569														
4/2/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.004	0.25	0.28	< 0.10	< 0.10	0.0326	0.0318	< 0.020	< 0.020	< 0.000050
4/2/2017	WL_BFWB_OUT_SP21	E291569														
4/2/2017	WL_BFWB_OUT_SP21	E291569														
4/3/2017	WL_BFWB_OUT_SP21	E291569	0	0	259	< 0.0030	< 0.0030	0.26	0.28	< 0.10	< 0.10	0.0324	0.0314	< 0.020	< 0.020	< 0.000050
4/3/2017	WL_BFWB_OUT_SP21	E291569														
4/4/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.26	0.26	< 0.10	< 0.10	0.0324	0.03	< 0.020	< 0.020	< 0.000050
4/4/2017	WL_BFWB_OUT_SP21	E291569														
4/5/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.25	0.27	< 0.10	< 0.10	0.0317	0.0327	< 0.020	< 0.020	< 0.000050
4/5/2017	WL_BFWB_OUT_SP21	E291569														
4/6/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0033	0.25	0.27	< 0.10	< 0.10	0.0319	0.0316	< 0.020	< 0.020	< 0.000050
4/6/2017	WL_BFWB_OUT_SP21	E291569														
4/7/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0031	0.27	0.26	< 0.10	0.11	0.0346	0.035	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
4/7/2017	WL_BFWB_OUT_SP21	E291569														
4/8/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0031	0.25	0.25	< 0.10	0.11	0.0328	0.0338	< 0.020	< 0.020	< 0.000050
4/8/2017	WL_BFWB_OUT_SP21	E291569														
4/9/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0031	0.24	0.24	< 0.10	0.14	0.0323	0.0348	< 0.020	< 0.020	< 0.000050
4/9/2017	WL_BFWB_OUT_SP21	E291569														
4/10/2017	WL_BFWB_OUT_SP21	E291569	0	0		< 0.0030	< 0.0030	0.24	0.25	< 0.10	0.24	0.0348	0.0308	< 0.020	< 0.020	< 0.000050
4/10/2017	WL_BFWB_OUT_SP21	E291569														
4/11/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.003	0.24	0.25	< 0.10	< 0.10	0.0325	0.0312	< 0.020	< 0.020	< 0.000050
4/11/2017	WL_BFWB_OUT_SP21	E291569														
4/12/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.004	0.25	0.27	< 0.10	< 0.10	0.0331	0.0314	< 0.020	< 0.020	< 0.000050
4/12/2017	WL_BFWB_OUT_SP21	E291569														
4/13/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0039	0.21	0.27	< 0.10	< 0.10	0.0308	0.0298	< 0.020	< 0.020	< 0.000050
4/13/2017	WL_BFWB_OUT_SP21	E291569														
4/14/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.24	0.27	< 0.10	< 0.10	0.0306	0.0297	< 0.020	< 0.020	< 0.000050
4/14/2017	WL_BFWB_OUT_SP21	E291569														
4/15/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.23	0.26	< 0.10	< 0.10	0.0315	0.0291	< 0.020	< 0.020	< 0.000050
4/15/2017	WL_BFWB_OUT_SP21	E291569														
4/16/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.27	0.26	< 0.10	0.1	0.0323	0.0316	< 0.020	< 0.020	< 0.000050
4/16/2017	WL_BFWB_OUT_SP21	E291569														
4/17/2017	WL_BFWB_OUT_SP21	E291569	0	0		< 0.0030	< 0.0030	0.23	0.25	< 0.10	< 0.10	0.0337	0.0321	< 0.020	< 0.020	< 0.000050
4/17/2017	WL_BFWB_OUT_SP21	E291569														
4/18/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.25	0.25	< 0.10	< 0.10	0.0325	0.0313	< 0.020	< 0.020	< 0.000050
4/18/2017	WL_BFWB_OUT_SP21	E291569														
4/19/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.24	0.25	< 0.10	< 0.10	0.0309	0.0317	< 0.020	< 0.020	< 0.000050
4/19/2017	WL_BFWB_OUT_SP21	E291569														
4/20/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.27	0.28	< 0.10	0.19	0.0314	0.0305	< 0.020	< 0.020	< 0.000050
4/20/2017	WL_BFWB_OUT_SP21	E291569														
4/21/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.28	0.29	0.1	0.2	0.0305	0.0301	< 0.020	< 0.020	< 0.000050
4/21/2017	WL_BFWB_OUT_SP21	E291569														
4/22/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.24	0.28	< 0.10	< 0.10	0.0305	0.0286	< 0.020	< 0.020	< 0.000050
4/22/2017	WL_BFWB_OUT_SP21	E291569														
4/23/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.24	0.26	< 0.10	< 0.10	0.03	0.0279	< 0.020	< 0.020	< 0.000050
4/23/2017	WL_BFWB_OUT_SP21	E291569														
4/24/2017	WL_BFWB_OUT_SP21	E291569	0	0		< 0.0030	< 0.0030	0.24	0.27	< 0.10	< 0.10	0.0295	0.0279	< 0.020	< 0.020	< 0.000050
4/24/2017	WL_BFWB_OUT_SP21	E291569														
4/25/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0031	0.24	0.29	< 0.10	< 0.10	0.028	0.029	< 0.020	< 0.020	< 0.000050
4/25/2017	WL_BFWB_OUT_SP21	E291569														
4/26/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.26	0.28	< 0.10	< 0.10	0.0276	0.0289	< 0.020	< 0.020	< 0.000050
4/27/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.24	0.26	< 0.10	< 0.10	0.0268	0.0275	< 0.020	< 0.020	< 0.000050
4/27/2017	WL_BFWB_OUT_SP21	E291569														
4/28/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0031	0.23	0.25	< 0.10	< 0.10	0.0259	0.0266	< 0.020	< 0.020	< 0.000050
4/28/2017	WL_BFWB_OUT_SP21	E291569														
4/29/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0033	0.25	0.26	< 0.10	< 0.10	0.027	0.0257	< 0.020	< 0.020	< 0.000050
4/29/2017	WL_BFWB_OUT_SP21	E291569														
4/30/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.25	0.26	< 0.10	< 0.10	0.0246	0.0249	< 0.020	< 0.020	< 0.000050
4/30/2017	WL_BFWB_OUT_SP21	E291569														
5/1/2017	WL_BFWB_OUT_SP21	E291569	0	0	276	< 0.0030	< 0.0030	0.24	0.25	< 0.10	< 0.10	0.0245	0.0242	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
5/1/2017	WL_BFWB_OUT_SP21	E291569														
5/2/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.28	0.25	< 0.10	0.12	0.025	0.0242	< 0.020	< 0.020	< 0.000050
5/2/2017	WL_BFWB_OUT_SP21	E291569														
5/2/2017	WL_BFWB_OUT_SP21	E291569														
5/3/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0041	0.26	0.33	< 0.10	< 0.10	0.0258	0.0261	< 0.020	< 0.020	< 0.000050
5/3/2017	WL_BFWB_OUT_SP21	E291569														
5/4/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.49	0.26	0.1	< 0.10	0.0581	0.0255	< 0.020	< 0.020	< 0.000050
5/4/2017	WL_BFWB_OUT_SP21	E291569														
5/5/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.004	0.2	0.27	< 0.10	< 0.10	0.0258	0.0273	< 0.020	< 0.020	< 0.000050
5/5/2017	WL_BFWB_OUT_SP21	E291569														
5/5/2017	WL_BFWB_OUT_SP21	E291569														
5/6/2017	WL_BFWB_OUT_SP21	E291569				0.0031	0.0031	0.25	0.27	< 0.10	< 0.10	0.0245	0.0256	< 0.020	< 0.020	< 0.000050
5/6/2017	WL_BFWB_OUT_SP21	E291569														
5/7/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0036	0.25	0.29	< 0.10	< 0.10	0.0238	0.0259	< 0.020	< 0.020	< 0.000050
5/7/2017	WL_BFWB_OUT_SP21	E291569														
5/8/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.32	0.27	< 0.10	< 0.10	0.0228	0.0234	< 0.020	< 0.020	< 0.000050
5/8/2017	WL_BFWB_OUT_SP21	E291569														
5/9/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.33	0.22	0.11	0.1	0.0191	0.0207	< 0.020	< 0.020	< 0.000050
5/9/2017	WL_BFWB_OUT_SP21	E291569														
5/10/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.28	0.3	0.11	0.11	0.0176	0.0203	< 0.020	< 0.020	< 0.000050
5/10/2017	WL_BFWB_OUT_SP21	E291569														
5/11/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0039	0.28	0.28	< 0.10	< 0.10	0.0185	0.0193	< 0.020	< 0.020	< 0.000050
5/11/2017	WL_BFWB_OUT_SP21	E291569														
5/12/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.26	0.26	< 0.10	< 0.10	0.0176	0.0191	< 0.020	< 0.020	< 0.000050
5/12/2017	WL_BFWB_OUT_SP21	E291569														
5/13/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.27	0.25	< 0.10	< 0.10	0.018	0.0152	< 0.020	< 0.020	< 0.000050
5/13/2017	WL_BFWB_OUT_SP21	E291569														
5/14/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.003	0.27	0.25	< 0.10	< 0.10	0.0164	0.0198	< 0.020	< 0.020	< 0.000050
5/14/2017	WL_BFWB_OUT_SP21	E291569														
5/15/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030		0.23		0.12		0.0155		< 0.020	
5/15/2017	WL_BFWB_OUT_SP21	E291569														
5/15/2017	WL_BFWB_OUT_SP21	E291569														
5/16/2017	WL_BFWB_OUT_SP21	E291569				0.0066	< 0.0030	0.3	0.24	0.23	0.19	0.0149	0.0153	< 0.020	< 0.020	< 0.000050
5/16/2017	WL_BFWB_OUT_SP21	E291569														
5/17/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0039	0.26	0.23	0.1	0.15	0.014	0.0139	< 0.020	< 0.020	< 0.000050
5/17/2017	WL_BFWB_OUT_SP21	E291569														
5/18/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.26	0.27	0.11	< 0.10	0.0142	0.0143	< 0.020	< 0.020	< 0.000050
5/18/2017	WL_BFWB_OUT_SP21	E291569														
5/19/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.25	0.26	0.11	0.1	0.0138	0.0144	< 0.020	< 0.020	< 0.000050
5/19/2017	WL_BFWB_OUT_SP21	E291569														
5/20/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030		0.27		< 0.10		0.014		< 0.020	
5/20/2017	WL_BFWB_OUT_SP21	E291569														
5/21/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.25	0.25	0.11	< 0.10	0.0135	0.0137	< 0.020	< 0.020	< 0.000050
5/21/2017	WL_BFWB_OUT_SP21	E291569														
5/22/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0033	0.27	0.27	< 0.10	< 0.10	0.0132	0.0147	< 0.020	< 0.020	< 0.000050
5/22/2017	WL_BFWB_OUT_SP21	E291569														
5/23/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.27	0.25	< 0.10	< 0.10	0.0129	0.0131	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
5/23/2017	WL_BFWB_OUT_SP21	E291569														
5/24/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0057	0.26	0.24	< 0.10	< 0.10	0.0133	0.0127	< 0.020	< 0.020	< 0.000050
5/24/2017	WL_BFWB_OUT_SP21	E291569														
5/25/2017	WL_BFWB_OUT_SP21	E291569				0.0033		0.3		< 0.10		0.0117		< 0.020		< 0.000050
5/25/2017	WL_BFWB_OUT_SP21	E291569														
5/25/2017	WL_BFWB_OUT_SP21	E291569														
5/26/2017	WL_BFWB_OUT_SP21	E291569														
5/26/2017	WL_BFWB_OUT_SP21	E291569				0.0045	0.0033	0.25	0.25	< 0.10	< 0.10	0.011	0.011	< 0.020	< 0.020	< 0.000050
5/26/2017	WL_BFWB_OUT_SP21	E291569														
5/27/2017	WL_BFWB_OUT_SP21	E291569				0.0053	0.0106	0.29	0.27	< 0.10	< 0.10	0.0111	0.0116	< 0.020	< 0.020	< 0.000050
5/27/2017	WL_BFWB_OUT_SP21	E291569														
5/28/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0032	0.26	0.27	< 0.10	< 0.10	0.012	0.0126	< 0.020	< 0.020	< 0.000050
5/28/2017	WL_BFWB_OUT_SP21	E291569														
5/29/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0034	0.27	0.31	< 0.10	< 0.10	0.0118	0.0126	< 0.020	< 0.020	< 0.000050
5/29/2017	WL_BFWB_OUT_SP21	E291569														
5/30/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0037	0.27	0.27	< 0.10	< 0.10	0.0104	0.0114	< 0.020	< 0.020	< 0.000050
5/30/2017	WL_BFWB_OUT_SP21	E291569														
5/31/2017	WL_BFWB_OUT_SP21	E291569				0.0034	0.0292	0.27	0.26	< 0.10	< 0.10	0.0105	0.0107	< 0.020	< 0.020	< 0.000050
5/31/2017	WL_BFWB_OUT_SP21	E291569														
5/31/2017	WL_BFWB_OUT_SP21	E291569														
6/1/2017	WL_BFWB_OUT_SP21	E291569				0.0034	0.0036	0.25	0.24	< 0.10	< 0.10	0.011	0.0113	< 0.020	< 0.020	< 0.000050
6/1/2017	WL_BFWB_OUT_SP21	E291569														
6/2/2017	WL_BFWB_OUT_SP21	E291569				0.0049	0.0044	0.25	0.22	< 0.10	< 0.10	0.0114	0.0113	< 0.020	< 0.020	< 0.000050
6/2/2017	WL_BFWB_OUT_SP21	E291569														
6/3/2017	WL_BFWB_OUT_SP21	E291569														
6/3/2017	WL_BFWB_OUT_SP21	E291569				0.0031	0.0037	0.22	0.24	< 0.10	< 0.10	0.00972	0.00977	< 0.020	< 0.020	< 0.000050
6/4/2017	WL_BFWB_OUT_SP21	E291569				0.0038	0.006	0.23	0.26	< 0.10	< 0.10	0.00962	0.00977	< 0.020	< 0.020	< 0.000050
6/4/2017	WL_BFWB_OUT_SP21	E291569														
6/5/2017	WL_BFWB_OUT_SP21	E291569	0	0	268	< 0.0030	< 0.0030	0.23	0.23	< 0.10	< 0.10	0.00968	0.00951	< 0.020	< 0.020	< 0.000050
6/5/2017	WL_BFWB_OUT_SP21	E291569														
6/6/2017	WL_BFWB_OUT_SP21	E291569				0.0048	< 0.0030	0.31	0.3	< 0.10	< 0.10	0.00932	0.00999	< 0.020	< 0.020	< 0.000050
6/6/2017	WL_BFWB_OUT_SP21	E291569														
6/7/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.24	0.25	< 0.10	< 0.10	0.00986	0.00856	< 0.020	< 0.020	< 0.000050
6/7/2017	WL_BFWB_OUT_SP21	E291569														
6/8/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.33	0.24	< 0.10	< 0.10	0.0089	0.0091	< 0.020	< 0.020	< 0.000050
6/8/2017	WL_BFWB_OUT_SP21	E291569														
6/9/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.32	0.28	< 0.10	< 0.10	0.00871	0.0107	< 0.020	< 0.020	< 0.000050
6/9/2017	WL_BFWB_OUT_SP21	E291569														
6/10/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0043	0.24	0.27	0.12	0.11	0.00968	0.0102	< 0.020	< 0.020	< 0.000050
6/10/2017	WL_BFWB_OUT_SP21	E291569														
6/11/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0035	0.22	0.25	0.15	0.1	0.0106	0.01	< 0.020	< 0.020	< 0.000050
6/11/2017	WL_BFWB_OUT_SP21	E291569														
6/12/2017	WL_BFWB_OUT_SP21	E291569	0	0	274	< 0.0030	< 0.0030	0.22	0.26	0.12	< 0.10	0.00973	0.0101	< 0.020	< 0.020	< 0.000050
6/12/2017	WL_BFWB_OUT_SP21	E291569	0													
6/12/2017	WL_BFWB_OUT_SP21	E291569														
6/13/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.22	0.25	< 0.10	< 0.10	0.00917	0.00963	< 0.020	< 0.020	< 0.000050
6/13/2017	WL_BFWB_OUT_SP21	E291569														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
6/14/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.2	0.25	0.13	< 0.10	0.00987	0.00971	< 0.020	< 0.020	< 0.000050
6/14/2017	WL_BFWB_OUT_SP21	E291569														
6/15/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0053	0.19	0.22	< 0.10	< 0.10	0.0106	0.0103	< 0.020	< 0.020	< 0.000050
6/15/2017	WL_BFWB_OUT_SP21	E291569														
6/16/2017	WL_BFWB_OUT_SP21	E291569				0.0062	< 0.0030	0.19	0.29	< 0.10	< 0.10	0.0117	0.0103	< 0.020	< 0.020	< 0.000050
6/16/2017	WL_BFWB_OUT_SP21	E291569														
6/17/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0033	0.22	0.23	< 0.10	< 0.10	0.00952	0.00992	< 0.020	< 0.020	< 0.000050
6/17/2017	WL_BFWB_OUT_SP21	E291569														
6/18/2017	WL_BFWB_OUT_SP21	E291569				0.0036		0.23		< 0.10		0.00994		< 0.020		< 0.000050
6/18/2017	WL_BFWB_OUT_SP21	E291569														
6/19/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0122	0.17	0.23	< 0.10	< 0.10	0.0103	0.0101	< 0.020	< 0.020	< 0.000050
6/19/2017	WL_BFWB_OUT_SP21	E291569														
6/20/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0037	0.17	0.21	< 0.10	0.13	0.0102	0.0109	< 0.020	< 0.020	< 0.000050
6/22/2017	WL_BFWB_OUT_SP21	E291569				0.0031	0.0067	0.2	0.23	< 0.10	< 0.10	0.0119	0.0118	< 0.020	< 0.020	< 0.000050
6/22/2017	WL_BFWB_OUT_SP21	E291569														
6/23/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.19	0.23	< 0.10	< 0.10	0.0114	0.0115	< 0.020	< 0.020	< 0.000050
6/23/2017	WL_BFWB_OUT_SP21	E291569														
6/24/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0037	0.21	0.21	< 0.10	< 0.10	0.0118	0.0121	< 0.020	< 0.020	< 0.000050
6/24/2017	WL_BFWB_OUT_SP21	E291569														
6/25/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.2	0.2	< 0.10	< 0.10	0.0121	0.0115	< 0.020	< 0.020	< 0.000050
6/25/2017	WL_BFWB_OUT_SP21	E291569														
6/26/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0041	0.21	0.2	< 0.10	< 0.10	0.0118	0.0116	< 0.020	< 0.020	< 0.000050
6/27/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0044	0.2	0.22	< 0.10	< 0.10	0.0141	0.012	< 0.020	< 0.020	< 0.000050
6/28/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.2	< 0.20	< 0.10	< 0.20	0.0119	0.012	< 0.020	< 0.020	< 0.000050
6/29/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.19	0.19	< 0.10	< 0.10	0.011	0.0104	< 0.020	< 0.020	< 0.000050
6/29/2017	WL_BFWB_OUT_SP21	E291569														
6/30/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0033	0.19	0.19	< 0.10	< 0.10	0.0102	0.0104	< 0.020	< 0.020	< 0.000050
7/1/2017	WL_BFWB_OUT_SP21	E291569				0.0052	0.0055	0.21	< 0.30	0.11	< 0.20	0.0148	0.013	< 0.020	< 0.020	< 0.000050
7/2/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0031	0.29	< 0.30	0.33	< 0.20	0.0112	0.011	< 0.020	< 0.020	< 0.000050
7/3/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.003	0.18	< 0.30	< 0.10	< 0.10	0.0107	0.0111	< 0.020	< 0.020	< 0.000050
7/3/2017	WL_BFWB_OUT_SP21	E291569														
7/4/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.2	0.2	< 0.10	< 0.10	0.0121	0.0108	< 0.020	< 0.020	< 0.000050
7/5/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.17	0.2	< 0.10	< 0.10	0.0108	0.0104	< 0.020	< 0.020	< 0.000050
7/6/2017	WL_BFWB_OUT_SP21	E291569				0.0042	< 0.0030	0.18	0.19	< 0.10	< 0.10	0.011	0.0107	< 0.020	< 0.020	< 0.000050
7/7/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.2	0.19	< 0.10	< 0.10	0.0125	0.0107	< 0.020	< 0.020	< 0.000050
7/8/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.18	0.19	< 0.10	< 0.10	0.0115	0.0111	< 0.020	< 0.020	< 0.000050
7/9/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.19	0.2	0.1	< 0.10	0.0111	0.011	< 0.020	< 0.020	< 0.000050
7/10/2017	WL_BFWB_OUT_SP21	E291569	100													
7/10/2017	WL_BFWB_OUT_SP21	E291569	3	0	310	< 0.0030	< 0.0030	0.18	0.2	< 0.10	< 0.10	0.0133	0.0115	< 0.020	< 0.020	< 0.000050
7/11/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0039	0.19	0.19	< 0.10	< 0.10	0.0117	0.0113	< 0.020	< 0.020	< 0.000050
7/12/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.19	0.2	< 0.10	< 0.10	0.0113	0.0112	< 0.020	< 0.020	< 0.000050
7/12/2017	WL_BFWB_OUT_SP21	E291569														
7/13/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0043	0.22	0.23	< 0.10	< 0.10	0.0127	0.012	< 0.020	< 0.020	< 0.000050
7/14/2017	WL_BFWB_OUT_SP21	E291569			337	< 0.0030	< 0.0030	0.22	0.21	< 0.10	< 0.10	0.0127	0.0118	< 0.020	< 0.020	< 0.000050
7/14/2017	WL_BFWB_OUT_SP21	E291569														
7/14/2017	WL_BFWB_OUT_SP21	E291569	0	0												
7/15/2017	WL_BFWB_OUT_SP21	E291569														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
7/16/2017	WL_BFWB_OUT_SP21	E291569														
7/16/2017	WL_BFWB_OUT_SP21	E291569														
7/17/2017	WL_BFWB_OUT_SP21	E291569	0	0		< 0.0030	< 0.0030	0.2	0.24	< 0.10	< 0.10	0.0126	0.0125	< 0.020	< 0.020	< 0.000050
7/18/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.2	0.22	< 0.10	< 0.10	0.0133	0.0136	< 0.020	< 0.020	< 0.000050
7/19/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0046	0.2	0.2	< 0.10	< 0.10	0.0144	0.0134	< 0.020	< 0.020	< 0.000050
7/20/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0049	0.23	0.24	< 0.10	< 0.10	0.013	0.0124	< 0.020	< 0.020	< 0.000050
7/20/2017	WL_BFWB_OUT_SP21	E291569														
7/21/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.003	0.22	0.23	< 0.10	< 0.10	0.0145	0.0124	< 0.020	< 0.020	< 0.000050
7/22/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.23	0.26	< 0.10	< 0.10	0.0114	0.0121	< 0.020	< 0.020	< 0.000050
7/22/2017	WL_BFWB_OUT_SP21	E291569														
7/23/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.23	0.25	< 0.10	< 0.10	0.0122	0.0124	< 0.020	< 0.020	< 0.000050
7/24/2017	WL_BFWB_OUT_SP21	E291569	13	0		< 0.0030	< 0.0030	0.23	0.26	< 0.10	< 0.10	0.012	0.0123	< 0.020	< 0.020	< 0.000050
7/25/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0032	0.24	0.24	< 0.10	< 0.10	0.0128	0.0135	< 0.020	< 0.020	< 0.000050
7/26/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.22	0.26	< 0.10	0.1	0.0134	0.0135	< 0.020	< 0.020	< 0.000050
7/27/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.22	0.24	< 0.10	< 0.10	0.0132	0.0141	< 0.020	< 0.020	< 0.000050
7/28/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.19	0.23	< 0.10	< 0.10	0.0132	0.0143	< 0.020	< 0.020	< 0.000050
7/29/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.21	0.25	< 0.10	0.11	0.0136	0.0136	< 0.020	< 0.020	< 0.000050
7/30/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.21	0.36	< 0.10	0.11	0.014	0.0145	< 0.020	< 0.020	< 0.000050
7/31/2017	WL_BFWB_OUT_SP21	E291569	3	0		< 0.0030	< 0.0030	0.22	0.28	< 0.10	0.12	0.0135	0.0137	< 0.020	< 0.020	< 0.000050
8/1/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.32	0.25	< 0.10	< 0.10	0.0132	0.0135	< 0.020	< 0.020	0.000225
8/2/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.24	0.28	< 0.10	< 0.10	0.0127	0.0136	< 0.020	< 0.020	< 0.000050
8/3/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.22	0.22	< 0.10	< 0.10	0.0129	0.0135	< 0.020	< 0.020	< 0.000050
8/4/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.22	0.22	< 0.10	< 0.10	0.0127	0.0148	< 0.020	< 0.020	< 0.000050
8/5/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.21	0.21	< 0.10	0.1	0.0147	0.0143	< 0.020	< 0.020	< 0.000050
8/6/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030		0.23		< 0.10		0.0162		< 0.020		< 0.000050
8/7/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0060	0.23	0.26	< 0.10	< 0.10	0.0153	0.0151	< 0.020	< 0.020	< 0.000050
8/8/2017	WL_BFWB_OUT_SP21	E291569	87	0		0.0034	0.0049	0.22	0.22	< 0.10	< 0.10	0.0135	0.0134	< 0.020	< 0.020	< 0.000050
8/9/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.21	0.21	< 0.10	< 0.10	0.0165	0.0153	< 0.020	< 0.020	< 0.000050
8/9/2017	WL_BFWB_OUT_SP21	E291569														
8/10/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.19	0.19	< 0.10	< 0.10	0.0153	0.0154	< 0.020	< 0.020	< 0.000050
8/11/2017	WL_BFWB_OUT_SP21	E291569				0.0041	0.0031	0.19	0.2	< 0.10	< 0.10	0.0148	0.014	< 0.020	< 0.020	< 0.000050
8/11/2017	WL_BFWB_OUT_SP21	E291569														
8/12/2017	WL_BFWB_OUT_SP21	E291569	7	0	354	< 0.0030	< 0.0030	0.2	0.19	< 0.10	< 0.10	0.0146	0.0148	< 0.020	< 0.020	< 0.000050
8/13/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0047	< 0.30	0.19	< 0.10	0.11	0.0153	0.0145	< 0.020	< 0.020	< 0.000050
8/13/2017	WL_BFWB_OUT_SP21	E291569														
8/14/2017	WL_BFWB_OUT_SP21	E291569	0	0	330	< 0.0030	0.0038	0.19	0.21	< 0.10	< 0.10	0.015	0.0151	< 0.020	< 0.020	< 0.000050
8/15/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.2	0.22	< 0.10	< 0.10	0.0149	0.0148	< 0.020	< 0.020	< 0.000050
8/16/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.21	0.22	< 0.10	< 0.10	0.015	0.0155	< 0.020	< 0.020	< 0.000050
8/17/2017	WL_BFWB_OUT_SP21	E291569				0.0052	< 0.0030	0.21	0.2	0.11	0.1	0.0156	0.0157	< 0.020	< 0.020	< 0.000050
8/18/2017	WL_BFWB_OUT_SP21	E291569					0.0092		0.21		0.11		0.0158		< 0.020	
8/19/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0032	0.21	0.22	< 0.10	< 0.10	0.016	0.0159	< 0.020	< 0.020	< 0.000050
8/20/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0035	0.22	0.22	< 0.10	< 0.10	0.0167	0.0162	< 0.020	< 0.020	< 0.000050
8/21/2017	WL_BFWB_OUT_SP21	E291569	0	0		< 0.0030	0.0049	0.21	0.25	0.11	< 0.10	0.0166	0.0168	< 0.020	< 0.020	< 0.000050
8/22/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.2	0.18	< 0.10	< 0.10	0.0169	0.0175	< 0.020	< 0.020	< 0.000050
8/23/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.21	0.21	< 0.10	< 0.10	0.0158	0.0176	< 0.020	< 0.020	< 0.000050
8/24/2017	WL_BFWB_OUT_SP21	E291569				0.0038	< 0.0030	0.2	0.2	< 0.10	< 0.10	0.0165	0.0177	< 0.020	< 0.020	< 0.000050
8/25/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.2	0.19	0.12	0.12	0.0163	0.0168	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
8/25/2017	WL_BFWB_OUT_SP21	E291569														
8/26/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.25	0.24	< 0.10	< 0.10	0.0167	0.0164	< 0.020	< 0.020	< 0.000050
8/26/2017	WL_BFWB_OUT_SP21	E291569														
8/27/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.24	0.24	< 0.10	< 0.10	0.017	0.0168	< 0.020	< 0.020	< 0.000050
8/28/2017	WL_BFWB_OUT_SP21	E291569	0	0		< 0.0030	< 0.0030	0.26	0.24	< 0.10	< 0.10	0.0171	0.0174	< 0.020	< 0.020	< 0.000050
8/29/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.22	0.22	< 0.10	< 0.10	0.0172	0.0173	< 0.020	< 0.020	< 0.000050
8/30/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.23	0.21	< 0.10	< 0.10	0.0182	0.0175	< 0.020	< 0.020	< 0.000050
8/31/2017	WL_BFWB_OUT_SP21	E291569				0.0101	0.0031	0.2	0.22	0.1	0.11	0.0181	0.0184	< 0.020	< 0.020	< 0.000050
9/1/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0072	0.2	0.2	0.11	0.11	0.019	0.018	< 0.020	< 0.020	< 0.000050
9/2/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0039	0.23	0.25	< 0.10	< 0.10	0.0176	0.0182	< 0.020	< 0.020	< 0.000050
9/3/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.23	0.24	< 0.10	< 0.10	0.0179	0.0176	< 0.020	< 0.020	< 0.000050
9/4/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.22	0.25	< 0.10	0.12	0.0187	0.0188	< 0.020	< 0.020	< 0.000050
9/5/2017	WL_BFWB_OUT_SP21	E291569	0	0		< 0.0030	< 0.0030	0.22	0.24	< 0.10	0.12	0.0187	0.0191	< 0.020	< 0.020	< 0.000050
9/6/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.21	0.22	< 0.10	< 0.10	0.0196	0.0182	< 0.020	< 0.020	< 0.000050
9/7/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.21	0.24	< 0.10	< 0.10	0.0194	0.019	< 0.020	< 0.020	< 0.000050
9/8/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0841	0.23	0.27	< 0.10	< 0.10	0.0194	0.0205	< 0.020	< 0.020	< 0.000050
9/9/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.19	0.26	< 0.10	< 0.10	0.0195	0.02	< 0.020	< 0.020	< 0.000050
9/10/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.21	0.23	< 0.10	< 0.10	0.0193	0.0186	< 0.020	< 0.020	< 0.000050
9/11/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.19	0.23	< 0.10	< 0.10	0.0196	0.0194	< 0.020	< 0.020	< 0.000050
9/12/2017	WL_BFWB_OUT_SP21	E291569	0	0	349	< 0.0030	< 0.0030	0.2	0.29	< 0.10	< 0.10	0.02	0.0199	< 0.020	< 0.020	< 0.000050
9/13/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.2	0.19	< 0.10	< 0.10	0.019	0.0194	< 0.020	< 0.020	< 0.000050
9/14/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0041	0.2	0.2	< 0.10	< 0.10	0.0197	0.0195	< 0.020	< 0.020	< 0.000050
9/15/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.21	0.22	< 0.10	< 0.10	0.0205	0.0204	< 0.020	< 0.020	< 0.000050
9/16/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.19	0.2	< 0.10	< 0.10	0.0205	0.0215	< 0.020	< 0.020	< 0.000050
9/17/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.18	0.2	< 0.10	< 0.10	0.0212	0.0218	< 0.020	< 0.020	< 0.000050
9/18/2017	WL_BFWB_OUT_SP21	E291569	100	0		< 0.0030	< 0.0030	0.18	0.23	< 0.10	< 0.10	0.0211	0.0221	< 0.020	< 0.020	< 0.000050
9/19/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0039	0.2	0.26	< 0.10	< 0.10	0.0229	0.0222	< 0.020	< 0.020	< 0.000050
9/20/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.22	0.28	< 0.10	< 0.10	0.0231	0.0222	< 0.020	< 0.020	< 0.000050
9/21/2017	WL_BFWB_OUT_SP21	E291569	37	10	316	< 0.0030	< 0.0030	0.19	0.18	< 0.10	0.21	0.0211	0.0208	< 0.020	< 0.020	< 0.000050
9/21/2017	WL_BFWB_OUT_SP21	E291569														
9/22/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.19	0.18	< 0.10	0.24	0.02	0.0202	< 0.020	< 0.020	< 0.000050
9/23/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0031	0.2	0.21	< 0.10	< 0.10	0.021	0.0236	< 0.020	< 0.020	< 0.000050
9/24/2017	WL_BFWB_OUT_SP21	E291569				0.004	0.0048	0.18	0.18	< 0.10	< 0.10	0.0205	0.0221	< 0.020	< 0.020	< 0.000050
9/24/2017	WL_BFWB_OUT_SP21	E291569														
9/25/2017	WL_BFWB_OUT_SP21	E291569	7	20		< 0.0030	< 0.0030	0.19	0.2	< 0.10	< 0.10	0.0202	0.0214	< 0.020	< 0.020	< 0.000050
9/26/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.19	0.21	< 0.10	< 0.10	0.0212	0.0214	< 0.020	< 0.020	< 0.000050
9/26/2017	WL_BFWB_OUT_SP21	E291569														
9/27/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.22	0.19	< 0.10	< 0.10	0.0211	0.021	< 0.020	< 0.020	< 0.000050
9/28/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.2	0.22	< 0.10	< 0.10	0.021	0.0215	< 0.020	< 0.020	< 0.000050
9/28/2017	WL_BFWB_OUT_SP21	E291569														
9/29/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030		0.2		< 0.10		0.0216		< 0.020	
9/29/2017	WL_BFWB_OUT_SP21	E291569				0.0134		0.19		< 0.10		0.0219		< 0.020		< 0.000050
9/30/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.2	0.2	< 0.10	< 0.40	0.0205	0.0231	< 0.020	< 0.020	< 0.000050
9/30/2017	WL_BFWB_OUT_SP21	E291569														
10/1/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0036	0.24	0.19	< 0.10	< 0.40	0.0218	0.0236	< 0.020	< 0.020	< 0.000050
10/2/2017	WL_BFWB_OUT_SP21	E291569														
10/2/2017	WL_BFWB_OUT_SP21	E291569	43	0	212	< 0.0030	< 0.0030	0.2	0.21	< 0.10	< 0.30	0.0236	0.0226	< 0.020	< 0.020	< 0.000050

Sample Date	Location	EMS Number	Analyte	48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
			Fraction Result Unit	N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
10/3/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.22	0.21	< 0.10	< 0.10	0.0223	0.0237	< 0.020	< 0.020	< 0.000050
10/4/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.2	0.22	< 0.10	< 0.10	0.0223	0.0225	< 0.020	< 0.020	< 0.000050
10/5/2017	WL_BFWB_OUT_SP21	E291569						0.0031		0.22		< 0.10		0.0225		< 0.020	
10/5/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030		0.21		0.1		0.022		< 0.020		< 0.000050
10/6/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.21	0.22	< 0.10	< 0.10	0.0222	0.0223	< 0.020	< 0.020	< 0.000050
10/6/2017	WL_BFWB_OUT_SP21	E291569															
10/7/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.21	0.21	< 0.10	< 0.10	0.0228	0.0237	< 0.020	< 0.020	< 0.000050
10/7/2017	WL_BFWB_OUT_SP21	E291569															
10/8/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.21	0.22	< 0.10	< 0.10	0.0233	0.0241	< 0.020	< 0.020	< 0.000050
10/9/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.22	0.22	< 0.10	< 0.10	0.0234	0.0237	< 0.020	< 0.020	< 0.000050
10/9/2017	WL_BFWB_OUT_SP21	E291569															
10/10/2017	WL_BFWB_OUT_SP21	E291569	7	0			< 0.0030	< 0.0030	0.23	0.19	< 0.10	< 0.10	0.0224	0.0228	< 0.020	< 0.020	< 0.000050
10/11/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	0.0044	0.17	0.28	< 0.10	< 0.10	0.0221	0.0231	< 0.020	< 0.020	< 0.000050
10/12/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.19	0.2	< 0.10	< 0.10	0.0245	0.0236	< 0.020	< 0.020	< 0.000050
10/13/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.2	0.19	< 0.10	< 0.10	0.0247	0.024	< 0.020	< 0.020	< 0.000050
10/14/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	0.0052	0.21	0.19	0.1	< 0.10	0.0252	0.0242	< 0.020	< 0.020	< 0.000050
10/15/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.22	0.2	< 0.10	< 0.10	0.0248	0.0254	< 0.020	< 0.020	< 0.000050
10/16/2017	WL_BFWB_OUT_SP21	E291569	0	0			< 0.0030	< 0.0030	0.22	0.19	< 0.10	< 0.10	0.0253	0.0245	< 0.020	< 0.020	< 0.000050
10/17/2017	WL_BFWB_OUT_SP21	E291569															
10/18/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	0.0041	0.18	0.2	< 0.10	< 0.10	0.0227	0.0233	< 0.020	< 0.020	< 0.000050
10/19/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.17	0.19	< 0.10	< 0.10	0.0216	0.0226	< 0.020	< 0.020	< 0.000050
10/20/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	0.0031	0.16	0.17	< 0.10	< 0.10	0.0204	0.0207	< 0.020	< 0.020	< 0.000050
10/21/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	0.0039	0.19	0.17	< 0.10	0.1	0.0193	0.0234	< 0.020	< 0.020	< 0.000050
10/21/2017	WL_BFWB_OUT_SP21	E291569															
10/22/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	0.0056	0.18	0.14	< 0.10	< 0.10	0.0193	0.0206	0.023	< 0.020	< 0.000050
10/23/2017	WL_BFWB_OUT_SP21	E291569	0	0			< 0.0030	0.0034	0.18	0.16	< 0.10	< 0.10	0.0198	0.0228	< 0.020	< 0.020	< 0.000050
10/24/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	0.0036	0.17	0.16	< 0.10	< 0.10	0.0207	0.0218	< 0.020	< 0.020	< 0.000050
10/25/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.14	0.22	< 0.10	< 0.10	0.0202	0.0235	< 0.020	< 0.020	< 0.000050
10/26/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	0.0046	0.15	0.34	< 0.10	< 0.10	0.0247	0.0227	< 0.020	< 0.020	< 0.000050
10/27/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	0.0036	0.14	0.27	< 0.10	< 0.10	0.0263	0.0239	< 0.020	< 0.020	< 0.000050
10/28/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.15	0.12	< 0.10	< 0.10	0.026	0.0256	< 0.020	< 0.020	< 0.000050
10/28/2017	WL_BFWB_OUT_SP21	E291569															
10/29/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.14	0.12	< 0.10	< 0.10	0.0255	0.0257	< 0.020	< 0.020	< 0.000050
10/30/2017	WL_BFWB_OUT_SP21	E291569	0	0			< 0.0030	< 0.0030	0.16	0.11	0.1	< 0.10	0.028	0.0267	< 0.020	< 0.020	< 0.000050
10/31/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	0.0037	0.14	0.16	< 0.10	< 0.10	0.0263	0.0282	< 0.020	< 0.020	< 0.000050
11/1/2017	WL_BFWB_OUT_SP21	E291569					0.0078	< 0.015	0.14	< 0.50	< 0.10	< 0.50	0.0289	0.0266	< 0.020	< 0.020	< 0.000050
11/2/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	0.0039	0.15	0.13	0.12	< 0.10	0.0295	0.0295	< 0.020	< 0.020	< 0.000050
11/3/2017	WL_BFWB_OUT_SP21	E291569						0.004		0.13		< 0.10		0.0298		< 0.020	
11/3/2017	WL_BFWB_OUT_SP21	E291569					0.003		0.13		0.12		0.0302		< 0.020		< 0.000050
11/4/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	0.0036	0.12	0.15	0.21	< 0.10	0.0294	0.0353	< 0.020	< 0.020	< 0.000050
11/5/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.15	0.11	0.19	< 0.10	0.0308	0.0319	< 0.020	< 0.020	< 0.000050
11/5/2017	WL_BFWB_OUT_SP21	E291569															
11/6/2017	WL_BFWB_OUT_SP21	E291569	0	0		183	< 0.0030	0.004	0.12	0.11	0.22	< 0.10	0.0312	0.0329	< 0.020	< 0.020	< 0.000050
11/7/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	0.0037	0.14	0.15	0.11	0.11	0.0342	0.0335	< 0.020	< 0.020	< 0.000050
11/8/2017	WL_BFWB_OUT_SP21	E291569															
11/8/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	0.0041	0.11	0.13	< 0.10	0.1	0.0342	0.0356	< 0.020	< 0.020	< 0.000050
11/9/2017	WL_BFWB_OUT_SP21	E291569					< 0.0030	< 0.0030	0.13	0.15	< 0.10	< 0.10	0.0325	0.0319	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
11/9/2017	WL_BFWB_OUT_SP21	E291569														
11/10/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.13	0.15	< 0.10	< 0.10	0.0357	0.0342	< 0.020	< 0.020	< 0.000050
11/10/2017	WL_BFWB_OUT_SP21	E291569				0.195	0.192	0.15	0.11	< 0.10	< 0.10	0.114	0.115	< 0.020	< 0.020	< 0.000050
11/10/2017	WL_BFWB_OUT_SP21	E291569														
11/11/2017	WL_BFWB_OUT_SP21	E291569				0.0033	< 0.0030	0.15	0.13	< 0.10	< 0.10	0.0345	0.0363	< 0.020	< 0.020	< 0.000050
11/11/2017	WL_BFWB_OUT_SP21	E291569														
11/12/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.003	0.15	0.14	< 0.10	< 0.10	0.0352	0.0356	< 0.020	< 0.020	< 0.000050
11/12/2017	WL_BFWB_OUT_SP21	E291569														
11/13/2017	WL_BFWB_OUT_SP21	E291569				0.0042	< 0.0030	0.13	0.12	< 0.10	< 0.10	0.0384	0.038	< 0.020	< 0.020	< 0.000050
11/13/2017	WL_BFWB_OUT_SP21	E291569														
11/14/2017	WL_BFWB_OUT_SP21	E291569	3	0		< 0.0030	< 0.0030	0.12	0.14	< 0.10	< 0.10	0.0375	0.038	< 0.020	< 0.020	< 0.000050
11/15/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.12	< 0.10	< 0.10	< 0.10	0.0355	0.033	< 0.020	< 0.020	< 0.000050
11/16/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	< 0.10	0.13	< 0.10	0.14	0.0366	0.0333	< 0.020	< 0.020	< 0.000050
11/16/2017	WL_BFWB_OUT_SP21	E291569				0.179	0.161	< 0.10	0.16	0.1	< 0.10	0.106	0.0926	< 0.020	< 0.020	< 0.000050
11/17/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.11	0.13	< 0.10	0.15	0.0348	0.0347	< 0.020	< 0.020	< 0.000050
11/17/2017	WL_BFWB_OUT_SP21	E291569				0.249	0.229	< 0.10	< 0.10	< 0.10	0.13	0.124	0.122	< 0.020	< 0.020	< 0.000050
11/18/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.1	< 0.10	0.14	0.14	0.0341	0.0348	< 0.020	< 0.020	< 0.000050
11/18/2017	WL_BFWB_OUT_SP21	E291569														
11/19/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	< 0.10	< 0.10	0.14	0.13	0.0332	0.0315	< 0.020	< 0.020	< 0.000050
11/20/2017	WL_BFWB_OUT_SP21	E291569	0	0		< 0.0030	< 0.0030	0.12	< 0.10	< 0.10	0.12	0.0347	0.0344	< 0.020	< 0.020	< 0.000050
11/21/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.11	0.13	< 0.10	< 0.10	0.0336	0.0356	< 0.020	< 0.020	< 0.000050
11/22/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.11	0.13	< 0.10	< 0.10	0.0346	0.0342	< 0.020	< 0.020	< 0.000050
11/23/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.1	0.19	< 0.10	0.11	0.0386	0.0373	< 0.020	< 0.020	< 0.000050
11/23/2017	WL_BFWB_OUT_SP21	E291569														
11/24/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0036	0.11	0.19	< 0.10	0.12	0.0398	0.0369	< 0.020	< 0.020	< 0.000050
11/24/2017	WL_BFWB_OUT_SP21	E291569				0.169	0.2	0.12	0.12	< 0.10	< 0.10	0.112	0.116	< 0.020	< 0.020	< 0.000050
11/25/2017	WL_BFWB_OUT_SP21	E291569				0.0038	0.0036	0.12	0.13	< 0.10	0.11	0.0369	0.0369	< 0.020	< 0.020	< 0.000050
11/26/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.13	0.14	< 0.10	0.13	0.0382	0.0378	< 0.020	< 0.020	< 0.000050
11/27/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0047	0.14	0.12	< 0.10	0.12	0.0377	0.0386	< 0.020	< 0.020	< 0.000050
11/28/2017	WL_BFWB_OUT_SP21	E291569				0.19	0.184	0.17	0.1	< 0.60	< 0.10	0.124	0.116	< 0.020	< 0.020	< 0.000050
11/28/2017	WL_BFWB_OUT_SP21	E291569	0	0		< 0.0030	0.0032	0.12	0.14	< 0.10	< 0.10	0.0374	0.0412	< 0.020	< 0.020	< 0.000050
11/29/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.12	0.13	< 0.10	< 0.10	0.0383	0.0399	< 0.020	< 0.020	< 0.000050
11/30/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0034	0.13	0.17	< 0.10	< 0.10	0.0374	0.0409	< 0.020	< 0.020	< 0.000050
11/30/2017	WL_BFWB_OUT_SP21	E291569				0.174	0.164	0.13	< 0.20	< 0.10	< 0.20	0.115	0.112	< 0.020	< 0.040	< 0.000050
12/1/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.12	0.12	< 0.10	< 0.10	0.0364	0.0368	< 0.020	< 0.020	< 0.000050
12/2/2017	WL_BFWB_OUT_SP21	E291569				0.0032	0.0038	0.14	0.13	< 0.10	< 0.10	0.0362	0.0373	< 0.020	< 0.020	< 0.000050
12/3/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.11	0.15	< 0.10	< 0.10	0.0353	0.036	< 0.020	< 0.020	< 0.000050
12/4/2017	WL_BFWB_OUT_SP21	E291569	3	0	209	< 0.0030	< 0.0030	0.12	0.14	< 0.10	< 0.10	0.0376	0.0378	< 0.020	< 0.020	< 0.000050
12/5/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.12	0.11	< 0.10	< 0.10	0.037	0.039	< 0.020	< 0.020	< 0.000050
12/6/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.12	0.12	< 0.10	< 0.10	0.0367	0.0408	< 0.020	< 0.020	< 0.000050
12/6/2017	WL_BFWB_OUT_SP21	E291569				0.254	0.279	0.12	0.11	0.16	0.17	0.153	0.178	< 0.020	< 0.020	< 0.000050
12/6/2017	WL_BFWB_OUT_SP21	E291569														
12/7/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.12	0.13	< 0.10	< 0.10	0.0393	0.0397	< 0.020	< 0.020	< 0.000050
12/7/2017	WL_BFWB_OUT_SP21	E291569														
12/8/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0044	0.13	0.13	< 0.10	< 0.10	0.043	0.0418	< 0.020	< 0.020	< 0.000050
12/9/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030		< 0.10		< 0.10		0.0452		< 0.020		< 0.000050
12/10/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0043	0.12	0.12	< 0.10	< 0.10	0.0444	0.0397	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
12/11/2017	WL_BFWB_OUT_SP21	E291569	0	0		< 0.0030	0.0034	0.1	0.12	< 0.10	< 0.10	0.04	0.0382	< 0.020	< 0.020	< 0.000050
12/12/2017	WL_BFWB_OUT_SP21	E291569				0.0075	< 0.0030	0.11	0.12	< 0.10	< 0.10	0.0398	0.0353	< 0.020	< 0.020	< 0.000050
12/13/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.19	0.12	< 0.90	< 0.10	0.0366	0.0364	< 0.020	< 0.020	< 0.000050
12/14/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.13	0.13	0.1	< 0.10	0.0401	0.0362	< 0.020	< 0.020	< 0.000050
12/15/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.15	0.12	< 0.10	< 0.10	0.0395	0.0388	< 0.020	< 0.020	< 0.000050
12/16/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	< 0.10	0.11	< 0.10	< 0.10	0.0383	0.0381	< 0.020	< 0.020	< 0.000050
12/17/2017	WL_BFWB_OUT_SP21	E291569				0.003	< 0.0030	< 0.10	< 0.10	< 0.10	< 0.10	0.0395	0.0378	< 0.020	< 0.020	< 0.000050
12/18/2017	WL_BFWB_OUT_SP21	E291569	0	0		< 0.0030	< 0.0030	0.1	< 0.10	< 0.10	< 0.10	0.0387	0.0385	< 0.020	< 0.020	< 0.000050
12/19/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0062	0.12	0.15	< 0.10	< 0.10	0.038	0.0384	< 0.020	< 0.020	< 0.000050
12/20/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0067	0.17	0.14	< 0.10	< 0.10	0.0375	0.0386	< 0.020	< 0.020	< 0.000050
12/20/2017	WL_BFWB_OUT_SP21	E291569				0.206	0.278	0.1	0.13	0.16	0.12	0.111	0.139	< 0.020	< 0.020	< 0.000050
12/21/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	0.0033	0.19	0.12	< 0.10	< 0.10	0.0447	0.0374	< 0.020	< 0.020	< 0.000050
12/22/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.13	0.13	< 0.10	< 0.10	0.0391	0.0358	< 0.020	< 0.020	< 0.000050
12/23/2017	WL_BFWB_OUT_SP21	E291569				0.0044	0.0043	0.12	0.54	< 0.10	0.26	0.0401	0.0246	< 0.020	< 0.020	< 0.000050
12/23/2017	WL_BFWB_OUT_SP21	E291569														
12/24/2017	WL_BFWB_OUT_SP21	E291569				0.0081	0.0052	0.1	0.15	< 0.10	< 0.10	0.039	0.0395	< 0.020	< 0.020	< 0.000050
12/25/2017	WL_BFWB_OUT_SP21	E291569				0.0032	0.0067	0.11	0.11	< 0.10	< 0.10	0.0401	0.041	< 0.020	< 0.020	< 0.000050
12/26/2017	WL_BFWB_OUT_SP21	E291569				0.0041	0.0054	0.12	0.12	< 0.10	< 0.10	0.0406	0.0385	< 0.020	< 0.020	< 0.000050
12/27/2017	WL_BFWB_OUT_SP21	E291569	0	0		< 0.0030	< 0.0030	0.12	0.13	< 0.10	< 0.10	0.0384	0.0397	< 0.020	< 0.020	< 0.000050
12/28/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.12	0.12	< 0.10	< 0.10	0.0412	0.0403	< 0.020	< 0.020	< 0.000050
12/29/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.12	0.12	< 0.10	< 0.10	0.0405	0.0405	< 0.020	< 0.020	< 0.000050
12/30/2017	WL_BFWB_OUT_SP21	E291569				< 0.0030	< 0.0030	0.12	0.12	< 0.10	< 0.10	0.0429	0.04	< 0.020	< 0.020	< 0.000050
12/31/2017	WL_BFWB_OUT_SP21	E291569				0.0155	0.0036	0.14	0.13	0.1	< 0.10	0.0406	0.0403	< 0.020	< 0.020	< 0.000050
1/1/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.49	0.52	0.13	0.18	0.0747	0.0781	< 0.020	< 0.020	< 0.000050
1/2/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.51	0.52	0.13	0.15	0.0749	0.0751	< 0.020	< 0.020	< 0.000050
1/3/2017	WL_LCI_SP02	E293370				0.0044	0.0088	0.5	0.53	0.12	0.17	0.0754	0.0788	< 0.020	< 0.020	< 0.000050
1/4/2017	WL_LCI_SP02	E293370														
1/5/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.47	0.52	0.13	0.17	0.0703	0.0702	< 0.020	< 0.020	< 0.000050
1/6/2017	WL_LCI_SP02	E293370														
1/7/2017	WL_LCI_SP02	E293370														
1/8/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.46	0.45	0.13	0.21	0.0713	0.0781	< 0.020	< 0.020	< 0.000050
1/9/2017	WL_LCI_SP02	E293370			197	0.0069	0.003	0.42	0.47	0.14	0.23	0.0712	0.0779	< 0.020	< 0.020	< 0.000050
1/10/2017	WL_LCI_SP02	E293370				< 0.0010	0.0051	0.42	0.53	0.13	0.23	0.0709	0.0754	< 0.020	< 0.020	< 0.000050
1/11/2017	WL_LCI_SP02	E293370														
1/12/2017	WL_LCI_SP02	E293370				< 0.0010	0.0055	0.42	0.5	0.11	0.22	0.0721	0.0787	< 0.020	< 0.020	< 0.000050
1/13/2017	WL_LCI_SP02	E293370														
1/14/2017	WL_LCI_SP02	E293370														
1/15/2017	WL_LCI_SP02	E293370				0.0017	< 0.0030	0.46	0.5	0.17	0.27	0.0688	0.0755	< 0.020	< 0.020	< 0.000050
1/16/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.46	0.48	0.18	0.22	0.0716	0.0736	< 0.020	< 0.020	< 0.000050
1/17/2017	WL_LCI_SP02	E293370				0.0018	< 0.0030	0.48	0.49	0.15	0.16	0.0783	0.0756	< 0.020	< 0.020	< 0.000050
1/18/2017	WL_LCI_SP02	E293370			214	< 0.0010	< 0.0030	0.47	0.48	0.14	0.17	0.0795	0.0783	< 0.020	< 0.020	< 0.000050
1/19/2017	WL_LCI_SP02	E293370				< 0.0010	0.0038	0.44	0.47	0.14	0.19	0.0708	0.0793	< 0.020	< 0.020	< 0.000050
1/20/2017	WL_LCI_SP02	E293370														
1/21/2017	WL_LCI_SP02	E293370														
1/22/2017	WL_LCI_SP02	E293370				0.0044	< 0.0030	0.43	0.47	< 0.10	0.17	0.0767	0.0808	< 0.020	< 0.020	< 0.000050
1/23/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.43	0.46	0.15	0.18	0.0769	0.0885	< 0.020	< 0.020	< 0.000050
1/24/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.45	0.59	0.16	0.18	0.081	0.0874	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
1/25/2017	WL_LCI_SP02	E293370														
1/26/2017	WL_LCI_SP02	E293370				0.0017	0.0039	0.42	0.43	0.16	0.24	0.0817	0.0755	< 0.020	< 0.020	< 0.000050
1/27/2017	WL_LCI_SP02	E293370														
1/28/2017	WL_LCI_SP02	E293370														
1/29/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.41	0.42	0.13	0.17	0.0819	0.085	< 0.020	< 0.020	< 0.000050
1/30/2017	WL_LCI_SP02	E293370				0.0015	< 0.0030	0.37	0.4	0.13	0.18	0.0785	0.0842	< 0.020	< 0.020	< 0.000050
1/31/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.37	0.38	0.14	0.15	0.0851	0.0871	< 0.020	< 0.020	< 0.000050
2/1/2017	WL_LCI_SP02	E293370														
2/1/2017	WL_LCI_SP02	E293370			200	< 0.0010	< 0.0030	0.42	0.41	0.14	0.15	0.0946	0.0816	< 0.020	< 0.020	< 0.000050
2/2/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.42	0.4	0.14	0.18	0.0829	0.0863	< 0.020	< 0.020	< 0.000050
2/3/2017	WL_LCI_SP02	E293370														
2/4/2017	WL_LCI_SP02	E293370														
2/5/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.39	0.43	0.15	0.21	0.081	0.0804	< 0.020	< 0.020	< 0.000050
2/6/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.39	0.42	0.14	0.19	0.0827	0.0816	< 0.020	< 0.020	< 0.000050
2/7/2017	WL_LCI_SP02	E293370			195	< 0.0010	< 0.0030	0.37	0.4	0.16	0.17	0.0874	0.0825	< 0.020	< 0.020	< 0.000050
2/8/2017	WL_LCI_SP02	E293370														
2/8/2017	WL_LCI_SP02	E293370			201	< 0.0010	< 0.0030	0.37	0.4	0.15	0.23	0.085	0.0834	< 0.020	< 0.020	< 0.000050
2/9/2017	WL_LCI_SP02	E293370														
2/10/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.44	0.42	0.16	0.18	0.083	0.0852	< 0.020	< 0.020	< 0.000050
2/11/2017	WL_LCI_SP02	E293370														
2/12/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.37	0.42	0.14	0.19	0.0819	0.0894	< 0.020	< 0.020	< 0.000050
2/13/2017	WL_LCI_SP02	E293370				0.0014	< 0.0030	0.38	0.42	0.13	0.17	0.0825	0.0873	< 0.020	< 0.020	< 0.000050
2/14/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.37	0.4	0.13	0.18	0.0842	0.0933	< 0.020	< 0.020	< 0.000050
2/15/2017	WL_LCI_SP02	E293370														
2/16/2017	WL_LCI_SP02	E293370				< 0.0010	0.0046	0.44	0.42	0.14	0.33	0.0849	0.0898	< 0.020	< 0.020	< 0.000050
2/17/2017	WL_LCI_SP02	E293370														
2/18/2017	WL_LCI_SP02	E293370														
2/19/2017	WL_LCI_SP02	E293370				< 0.0010	0.0099	0.44	0.45	0.16	0.4	0.0801	0.0874	< 0.020	< 0.020	< 0.000050
2/20/2017	WL_LCI_SP02	E293370				0.0204	0.0036	0.53	0.55	0.18	0.54	0.0849	0.0942	< 0.020	< 0.020	< 0.000050
2/21/2017	WL_LCI_SP02	E293370				< 0.0010	0.0072	0.48	0.68	0.13	0.15	0.0872	0.0901	< 0.020	< 0.020	< 0.000050
2/22/2017	WL_LCI_SP02	E293370														
2/22/2017	WL_LCI_SP02	E293370														
2/23/2017	WL_LCI_SP02	E293370				< 0.0010	0.0079	0.43	0.54	0.12	0.17	0.0869	0.0923	< 0.020	< 0.020	< 0.000050
2/24/2017	WL_LCI_SP02	E293370														
2/25/2017	WL_LCI_SP02	E293370														
2/26/2017	WL_LCI_SP02	E293370				0.0012	< 0.0030	0.37	0.41	0.12	0.16	0.0803	0.0876	< 0.020	< 0.020	< 0.000050
2/27/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.37	0.47	0.16	0.18	0.0879	0.0955	< 0.020	< 0.020	< 0.000050
2/28/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.36	0.4	0.12	0.16	0.0838	0.09	< 0.020	< 0.020	< 0.000050
3/1/2017	WL_LCI_SP02	E293370														
3/2/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.38	0.44	0.12	0.14	0.0876	0.0902	< 0.020	< 0.020	< 0.000050
3/3/2017	WL_LCI_SP02	E293370														
3/4/2017	WL_LCI_SP02	E293370														
3/5/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.39	0.41	0.12	0.21	0.0897	0.0963	< 0.020	< 0.020	< 0.000050
3/6/2017	WL_LCI_SP02	E293370			192	< 0.0010	< 0.0030	0.37	0.44	< 0.10	0.16	0.074	0.0991	< 0.020	< 0.020	< 0.000050
3/7/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.41	0.58	0.13	0.14	0.0886	0.0901	< 0.020	< 0.020	< 0.000050
3/8/2017	WL_LCI_SP02	E293370														
3/9/2017	WL_LCI_SP02	E293370				< 0.0010	< 0.0030	0.45	0.45	0.1	0.13	0.087	0.0929	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
3/10/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.37	0.38	0.12	0.13	0.0855	0.0909	< 0.020	< 0.020	< 0.000050
3/11/2017	WL_LCI_SP02	E293370				< 0.0030	0.0031	0.36	0.37	0.13	0.15	0.0876	0.0924	< 0.020	< 0.020	< 0.000050
3/12/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.35	0.36	0.1	0.13	0.0842	0.0902	< 0.020	< 0.020	< 0.000050
3/13/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.36	0.38	0.11	0.14	0.0889	0.0912	< 0.020	< 0.020	< 0.000050
3/14/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.42	0.43	0.12	0.11	0.0959	0.0976	< 0.020	< 0.020	< 0.000050
3/15/2017	WL_LCI_SP02	E293370				< 0.0030	0.0055	0.4	0.4	0.1	0.11	0.085	0.082	< 0.020	< 0.020	< 0.000050
3/16/2017	WL_LCI_SP02	E293370				0.0094	0.301	0.44	0.48	0.13	0.29	0.0804	0.0948	< 0.020	0.026	< 0.000050
3/20/2017	WL_LCI_SP02	E293370				< 0.0030	0.0195	0.54	0.59	0.14	0.18	0.0765	0.0772	< 0.020	< 0.020	< 0.000050
3/21/2017	WL_LCI_SP02	E293370				< 0.0030	0.252	0.47	0.54	0.14	0.29	0.0685	0.0833	< 0.020	0.026	< 0.000050
3/22/2017	WL_LCI_SP02	E293370				< 0.0030	0.0879	0.46	0.51	0.12	0.2	0.0722	0.0775	< 0.020	< 0.020	< 0.000050
3/23/2017	WL_LCI_SP02	E293370				< 0.0030	0.252	0.44	0.51	0.14	0.21	0.0803	0.0806	< 0.020	0.02	< 0.000050
3/24/2017	WL_LCI_SP02	E293370				< 0.0030	0.269	0.46	0.52	0.13	0.22	0.0767	0.0806	< 0.020	< 0.020	< 0.000050
3/25/2017	WL_LCI_SP02	E293370				< 0.0030	0.181	0.46	0.48	0.13	0.18	0.0726	0.0804	< 0.020	< 0.020	< 0.000050
3/26/2017	WL_LCI_SP02	E293370				< 0.0030	0.149	0.47	0.47	0.13	0.17	0.0775	0.0822	< 0.020	< 0.020	< 0.000050
3/27/2017	WL_LCI_SP02	E293370				< 0.0030	0.144	0.46	0.47	0.13	0.19	0.0791	0.0833	< 0.020	< 0.020	< 0.000050
3/28/2017	WL_LCI_SP02	E293370				< 0.0030	0.101	0.46	0.5	0.15	0.21	0.0715	0.0792	< 0.020	< 0.020	< 0.000050
3/29/2017	WL_LCI_SP02	E293370				< 0.0030	0.0935	0.49	0.49	0.14	0.21	0.0735	0.0801	< 0.020	< 0.020	< 0.000050
3/30/2017	WL_LCI_SP02	E293370				< 0.0030	0.0325	0.49	0.52	0.14	0.15	0.0776	0.08	< 0.020	< 0.020	< 0.000050
3/31/2017	WL_LCI_SP02	E293370				< 0.0030	0.192	0.47	0.49	0.14	0.28	0.0821	0.0894	< 0.020	< 0.020	< 0.000050
4/1/2017	WL_LCI_SP02	E293370				< 0.0030	0.066	0.49	0.53	0.13	0.15	0.0744	0.0796	< 0.020	< 0.020	< 0.000050
4/2/2017	WL_LCI_SP02	E293370				< 0.0030	0.0835	0.48	0.53	0.11	0.17	0.0747	0.077	< 0.020	< 0.020	< 0.000050
4/3/2017	WL_LCI_SP02	E293370			208	< 0.0030	0.0632	0.49	0.5	0.13	0.16	0.0792	0.0809	< 0.020	< 0.020	< 0.000050
4/4/2017	WL_LCI_SP02	E293370				< 0.0030	0.0163	0.5	0.54	0.13	0.16	0.0803	0.0783	< 0.020	< 0.020	< 0.000050
4/5/2017	WL_LCI_SP02	E293370				< 0.0030	0.0243	0.51	0.52	0.15	0.18	0.0822	0.0798	< 0.020	< 0.020	< 0.000050
4/6/2017	WL_LCI_SP02	E293370				< 0.0030	0.026	0.47	0.48	0.13	0.21	0.0804	0.0841	< 0.020	< 0.020	< 0.000050
4/7/2017	WL_LCI_SP02	E293370														
4/7/2017	WL_LCI_SP02	E293370				< 0.0030	0.0346	0.46	0.5	0.11	0.21	0.0781	0.0863	< 0.020	< 0.020	< 0.000050
4/8/2017	WL_LCI_SP02	E293370				< 0.0030	0.0495	0.48	0.48	0.15	0.23	0.0823	0.0829	< 0.020	< 0.020	< 0.000050
4/9/2017	WL_LCI_SP02	E293370				< 0.0030	0.0641	0.51	0.52	0.12	0.22	0.0758	0.0831	< 0.020	< 0.020	< 0.000050
4/10/2017	WL_LCI_SP02	E293370				< 0.0030	0.0243	0.49	0.5	0.13	0.28	0.0759	0.0745	< 0.020	< 0.020	< 0.000050
4/12/2017	WL_LCI_SP02	E293370				< 0.0030	0.0402	0.5	0.52	0.13	0.15	0.0858	0.0819	< 0.020	< 0.020	< 0.000050
4/13/2017	WL_LCI_SP02	E293370				< 0.0030	0.0172	0.46	0.49	0.12	0.17	0.0775	0.0834	< 0.020	< 0.020	< 0.000050
4/14/2017	WL_LCI_SP02	E293370				< 0.0030	0.0095	0.46	0.53	0.13	0.15	0.0876	0.0788	< 0.020	< 0.020	< 0.000050
4/15/2017	WL_LCI_SP02	E293370				< 0.0030	0.0211	0.49	0.45	0.13	0.16	0.0797	0.0776	< 0.020	< 0.020	< 0.000050
4/16/2017	WL_LCI_SP02	E293370				< 0.0030	0.0249	0.48	0.49	0.11	0.14	0.0818	0.0811	< 0.020	< 0.020	< 0.000050
4/17/2017	WL_LCI_SP02	E293370				< 0.0030	0.0271	0.47	0.49	0.17	0.14	0.0829	0.0807	< 0.020	< 0.020	< 0.000050
4/18/2017	WL_LCI_SP02	E293370				< 0.0030	0.0184	0.47	0.49	0.14	0.2	0.0767	0.078	< 0.020	< 0.020	< 0.000050
4/19/2017	WL_LCI_SP02	E293370				< 0.0030	0.015	0.46	0.48	0.13	0.16	0.0757	0.0766	< 0.020	< 0.020	< 0.000050
4/20/2017	WL_LCI_SP02	E293370				< 0.0030	0.0296	0.47	0.47	0.16	0.23	0.0736	0.0708	< 0.020	< 0.020	< 0.000050
4/21/2017	WL_LCI_SP02	E293370				< 0.0030	0.0262	0.49	0.5	0.16	0.24	0.0676	0.0683	< 0.020	< 0.020	< 0.000050
4/22/2017	WL_LCI_SP02	E293370				0.0034	0.182	0.49	0.52	0.14	0.22	0.0812	0.0846	< 0.020	< 0.020	< 0.000050
4/23/2017	WL_LCI_SP02	E293370				< 0.0030	0.0188	0.48	0.5	0.16	0.14	0.0679	0.0686	< 0.020	< 0.020	< 0.000050
4/24/2017	WL_LCI_SP02	E293370				< 0.0030	0.0188	0.47	0.52	0.14	0.16	0.0612	0.0669	< 0.020	< 0.020	< 0.000050
4/25/2017	WL_LCI_SP02	E293370				< 0.0030	0.0246	0.5	0.54	0.13	0.16	0.0585	0.0587	< 0.020	< 0.020	< 0.000050
4/26/2017	WL_LCI_SP02	E293370				< 0.0030	0.0249	0.47	0.52	0.13	0.14	0.0536	0.0564	< 0.020	< 0.020	< 0.000050
4/27/2017	WL_LCI_SP02	E293370				< 0.0030	0.0178	0.47	0.49	0.13	0.14	0.0525	0.0528	< 0.020	< 0.020	< 0.000050
4/28/2017	WL_LCI_SP02	E293370				< 0.0030	0.0135	0.44	0.47	0.12	0.16	0.0511	0.0523	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
4/29/2017	WL_LCI_SP02	E293370				< 0.0030	0.0145	0.47	0.49	0.13	0.17	0.0533	0.0543	< 0.020	< 0.020	< 0.000050
4/30/2017	WL_LCI_SP02	E293370				0.0096	< 0.0030	0.47	0.5	0.13	0.16	0.0528	0.0551	< 0.020	< 0.020	< 0.000050
5/1/2017	WL_LCI_SP02	E293370			210	< 0.0030	0.0109	0.46	0.48	0.12	0.18	0.0532	0.0559	< 0.020	< 0.020	< 0.000050
5/2/2017	WL_LCI_SP02	E293370				< 0.0030	0.0081	0.48	0.52	0.14	0.18	0.056	0.054	< 0.020	< 0.020	< 0.000050
5/3/2017	WL_LCI_SP02	E293370				< 0.0030	0.0076	0.48	0.49	0.14	0.17	0.0585	0.0553	< 0.020	< 0.020	< 0.000050
5/4/2017	WL_LCI_SP02	E293370				0.0049	0.0065	0.5	0.5	0.18	0.18	0.0612	0.0582	< 0.020	< 0.020	< 0.000050
5/5/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.49	0.49	0.17	0.14	0.0561	0.0481	< 0.020	< 0.020	< 0.000050
5/6/2017	WL_LCI_SP02	E293370				< 0.0030	0.045	0.48	0.5	0.16	0.18	0.0423	0.0456	< 0.020	< 0.020	< 0.000050
5/7/2017	WL_LCI_SP02	E293370				< 0.0030	0.0537	0.51	0.52	0.16	0.17	0.0275	0.0298	< 0.020	< 0.020	< 0.000050
5/8/2017	WL_LCI_SP02	E293370				< 0.0030	0.0278	0.5	0.51	0.16	0.19	0.0243	0.0248	< 0.020	< 0.020	< 0.000050
5/9/2017	WL_LCI_SP02	E293370				< 0.0030	0.0116	0.53	0.49	0.16	0.14	0.0223	0.0279	< 0.020	< 0.020	< 0.000050
5/10/2017	WL_LCI_SP02	E293370				< 0.0030	0.0076	0.47	0.44	0.16	0.14	0.024	0.0305	< 0.020	< 0.020	< 0.000050
5/11/2017	WL_LCI_SP02	E293370				< 0.0030	0.0056	0.44	0.45	0.17	0.11	0.0285	0.0318	< 0.020	< 0.020	< 0.000050
5/12/2017	WL_LCI_SP02	E293370				< 0.0030	0.0055	0.45	0.43	0.16	0.15	0.0275	0.0314	< 0.020	< 0.020	< 0.000050
5/13/2017	WL_LCI_SP02	E293370				< 0.0030	0.0082	0.48	0.45	0.13	0.2	0.0309	0.0306	< 0.020	< 0.020	< 0.000050
5/14/2017	WL_LCI_SP02	E293370				< 0.0030	0.0103	0.48	0.46	0.14	0.2	0.031	0.0317	< 0.020	< 0.020	< 0.000050
5/15/2017	WL_LCI_SP02	E293370														
5/16/2017	WL_LCI_SP02	E293370				< 0.0030	0.0217	0.43	0.44	0.17	0.16	0.0276	0.029	< 0.020	< 0.020	< 0.000050
5/17/2017	WL_LCI_SP02	E293370				< 0.0030	0.0107	0.45	0.43	0.15	0.16	0.0263	0.0295	< 0.020	< 0.020	< 0.000050
5/18/2017	WL_LCI_SP02	E293370				< 0.0030	0.0114	0.42	0.42	0.18	0.17	0.03	0.0303	< 0.020	< 0.020	< 0.000050
5/19/2017	WL_LCI_SP02	E293370				< 0.0030	0.0119	0.41	0.43	0.17	0.18	0.0305	0.0319	< 0.020	< 0.020	< 0.000050
5/20/2017	WL_LCI_SP02	E293370														
5/21/2017	WL_LCI_SP02	E293370				< 0.0030	0.0042	0.42	0.44	0.18	0.19	0.0345	0.0343	< 0.020	< 0.020	< 0.000050
5/22/2017	WL_LCI_SP02	E293370				< 0.0030	0.0063	0.47	0.48	0.16	0.17	0.033	0.0338	< 0.020	< 0.020	< 0.000050
5/23/2017	WL_LCI_SP02	E293370				< 0.0030	0.0114	0.49	0.5	0.15	0.16	0.0243	0.029	< 0.020	< 0.020	< 0.000050
5/24/2017	WL_LCI_SP02	E293370				< 0.0030	0.0163	0.49	0.44	0.16	0.17	0.0268	0.0269	< 0.020	< 0.020	< 0.000050
5/25/2017	WL_LCI_SP02	E293370				< 0.0030	0.0244	0.52	0.52	0.15	0.16	0.022	0.0233	< 0.020	< 0.020	< 0.000050
5/26/2017	WL_LCI_SP02	E293370				< 0.0030	0.0116	0.45	0.46	0.13	0.15	0.0224	0.0231	< 0.020	< 0.020	< 0.000050
5/27/2017	WL_LCI_SP02	E293370				< 0.0030	0.0108	0.45	0.41	0.15	0.15	0.0251	0.0271	< 0.020	< 0.020	< 0.000050
5/28/2017	WL_LCI_SP02	E293370				< 0.0030	0.0063	0.51	0.42	0.15	0.16	0.027	0.0273	< 0.020	< 0.020	< 0.000050
5/29/2017	WL_LCI_SP02	E293370				< 0.0030	0.0097	0.42	0.45	0.14	0.16	0.0257	0.0251	< 0.020	< 0.020	< 0.000050
5/30/2017	WL_LCI_SP02	E293370				< 0.0030	0.0108	0.45	0.41	0.14	0.15	0.0222	0.0252	< 0.020	< 0.020	< 0.000050
5/31/2017	WL_LCI_SP02	E293370				< 0.0030	0.0153	0.43	0.46	0.14	0.16	0.0232	0.0235	< 0.020	< 0.020	< 0.000050
6/1/2017	WL_LCI_SP02	E293370				< 0.0030	0.0141	0.43	0.47	0.15	0.16	0.025	0.0258	< 0.020	< 0.020	< 0.000050
6/2/2017	WL_LCI_SP02	E293370				< 0.0030	0.0165	0.46	0.49	0.16	0.16	0.0255	0.0261	< 0.020	< 0.020	< 0.000050
6/3/2017	WL_LCI_SP02	E293370				< 0.0030	0.0037	0.44	0.23	0.14	< 0.10	0.0248	0.00999	< 0.020	< 0.020	< 0.000050
6/4/2017	WL_LCI_SP02	E293370				< 0.0030	0.0075	0.45	0.44	0.12	0.15	0.0249	0.025	< 0.020	< 0.020	< 0.000050
6/5/2017	WL_LCI_SP02	E293370			169											
6/5/2017	WL_LCI_SP02	E293370				< 0.0030	0.008	0.44	0.41	0.15	0.12	0.0256	0.0254	< 0.020	< 0.020	< 0.000050
6/6/2017	WL_LCI_SP02	E293370				0.0085	0.0071	0.42	0.41	0.13	0.17	0.0289	0.0259	< 0.020	< 0.020	< 0.000050
6/7/2017	WL_LCI_SP02	E293370				< 0.0030	0.0116	0.46	0.51	0.14	0.15	0.0284	0.0286	< 0.020	< 0.020	< 0.000050
6/8/2017	WL_LCI_SP02	E293370				< 0.0030	0.0045	0.51	0.43	0.11	0.16	0.0256	0.0259	< 0.020	< 0.020	< 0.000050
6/9/2017	WL_LCI_SP02	E293370				< 0.0030	0.0106	0.54	0.66	0.13	0.13	0.0247	0.0291	< 0.020	< 0.020	< 0.000050
6/10/2017	WL_LCI_SP02	E293370				< 0.0030	0.011	0.45	0.42	0.19	0.17	0.0249	0.0255	< 0.020	< 0.020	< 0.000050
6/11/2017	WL_LCI_SP02	E293370				< 0.0030	0.0077	0.46	0.45	0.2	0.19	0.0258	0.0256	< 0.020	< 0.020	< 0.000050
6/12/2017	WL_LCI_SP02	E293370			173	< 0.0030	0.0083	0.43	0.43	0.2	0.19	0.027	0.0271	< 0.020	< 0.020	< 0.000050
6/13/2017	WL_LCI_SP02	E293370				0.003	0.0089	0.44	0.46	0.15	0.16	0.0309	0.0306	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
6/13/2017	WL_LCI_SP02	E293370														
6/14/2017	WL_LCI_SP02	E293370				< 0.0030	0.0047	0.44	0.49	0.21	0.18	0.0307	0.0298	< 0.020	< 0.020	< 0.000050
6/14/2017	WL_LCI_SP02	E293370														
6/15/2017	WL_LCI_SP02	E293370				< 0.0030	0.0065	0.46	0.45	0.13	0.13	0.0277	0.0299	< 0.020	< 0.020	< 0.000050
6/15/2017	WL_LCI_SP02	E293370														
6/16/2017	WL_LCI_SP02	E293370				< 0.0030	0.0048	0.42	0.41	0.12	0.13	0.0274	0.0264	< 0.020	< 0.020	< 0.000050
6/16/2017	WL_LCI_SP02	E293370														
6/17/2017	WL_LCI_SP02	E293370				< 0.0030	0.0077	0.44	0.43	0.11	0.17	0.0263	0.0286	< 0.020	< 0.020	< 0.000050
6/17/2017	WL_LCI_SP02	E293370														
6/18/2017	WL_LCI_SP02	E293370				< 0.0030	0.0071	0.45	0.44	0.12	0.16	0.0276	0.0297	< 0.020	< 0.020	< 0.000050
6/18/2017	WL_LCI_SP02	E293370														
6/19/2017	WL_LCI_SP02	E293370				< 0.0030	0.0067	0.41	0.45	0.14	0.15	0.0313	0.0311	< 0.020	< 0.020	< 0.000050
6/19/2017	WL_LCI_SP02	E293370														
6/20/2017	WL_LCI_SP02	E293370														
6/21/2017	WL_LCI_SP02	E293370														
6/22/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.51	0.49	0.13	0.13	0.0305	0.0302	< 0.020	< 0.020	< 0.000050
6/22/2017	WL_LCI_SP02	E293370														
6/23/2017	WL_LCI_SP02	E293370				< 0.0030	0.0031	0.47	0.45	0.14	0.14	0.0314	0.0316	< 0.020	< 0.020	< 0.000050
6/23/2017	WL_LCI_SP02	E293370														
6/24/2017	WL_LCI_SP02	E293370				< 0.0030	0.0037	0.5	0.52	0.1	0.11	0.0326	0.0334	< 0.020	< 0.020	< 0.000050
6/24/2017	WL_LCI_SP02	E293370														
6/25/2017	WL_LCI_SP02	E293370				< 0.0030	0.0034	0.48	0.51	0.1	0.12	0.0361	0.0351	< 0.020	< 0.020	< 0.000050
6/25/2017	WL_LCI_SP02	E293370														
6/26/2017	WL_LCI_SP02	E293370				< 0.0030	0.0033	0.51	0.52	0.12	0.13	0.0347	0.0365	< 0.020	< 0.020	< 0.000050
6/27/2017	WL_LCI_SP02	E293370				< 0.0030	0.0032	0.45	0.39	0.14	0.16	0.0394	0.0367	< 0.020	< 0.020	< 0.000050
6/28/2017	WL_LCI_SP02	E293370				< 0.0030	0.0069	0.49	0.38	0.13	0.13	0.037	0.0366	< 0.020	< 0.020	< 0.000050
6/29/2017	WL_LCI_SP02	E293370				0.0031	0.0045	0.45	0.44	0.12	0.14	0.0328	0.0347	< 0.020	< 0.020	< 0.000050
6/30/2017	WL_LCI_SP02	E293370				< 0.0030	0.0054	0.45	0.46	0.14	0.14	0.0342	0.0336	< 0.020	< 0.020	< 0.000050
7/1/2017	WL_LCI_SP02	E293370				< 0.0030	0.0053	0.46	0.46	0.15	0.17	0.0394	0.0407	< 0.020	< 0.020	< 0.000050
7/2/2017	WL_LCI_SP02	E293370				< 0.0030	0.0048	0.51	0.5	0.42	0.16	0.043	0.0402	< 0.020	< 0.020	< 0.000050
7/3/2017	WL_LCI_SP02	E293370				< 0.0030	0.0047	0.45	0.45	0.14	0.15	0.0407	0.0407	< 0.020	< 0.020	< 0.000050
7/4/2017	WL_LCI_SP02	E293370				< 0.0030	0.0047	0.46	0.47	0.13	0.14	0.0439	0.044	< 0.020	< 0.020	< 0.000050
7/5/2017	WL_LCI_SP02	E293370				< 0.0030	0.0036	0.44	0.45	0.12	0.15	0.0447	0.0433	< 0.020	< 0.020	< 0.000050
7/6/2017	WL_LCI_SP02	E293370				< 0.0030	0.004	0.45	0.49	0.11	0.16	0.041	0.0417	< 0.020	< 0.020	< 0.000050
7/7/2017	WL_LCI_SP02	E293370				< 0.0030	0.004	0.45	0.47	0.11	0.16	0.0419	0.042	< 0.020	< 0.020	< 0.000050
7/8/2017	WL_LCI_SP02	E293370				0.0062	0.0052	0.47	0.47	0.21	0.13	0.0494	0.0456	< 0.020	< 0.020	< 0.000050
7/9/2017	WL_LCI_SP02	E293370				< 0.0030	0.0076	0.46	0.47	0.13	< 0.10	0.0459	0.0503	< 0.020	< 0.020	< 0.000050
7/10/2017	WL_LCI_SP02	E293370														
7/11/2017	WL_LCI_SP02	E293370			204	< 0.0030	0.0035	0.45	0.48	0.14	0.1	0.0484	0.0509	< 0.020	< 0.020	< 0.000050
7/12/2017	WL_LCI_SP02	E293370				< 0.0030	0.0034	0.43	0.45	0.17	0.16	0.0493	0.0464	< 0.020	< 0.020	< 0.000050
7/12/2017	WL_LCI_SP02	E293370				< 0.0030	0.0064	0.45	0.45	0.15	0.17	0.0482	0.0478	< 0.020	< 0.020	< 0.000050
7/13/2017	WL_LCI_SP02	E293370				< 0.0030	0.0044	0.51	0.49	0.12	0.13	0.0512	0.0492	< 0.020	< 0.020	< 0.000050
7/14/2017	WL_LCI_SP02	E293370														
7/14/2017	WL_LCI_SP02	E293370			291	< 0.0030	0.0071	0.49	0.48	0.13	0.12	0.053	0.0522	< 0.020	< 0.020	< 0.000050
7/14/2017	WL_LCI_SP02	E293370	0	0												
7/15/2017	WL_LCI_SP02	E293370														
7/16/2017	WL_LCI_SP02	E293370														
7/17/2017	WL_LCI_SP02	E293370				< 0.0030	0.0031	0.47	0.44	0.15	0.14	0.0511	0.0522	< 0.020	< 0.020	< 0.000050
7/18/2017	WL_LCI_SP02	E293370				< 0.0030	0.0061	0.47	0.49	0.14	0.15	0.056	0.0566	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
7/19/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.47	0.44	0.14	0.2	0.0563	0.0539	< 0.020	< 0.020	< 0.000050
7/20/2017	WL_LCI_SP02	E293370				< 0.0030	0.0062	0.45	0.48	0.13	0.13	0.0543	0.057	0.021	0.024	< 0.000050
7/21/2017	WL_LCI_SP02	E293370				< 0.0030	0.0046	0.47	0.48	0.13	0.16	0.0584	0.0606	< 0.020	< 0.020	< 0.000050
7/22/2017	WL_LCI_SP02	E293370				< 0.0030	0.0037	0.46	0.51	0.13	0.14	0.054	0.0576	< 0.020	< 0.020	< 0.000050
7/23/2017	WL_LCI_SP02	E293370				< 0.0030	0.0049	0.46	0.5	0.12	0.13	0.0567	0.0599	< 0.020	< 0.020	< 0.000050
7/24/2017	WL_LCI_SP02	E293370				< 0.0030	0.0062	0.48	0.5	0.13	0.11	0.0592	0.0585	< 0.020	< 0.020	< 0.000050
7/25/2017	WL_LCI_SP02	E293370				< 0.0030	0.0048	0.5	0.47	0.13	0.16	0.0648	0.0626	< 0.020	< 0.020	< 0.000050
7/26/2017	WL_LCI_SP02	E293370				< 0.0030	0.0056	0.49	0.46	0.14	0.15	0.0655	0.0644	< 0.020	< 0.020	< 0.000050
7/27/2017	WL_LCI_SP02	E293370				< 0.0030	0.0049	0.46	0.48	0.15	0.15	0.0644	0.0695	< 0.020	< 0.020	< 0.000050
7/28/2017	WL_LCI_SP02	E293370				< 0.0030	0.0059	0.45	0.49	0.12	0.16	0.0632	0.0698	< 0.020	< 0.020	< 0.000050
7/29/2017	WL_LCI_SP02	E293370				< 0.0030	0.0044	0.46	0.46	0.16	0.14	0.0651	0.0664	< 0.020	< 0.020	< 0.000050
7/30/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.46	0.45	0.13	0.12	0.0651	0.0664	< 0.020	< 0.020	< 0.000050
7/31/2017	WL_LCI_SP02	E293370				< 0.0030	0.0038	0.46	0.47	0.15	0.17	0.0673	0.0663	< 0.020	< 0.020	< 0.000050
8/1/2017	WL_LCI_SP02	E293370				< 0.0030	0.0046	0.49	0.49	0.11	0.12	0.0639	0.0609	< 0.020	< 0.020	< 0.000050
8/2/2017	WL_LCI_SP02	E293370				< 0.0030	0.0032	0.51	0.53	0.13	0.11	0.0594	0.0613	< 0.020	< 0.020	0.000064
8/3/2017	WL_LCI_SP02	E293370				< 0.0030	0.0036	0.5	0.46	0.12	0.12	0.0626	0.0601	< 0.020	< 0.020	0.000117
8/4/2017	WL_LCI_SP02	E293370				< 0.0030	0.0045	0.48	0.48	0.16	0.14	0.0653	0.0613	< 0.020	< 0.020	< 0.000050
8/5/2017	WL_LCI_SP02	E293370				< 0.0030	0.0062	0.45	0.44	0.13	0.1	0.0656	0.0629	< 0.020	< 0.020	< 0.000050
8/6/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0090	0.47	0.47	0.13	0.13	0.0694	0.0715	< 0.020	< 0.020	< 0.000050
8/7/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0060	0.49	0.5	0.12	0.13	0.0685	0.0682	< 0.020	< 0.020	< 0.000050
8/8/2017	WL_LCI_SP02	E293370				< 0.0030	0.0052	0.47	0.53	0.14	0.17	0.0652	0.0672	< 0.020	< 0.020	< 0.000050
8/9/2017	WL_LCI_SP02	E293370				< 0.0030	0.0056	0.45	0.45	0.18	0.14	0.0639	0.0564	< 0.020	< 0.020	< 0.000050
8/11/2017	WL_LCI_SP02	E293370				< 0.0030	0.0081	0.44	0.47	0.15	0.14	0.0715	0.0687	< 0.020	< 0.020	< 0.000050
8/12/2017	WL_LCI_SP02	E293370				< 0.0030	0.0086	< 0.50	0.45	0.13	0.17	0.0633	0.0608	< 0.020	< 0.020	< 0.000050
8/13/2017	WL_LCI_SP02	E293370				< 0.0030	0.0039	< 0.60	0.44	< 0.20	0.14	0.0618	0.0607	< 0.020	< 0.020	< 0.000050
8/13/2017	WL_LCI_SP02	E293370														
8/14/2017	WL_LCI_SP02	E293370			195	< 0.0030	0.0057	0.44	0.46	0.13	0.17	0.0589	0.06	< 0.020	< 0.020	< 0.000050
8/15/2017	WL_LCI_SP02	E293370				0.0038	0.006	0.45	0.46	0.13	0.13	0.059	0.061	< 0.020	< 0.020	< 0.000050
8/16/2017	WL_LCI_SP02	E293370				< 0.0030	0.0041	0.47	0.45	0.13	0.12	0.0611	0.0604	< 0.020	< 0.020	< 0.000050
8/17/2017	WL_LCI_SP02	E293370				< 0.0030	0.004	0.46	0.46	0.16	0.16	0.0607	0.0607	< 0.020	< 0.020	< 0.000050
8/18/2017	WL_LCI_SP02	E293370														
8/19/2017	WL_LCI_SP02	E293370				< 0.0030	0.0036	0.47	0.48	0.15	0.13	0.0622	0.061	< 0.020	< 0.020	< 0.000050
8/20/2017	WL_LCI_SP02	E293370				< 0.0030	0.0032	0.47	0.47	0.14	0.15	0.0628	0.063	< 0.020	< 0.020	< 0.000050
8/21/2017	WL_LCI_SP02	E293370				< 0.0030	0.0045	0.45	0.46	0.16	0.13	0.0632	0.0624	< 0.020	< 0.020	< 0.000050
8/22/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.42	0.45	0.14	0.13	0.0663	0.069	< 0.020	< 0.020	< 0.000050
8/23/2017	WL_LCI_SP02	E293370				< 0.0030	0.0075	0.46	0.48	0.13	0.12	0.0653	0.0617	< 0.020	< 0.020	< 0.000050
8/24/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.48	0.45	0.13	0.13	0.0669	0.0679	< 0.020	< 0.020	< 0.000050
8/25/2017	WL_LCI_SP02	E293370				< 0.0030	0.0038	0.44	0.44	0.14	0.16	0.0651	0.0637	< 0.020	< 0.020	< 0.000050
8/26/2017	WL_LCI_SP02	E293370				< 0.0030	0.0039	0.5	0.52	0.13	0.14	0.0643	0.0661	< 0.020	< 0.020	< 0.000050
8/27/2017	WL_LCI_SP02	E293370				< 0.0030	0.0031	0.51	0.51	0.11	0.12	0.0656	0.0649	< 0.020	< 0.020	< 0.000050
8/28/2017	WL_LCI_SP02	E293370				< 0.0030	0.004	0.52	0.53	0.13	0.12	0.0642	0.0648	< 0.020	< 0.020	< 0.000050
8/29/2017	WL_LCI_SP02	E293370				< 0.0030	0.0062	0.47	0.46	0.14	0.12	0.0627	0.0643	< 0.020	< 0.020	< 0.000050
8/30/2017	WL_LCI_SP02	E293370				< 0.0030	0.0038	0.48	0.48	0.13	0.12	0.0637	0.0652	< 0.020	< 0.020	< 0.000050
8/31/2017	WL_LCI_SP02	E293370				< 0.0030	0.008	0.45	0.45	0.15	0.14	0.0694	0.0676	< 0.020	< 0.020	< 0.000050
9/1/2017	WL_LCI_SP02	E293370				< 0.0030	0.0031	0.47	0.46	0.15	0.16	0.0674	0.0695	< 0.020	< 0.020	< 0.000050
9/2/2017	WL_LCI_SP02	E293370														
9/2/2017	WL_LCI_SP02	E293370				< 0.0030	0.0036	0.47	0.47	0.14	0.15	0.0632	0.0639	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
9/3/2017	WL_LCI_SP02	E293370														
9/3/2017	WL_LCI_SP02	E293370				< 0.0030	0.0037	0.46	0.47	0.15	0.15	0.0647	0.0637	< 0.020	< 0.020	< 0.000050
9/4/2017	WL_LCI_SP02	E293370														
9/4/2017	WL_LCI_SP02	E293370				< 0.0030	0.0034	0.47	0.5	0.12	0.14	0.0666	0.067	< 0.020	< 0.020	< 0.000050
9/5/2017	WL_LCI_SP02	E293370														
9/5/2017	WL_LCI_SP02	E293370				< 0.0030	0.004	0.47	0.48	0.13	0.13	0.0673	0.0676	< 0.020	< 0.020	< 0.000050
9/6/2017	WL_LCI_SP02	E293370														
9/6/2017	WL_LCI_SP02	E293370				< 0.0030	0.0054	0.47	0.48	0.12	0.13	0.069	0.0697	< 0.020	< 0.020	< 0.000050
9/7/2017	WL_LCI_SP02	E293370														
9/7/2017	WL_LCI_SP02	E293370				< 0.0030	0.0037	0.48	0.48	< 0.10	< 0.10	0.0691	0.0682	< 0.020	< 0.020	< 0.000050
9/7/2017	WL_LCI_SP02	E293370				< 0.0030	0.0038	0.46	0.45	0.12	0.15	0.0631	0.0629	< 0.020	< 0.020	< 0.000050
9/8/2017	WL_LCI_SP02	E293370														
9/8/2017	WL_LCI_SP02	E293370				0.0533	< 0.0030	0.49	0.49	0.1	0.11	0.0696	0.0681	< 0.020	< 0.020	< 0.000050
9/9/2017	WL_LCI_SP02	E293370														
9/9/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.45	0.43	0.11	0.11	0.0662	0.0646	< 0.020	< 0.020	< 0.000050
9/10/2017	WL_LCI_SP02	E293370														
9/10/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.46	0.48	0.11	0.12	0.0658	0.0658	< 0.020	< 0.020	< 0.000050
9/11/2017	WL_LCI_SP02	E293370														
9/11/2017	WL_LCI_SP02	E293370				< 0.0030	0.0031	0.43	0.44	0.12	0.12	0.0716	0.0662	< 0.020	< 0.020	< 0.000050
9/12/2017	WL_LCI_SP02	E293370														
9/12/2017	WL_LCI_SP02	E293370			217	< 0.0030	0.0065	0.46	0.45	0.11	0.12	0.0666	0.0726	< 0.020	< 0.020	< 0.000050
9/13/2017	WL_LCI_SP02	E293370														
9/13/2017	WL_LCI_SP02	E293370				< 0.0030	0.0082	0.45	0.46	0.15	0.16	0.0695	0.0715	< 0.020	< 0.020	< 0.000050
9/14/2017	WL_LCI_SP02	E293370														
9/14/2017	WL_LCI_SP02	E293370				< 0.0030	0.0048	0.47	0.47	0.14	0.14	0.0761	0.0787	< 0.020	< 0.020	< 0.000050
9/15/2017	WL_LCI_SP02	E293370														
9/15/2017	WL_LCI_SP02	E293370				< 0.0030	0.0062	0.5	0.5	0.13	0.13	0.0682	0.068	< 0.020	< 0.020	< 0.000050
9/16/2017	WL_LCI_SP02	E293370														
9/16/2017	WL_LCI_SP02	E293370				< 0.0030	0.0046	0.47	0.47	< 0.10	0.13	0.0688	0.064	< 0.020	< 0.020	< 0.000050
9/17/2017	WL_LCI_SP02	E293370														
9/17/2017	WL_LCI_SP02	E293370				< 0.0030	0.006	0.46	0.47	0.1	0.15	0.0685	0.064	< 0.020	< 0.020	< 0.000050
9/18/2017	WL_LCI_SP02	E293370														
9/18/2017	WL_LCI_SP02	E293370				< 0.0030	0.0042	0.46	0.49	0.1	0.13	0.0685	0.0645	< 0.020	< 0.020	< 0.000050
9/18/2017	WL_LCI_SP02	E293370														
9/19/2017	WL_LCI_SP02	E293370														
9/19/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.47	0.49	0.14	0.14	0.0673	0.0703	< 0.020	< 0.020	< 0.000050
9/20/2017	WL_LCI_SP02	E293370														
9/20/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.49	0.47	0.11	0.1	0.0663	0.0687	< 0.020	< 0.020	< 0.000050
9/20/2017	WL_LCI_SP02	E293370														
9/21/2017	WL_LCI_SP02	E293370														
9/21/2017	WL_LCI_SP02	E293370				< 0.0030	0.0034	0.44	0.46	0.13	0.13	0.0656	0.0659	< 0.020	< 0.020	< 0.000050
9/21/2017	WL_LCI_SP02	E293370	0	0	202	< 0.0030	< 0.0030	0.46	0.56	< 0.10	0.12	0.0664	0.0661	< 0.020	< 0.020	< 0.000050
9/22/2017	WL_LCI_SP02	E293370														
9/22/2017	WL_LCI_SP02	E293370				< 0.0030	0.0043	0.45	0.45	0.11	0.13	0.0634	0.065	< 0.020	< 0.020	< 0.000050
9/23/2017	WL_LCI_SP02	E293370														
9/23/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.36	0.39	0.1	0.12	0.0597	0.0633	< 0.020	< 0.020	< 0.000050
9/24/2017	WL_LCI_SP02	E293370														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
9/24/2017	WL_LCI_SP02	E293370				< 0.0030	0.0038	0.44	0.47	0.11	0.11	0.0675	0.0693	< 0.020	< 0.020	< 0.000050
9/25/2017	WL_LCI_SP02	E293370														
9/25/2017	WL_LCI_SP02	E293370				< 0.0030	0.0035	0.48	0.44	0.12	< 0.10	0.069	0.0677	< 0.020	< 0.020	< 0.000050
9/26/2017	WL_LCI_SP02	E293370														
9/26/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.46	0.47	0.11	0.11	0.0676	0.0691	< 0.020	< 0.020	< 0.000050
9/27/2017	WL_LCI_SP02	E293370														
9/27/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.45	0.46	0.12	0.11	0.0678	0.0679	< 0.020	< 0.020	< 0.000050
9/28/2017	WL_LCI_SP02	E293370														
9/28/2017	WL_LCI_SP02	E293370				< 0.0030	0.0038	0.45	0.47	0.13	0.12	0.0694	0.0689	< 0.020	< 0.020	< 0.000050
9/29/2017	WL_LCI_SP02	E293370														
9/29/2017	WL_LCI_SP02	E293370				< 0.0030	0.0377	0.45	0.45	0.12	0.13	0.0667	0.0695	< 0.020	< 0.020	< 0.000050
9/30/2017	WL_LCI_SP02	E293370														
9/30/2017	WL_LCI_SP02	E293370				< 0.0030	0.0043	0.45	0.5	0.12	0.11	0.0674	0.0705	< 0.020	< 0.020	< 0.000050
10/1/2017	WL_LCI_SP02	E293370														
10/1/2017	WL_LCI_SP02	E293370				< 0.0030	0.0042	0.5	0.55	< 0.10	< 0.10	0.0681	0.0682	< 0.020	< 0.020	< 0.000050
10/2/2017	WL_LCI_SP02	E293370														
10/2/2017	WL_LCI_SP02	E293370			163	< 0.0030	< 0.0030	0.48	0.47	0.1	0.11	0.0679	0.0699	< 0.020	< 0.020	< 0.000050
10/2/2017	WL_LCI_SP02	E293370														
10/3/2017	WL_LCI_SP02	E293370														
10/3/2017	WL_LCI_SP02	E293370				< 0.0030	0.0045	0.45	0.45	0.12	0.12	0.0681	0.0679	< 0.020	< 0.020	< 0.000050
10/4/2017	WL_LCI_SP02	E293370														
10/4/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.47	0.47	0.11	0.12	0.0685	0.0683	< 0.020	< 0.020	< 0.000050
10/5/2017	WL_LCI_SP02	E293370														
10/5/2017	WL_LCI_SP02	E293370				< 0.0030	0.0035	0.48	0.46	0.15	0.15	0.0664	0.0684	< 0.020	< 0.020	< 0.000050
10/6/2017	WL_LCI_SP02	E293370														
10/6/2017	WL_LCI_SP02	E293370				< 0.0030	0.0093	0.49	0.43	0.14	0.15	0.0667	0.0671	< 0.020	< 0.020	< 0.000050
10/7/2017	WL_LCI_SP02	E293370														
10/7/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.46	0.43	0.14	< 0.10	0.0698	0.068	< 0.020	< 0.020	< 0.000050
10/8/2017	WL_LCI_SP02	E293370														
10/8/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.46	0.45	0.13	0.12	0.0732	0.0689	< 0.020	< 0.020	< 0.000050
10/9/2017	WL_LCI_SP02	E293370														
10/9/2017	WL_LCI_SP02	E293370				< 0.0030	0.0038	0.47	0.47	0.15	0.12	0.0759	0.0703	< 0.020	< 0.020	< 0.000050
10/10/2017	WL_LCI_SP02	E293370														
10/10/2017	WL_LCI_SP02	E293370				< 0.0030	0.0055	0.49	0.47	0.12	0.18	0.0744	0.0727	< 0.020	< 0.020	< 0.000050
10/11/2017	WL_LCI_SP02	E293370														
10/11/2017	WL_LCI_SP02	E293370				< 0.0030	0.0126	0.4	0.49	0.13	0.15	0.0704	0.0749	< 0.020	< 0.020	< 0.000050
10/12/2017	WL_LCI_SP02	E293370														
10/12/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.44	0.44	0.11	0.13	0.0753	0.0738	< 0.020	< 0.020	< 0.000050
10/13/2017	WL_LCI_SP02	E293370														
10/13/2017	WL_LCI_SP02	E293370				< 0.0030	0.0127	0.47	0.44	0.13	0.12	0.0734	0.0754	< 0.020	< 0.020	< 0.000050
10/14/2017	WL_LCI_SP02	E293370														
10/14/2017	WL_LCI_SP02	E293370				< 0.0030	0.0064	0.42	0.45	0.15	0.13	0.0784	0.0791	< 0.020	< 0.020	< 0.000050
10/15/2017	WL_LCI_SP02	E293370														
10/15/2017	WL_LCI_SP02	E293370				< 0.0030	0.0074	0.42	0.45	0.15	0.12	0.077	0.0791	< 0.020	< 0.020	< 0.000050
10/16/2017	WL_LCI_SP02	E293370														
10/16/2017	WL_LCI_SP02	E293370				< 0.0030	0.0127	0.43	0.46	0.16	0.12	0.0788	0.08	< 0.020	< 0.020	< 0.000050
10/17/2017	WL_LCI_SP02	E293370														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
10/17/2017	WL_LCI_SP02	E293370				< 0.0030	0.0054	0.44	0.44	< 0.60	< 0.70	0.0722	0.0709	< 0.020	< 0.020	< 0.000050
10/18/2017	WL_LCI_SP02	E293370														
10/18/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.43	0.41	0.12	0.13	0.0713	0.0744	< 0.020	< 0.020	< 0.000050
10/19/2017	WL_LCI_SP02	E293370														
10/19/2017	WL_LCI_SP02	E293370				< 0.0030	0.0105	0.43	0.44	0.16	0.15	0.0641	0.0634	< 0.020	< 0.020	< 0.000050
10/20/2017	WL_LCI_SP02	E293370														
10/20/2017	WL_LCI_SP02	E293370				< 0.0030	0.0079	0.47	0.46	0.15	0.14	0.0638	0.068	< 0.020	< 0.020	< 0.000050
10/21/2017	WL_LCI_SP02	E293370														
10/21/2017	WL_LCI_SP02	E293370				0.0053	0.248	0.6	0.64	0.13	0.23	0.0686	0.0816	< 0.020	0.025	< 0.000050
10/22/2017	WL_LCI_SP02	E293370														
10/22/2017	WL_LCI_SP02	E293370				< 0.0030	0.0247	0.61	0.64	0.12	0.15	0.0691	0.0737	0.044	< 0.020	< 0.000050
10/23/2017	WL_LCI_SP02	E293370														
10/23/2017	WL_LCI_SP02	E293370				< 0.0030	0.0248	0.54	0.59	0.13	0.14	0.07	0.0721	< 0.020	< 0.020	< 0.000050
10/24/2017	WL_LCI_SP02	E293370				< 0.0030	0.0072	0.49	0.54	0.19	0.2	0.0683	0.071	< 0.020	< 0.020	< 0.000050
10/25/2017	WL_LCI_SP02	E293370				< 0.0030	0.0205	0.47	0.52	0.15	0.17	0.0613	0.0658	< 0.020	< 0.020	< 0.000050
10/26/2017	WL_LCI_SP02	E293370				< 0.0030	0.0224	0.5	0.5	0.15	0.16	0.0672	0.0666	< 0.020	< 0.020	< 0.000050
10/27/2017	WL_LCI_SP02	E293370				< 0.0030	0.0099	0.52	0.55	0.16	0.16	0.0696	0.0692	< 0.020	< 0.020	< 0.000050
10/28/2017	WL_LCI_SP02	E293370														
10/29/2017	WL_LCI_SP02	E293370				< 0.0030	0.008	0.52	0.46	0.18	0.19	0.0668	0.0655	< 0.020	< 0.020	< 0.000050
10/30/2017	WL_LCI_SP02	E293370				< 0.0030	0.0059	0.52	0.47	0.15	0.2	0.0632	0.0681	< 0.020	< 0.020	< 0.000050
10/31/2017	WL_LCI_SP02	E293370				< 0.0030	0.0054	0.53	0.52	0.14	0.14	0.064	0.0651	< 0.020	< 0.020	< 0.000050
11/1/2017	WL_LCI_SP02	E293370				< 0.0030	0.0066	0.54	0.53	0.17	0.15	0.067	0.0678	< 0.020	< 0.020	< 0.000050
11/2/2017	WL_LCI_SP02	E293370				< 0.0030	0.0046	0.51	0.5	0.22	0.18	0.0676	0.0644	< 0.020	< 0.020	< 0.000050
11/3/2017	WL_LCI_SP02	E293370				< 0.0030	0.0144	0.49	0.48	0.21	0.2	0.0661	0.0662	< 0.020	< 0.020	< 0.000050
11/4/2017	WL_LCI_SP02	E293370				< 0.0030	0.0072	0.48	0.49	0.32	0.3	0.0654	0.0654	< 0.020	< 0.020	< 0.000050
11/5/2017	WL_LCI_SP02	E293370				< 0.0030	0.0039	0.47	0.5	0.13	0.27	0.0666	0.0659	< 0.020	< 0.020	< 0.000050
11/6/2017	WL_LCI_SP02	E293370			216	< 0.0030	0.004	0.5	0.46	0.3	0.29	0.0656	0.0637	< 0.020	< 0.020	< 0.000050
11/7/2017	WL_LCI_SP02	E293370				< 0.0030	0.0047	0.47	0.47	0.19	0.19	0.0692	0.0691	< 0.020	< 0.020	< 0.000050
11/8/2017	WL_LCI_SP02	E293370				< 0.0030	0.0052	0.47	0.5	0.11	0.18	0.0783	0.0759	< 0.020	< 0.020	< 0.000050
11/9/2017	WL_LCI_SP02	E293370				< 0.0030	0.0094	0.51	0.49	0.16	0.17	0.066	0.0626	< 0.020	< 0.020	< 0.000050
11/10/2017	WL_LCI_SP02	E293370				< 0.0030	0.0043	0.47	0.49	0.17	0.15	0.0607	0.0614	< 0.020	< 0.020	< 0.000050
11/11/2017	WL_LCI_SP02	E293370				< 0.0030	0.0044	0.5	0.52	0.15	0.15	0.0653	0.0633	< 0.020	< 0.020	< 0.000050
11/12/2017	WL_LCI_SP02	E293370				< 0.0030	0.0055	0.49	0.5	0.17	0.15	0.0629	0.0614	< 0.020	< 0.020	< 0.000050
11/13/2017	WL_LCI_SP02	E293370				< 0.0030	0.0045	0.5	0.48	0.13	0.13	0.0678	0.0676	< 0.020	< 0.020	< 0.000050
11/14/2017	WL_LCI_SP02	E293370				< 0.0030	0.0047	0.47	0.48	0.12	0.14	0.0666	0.0673	< 0.020	< 0.020	< 0.000050
11/15/2017	WL_LCI_SP02	E293370				< 0.0030	0.005	0.47	0.57	0.15	0.16	0.0684	0.0717	< 0.020	< 0.020	< 0.000050
11/16/2017	WL_LCI_SP02	E293370				< 0.0030	0.0037	0.45	0.51	0.12	0.25	0.071	0.0661	< 0.020	< 0.020	< 0.000050
11/17/2017	WL_LCI_SP02	E293370				< 0.0030	0.0062	0.46	0.53	0.13	0.23	0.0688	0.0657	< 0.020	< 0.020	< 0.000050
11/18/2017	WL_LCI_SP02	E293370				0.0043	0.0043	0.48	0.49	0.24	0.25	0.0655	0.0657	< 0.020	< 0.020	< 0.000050
11/19/2017	WL_LCI_SP02	E293370				< 0.0030	0.004	0.49	0.5	0.23	0.27	0.0653	0.0648	< 0.020	< 0.020	< 0.000050
11/20/2017	WL_LCI_SP02	E293370				< 0.0030	0.0037	0.51	0.53	0.16	0.14	0.0682	0.0717	< 0.020	< 0.020	< 0.000050
11/21/2017	WL_LCI_SP02	E293370				< 0.0030	0.0051	0.51	0.52	0.13	0.13	0.0639	0.068	< 0.020	< 0.020	< 0.000050
11/22/2017	WL_LCI_SP02	E293370				< 0.0030	0.008	0.5	0.58	0.14	0.15	0.0676	0.0682	< 0.020	< 0.020	< 0.000050
11/23/2017	WL_LCI_SP02	E293370				< 0.0030	0.0039	0.46	0.46	0.19	0.15	0.0787	0.067	< 0.020	< 0.020	< 0.000050
11/24/2017	WL_LCI_SP02	E293370				< 0.0030	0.0152	0.49	0.5	0.18	0.18	0.0754	0.0655	< 0.020	< 0.020	< 0.000050
11/25/2017	WL_LCI_SP02	E293370				< 0.0030	0.0229	0.6	0.56	0.16	0.19	0.077	0.0722	< 0.020	< 0.020	< 0.000050
11/26/2017	WL_LCI_SP02	E293370				< 0.0030	0.0168	0.56	0.6	0.16	0.18	0.0701	0.0662	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
11/27/2017	WL_LCI_SP02	E293370				< 0.0030	0.0353	0.6	0.53	0.18	0.21	0.066	0.0662	< 0.020	< 0.020	< 0.000050
11/28/2017	WL_LCI_SP02	E293370				< 0.0030	0.0096	0.53	0.56	0.13	0.16	0.067	0.0694	< 0.020	< 0.020	< 0.000050
11/29/2017	WL_LCI_SP02	E293370				< 0.0030	0.0064	0.57	0.56	0.13	0.12	0.0668	0.07	< 0.020	< 0.020	< 0.000050
11/30/2017	WL_LCI_SP02	E293370				< 0.0030	0.0056	0.5	0.53	0.14	0.13	0.0625	0.0671	< 0.020	< 0.020	< 0.000050
12/1/2017	WL_LCI_SP02	E293370				< 0.0030	0.0048	0.54	0.52	0.14	0.15	0.0687	0.0683	< 0.020	< 0.020	< 0.000050
12/2/2017	WL_LCI_SP02	E293370				< 0.0030	0.0038	0.51	0.5	0.14	0.15	0.0685	0.0682	< 0.020	< 0.020	< 0.000050
12/3/2017	WL_LCI_SP02	E293370				< 0.0030	0.0036	0.48	0.49	0.15	0.14	0.0688	0.0711	< 0.020	< 0.020	< 0.000050
12/4/2017	WL_LCI_SP02	E293370			226	< 0.0030	0.0064	0.5	0.5	0.15	0.15	0.0686	0.0655	< 0.020	< 0.020	< 0.000050
12/5/2017	WL_LCI_SP02	E293370				< 0.0030	0.0054	0.49	0.5	0.19	0.18	0.0697	0.0748	< 0.020	< 0.020	< 0.000050
12/6/2017	WL_LCI_SP02	E293370				< 0.0030	0.004	0.52	0.5	0.2	0.17	0.0684	0.0726	< 0.020	< 0.020	< 0.000050
12/7/2017	WL_LCI_SP02	E293370				< 0.0030	0.0066	0.52	0.52	0.18	0.18	0.0712	0.0697	< 0.020	< 0.020	< 0.000050
12/8/2017	WL_LCI_SP02	E293370				< 0.0030	0.0052	0.55	0.56	0.15	0.18	0.0686	0.0741	< 0.020	< 0.020	< 0.000050
12/9/2017	WL_LCI_SP02	E293370				< 0.0030	0.0097	0.5	0.51	0.15	0.15	0.0778	0.0687	< 0.020	< 0.020	< 0.000050
12/10/2017	WL_LCI_SP02	E293370				< 0.0030	0.0049	0.53	0.51	0.14	0.17	0.0751	0.0688	< 0.020	< 0.020	< 0.000050
12/11/2017	WL_LCI_SP02	E293370				< 0.0030	0.0049	0.5	0.51	0.13	0.16	0.0753	0.0699	< 0.020	< 0.020	< 0.000050
12/12/2017	WL_LCI_SP02	E293370				< 0.0030	0.007	0.53	0.49	0.16	0.15	0.0715	0.0679	< 0.020	< 0.020	< 0.000050
12/13/2017	WL_LCI_SP02	E293370				< 0.0030	0.0061	0.5	0.51	0.16	0.15	0.0702	0.069	< 0.020	< 0.020	< 0.000050
12/14/2017	WL_LCI_SP02	E293370				< 0.0030	0.0054	0.55	0.5	0.2	0.16	0.077	0.0675	< 0.020	< 0.020	< 0.000050
12/15/2017	WL_LCI_SP02	E293370				< 0.0030	0.0046	0.55	0.51	0.18	0.13	0.0748	0.0598	< 0.020	< 0.020	< 0.000050
12/16/2017	WL_LCI_SP02	E293370				< 0.0030	0.0036	0.44	0.44	0.13	0.14	0.072	0.0739	< 0.020	< 0.020	< 0.000050
12/17/2017	WL_LCI_SP02	E293370				< 0.0030	0.0034	0.45	0.44	0.14	0.16	0.0768	0.0729	< 0.020	< 0.020	< 0.000050
12/18/2017	WL_LCI_SP02	E293370				< 0.0030	0.0037	0.45	0.45	0.14	0.14	0.0779	0.0744	< 0.020	< 0.020	< 0.000050
12/19/2017	WL_LCI_SP02	E293370				< 0.0030	0.0061	0.51	0.53	0.2	0.14	0.0698	0.0762	< 0.020	< 0.020	< 0.000050
12/20/2017	WL_LCI_SP02	E293370				< 0.0030	0.0055	0.51	0.54	0.18	0.18	0.0687	0.0745	< 0.020	< 0.020	< 0.000050
12/21/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.62	0.51	0.17	0.16	0.0817	0.071	< 0.020	< 0.020	< 0.000050
12/22/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.52	0.45	0.19	0.14	0.073	0.0672	< 0.020	< 0.020	< 0.000050
12/23/2017	WL_LCI_SP02	E293370				< 0.0030	0.0042	0.49	0.45	0.16	0.14	0.0756	0.0781	< 0.020	< 0.020	< 0.000050
12/24/2017	WL_LCI_SP02	E293370				< 0.0030	0.0774	0.47	0.48	0.15	0.17	0.072	0.0731	< 0.020	< 0.020	< 0.000050
12/25/2017	WL_LCI_SP02	E293370				0.0044	0.0068	0.48	0.47	0.16	0.14	0.0693	0.0693	< 0.020	< 0.020	< 0.000050
12/26/2017	WL_LCI_SP02	E293370				< 0.0030	0.0069	0.47	0.48	0.16	0.14	0.0697	0.0691	< 0.020	< 0.020	< 0.000050
12/27/2017	WL_LCI_SP02	E293370				< 0.0030	0.0031	0.5	0.47	0.2	0.18	0.0661	0.0741	< 0.020	< 0.020	< 0.000050
12/28/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.47	0.5	0.2	0.19	0.0706	0.0733	< 0.020	< 0.020	< 0.000050
12/29/2017	WL_LCI_SP02	E293370				< 0.0030	0.0035	0.5	0.48	0.15	0.17	0.067	0.0661	< 0.020	< 0.020	< 0.000050
12/30/2017	WL_LCI_SP02	E293370				< 0.0030	< 0.0030	0.47	0.5	0.22	0.19	0.0699	0.0706	< 0.020	< 0.020	< 0.000050
12/31/2017	WL_LCI_SP02	E293370														
12/31/2017	WL_LCI_SP02	E293370				0.0647	0.0041	0.51	0.47	0.21	0.18	0.0724	0.0727	< 0.020	< 0.020	< 0.000050
1/1/2017	WL_WLCI_SP01	E293371				< 0.0010	< 0.0030	0.5	0.47	0.31	0.35	0.026	0.0237	< 0.020	< 0.020	< 0.000050
1/3/2017	WL_WLCI_SP01	E293371				0.0118	0.004	0.5	0.5	0.31	0.32	0.0259	0.0239	< 0.020	< 0.020	< 0.000050
1/4/2017	WL_WLCI_SP01	E293371														
1/5/2017	WL_WLCI_SP01	E293371				0.001	< 0.0030	0.49	0.51	0.29	0.35	0.0251	0.0221	< 0.020	< 0.020	< 0.000050
1/6/2017	WL_WLCI_SP01	E293371														
1/7/2017	WL_WLCI_SP01	E293371														
1/8/2017	WL_WLCI_SP01	E293371				0.0014	< 0.0030	0.59	0.52	0.32	0.38	0.0243	0.025	< 0.020	< 0.020	< 0.000050
1/9/2017	WL_WLCI_SP01	E293371			305	0.0012	< 0.0030	0.51	0.55	0.29	0.4	0.0243	0.0246	< 0.020	< 0.020	< 0.000050
1/10/2017	WL_WLCI_SP01	E293371				0.0011	< 0.0030	0.54	0.54	0.29	0.35	0.0258	0.0233	< 0.020	< 0.020	< 0.000050
1/11/2017	WL_WLCI_SP01	E293371														
1/12/2017	WL_WLCI_SP01	E293371				0.0015	< 0.0030	0.5	0.52	0.25	0.37	0.0245	0.0239	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
1/13/2017	WL_WLCI_SP01	E293371														
1/14/2017	WL_WLCI_SP01	E293371														
1/15/2017	WL_WLCI_SP01	E293371				0.0023	0.0041	0.49	0.54	0.38	0.45	0.0239	0.0242	< 0.020	< 0.020	< 0.000050
1/16/2017	WL_WLCI_SP01	E293371				0.0013	0.0032	0.6	0.52	0.33	0.47	0.0239	0.025	< 0.020	< 0.020	< 0.000050
1/17/2017	WL_WLCI_SP01	E293371				0.0015	0.0034	0.5	0.57	0.33	0.34	0.0285	0.0257	< 0.020	< 0.020	< 0.000050
1/18/2017	WL_WLCI_SP01	E293371			322	< 0.0010	< 0.0030	0.51	0.52	0.29	0.35	0.0247	0.0242	< 0.020	< 0.020	< 0.000050
1/19/2017	WL_WLCI_SP01	E293371				0.0015	< 0.0030	0.51	0.52	0.27	0.34	0.0241	0.0245	< 0.020	< 0.020	< 0.000050
1/20/2017	WL_WLCI_SP01	E293371														
1/21/2017	WL_WLCI_SP01	E293371														
1/22/2017	WL_WLCI_SP01	E293371				0.0024	< 0.0030	0.51	0.56	0.27	0.36	0.0254	0.0253	< 0.020	< 0.020	< 0.000050
1/23/2017	WL_WLCI_SP01	E293371				0.0018	< 0.0030	0.53	0.61	0.31	0.4	0.0255	0.0258	< 0.020	< 0.020	< 0.000050
1/24/2017	WL_WLCI_SP01	E293371				< 0.0010	< 0.0030	0.55	0.82	0.25	0.37	0.0282	0.0278	< 0.020	< 0.020	< 0.000050
1/25/2017	WL_WLCI_SP01	E293371														
1/26/2017	WL_WLCI_SP01	E293371				0.0012	< 0.0030	0.56	0.53	0.3	0.47	0.0244	0.0244	< 0.020	< 0.020	< 0.000050
1/27/2017	WL_WLCI_SP01	E293371														
1/28/2017	WL_WLCI_SP01	E293371														
1/29/2017	WL_WLCI_SP01	E293371				< 0.0010	< 0.0030	0.5	0.52	0.29	0.37	0.0247	0.0261	< 0.020	< 0.020	< 0.000050
1/30/2017	WL_WLCI_SP01	E293371				0.001	< 0.0030	0.47	0.52	0.29	0.38	0.0242	0.0256	< 0.020	< 0.020	< 0.000050
1/31/2017	WL_WLCI_SP01	E293371				< 0.0050	< 0.015	< 0.50	< 0.50	< 0.50	< 0.50	0.0252	0.0252	< 0.10	< 0.10	< 0.00025
2/1/2017	WL_WLCI_SP01	E293371				< 0.0010	< 0.0030	0.49	0.5	0.25	0.33	0.0253	0.0256	< 0.020	< 0.020	< 0.000050
2/1/2017	WL_WLCI_SP01	E293371			330	< 0.0050	< 0.015	0.52	0.5	< 0.50	< 0.50	0.0235	0.0243	< 0.10	< 0.10	< 0.00025
2/2/2017	WL_WLCI_SP01	E293371				0.0014	0.0034	0.62	0.5	0.34	0.37	0.0245	0.0247	< 0.020	< 0.020	< 0.000050
2/3/2017	WL_WLCI_SP01	E293371														
2/4/2017	WL_WLCI_SP01	E293371														
2/5/2017	WL_WLCI_SP01	E293371				0.0011	< 0.0030	0.54	0.54	0.29	0.33	0.0247	0.0244	< 0.020	< 0.020	< 0.000050
2/6/2017	WL_WLCI_SP01	E293371				0.0011	< 0.0030	0.52	0.57	0.29	0.34	0.026	0.0248	< 0.020	< 0.020	< 0.000050
2/7/2017	WL_WLCI_SP01	E293371			314	< 0.0010	0.0152	0.41	0.54	0.31	0.37	0.027	0.0297	< 0.020	< 0.020	< 0.000050
2/8/2017	WL_WLCI_SP01	E293371														
2/8/2017	WL_WLCI_SP01	E293371			310	0.0014	< 0.0030	0.51	0.47	0.31	0.36	0.0245	0.0216	< 0.020	< 0.020	< 0.000050
2/9/2017	WL_WLCI_SP01	E293371														
2/10/2017	WL_WLCI_SP01	E293371				< 0.0010	< 0.0030	0.55	0.57	0.29	0.36	0.0246	0.0258	< 0.020	< 0.020	< 0.000050
2/11/2017	WL_WLCI_SP01	E293371														
2/12/2017	WL_WLCI_SP01	E293371				0.001	< 0.0030	0.54	0.57	0.29	0.36	0.0243	0.0252	< 0.020	< 0.020	< 0.000050
2/13/2017	WL_WLCI_SP01	E293371				0.0019	< 0.0030	0.53	0.57	0.31	0.35	0.0258	0.0257	< 0.020	< 0.020	< 0.000050
2/14/2017	WL_WLCI_SP01	E293371				< 0.0010	< 0.0030	0.54	0.54	0.26	0.32	0.0244	0.0237	< 0.020	< 0.020	< 0.000050
2/15/2017	WL_WLCI_SP01	E293371														
2/16/2017	WL_WLCI_SP01	E293371				< 0.0010	< 0.0030	0.6	0.57	0.38	0.54	0.0262	0.0255	< 0.020	< 0.020	< 0.000050
2/17/2017	WL_WLCI_SP01	E293371														
2/18/2017	WL_WLCI_SP01	E293371														
2/19/2017	WL_WLCI_SP01	E293371				0.0013	0.0099	0.48	0.51	0.29	0.34	0.0227	0.025	< 0.020	< 0.020	< 0.000050
2/20/2017	WL_WLCI_SP01	E293371				0.0016	0.0032	0.56	0.58	0.43	0.62	0.0259	0.025	< 0.020	< 0.020	< 0.000050
2/21/2017	WL_WLCI_SP01	E293371				< 0.0010	< 0.0030	0.47	0.64	0.29	0.33	0.027	0.0242	< 0.020	< 0.020	< 0.000050
2/22/2017	WL_WLCI_SP01	E293371														
2/22/2017	WL_WLCI_SP01	E293371														
2/23/2017	WL_WLCI_SP01	E293371				0.0019	0.0038	0.53	0.61	0.3	0.35	0.025	0.0261	< 0.020	< 0.020	< 0.000050
2/24/2017	WL_WLCI_SP01	E293371														
2/25/2017	WL_WLCI_SP01	E293371														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
2/26/2017	WL_WLCI_SP01	E293371				0.0012	< 0.0030	0.5	0.5	0.3	0.35	0.0222	0.0247	< 0.020	< 0.020	< 0.000050
2/27/2017	WL_WLCI_SP01	E293371				0.0015	< 0.0030	0.48	0.53	0.31	0.34	0.0287	0.0259	< 0.020	< 0.020	< 0.000050
2/28/2017	WL_WLCI_SP01	E293371				< 0.0010	< 0.0030	0.46	0.5	0.3	0.34	0.0239	0.0247	< 0.020	< 0.020	< 0.000050
3/1/2017	WL_WLCI_SP01	E293371														
3/2/2017	WL_WLCI_SP01	E293371				0.0012	< 0.0030	0.51	0.56	0.28	0.3	0.0244	0.0247	< 0.020	< 0.020	< 0.000050
3/3/2017	WL_WLCI_SP01	E293371														
3/4/2017	WL_WLCI_SP01	E293371														
3/5/2017	WL_WLCI_SP01	E293371				< 0.0010	< 0.0030	0.52	0.6	0.28	0.39	0.0257	0.0272	< 0.020	< 0.020	< 0.000050
3/6/2017	WL_WLCI_SP01	E293371			236	< 0.0010	< 0.0030	0.54	0.58	0.24	0.36	0.0255	0.0277	< 0.020	< 0.020	< 0.000050
3/7/2017	WL_WLCI_SP01	E293371				0.0018	0.0053	0.56	0.86	0.27	0.31	0.0265	0.0262	< 0.020	< 0.020	< 0.000050
3/8/2017	WL_WLCI_SP01	E293371														
3/9/2017	WL_WLCI_SP01	E293371				< 0.0010	< 0.0030	0.53	0.69	0.25	0.29	0.0269	0.0249	< 0.020	< 0.020	< 0.000050
3/10/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.49	0.52	0.26	0.29	0.0263	0.0262	< 0.020	< 0.020	< 0.000050
3/11/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.49	0.51	0.25	0.3	0.0265	0.0269	< 0.020	< 0.020	< 0.000050
3/12/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.49	0.53	0.25	0.33	0.0263	0.0245	< 0.020	< 0.020	< 0.000050
3/13/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.52	0.29	0.27	0.0263	0.0247	< 0.020	< 0.020	< 0.000050
3/14/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0060	0.55	0.53	0.27	0.29	0.0261	0.0239	< 0.040	< 0.040	< 0.00010
3/15/2017	WL_WLCI_SP01	E293371				< 0.0030	0.173	0.48	0.49	0.27	0.33	0.0274	0.0275	< 0.020	< 0.020	< 0.000050
3/16/2017	WL_WLCI_SP01	E293371				0.0049	1.12	0.42	0.43	0.3	0.64	0.0331	0.0429	< 0.020	0.058	< 0.000050
3/20/2017	WL_WLCI_SP01	E293371				< 0.0030	0.235	0.52	0.56	0.32	0.45	0.0346	0.0348	< 0.020	< 0.020	< 0.000050
3/21/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0118	0.52	0.55	0.3	0.36	0.029	0.0295	< 0.020	< 0.020	< 0.000050
3/22/2017	WL_WLCI_SP01	E293371				< 0.0030	0.007	0.53	0.56	0.28	0.32	0.029	0.0296	< 0.020	< 0.020	< 0.000050
3/23/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0085	0.48	0.56	0.28	0.32	0.0285	0.0275	< 0.020	< 0.020	< 0.000050
3/24/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0072	0.52	0.57	0.28	0.32	0.028	0.0264	< 0.040	< 0.040	< 0.00010
3/25/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0056	0.53	0.52	0.26	0.27	0.026	0.0272	< 0.020	< 0.020	< 0.000050
3/26/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0051	0.52	0.51	0.29	0.3	0.0269	0.0264	< 0.020	< 0.020	< 0.000050
3/27/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0064	0.51	0.53	0.29	0.27	0.0256	0.0273	< 0.020	< 0.020	< 0.000050
3/28/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0078	0.51	0.54	0.3	0.37	0.0249	0.0241	< 0.020	< 0.020	< 0.000050
3/29/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0046	0.53	0.53	0.29	0.38	0.0258	0.025	< 0.020	< 0.020	< 0.000050
3/30/2017	WL_WLCI_SP01	E293371				< 0.0010	< 0.0030	0.61	0.56	0.26	0.31	0.0295	0.0273	< 0.020	< 0.020	< 0.000050
3/31/2017	WL_WLCI_SP01	E293371				< 0.0030	0.104	0.52	0.54	0.28	0.37	0.0281	0.0285	< 0.020	< 0.020	< 0.000050
4/1/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0038	0.54	0.6	0.27	0.29	0.0281	0.0259	< 0.020	< 0.020	< 0.000050
4/2/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0036	0.54	0.57	0.28	0.29	0.027	0.0262	< 0.020	< 0.020	< 0.000050
4/3/2017	WL_WLCI_SP01	E293371			319	< 0.0030	0.0036	0.53	0.57	0.29	0.3	0.0268	0.0268	< 0.020	< 0.020	< 0.000050
4/4/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.55	0.57	0.25	0.31	0.0252	0.0263	< 0.020	< 0.020	< 0.000050
4/5/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0035	0.54	0.58	0.3	0.32	0.0268	0.0268	< 0.020	< 0.020	< 0.000050
4/6/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.52	0.55	0.26	0.38	0.0258	0.0271	< 0.020	< 0.020	< 0.000050
4/7/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0045	0.55	0.59	0.25	0.37	0.0249	0.0286	< 0.020	< 0.020	< 0.000050
4/8/2017	WL_WLCI_SP01	E293371				< 0.0030	0.006	0.56	0.55	0.34	0.4	0.0307	0.0279	< 0.020	< 0.020	< 0.000050
4/9/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0043	0.57	0.55	0.33	0.41	0.0297	0.0293	< 0.020	< 0.020	< 0.000050
4/10/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0066	0.55	0.53	0.25	0.48	0.0266	0.0246	< 0.020	< 0.020	< 0.000050
4/11/2017	WL_WLCI_SP01	E293371				< 0.0030	0.005	0.54	0.55	0.25	0.27	0.0269	0.0261	< 0.020	< 0.020	< 0.000050
4/12/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0033	0.53	0.54	0.26	0.29	0.0268	0.0256	< 0.020	< 0.020	< 0.000050
4/13/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.51	0.54	0.27	0.28	0.0245	0.0236	< 0.020	< 0.020	< 0.000050
4/14/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.52	0.56	0.28	0.27	0.027	0.0253	< 0.020	< 0.020	< 0.000050
4/15/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0031	0.52	0.54	0.26	0.33	0.0263	0.0256	< 0.020	< 0.020	< 0.000050
4/16/2017	WL_WLCI_SP01	E293371				0.0083	< 0.0030	0.54	0.48	0.28	0.32	0.026	0.0251	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
4/17/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0038	0.52	0.54	0.31	0.37	0.0252	0.0262	< 0.020	< 0.020	< 0.000050
4/18/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.57	0.31	0.35	0.0251	0.025	< 0.020	< 0.020	< 0.000050
4/19/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0046	0.52	0.55	0.25	0.31	0.0263	0.0254	< 0.020	< 0.020	< 0.000050
4/20/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0046	0.56	0.55	0.3	0.44	0.0258	0.0243	< 0.020	< 0.020	< 0.000050
4/21/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.57	0.59	0.33	0.47	0.0252	0.0236	< 0.020	< 0.020	< 0.000050
4/22/2017	WL_WLCI_SP01	E293371				0.0049	0.0033	0.53	0.56	0.26	0.3	0.0249	0.0263	< 0.020	< 0.020	< 0.000050
4/23/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.52	0.56	0.33	0.27	0.0277	0.0272	< 0.020	< 0.020	< 0.000050
4/24/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0032	0.51	0.57	0.3	0.28	0.0259	0.0254	< 0.020	< 0.020	< 0.000050
4/25/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0034	0.55	0.59	0.27	0.29	0.024	0.0243	< 0.020	< 0.020	< 0.000050
4/26/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.59	0.28	0.3	0.0246	0.0243	< 0.020	< 0.020	< 0.000050
4/27/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.53	0.27	0.28	0.0251	0.024	< 0.020	< 0.020	< 0.000050
4/28/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0038	0.52	0.53	0.26	0.29	0.0246	0.024	< 0.020	< 0.020	< 0.000050
4/29/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.52	0.55	0.27	0.33	0.024	0.0244	< 0.020	< 0.020	< 0.000050
4/30/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.52	0.55	0.29	0.33	0.0235	0.0247	< 0.020	< 0.020	< 0.000050
5/1/2017	WL_WLCI_SP01	E293371			329	< 0.0030	< 0.0030	0.52	0.55	0.28	0.32	0.0252	0.0242	< 0.020	< 0.020	< 0.000050
5/2/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.56	0.58	0.29	0.36	0.0262	0.0233	< 0.020	< 0.020	< 0.000050
5/3/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.56	0.56	0.3	0.36	0.0264	0.0233	< 0.020	< 0.020	< 0.000050
5/4/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0035	0.58	0.57	0.37	0.35	0.0245	0.0243	< 0.020	< 0.020	< 0.000050
5/5/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.57	0.61	0.33	0.28	0.0251	0.0239	< 0.020	< 0.020	< 0.000050
5/6/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0043	0.56	0.51	0.28	0.31	0.0228	0.0231	< 0.020	< 0.020	< 0.000050
5/7/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0045	0.59	0.56	0.28	0.27	0.0221	0.0224	< 0.020	< 0.020	< 0.000050
5/8/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0053	0.56	0.57	0.29	0.28	0.0223	0.0221	< 0.020	< 0.020	< 0.000050
5/9/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.61	0.56	0.29	0.27	0.0199	0.0226	< 0.020	< 0.020	< 0.000050
5/10/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0095	0.61	0.56	0.3	0.26	0.0196	0.0223	< 0.020	< 0.020	< 0.000050
5/11/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0038	0.55	0.44	0.29	0.26	0.0216	0.023	< 0.020	< 0.020	< 0.000050
5/12/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0051	0.55	0.59	0.27	0.28	0.0206	0.0224	< 0.020	< 0.020	< 0.000050
5/13/2017	WL_WLCI_SP01	E293371				< 0.0030	0.004	0.58	0.57	0.24	0.34	0.0203	0.0213	< 0.020	< 0.020	< 0.000050
5/14/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0055	0.6	0.58	0.23	0.33	0.0215	0.0219	< 0.020	< 0.020	< 0.000050
5/15/2017	WL_WLCI_SP01	E293371					0.0036		0.48		0.29		0.018		< 0.020	
5/16/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0038	0.56	0.57	0.26	0.26	0.0191	0.0191	< 0.020	< 0.020	< 0.000050
5/17/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0036	0.61	0.63	0.26	0.25	0.0185	0.0197	< 0.020	< 0.020	< 0.000050
5/18/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0031	0.54	0.53	0.28	0.27	0.0194	0.019	< 0.020	< 0.020	< 0.000050
5/19/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0031	0.55	0.59	0.25	0.27	0.0192	0.0194	< 0.020	< 0.020	< 0.000050
5/20/2017	WL_WLCI_SP01	E293371														
5/21/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0034	0.53	0.51	0.27	0.27	0.0191	0.0192	< 0.020	< 0.020	< 0.000050
5/22/2017	WL_WLCI_SP01	E293371				0.004	< 0.0030	0.56	0.52	0.26	0.26	0.0198	0.0194	< 0.020	< 0.020	< 0.000050
5/23/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0055	0.61	0.68	0.24	0.26	0.02	0.0202	< 0.020	< 0.020	< 0.000050
5/24/2017	WL_WLCI_SP01	E293371				< 0.0030	0.007	0.57	0.57	0.21	0.24	0.0187	0.0187	< 0.020	< 0.020	< 0.000050
5/25/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0291	0.63	0.64	0.2	0.22	0.0175	0.0175	< 0.020	< 0.020	< 0.000050
5/26/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0059	0.58	0.58	0.17	0.19	0.0173	0.0171	< 0.020	< 0.020	< 0.000050
5/27/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0071	0.59	0.62	0.19	0.19	0.0179	0.0182	< 0.020	< 0.020	< 0.000050
5/28/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0047	0.63	0.65	0.2	0.19	0.0172	0.0185	< 0.020	< 0.020	< 0.000050
5/29/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0037	0.55	0.59	0.19	0.18	0.016	0.0163	< 0.020	< 0.020	< 0.000050
5/30/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0153	0.59	0.59	0.18	0.2	0.0151	0.0166	< 0.020	< 0.020	< 0.000050
5/31/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0389	0.63	0.61	0.17	0.18	0.0155	0.0164	< 0.020	< 0.020	< 0.000050
6/1/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0262	0.66	0.67	0.18	0.21	0.0176	0.0182	< 0.020	< 0.020	< 0.000050
6/2/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0147	0.71	0.64	0.15	0.19	0.016	0.0165	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
6/3/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0129	0.63	0.62	0.15	0.16	0.0166	0.0159	< 0.020	< 0.020	< 0.000050
6/4/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0065	0.6	0.61	0.15	0.17	0.0163	0.0158	< 0.020	< 0.020	< 0.000050
6/5/2017	WL_WLCI_SP01	E293371			326	< 0.0030	0.0045	0.61	0.59	0.17	0.14	0.016	0.0159	< 0.020	< 0.020	< 0.000050
6/6/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0035	0.59	0.63	0.11	0.15	0.0147	0.0172	< 0.020	< 0.020	< 0.000050
6/6/2017	WL_WLCI_SP01	E293371														
6/7/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0437	0.6	0.7	0.17	0.2	0.0185	0.0199	< 0.020	< 0.020	< 0.000050
6/8/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0033	0.64	0.54	0.14	0.19	0.015	0.0155	< 0.020	< 0.020	< 0.000050
6/9/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.64	0.57	0.14	0.11	0.0155	0.014	< 0.020	< 0.020	< 0.000050
6/10/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0046	0.55	0.57	0.2	0.2	0.0157	0.016	< 0.020	< 0.020	< 0.000050
6/11/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.56	0.55	0.24	0.21	0.0168	0.0164	< 0.020	< 0.020	< 0.000050
6/12/2017	WL_WLCI_SP01	E293371			329	< 0.0030	< 0.0030	0.53	0.55	0.22	0.22	0.0166	0.0174	< 0.020	< 0.020	< 0.000050
6/13/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.52	0.53	0.2	0.22	0.0149	0.0165	< 0.020	< 0.020	< 0.000050
6/13/2017	WL_WLCI_SP01	E293371														
6/14/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.55	0.54	0.22	0.19	0.0173	0.0169	< 0.020	< 0.020	< 0.000050
6/14/2017	WL_WLCI_SP01	E293371														
6/15/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.51	0.16	0.14	0.0173	0.016	< 0.020	< 0.020	< 0.000050
6/15/2017	WL_WLCI_SP01	E293371														
6/16/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.49	0.51	0.18	0.14	0.0172	0.0168	< 0.020	< 0.020	< 0.000050
6/16/2017	WL_WLCI_SP01	E293371														
6/17/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.5	0.13	0.18	0.0164	0.017	< 0.020	< 0.020	< 0.000050
6/17/2017	WL_WLCI_SP01	E293371														
6/18/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.52	0.12	0.18	0.0166	0.0174	< 0.020	< 0.020	< 0.000050
6/18/2017	WL_WLCI_SP01	E293371														
6/19/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.48	0.5	0.15	0.18	0.0177	0.0175	< 0.020	< 0.020	< 0.000050
6/19/2017	WL_WLCI_SP01	E293371														
6/20/2017	WL_WLCI_SP01	E293371														
6/21/2017	WL_WLCI_SP01	E293371														
6/22/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.51	0.16	0.16	0.0179	0.018	< 0.020	< 0.020	< 0.000050
6/22/2017	WL_WLCI_SP01	E293371														
6/23/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.47	0.5	0.16	0.15	0.0177	0.0181	< 0.020	< 0.020	< 0.000050
6/23/2017	WL_WLCI_SP01	E293371														
6/24/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.52	0.53	0.12	0.14	0.0185	0.0185	< 0.020	< 0.020	< 0.000050
6/24/2017	WL_WLCI_SP01	E293371														
6/25/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.51	0.5	0.15	0.13	0.0192	0.019	< 0.020	< 0.020	< 0.000050
6/25/2017	WL_WLCI_SP01	E293371														
6/26/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.5	0.15	0.14	0.0197	0.0189	< 0.020	< 0.020	< 0.000050
6/27/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.51	0.43	0.15	0.15	0.0189	0.0183	< 0.020	< 0.020	< 0.000050
6/28/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.42	0.17	0.16	0.0189	0.0183	< 0.020	< 0.020	< 0.000050
6/29/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0129	0.49	0.45	0.15	0.16	0.018	0.0192	< 0.020	< 0.020	< 0.000050
6/30/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.46	0.48	0.15	0.17	0.0178	0.0184	< 0.020	< 0.020	< 0.000050
7/1/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.48	0.46	0.19	0.18	0.0198	0.0162	< 0.020	< 0.020	< 0.000050
7/2/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.58	0.52	0.41	0.22	0.0197	0.0204	< 0.020	< 0.020	< 0.000050
7/3/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.49	0.49	0.18	0.2	0.0202	0.0192	< 0.020	< 0.020	< 0.000050
7/4/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.44	0.47	0.14	0.15	0.0195	0.0207	< 0.020	< 0.020	< 0.000050
7/5/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.45	0.45	0.16	0.16	0.0216	0.0216	< 0.020	< 0.020	< 0.000050
7/6/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.46	0.47	0.13	0.19	0.0197	0.0194	< 0.020	< 0.020	< 0.000050
7/7/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.45	0.48	0.13	0.19	0.0188	0.0193	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
7/8/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.46	0.48	0.14	0.13	0.0213	0.0207	< 0.020	< 0.020	< 0.000050
7/9/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.45	0.48	0.14	0.13	0.0196	0.0213	< 0.020	< 0.020	< 0.000050
7/10/2017	WL_WLCI_SP01	E293371			343	< 0.0030	0.0052	0.47	0.5	0.14	0.12	0.0205	0.0214	< 0.020	< 0.020	< 0.000050
7/11/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.45	0.44	0.18	0.18	0.0201	0.02	< 0.020	< 0.020	< 0.000050
7/12/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.45	0.45	0.17	0.18	0.0213	0.0206	< 0.020	< 0.020	< 0.000050
7/13/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.49	0.15	0.14	0.0216	0.0215	< 0.020	< 0.020	< 0.000050
7/14/2017	WL_WLCI_SP01	E293371			378	< 0.0030	< 0.0030	0.48	0.48	0.15	0.16	0.022	0.021	< 0.020	< 0.020	< 0.000050
7/14/2017	WL_WLCI_SP01	E293371	0	0												
7/15/2017	WL_WLCI_SP01	E293371														
7/16/2017	WL_WLCI_SP01	E293371														
7/17/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.46	0.44	0.15	0.15	0.0215	0.0206	< 0.020	< 0.020	< 0.000050
7/18/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.51	0.47	0.18	0.19	0.0226	0.0227	< 0.020	< 0.020	< 0.000050
7/19/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.46	0.46	0.17	0.27	0.0239	0.0232	< 0.020	< 0.020	< 0.000050
7/20/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.47	0.5	0.14	0.13	0.0227	0.0221	< 0.020	< 0.020	< 0.000050
7/21/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.47	0.5	0.16	0.14	0.0235	0.021	< 0.020	< 0.020	< 0.000050
7/22/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.48	0.48	0.15	0.14	0.0214	0.022	< 0.020	< 0.020	< 0.000050
7/23/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.46	0.51	0.14	0.14	0.022	0.0225	< 0.020	< 0.020	< 0.000050
7/24/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.47	0.5	0.13	0.14	0.0213	0.0226	< 0.020	< 0.020	< 0.000050
7/25/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.51	0.19	0.17	0.0239	0.0237	< 0.020	< 0.020	< 0.000050
7/26/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.44	0.17	0.17	0.0242	0.0232	< 0.020	< 0.020	< 0.000050
7/27/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.47	0.49	0.18	0.15	0.0236	0.0258	< 0.020	< 0.020	< 0.000050
7/28/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.46	0.49	0.18	0.17	0.0237	0.0255	< 0.020	< 0.020	< 0.000050
7/29/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.46	0.46	0.18	0.19	0.0232	0.0236	< 0.020	< 0.020	< 0.000050
7/30/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.47	0.48	0.17	0.18	0.0239	0.0241	< 0.020	< 0.020	< 0.000050
7/31/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.47	0.48	0.18	0.19	0.0234	0.0234	< 0.020	< 0.020	< 0.000050
8/1/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.51	0.46	0.13	0.22	0.0233	0.0235	< 0.020	< 0.020	< 0.000050
8/2/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.55	0.51	0.16	0.14	0.0224	0.0252	< 0.020	< 0.020	< 0.000050
8/3/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.48	0.48	0.15	0.16	0.0223	0.0227	< 0.020	< 0.020	< 0.000050
8/4/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.48	0.17	0.16	0.0224	0.0218	< 0.020	< 0.020	< 0.000050
8/5/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.48	0.49	0.14	0.17	0.0256	0.0252	< 0.020	< 0.020	< 0.000050
8/6/2017	WL_WLCI_SP01	E293371				< 0.0030		0.5		0.15		0.0273		< 0.020		< 0.000050
8/7/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.51	0.53	0.16	0.15	0.028	0.0279	< 0.020	< 0.020	< 0.000050
8/8/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.48	0.47	0.16	0.2	0.0254	0.0254	< 0.020	< 0.020	< 0.000050
8/9/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.47	0.4	0.19	0.0252	0.0245	< 0.020	< 0.020	< 0.000050
8/11/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.48	0.49	0.19	0.14	0.0269	0.0259	< 0.020	< 0.020	< 0.000050
8/12/2017	WL_WLCI_SP01	E293371	13	0		< 0.0030	< 0.0030	< 0.50	0.48	0.14	0.22	0.0261	0.0248	< 0.020	< 0.020	< 0.000050
8/12/2017	WL_WLCI_SP01	E293371			396	< 0.0010	< 0.0030	0.47	0.5	0.15	0.16	0.0261	0.0256	< 0.020	< 0.020	< 0.000050
8/13/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0031	0.52	0.46	0.16	0.23	0.0245	0.0253	< 0.020	< 0.020	< 0.000050
8/13/2017	WL_WLCI_SP01	E293371														
8/14/2017	WL_WLCI_SP01	E293371			385	< 0.0030	< 0.0030	0.48	0.46	0.16	0.22	0.0267	0.0257	< 0.020	< 0.020	< 0.000050
8/15/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0031	0.5	0.48	0.17	0.17	0.0259	0.0264	< 0.020	< 0.020	< 0.000050
8/16/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.48	0.19	0.16	0.0262	0.0262	< 0.020	< 0.020	< 0.000050
8/17/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0031	0.48	0.48	0.19	0.21	0.0257	0.0256	< 0.020	< 0.020	< 0.000050
8/18/2017	WL_WLCI_SP01	E293371														
8/19/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.5	0.21	0.2	0.0263	0.0255	< 0.020	< 0.020	< 0.000050
8/20/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.54	0.19	0.2	0.027	0.0266	< 0.020	< 0.020	< 0.000050
8/21/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.49	0.5	0.21	0.23	0.0267	0.0275	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
8/22/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.46	0.49	0.2	0.19	0.0293	0.0288	< 0.020	< 0.020	< 0.000050
8/23/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.49	0.49	0.18	0.17	0.0277	0.0251	< 0.020	< 0.020	< 0.000050
8/24/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.5	0.16	0.17	0.0257	0.0257	< 0.020	< 0.020	< 0.000050
8/25/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.49	0.49	0.21	0.2	0.0274	0.0264	< 0.020	< 0.020	< 0.000050
8/26/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.53	0.15	0.16	0.0276	0.028	< 0.020	< 0.020	< 0.000050
8/27/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.55	0.55	0.17	0.15	0.028	0.0276	< 0.020	< 0.020	< 0.000050
8/28/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.56	0.54	0.16	0.14	0.0275	0.0261	< 0.020	< 0.020	< 0.000050
8/29/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.51	0.52	0.19	0.19	0.027	0.0277	< 0.020	< 0.020	< 0.000050
8/30/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.56	0.2	0.18	0.0278	0.028	< 0.020	< 0.020	< 0.000050
8/31/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.51	0.51	0.22	0.22	0.0288	0.0273	< 0.020	< 0.020	< 0.000050
9/1/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.5	0.23	0.22	0.0286	0.028	< 0.020	< 0.020	< 0.000050
9/2/2017	WL_WLCI_SP01	E293371														
9/2/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.52	0.52	0.2	0.18	0.0265	0.0269	< 0.020	< 0.020	< 0.000050
9/3/2017	WL_WLCI_SP01	E293371														
9/3/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.51	0.51	0.2	0.18	0.0271	0.0271	< 0.020	< 0.020	< 0.000050
9/4/2017	WL_WLCI_SP01	E293371														
9/4/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.53	0.18	0.17	0.0281	0.0281	< 0.020	< 0.020	< 0.000050
9/5/2017	WL_WLCI_SP01	E293371														
9/5/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.52	0.18	0.19	0.0284	0.0291	< 0.020	< 0.020	< 0.000050
9/6/2017	WL_WLCI_SP01	E293371														
9/6/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.52	0.51	0.17	0.18	0.0294	0.029	< 0.020	< 0.020	< 0.000050
9/7/2017	WL_WLCI_SP01	E293371														
9/7/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.51	0.5	0.17	0.18	0.0268	0.0247	< 0.020	< 0.020	< 0.000050
9/8/2017	WL_WLCI_SP01	E293371														
9/8/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.55	0.58	0.16	0.17	0.0288	0.0295	< 0.020	< 0.020	< 0.000050
9/9/2017	WL_WLCI_SP01	E293371														
9/9/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.47	0.49	0.17	0.19	0.0273	0.0276	< 0.020	< 0.020	< 0.000050
9/10/2017	WL_WLCI_SP01	E293371														
9/10/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.56	0.17	0.19	0.028	0.0277	< 0.020	< 0.020	< 0.000050
9/11/2017	WL_WLCI_SP01	E293371														
9/11/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.49	0.48	0.18	0.17	0.0283	0.028	< 0.020	< 0.020	< 0.000050
9/12/2017	WL_WLCI_SP01	E293371														
9/12/2017	WL_WLCI_SP01	E293371			427	< 0.0030	< 0.0030	0.51	0.52	0.17	0.19	0.0286	0.0282	< 0.020	< 0.020	< 0.000050
9/13/2017	WL_WLCI_SP01	E293371														
9/13/2017	WL_WLCI_SP01	E293371				0.0033	< 0.0030	0.5	0.52	0.21	0.22	0.0282	0.0291	< 0.020	< 0.020	< 0.000050
9/14/2017	WL_WLCI_SP01	E293371														
9/14/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.49	0.5	0.2	0.18	0.0293	0.029	< 0.020	< 0.020	< 0.000050
9/15/2017	WL_WLCI_SP01	E293371														
9/15/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.57	0.2	0.2	0.0307	0.0304	< 0.020	< 0.020	< 0.000050
9/16/2017	WL_WLCI_SP01	E293371														
9/16/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.53	0.14	0.21	0.0284	0.0286	< 0.020	< 0.020	< 0.000050
9/17/2017	WL_WLCI_SP01	E293371														
9/17/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.49	0.5	0.16	0.21	0.0278	0.0276	< 0.020	< 0.020	< 0.000050
9/18/2017	WL_WLCI_SP01	E293371														
9/18/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.51	0.51	0.15	0.21	0.0288	0.0276	< 0.020	< 0.020	< 0.000050
9/19/2017	WL_WLCI_SP01	E293371														
9/19/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.57	0.52	0.2	0.18	0.0317	0.0302	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
9/20/2017	WL_WLCI_SP01	E293371														
9/20/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.52	0.48	0.18	0.17	0.0295	0.0269	< 0.020	< 0.020	< 0.000050
9/21/2017	WL_WLCI_SP01	E293371														
9/21/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.51	0.51	0.23	0.23	0.027	0.027	< 0.020	< 0.020	< 0.000050
9/22/2017	WL_WLCI_SP01	E293371														
9/22/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.52	0.22	0.29	0.0256	0.0307	< 0.020	< 0.020	< 0.000050
9/23/2017	WL_WLCI_SP01	E293371														
9/23/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.47	0.48	0.16	0.17	0.0243	0.0268	< 0.020	< 0.020	< 0.000050
9/24/2017	WL_WLCI_SP01	E293371														
9/24/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.52	0.51	0.19	0.2	0.0265	0.0269	< 0.020	< 0.020	< 0.000050
9/25/2017	WL_WLCI_SP01	E293371														
9/25/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.52	0.5	0.15	0.19	0.0266	0.0274	< 0.020	< 0.020	< 0.000050
9/26/2017	WL_WLCI_SP01	E293371														
9/26/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.52	0.52	0.19	0.21	0.0274	0.0275	< 0.020	< 0.020	< 0.000050
9/27/2017	WL_WLCI_SP01	E293371														
9/27/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.51	0.51	0.18	0.2	0.0276	0.0279	< 0.020	< 0.020	< 0.000050
9/28/2017	WL_WLCI_SP01	E293371														
9/28/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.52	0.19	0.23	0.0279	0.0277	< 0.020	< 0.020	< 0.000050
9/29/2017	WL_WLCI_SP01	E293371														
9/29/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.51	0.52	0.23	0.22	0.0277	0.0281	< 0.020	< 0.020	< 0.000050
9/30/2017	WL_WLCI_SP01	E293371														
9/30/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.52	0.57	0.21	0.18	0.0284	0.0287	< 0.020	< 0.020	< 0.000050
10/1/2017	WL_WLCI_SP01	E293371														
10/1/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.62	0.67	0.2	0.19	0.029	0.0299	< 0.020	< 0.020	< 0.000050
10/2/2017	WL_WLCI_SP01	E293371														
10/2/2017	WL_WLCI_SP01	E293371			247	< 0.0030	< 0.0030	0.54	0.54	0.18	0.19	0.0293	0.0292	< 0.020	< 0.020	< 0.000050
10/3/2017	WL_WLCI_SP01	E293371														
10/3/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.52	0.54	0.21	0.2	0.028	0.0279	< 0.020	< 0.020	< 0.000050
10/4/2017	WL_WLCI_SP01	E293371														
10/4/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.55	0.21	0.21	0.0274	0.0267	< 0.020	< 0.020	< 0.000050
10/5/2017	WL_WLCI_SP01	E293371														
10/5/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.57	0.53	0.22	0.26	0.0271	0.0269	< 0.020	< 0.020	< 0.000050
10/6/2017	WL_WLCI_SP01	E293371														
10/6/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.57	0.53	0.24	0.24	0.0271	0.0266	< 0.020	< 0.020	< 0.000050
10/7/2017	WL_WLCI_SP01	E293371														
10/7/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.54	0.23	0.21	0.0278	0.0282	< 0.020	< 0.020	< 0.000050
10/8/2017	WL_WLCI_SP01	E293371														
10/8/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.57	0.27	0.19	0.0278	0.0276	< 0.020	< 0.020	< 0.000050
10/9/2017	WL_WLCI_SP01	E293371														
10/9/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.62	0.56	0.24	0.22	0.0278	0.0263	< 0.020	< 0.020	< 0.000050
10/10/2017	WL_WLCI_SP01	E293371														
10/10/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.58	0.56	0.22	0.31	0.0259	0.026	< 0.020	< 0.020	< 0.000050
10/11/2017	WL_WLCI_SP01	E293371														
10/11/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.49	0.58	0.26	0.22	0.0258	0.0269	< 0.020	< 0.020	< 0.000050
10/12/2017	WL_WLCI_SP01	E293371														
10/12/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.55	0.54	0.19	0.26	0.0264	0.0266	< 0.020	< 0.020	< 0.000050
10/13/2017	WL_WLCI_SP01	E293371														

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
10/13/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.53	0.22	0.22	0.0278	0.0274	< 0.020	< 0.020	< 0.000050
10/14/2017	WL_WLCI_SP01	E293371														
10/14/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.56	0.25	0.22	0.0271	0.0273	< 0.020	< 0.020	< 0.000050
10/15/2017	WL_WLCI_SP01	E293371														
10/15/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.56	0.26	0.21	0.0268	0.0266	< 0.020	< 0.020	< 0.000050
10/16/2017	WL_WLCI_SP01	E293371														
10/16/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.57	0.25	0.22	0.0265	0.0266	< 0.020	< 0.020	< 0.000050
10/17/2017	WL_WLCI_SP01	E293371														
10/17/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.55	0.55	< 1.1	< 1.4	0.0261	0.025	< 0.020	< 0.020	< 0.000050
10/18/2017	WL_WLCI_SP01	E293371														
10/18/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.56	0.21	0.22	0.0265	0.0269	< 0.020	< 0.020	< 0.000050
10/19/2017	WL_WLCI_SP01	E293371														
10/19/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.54	0.25	0.26	0.0264	0.0261	< 0.020	< 0.020	< 0.000050
10/20/2017	WL_WLCI_SP01	E293371														
10/20/2017	WL_WLCI_SP01	E293371				0.0077	0.0034	0.54	0.56	0.24	0.25	0.0262	0.0266	< 0.020	< 0.020	< 0.000050
10/21/2017	WL_WLCI_SP01	E293371														
10/21/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.61	0.65	0.22	0.23	0.0271	0.0266	< 0.020	< 0.020	< 0.000050
10/21/2017	WL_WLCI_SP01	E293371														
10/22/2017	WL_WLCI_SP01	E293371														
10/22/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.64	0.62	0.23	0.27	0.0257	0.0267	< 0.020	< 0.020	< 0.000050
10/23/2017	WL_WLCI_SP01	E293371														
10/23/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.59	0.58	0.22	0.22	0.0266	0.0267	< 0.020	< 0.020	< 0.000050
10/24/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.5	0.3	0.26	0.024	0.0223	< 0.020	< 0.020	< 0.000050
10/25/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0076	0.56	0.53	0.3	0.27	0.025	0.0238	< 0.020	< 0.020	< 0.000050
10/26/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.56	0.54	0.29	0.27	0.027	0.0258	< 0.020	< 0.020	< 0.000050
10/27/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.61	0.56	0.28	0.3	0.0282	0.0279	< 0.020	< 0.020	< 0.000050
10/27/2017	WL_WLCI_SP01	E293371														
10/28/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.56	0.58	0.28	0.27	0.0264	0.0245	< 0.020	< 0.020	< 0.000050
10/29/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.57	0.5	0.27	0.33	0.0249	0.0261	< 0.020	< 0.020	< 0.000050
10/30/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.58	0.54	0.28	0.32	0.026	0.0261	< 0.020	< 0.020	< 0.000050
10/31/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0037	0.59	0.61	0.26	0.26	0.0249	0.025	< 0.020	< 0.020	< 0.000050
11/1/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.58	0.62	0.26	0.25	0.0269	0.0256	< 0.020	< 0.020	< 0.000050
11/2/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.6	0.55	0.35	0.31	0.026	0.0253	< 0.020	< 0.020	< 0.000050
11/3/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.54	0.34	0.31	0.026	0.0254	< 0.020	< 0.020	< 0.000050
11/4/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.56	0.44	0.42	0.0256	0.0243	< 0.020	< 0.020	< 0.000050
11/5/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.55	0.26	0.41	0.0268	0.0247	< 0.020	< 0.020	< 0.000050
11/6/2017	WL_WLCI_SP01	E293371			304	< 0.0030	< 0.0030	0.56	0.54	0.43	0.42	0.0243	0.0248	< 0.020	< 0.020	< 0.000050
11/7/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.55	0.55	0.34	0.34	0.0261	0.026	< 0.020	< 0.020	< 0.000050
11/8/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.52	0.59	0.21	0.25	0.0259	0.0269	< 0.020	< 0.020	< 0.000050
11/9/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.55	0.57	0.25	0.3	0.0241	0.0253	< 0.020	< 0.020	< 0.000050
11/10/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.55	0.28	0.26	0.0228	0.0267	< 0.020	< 0.020	< 0.000050
11/11/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.58	0.27	0.27	0.0227	0.0237	< 0.020	< 0.020	< 0.000050
11/12/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.56	0.58	0.25	0.26	0.0239	0.025	< 0.020	< 0.020	< 0.000050
11/13/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.58	0.57	0.25	0.23	0.0275	0.0245	< 0.020	< 0.020	< 0.000050
11/14/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.55	0.55	0.24	0.3	0.0255	0.0266	< 0.020	< 0.020	< 0.000050
11/15/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.54	0.27	0.32	0.0258	0.027	< 0.020	< 0.020	< 0.000050
11/16/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.6	0.25	0.35	0.0266	0.0242	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
11/17/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.53	0.59	0.25	0.35	0.0265	0.0251	< 0.020	< 0.020	< 0.000050
11/17/2017	WL_WLCI_SP01	E293371														
11/18/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.55	0.58	0.33	0.36	0.0251	0.0258	< 0.020	< 0.020	< 0.000050
11/19/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.57	0.56	0.38	0.38	0.027	0.0259	< 0.020	< 0.020	< 0.000050
11/20/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.59	0.6	0.25	0.25	0.0264	0.0253	< 0.020	< 0.020	< 0.000050
11/21/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.6	0.58	0.33	0.28	0.0236	0.0238	< 0.020	< 0.020	< 0.000050
11/22/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.61	0.32	0.27	0.0252	0.0251	< 0.020	< 0.020	< 0.000050
11/23/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.54	0.34	0.3	0.0271	0.0232	< 0.020	< 0.020	< 0.000050
11/24/2017	WL_WLCI_SP01	E293371				0.004	< 0.0030	0.55	0.55	0.63	0.26	0.0267	0.0233	< 0.020	< 0.020	< 0.000050
11/25/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.59	0.57	0.33	0.29	0.0267	0.0255	< 0.020	< 0.020	< 0.000050
11/26/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.57	0.56	0.31	0.29	0.0265	0.0261	< 0.020	< 0.020	< 0.000050
11/27/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.57	0.56	0.29	0.33	0.0272	0.0264	< 0.020	< 0.020	< 0.000050
11/28/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.57	0.58	0.23	0.27	0.0257	0.0276	< 0.020	< 0.020	< 0.000050
11/29/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.57	0.55	0.22	0.28	0.0262	0.0261	< 0.020	< 0.020	< 0.000050
11/30/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.58	0.27	0.27	0.0252	0.0271	< 0.020	< 0.020	< 0.000050
12/1/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.57	0.56	0.3	0.28	0.0263	0.0263	< 0.020	< 0.020	< 0.000050
12/2/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.55	0.54	0.28	0.26	0.0259	0.0257	< 0.020	< 0.020	< 0.000050
12/3/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0077	0.52	0.55	0.27	0.27	0.0252	0.0255	< 0.020	< 0.020	< 0.000050
12/4/2017	WL_WLCI_SP01	E293371			348	< 0.0030	< 0.0030	0.54	0.54	0.28	0.26	0.0263	0.025	< 0.020	< 0.020	< 0.000050
12/5/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.55	0.54	0.34	0.31	0.0261	0.028	< 0.020	< 0.020	< 0.000050
12/6/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.55	0.55	0.33	0.31	0.0249	0.0269	< 0.020	< 0.020	< 0.000050
12/6/2017	WL_WLCI_SP01	E293371														
12/7/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.59	0.58	0.32	0.29	0.0274	0.0258	< 0.020	< 0.020	< 0.000050
12/8/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.63	0.63	0.28	0.31	0.026	0.0267	< 0.020	< 0.020	< 0.000050
12/9/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0031	0.56	0.56	0.27	0.3	0.0271	0.0257	< 0.020	< 0.020	< 0.000050
12/10/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.61	0.56	0.29	0.26	0.0277	0.0257	< 0.020	< 0.020	< 0.000050
12/11/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0032	0.57	0.57	0.31	0.3	0.024	0.0256	< 0.020	< 0.020	< 0.000050
12/12/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0103	0.6	0.55	0.31	0.27	0.0255	0.0243	< 0.020	< 0.020	< 0.000050
12/13/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0032	0.57	0.57	0.3	0.29	0.0261	0.0248	< 0.020	< 0.020	< 0.000050
12/13/2017	WL_WLCI_SP01	E293371				0.17	0.206	0.56	0.54	0.25	0.26	0.0727	0.0756	< 0.020	< 0.040	< 0.000050
12/14/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.59	0.55	0.37	0.28	0.0273	0.0259	< 0.020	< 0.020	< 0.000050
12/15/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0045	0.63	0.57	0.34	0.29	0.0282	0.0251	< 0.020	< 0.020	< 0.000050
12/16/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.49	0.5	0.26	0.29	0.0267	0.0279	< 0.020	< 0.020	< 0.000050
12/17/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.49	0.49	0.24	0.25	0.0269	0.0259	< 0.020	< 0.020	< 0.000050
12/18/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.5	0.48	0.29	0.28	0.0274	0.0297	< 0.020	< 0.020	< 0.000050
12/19/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0087	0.6	0.6	0.35	0.3	0.0253	0.0287	< 0.020	< 0.020	< 0.000050
12/20/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0038	0.57	0.64	0.32	0.29	0.0246	0.0267	< 0.020	< 0.020	< 0.000050
12/21/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.51	0.53	0.28	0.31	0.0238	0.0247	< 0.020	< 0.020	< 0.000050
12/22/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.57	0.52	0.3	0.25	0.0267	0.0255	< 0.020	< 0.020	< 0.000050
12/22/2017	WL_WLCI_SP01	E293371				0.274	0.277	0.51	0.52	0.39	0.34	0.102	0.116	< 0.020	< 0.020	< 0.000050
12/23/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0054	0.51	0.61	0.26	0.32	0.0228	0.0255	< 0.020	< 0.020	< 0.000050
12/23/2017	WL_WLCI_SP01	E293371					0.0144		0.58		0.31		0.0253		< 0.020	
12/24/2017	WL_WLCI_SP01	E293371				< 0.0030	0.0047	0.56	0.55	0.28	0.28	0.0254	0.0246	< 0.020	< 0.020	< 0.000050
12/25/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.56	0.55	0.29	0.25	0.025	0.0249	< 0.020	< 0.020	< 0.000050
12/26/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.55	0.53	0.26	0.3	0.025	0.0242	< 0.020	< 0.020	< 0.000050
12/27/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.54	0.54	0.34	0.28	0.0242	0.0261	< 0.020	< 0.020	< 0.000050

Analyte			48-h Static acute lethality test using Daphnia magna	96-Hr 100% Conc. Acute lethality test for R. Trout	ALKALINITY, TOTAL (As CaCO3)	ALUMINUM	ALUMINUM	ANTIMONY	ANTIMONY	ARSENIC	ARSENIC	BARIUM	BARIUM	BERYLLIUM	BERYLLIUM	BISMUTH
Fraction Result Unit			N %	N %	N mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l
Sample Date	Location	EMS Number														
12/28/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.56	0.61	0.32	0.36	0.0266	0.0286	< 0.020	< 0.020	< 0.000050
12/29/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.59	0.57	0.34	0.31	0.0273	0.0243	< 0.020	< 0.020	< 0.000050
12/30/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.56	0.56	0.29	0.31	0.0251	0.0244	< 0.020	< 0.020	< 0.000050
12/30/2017	WL_WLCI_SP01	E293371														
12/31/2017	WL_WLCI_SP01	E293371				< 0.0030	< 0.0030	0.61	0.57	0.32	0.33	0.0247	0.0255	< 0.020	< 0.020	< 0.000050

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
1/5/2017	CM_CC1	200209	< 0.000050	0.062	0.062	< 0.25	0.179	0.182	231		3.4	0.11	0.13	11.2	11.5	942
1/17/2017	CM_CC1	200209	< 0.000050	0.063	0.068	< 0.50	0.131	0.159	237	0.96	4.2	< 0.10	0.14	10.9	11.2	1401
1/24/2017	CM_CC1	200209	< 0.000050	0.062	0.067	< 0.25	0.14	0.15	224		3.6	0.11	0.14	11.1	11.5	
1/29/2017	CM_CC1	200209														
1/30/2017	CM_CC1	200209	< 0.000050	0.058	0.062	< 0.25	0.131	0.134	222		3.6	< 0.10	0.16	11.4	11.1	
1/31/2017	CM_CC1	200209	< 0.00025	0.065	0.064	< 0.25	0.125	0.148	236		3.9	< 0.50	< 0.50	10.9	11.8	
2/1/2017	CM_CC1	200209	< 0.00025	0.061	0.067	< 0.25	0.128	0.147	252	2.78	3.9	< 0.50	< 0.50	11.3	12.6	
2/7/2017	CM_CC1	200209	< 0.000050	0.057	0.06	< 0.25	0.129	0.143	240		3.6	< 0.10	0.18	11	11.9	
2/21/2017	CM_CC1	200209	< 0.000050	0.054	0.055	< 0.25	0.108	0.115	219		7.1	< 0.10	0.14	8.62	8.96	
3/1/2017	CM_CC1	200209	< 0.000050	0.056	0.059	< 0.25	0.116	0.125	199	0.85	5.3	< 0.10	< 0.10	10.6	10.5	1392
3/7/2017	CM_CC1	200209	< 0.000050	0.068	0.073	< 0.25	0.12	0.124	245		4.7	< 0.10	0.13	18.2	18.3	
3/22/2017	CM_CC1	200209														
3/22/2017	CM_CC1	200209	< 0.000050	0.058	0.065	< 0.25	0.106	0.11	216	< 0.50	4.8	< 0.10	0.14	15.8	16.7	
3/29/2017	CM_CC1	200209	< 0.000050	0.066	0.059	< 0.25	0.0758	0.0701	186	1.03	5.4	0.11	0.17	16.8	15.3	
4/4/2017	CM_CC1	200209														
4/5/2017	CM_CC1	200209	< 0.000050	0.07	0.063	< 0.25	0.0674	0.0621	185	< 0.50	5.6	< 0.10	0.2	12.4	11.8	
4/12/2017	CM_CC1	200209	< 0.000050	0.06	0.059	< 0.10	0.0925	0.0935	169	1.81	5.4	< 0.10	0.13	14.6	13.7	
4/19/2017	CM_CC1	200209	< 0.000050	0.06	0.065	< 0.25	0.141	0.14	192	0.94	4.7	< 0.10	0.14	21.3	22	
4/26/2017	CM_CC1	200209	< 0.000050	0.049	0.052	< 0.25	0.131	0.146	163	1.08	5.4	< 0.10	0.18	13.8	13.8	
5/2/2017	CM_CC1	200209	< 0.000050	0.061	0.064	< 0.25	0.103	0.117	173	0.96	4.4	< 0.10	0.18	13.4	14.1	
5/9/2017	CM_CC1	200209	< 0.000050	0.037	0.039	< 0.25	0.219	0.235	148	1.54	< 2.5	< 0.10	0.22	7.61	7.44	
5/16/2017	CM_CC1	200209	< 0.000050	0.035	0.037	< 0.25	0.399	0.401	142	1.28	< 2.5	0.13	0.51	6.19	6.37	
5/17/2017	CM_CC1	200209														
5/17/2017	CM_CC1	200209														
5/18/2017	CM_CC1	200209														
5/23/2017	CM_CC1	200209	< 0.000050	0.038	0.036	< 0.25	0.435	0.472	133	1.49	< 2.5	< 0.10	0.88	9.83	10.2	
5/30/2017	CM_CC1	200209	< 0.000050	0.034	0.035	< 0.10	0.549	0.61	123	1.01	3.6	0.1	0.22	10.1	10.1	
6/6/2017	CM_CC1	200209	< 0.000050	0.036	0.036	< 0.25	0.654	0.646	132	1.66	< 2.5	< 0.10	0.15	12.4	12.1	
6/14/2017	CM_CC1	200209	< 0.000050	0.044	0.049	< 0.25	0.661	0.69	161	0.85	6.8	< 0.10	0.28	17.6	17.4	
6/21/2017	CM_CC1	200209	< 0.000050	0.06	0.062	< 0.25	0.241	0.524	175	1.13	3	< 0.10	0.3	22.3	22.4	
6/28/2017	CM_CC1	200209	< 0.000050	0.06	0.061	< 0.25	0.0616	0.197	186	1.26	< 2.5	< 0.10	0.14	18.8	19.5	
7/5/2017	CM_CC1	200209	< 0.000050	0.063	0.063	< 0.25	< 0.0050	0.116	192	1.83	< 2.5	< 0.10	0.15	16.6	19.2	
7/12/2017	CM_CC1	200209	< 0.000050	0.073	0.075	< 0.25	< 0.0050	0.063	197	1.14	< 2.5	< 0.10	0.14	17.5	19.8	
7/19/2017	CM_CC1	200209	< 0.000050	0.066	0.062	< 0.25	0.009	0.0196	188	1.24	< 2.5	< 0.10	0.15	10.8	11	
7/25/2017	CM_CC1	200209	< 0.000050	0.063	0.064	< 0.25	0.0067	0.0153	199	0.91	< 2.5	< 0.10	0.14	11.1	12.3	
8/1/2017	CM_CC1	200209	< 0.000050	0.052	0.054	< 0.25	< 0.0050	0.0427	199	1.16	< 2.5	< 0.10	0.15	6.23	10.8	
8/8/2017	CM_CC1	200209	< 0.000050	0.057	0.058	< 0.10	< 0.0050	0.0287	209	1.13	< 2.5	< 0.10	0.16	6.92	8.22	
8/15/2017	CM_CC1	200209	< 0.000050	0.06	0.063	< 0.25	< 0.0050	0.0291	228	0.92	< 2.5	0.1	0.15	6.17	7.66	
8/15/2017	CM_CC1	200209														
8/22/2017	CM_CC1	200209	< 0.000050	0.059	0.056	< 0.25	< 0.0050	0.0282	211	2.03	2.8	0.11	0.17	5.45	6.2	
8/29/2017	CM_CC1	200209	< 0.000050	0.055	0.058	< 0.25	0.0055	0.018	202	0.84	2.9	0.13	0.13	4.3	4.83	
9/5/2017	CM_CC1	200209	< 0.000050	0.052	0.056	< 0.10	< 0.0050	0.0272	220	1.33	< 2.5	< 0.10	0.13	3.02	4.89	
9/12/2017	CM_CC1	200209	< 0.000050	0.057	0.056	< 0.25	0.0057	0.0235	217	1.18	8.9	< 0.10	0.14	3.75	4.42	1674
9/19/2017	CM_CC1	200209	< 0.000050	0.045	0.046	< 0.25	< 0.0050	0.0333	207	1.29	2.6	0.18	0.16	0.14	0.31	1609
10/4/2017	CM_CC1	200209	< 0.000050	0.066	0.07	0.29	< 0.0050	0.0247	218	0.85	4.3	0.1	0.16	4.76	5.64	1713
11/7/2017	CM_CC1	200209	< 0.000050	0.059	0.069	< 0.25	0.0259	0.0292	228	1.15	6.9	0.12	0.15	8.27	8.2	1705
12/6/2017	CM_CC1	200209	< 0.000050	0.074	0.071	< 0.25	0.103	0.1	197	0.74	6.2	< 0.10	0.14	8.3	8.54	1630

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
1/17/2017	CM_CCPD	E206438	< 0.000050	0.036	0.038	< 0.50	0.42	0.466	233	0.94	1.8	0.12	0.18	1.78	1.73	1415
2/1/2017	CM_CCPD	E206438	< 0.00025	< 0.050	< 0.050	< 0.25	0.501	0.532	259	2.7	< 2.5	< 0.50	< 0.50	< 0.50	0.54	
3/1/2017	CM_CCPD	E206438	< 0.000050	0.03	0.03	< 0.25	0.421	0.426	217	0.95	< 2.5	< 0.10	0.11	0.63	0.61	1569
4/5/2017	CM_CCPD	E206438	< 0.000050	0.055	0.059	< 0.25	0.402	0.372	237	< 0.50	< 2.5	< 0.10	0.19	3.31	3.23	
4/12/2017	CM_CCPD	E206438														
4/19/2017	CM_CCPD	E206438														
4/19/2017	CM_CCPD	E206438														
4/26/2017	CM_CCPD	E206438														
5/2/2017	CM_CCPD	E206438	< 0.000050	0.046	0.049	< 0.25	0.0725	0.394	211	1.1	< 2.5	0.1	0.24	3.12	3.43	
5/6/2017	CM_CCPD	E206438														
5/9/2017	CM_CCPD	E206438														
5/16/2017	CM_CCPD	E206438														
5/17/2017	CM_CCPD	E206438														
5/17/2017	CM_CCPD	E206438														
5/18/2017	CM_CCPD	E206438														
5/23/2017	CM_CCPD	E206438														
5/30/2017	CM_CCPD	E206438	< 0.000050	0.029	0.024	< 0.10	1.07	0.896	123	0.95	< 2.5	< 0.10	0.32	2.24	2.13	
6/6/2017	CM_CCPD	E206438	< 0.000050	0.02	0.02	< 0.25	1.12	1.09	141	1.22	< 2.5	< 0.10	0.11	1.68	1.63	
6/14/2017	CM_CCPD	E206438	< 0.000050	0.018	0.02	< 0.25	1.25	1.21	163	1.15	< 2.5	< 0.10	0.25	1.27	1.33	
6/21/2017	CM_CCPD	E206438	< 0.000050	0.024	0.025	< 0.25	1.39	1.35	188	1.26	< 2.5	< 0.10	0.38	1.11	1.16	
6/28/2017	CM_CCPD	E206438	< 0.000050	0.027	0.026	< 0.25	1.36	1.3	216	1.75	< 2.5	< 0.10	0.14	0.93	0.92	
7/5/2017	CM_CCPD	E206438	< 0.000050	0.029	0.03	< 0.25	1.4	1.25	225	2.14	< 2.5	< 0.10	0.15	0.81	0.8	
7/12/2017	CM_CCPD	E206438	< 0.000050	0.038	0.038	< 0.25	1.2	1.17	229	1.23	< 2.5	< 0.10	0.14	0.68	0.71	
7/19/2017	CM_CCPD	E206438	< 0.000050	0.035	0.034	< 0.25	1.02	0.974	232	2.04	< 2.5	< 0.10	0.16	0.53	0.69	
7/25/2017	CM_CCPD	E206438	< 0.000050	0.034	0.033	< 0.25	1.1	1.13	243	0.98	< 2.5	< 0.10	0.15	0.49	0.56	
8/1/2017	CM_CCPD	E206438	< 0.000050	0.028	0.03	< 0.25	0.0125	1	261	1.45	< 2.5	< 0.10	0.13	0.32	0.48	
8/22/2017	CM_CCPD	E206438	< 0.000050	0.032	0.031	< 0.25	0.944	0.924	273	2.48	< 2.5	< 0.10	< 0.10	0.32	0.37	
9/12/2017	CM_CCPD	E206438	< 0.000050	0.049	0.049	0.33	0.688	0.752	284	0.86	< 2.5	< 0.10	0.1	0.52	0.56	2025
9/19/2017	CM_CCPD	E206438	< 0.000050	0.051	0.053	< 0.25	0.0082	0.738	282	1.72	< 2.5	< 0.10	0.14	0.53	0.75	1544
10/3/2017	CM_CCPD	E206438	< 0.000050	0.05	0.053	< 0.25	0.0053	0.341	298	1.05	< 2.5	< 0.10	0.25	0.65	0.83	2068
10/10/2017	CM_CCPD	E206438	< 0.000050	0.049	0.054	0.45	< 0.0050	0.0467	288	0.93	< 2.5	< 0.10	0.13	0.5	0.63	
10/11/2017	CM_CCPD	E206438														
10/24/2017	CM_CCPD	E206438	< 0.000050	0.073	0.082	0.26	< 0.0050	0.0988	265	0.94	< 2.5	< 0.10	0.15	6.13	6.95	
11/7/2017	CM_CCPD	E206438	< 0.000050	0.07	0.08	< 0.25	0.0074	0.0623	278	1.02	< 2.5	< 0.10	< 0.10	6.2	6.7	2091
11/22/2017	CM_CCPD	E206438	< 0.000050	0.068	0.081	< 0.25	0.0198	0.263	313	1.08	< 2.5	< 0.10	0.14	2.94	3.54	
11/28/2017	CM_CCPD	E206438	< 0.000050	0.126	0.128	< 0.25	0.861	0.961	253	0.83	3.3	< 0.10	0.17	35.5	37.7	
12/6/2017	CM_CCPD	E206438	< 0.000050	0.085	0.086	< 0.25	0.558	0.686	247	1.12	< 2.5	< 0.10	0.15	15.2	16.8	1914
12/12/2017	CM_CCPD	E206438	< 0.000050	0.079	0.077	< 0.25	0.536	0.607	230	0.95	< 2.5	< 0.10	0.15	10.4	10.4	
12/19/2017	CM_CCPD	E206438	< 0.00010	0.069	0.074	< 0.050	0.506	0.525	249	1.05	1.82	< 0.20	< 0.20	6.91	7.36	
12/27/2017	CM_CCPD	E206438	< 0.000050	0.05	0.06	< 0.10	0.491	0.53	249	0.83	< 2.5	< 0.10	0.11	4.5	4.75	
1/18/2017	CM_MC1	E258175	< 0.000050	0.013	0.014	< 0.050	0.0108	0.0118	41.9	0.89	0.35	0.24	0.3	< 0.10	< 0.10	224.7
2/1/2017	CM_MC1	E258175	< 0.000050	0.013	0.014	< 0.050	0.0082	0.0105	43.6	1.9	< 0.50	0.18	0.24	< 0.10	< 0.10	
3/1/2017	CM_MC1	E258175	< 0.000050	0.012	0.012	< 0.050	0.009	0.0101	34.2	1.29	< 0.50	0.17	0.19	< 0.10	< 0.10	229.4
4/5/2017	CM_MC1	E258175	< 0.000050	0.014	0.012	< 0.050	0.0108	0.0546	37	1	< 0.50	0.13	0.38	< 0.10	< 0.10	
4/12/2017	CM_MC1	E258175	< 0.000050	0.012	0.012	< 0.050	0.0094	0.0105	33.6	2.63	< 0.50	0.13	0.15	< 0.10	< 0.10	
4/19/2017	CM_MC1	E258175	< 0.000050	0.012	0.014	< 0.050	0.0105	0.0112	38	1.58	< 0.50	< 0.10	0.2	< 0.10	< 0.10	
4/26/2017	CM_MC1	E258175	< 0.000050	0.013	0.014	< 0.050	0.012	0.029	38.1	1.83	< 0.50	0.11	0.27	< 0.10	< 0.10	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
5/2/2017	CM_MC1	E258175	< 0.000050	0.013	0.013	< 0.050	0.0119	0.0151	36.4	1.84	< 0.50	0.12	0.18	< 0.10	< 0.10	
5/9/2017	CM_MC1	E258175	< 0.000050	0.01	0.011	< 0.050	0.0153	0.0278	31	3.95	< 0.50	0.14	0.35	< 0.10	< 0.10	
5/16/2017	CM_MC1	E258175	< 0.000050	0.011	0.012	< 0.050	0.0109	0.0127	32.1	2.85	< 0.50	0.15	0.71	< 0.10	< 0.10	
5/23/2017	CM_MC1	E258175	< 0.000050	< 0.010	< 0.010	< 0.050	0.0169	0.0522	26.1	3.69	< 0.50	0.13	0.62	< 0.10	0.2	
5/30/2017	CM_MC1	E258175	< 0.000050	< 0.010	< 0.010	< 0.050	0.0551	0.06	20.9	3.63	< 0.50	0.25	1	0.2	0.29	
6/6/2017	CM_MC1	E258175	< 0.000050	< 0.010	< 0.010	< 0.050	0.0147	0.0423	20.5	2.72	< 0.50	0.23	0.64	< 0.10	0.2	
6/14/2017	CM_MC1	E258175	< 0.000050	< 0.010	< 0.010	< 0.25	0.014	0.0549	23.2	2.79	< 2.5	0.23	0.58	< 0.10	0.2	
6/21/2017	CM_MC1	E258175	< 0.000050	< 0.010	< 0.010	< 0.050	0.0103	0.0215	26	2.66	< 0.50	0.2	0.51	< 0.10	< 0.10	
6/28/2017	CM_MC1	E258175	< 0.000050	< 0.010	< 0.010	< 0.050	0.01	0.0131	28.3	2.01	< 0.50	0.24	0.33	< 0.10	< 0.10	
7/4/2017	CM_MC1	E258175	< 0.000050	0.011	0.011	< 0.050	0.0124	0.015	31.4	1.56	< 0.50	0.26	0.32	< 0.10	< 0.10	
7/4/2017	CM_MC1	E258175														
7/12/2017	CM_MC1	E258175	< 0.000050	0.012	0.013	< 0.050	0.0108	0.0177	33.5	1.55	< 0.50	0.15	0.29	< 0.10	< 0.10	
7/19/2017	CM_MC1	E258175	< 0.000050	0.013	0.012	< 0.050	0.0103	0.0147	34.5	2.22	< 0.50	0.2	0.25	< 0.10	< 0.10	
7/25/2017	CM_MC1	E258175	< 0.000050	0.018	0.013	< 0.050	0.0102	0.0153	35.6	1.15	< 0.50	< 0.10	0.28	< 0.10	< 0.10	
8/1/2017	CM_MC1	E258175	< 0.000050	0.013	0.013	< 0.050	0.011	0.0124	39.8	2.04	< 0.50	0.2	0.25	< 0.10	< 0.10	
8/8/2017	CM_MC1	E258175	< 0.000050	0.015	0.016	< 0.050	0.0092	0.01	39.1	0.98	< 0.50	0.11	0.25	< 0.10	< 0.10	
8/15/2017	CM_MC1	E258175	< 0.000050	0.016	0.017	< 0.050	0.0068	0.0111	41.9	0.88	< 0.50	< 0.10	0.23	< 0.10	< 0.10	
8/22/2017	CM_MC1	E258175	< 0.000050	0.016	0.016	< 0.050	0.0121	0.0132	41.4	2.1	< 0.50	0.11	0.22	< 0.10	< 0.10	
8/29/2017	CM_MC1	E258175	< 0.000050	0.015	0.015	< 0.050	0.0078	0.0123	41.4	0.7	< 0.50	0.18	0.21	< 0.10	< 0.10	
9/12/2017	CM_MC1	E258175	< 0.000050	0.016	0.017	< 0.050	0.0088	0.0088	43.5	0.79	< 0.50	0.15	0.19	< 0.10	< 0.10	294
9/19/2017	CM_MC1	E258175	< 0.000050	0.015	0.015	< 0.050	0.0095	0.0166	42.5	0.88	< 0.50	0.19	0.71	< 0.10	< 0.10	291
9/26/2017	CM_MC1	E258175	< 0.000050	0.015	0.017	< 0.050	0.009	0.0106	42	1.1	< 0.50	0.21	0.21	< 0.10	< 0.10	
10/2/2017	CM_MC1	E258175	< 0.000050	0.013	0.014	< 0.050	0.0068	0.0083	41.3	1.59	< 0.50	0.18	0.18	< 0.10	< 0.10	286
10/10/2017	CM_MC1	E258175	< 0.000050	0.014	0.014	< 0.050	0.0069	0.0075	45.6	1.13	< 0.50	0.16	0.21	< 0.10	< 0.10	
10/17/2017	CM_MC1	E258175	< 0.000050	0.013	0.013	< 0.050	0.0072	0.0082	38.7	0.73	< 0.50	0.17	0.19	< 0.10	< 0.10	
10/24/2017	CM_MC1	E258175	< 0.000050	0.013	0.015	< 0.050	0.0084	0.0111	40.5	1.65	0.52	0.16	0.18	< 0.10	< 0.10	
10/31/2017	CM_MC1	E258175	< 0.000050	0.013	0.013	< 0.25	0.009	0.0079	36.7	1.02	3.5	0.21	0.21	< 0.10	< 0.10	
11/7/2017	CM_MC1	E258175	< 0.000050	0.013	0.014	< 0.050	0.0103	0.0098	41.1	0.95	< 0.50	0.17	0.24	< 0.10	< 0.10	294
12/6/2017	CM_MC1	E258175	< 0.000050	0.014	0.013	< 0.25	< 0.0050	0.0127	38.7	1.14	< 2.5	0.16	0.25	< 0.10	< 0.10	274
1/5/2017	CM_MC2	E258937	< 0.000050	0.038	0.038	< 0.050	0.0726	0.08	146		2.67	0.16	0.2	4.01	4.95	572
1/12/2017	CM_MC2	E258937	< 0.000050	0.034	0.036	< 0.050	0.0635	0.0656	134		2.53	0.11	0.21	3.33	3.61	
1/17/2017	CM_MC2	E258937	< 0.000050	0.036	0.039	< 0.25	0.0512	0.0685	146	0.86	2.69	0.14	0.22	3.48	3.92	884
1/24/2017	CM_MC2	E258937	< 0.000050	0.034	0.036	< 0.25	0.0523	0.0496	128		< 2.5	0.14	0.24	3.19	3.44	
1/29/2017	CM_MC2	E258937														
1/30/2017	CM_MC2	E258937	< 0.000050	0.034	0.036	< 0.050	0.0447	0.048	137	1.31	2.55	0.15	0.19	3.22	3.44	
1/31/2017	CM_MC2	E258937	< 0.000050	0.04	0.041	< 0.25	0.0492	0.0536	156		2.8	0.16	0.18	3.71	3.96	
2/1/2017	CM_MC2	E258937	< 0.000050	0.035	0.038	< 0.25	0.0519	0.0534	154	1.51	2.5	0.13	0.18	3.05	3.43	
2/7/2017	CM_MC2	E258937	< 0.000050	0.033	0.034	< 0.25	0.0478	0.0693	141		< 2.5	0.15	0.22	2.96	3.32	
2/21/2017	CM_MC2	E258937	< 0.000050	0.029	0.031	< 0.050	0.0377	0.0385	128		3.91	0.12	0.21	2.2	2.38	
2/28/2017	CM_MC2	E258937	< 0.000050	0.029	0.032	< 0.25	0.0326	0.0442	129	0.85	3.83	0.14	0.19	2.31	2.65	
3/1/2017	CM_MC2	E258937	< 0.000050	0.031	0.032	< 0.050	0.0417	0.0443	118	0.88	3.49	0.17	0.25	2.64	3.09	815
3/7/2017	CM_MC2	E258937	< 0.000050	0.036	0.034	< 0.25	0.0429	0.0488	140	0.68	3.52	0.13	0.22	5.07	5.44	
3/14/2017	CM_MC2	E258937	< 0.000050	0.033	0.036	< 0.25	0.0429	0.0458	129	< 0.50	3.54	0.14	0.25	6.84	6.41	
3/21/2017	CM_MC2	E258937	< 0.000050	0.021	0.021	< 0.050	0.0293	0.0417	72.5	2	2.61	0.15	< 0.50	3.14	3.52	
3/22/2017	CM_MC2	E258937														
3/29/2017	CM_MC2	E258937														
4/5/2017	CM_MC2	E258937	< 0.000050	0.039	0.036	< 0.050	0.0307	0.0294	118	< 0.50	4.56	0.13	0.17	4.58	4.11	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
4/12/2017	CM_MC2	E258937														
4/12/2017	CM_MC2	E258937	< 0.000050	0.032	0.031	< 0.050	0.0368	0.0368	97.7	2.16	3.88	0.13	0.17	4.77	4.59	
4/19/2017	CM_MC2	E258937	< 0.000050	0.033	0.035	< 0.050	0.0504	0.0604	106	1.51	3.44	< 0.10	0.19	7.38	7.59	
4/24/2017	CM_MC2	E258937	< 0.000050	0.027	0.027	< 0.050	0.0449	0.0724	85	1.35	2.53	< 0.10	0.28	4.99	5.23	
5/2/2017	CM_MC2	E258937	< 0.000050	0.032	0.039	< 0.050	0.043	0.07	115	1.35	2.71	0.13	0.31	4.36	5.64	
5/9/2017	CM_MC2	E258937	< 0.000050	0.019	0.02	< 0.050	0.0605	0.103	74.3	2.4	1.1	0.14	0.52	1.32	2.65	
5/16/2017	CM_MC2	E258937	< 0.000050	0.02	0.021	< 0.050	0.122	0.163	76	2.27	0.99	0.15	0.96	1.98	2.45	
5/23/2017	CM_MC2	E258937	< 0.000050	0.017	0.017	< 0.050	0.0842	0.189	59.9	2.26	0.52	0.13	1.03	2.05	3.4	
5/30/2017	CM_MC2	E258937	< 0.000050	0.012	0.015	< 0.050	0.087	0.183	49.3	1.86	< 0.50	0.16	1.39	1.62	2.84	
6/6/2017	CM_MC2	E258937	< 0.000050	0.013	0.014	< 0.050	0.105	0.187	49.1	1.88	< 0.50	0.16	0.88	2.24	3.24	
6/13/2017	CM_MC2	E258937	< 0.000050	0.015	0.017	< 0.050	0.121	0.148	62.8	1.73	1.04	< 0.10	0.47	2.9	3.36	
6/14/2017	CM_MC2	E258937	< 0.000050	0.012	0.015	< 0.050	0.0873	0.152	49.6	1.71	0.53	0.18	0.79	2.67	3.42	
6/21/2017	CM_MC2	E258937	< 0.000050	0.015	0.017	< 0.050	0.0758	0.11	52.7	1.33	0.56	0.15	0.74	3.58	4.26	
6/28/2017	CM_MC2	E258937	< 0.000050	0.016	0.017	< 0.050	0.0315	0.0409	56.6	1.51	< 0.50	0.13	0.36	3.06	3.21	
7/4/2017	CM_MC2	E258937	< 0.000050	0.02	0.019	< 0.050	0.0166	0.0313	63.7	1.47	0.5	0.2	0.32	3.28	3.54	
7/12/2017	CM_MC2	E258937	< 0.000050	0.029	0.03	< 0.050	0.0166	0.0202	85.3	1.27	0.86	< 0.10	0.26	4.81	5.07	
7/19/2017	CM_MC2	E258937	< 0.000050	0.029	0.029	< 0.050	0.0106	0.0151	92.8	1.85	1.02	0.2	0.26	3.12	3.23	
7/25/2017	CM_MC2	E258937	< 0.000050	0.031	0.031	< 0.050	0.0068	0.0171	96	0.97	1.04	0.17	0.26	2.87	3.48	
8/1/2017	CM_MC2	E258937	< 0.000050	0.028	0.028	< 0.050	< 0.0050	0.0156	103	1.72	1.41	0.16	0.21	1.09	2.26	
8/8/2017	CM_MC2	E258937	< 0.000050	0.034	0.035	< 0.050	< 0.0050	0.038	120	1.26	1.64	0.11	0.32	1.19	4.28	
8/15/2017	CM_MC2	E258937	< 0.000050	0.034	0.032	< 0.050	< 0.0050	0.0131	120	0.83	1.44	0.14	0.22	1.42	1.85	
8/22/2017	CM_MC2	E258937	< 0.000050	0.034	0.038	< 0.25	0.0085	0.0132	126	1.99	< 2.5	0.14	0.18	1.29	1.42	
8/29/2017	CM_MC2	E258937	< 0.000050	0.034	0.037	< 0.25	< 0.0050	0.0091	125	0.8	< 2.5	0.14	0.18	0.88	1	
9/12/2017	CM_MC2	E258937	< 0.000050	0.034	0.037	< 0.25	< 0.0050	0.0123	138	0.81	3.1	< 0.10	0.18	0.8	0.97	1097
9/19/2017	CM_MC2	E258937	< 0.000050	0.028	0.028	< 0.050	< 0.0050	0.0151	119	1.11	2.09	0.17	0.23	0.18	0.3	954
9/26/2017	CM_MC2	E258937	< 0.000050	0.03	0.029	< 0.050	< 0.0050	0.0104	107	1.19	1.86	0.16	0.18	0.12	0.15	
10/2/2017	CM_MC2	E258937	< 0.000050	0.039	0.042	< 0.050	0.0103	0.0135	118	1.2	2.25	0.14	0.18	0.4	0.5	
10/2/2017	CM_MC2	E258937	< 0.000050	0.036	0.038	0.065	0.0092	0.011	124	0.97	5.94	< 0.10	0.17	0.58	0.74	1012
10/3/2017	CM_MC2	E258937	< 0.000050	0.033	0.033	< 0.25	0.0094	0.0156	134	1.27	< 2.5	0.16	0.2	0.92	1.1	1058
10/5/2017	CM_MC2	E258937	< 0.000050	0.031	0.036	< 0.050	0.0104	0.0184	129	1.28	2.9	0.11	0.16	1.02	1.05	
10/6/2017	CM_MC2	E258937	< 0.000050	0.032	0.034	< 0.050	0.0132	0.0138	133	< 0.50	3.27	0.14	0.19	1.11	1.17	
10/10/2017	CM_MC2	E258937	< 0.000050	0.031	0.032	0.082	0.0122	0.0156	130	1.15	4.06	< 0.10	0.18	0.93	1	
10/11/2017	CM_MC2	E258937	< 0.000050	0.033	0.035	< 0.25	0.0149	0.0153	131	0.74	3.9	0.17	0.2	1.08	1.18	
10/12/2017	CM_MC2	E258937	< 0.000050	0.031	0.036	< 0.050	0.0061	0.0145	129	1.17	3.81	< 0.10	0.19	1.07	1.2	
10/16/2017	CM_MC2	E258937	< 0.000050	0.032	0.036	< 0.050	0.0108	0.0169	134	1.47	3.58	0.13	0.16	1.03	1.21	
10/17/2017	CM_MC2	E258937	< 0.000050	0.029	0.033	< 0.050	0.0122	0.0118	114	1.01	3.66	0.12	0.18	1	1.05	
10/19/2017	CM_MC2	E258937	< 0.000050	0.034	0.041	< 0.10	0.0184	0.29	123	3.75	3	< 0.10	2.4	2.46	16.5	
10/20/2017	CM_MC2	E258937	< 0.000050	0.027	0.029	0.058	0.0131	0.0222	92.7	2.35	3.16	0.12	0.33	1.34	1.62	
10/23/2017	CM_MC2	E258937	< 0.000050	0.03	0.034	< 0.050	0.0153	0.0214	107	1.03	4.02	0.11	0.2	1.45	1.59	
10/24/2017	CM_MC2	E258937	< 0.000050	0.032	0.037	< 0.050	0.0156	0.0164	112	1.1	4.36	0.15	0.2	1.4	1.46	
10/26/2017	CM_MC2	E258937	< 0.000050	0.031	0.034	< 0.050	0.0138	0.0162	102	0.82	3.8	0.16	0.19	1.43	1.55	
10/30/2017	CM_MC2	E258937	< 0.000050	0.033	0.037	< 0.050	0.013	0.0161	118	0.91	3.99	0.14	0.16	1.74	1.88	
10/31/2017	CM_MC2	E258937	< 0.000050	0.037	0.034	< 0.25	0.013	0.017	124	1.07	4.1	0.12	0.22	1.56	1.92	
11/7/2017	CM_MC2	E258937	< 0.000050	0.034	0.035	< 0.050	0.0216	0.0188	123	0.97	3.95	0.16	0.22	1.57	1.83	956
11/9/2017	CM_MC2	E258937	< 0.000050	0.033	0.041	< 0.050	0.0101	0.0156	130	1.13	3.36	0.14	0.19	1.2	1.31	
11/14/2017	CM_MC2	E258937	< 0.00025	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025	121	0.93	3.22	< 0.50	< 0.50	1.05	1.09	
11/21/2017	CM_MC2	E258937	< 0.000050	0.035	0.036	< 0.050	< 0.0050	0.0181	124	0.84	2.9	< 0.10	0.17	0.83	0.85	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
11/28/2017	CM_MC2	E258937	< 0.000050	0.039	0.039	< 0.050	0.0504	0.0634	105	1.05	3.49	< 0.10	0.25	3.86	4.26	
12/6/2017	CM_MC2	E258937	< 0.000050	0.044	0.042	< 0.050	0.0233	0.0602	138	0.87	3.82	0.13	0.18	3.19	3.61	1083
12/12/2017	CM_MC2	E258937	< 0.000050	0.048	0.041	< 0.25	0.0256	0.031	126	1.15	3.1	< 0.10	0.17	2.13	2.32	
12/19/2017	CM_MC2	E258937	< 0.000050	0.031	0.033	< 0.050	0.0249	0.0273	118	1.01	2.92	0.16	0.3	1.61	1.8	
12/27/2017	CM_MC2	E258937	< 0.000050	0.034	0.037	< 0.050	0.0245	0.0345	146	0.72	3.26	0.13	0.28	1.45	1.58	
4/12/2017	CM_PC2	E298733														
4/19/2017	CM_PC2	E298733	< 0.000050	< 0.010	< 0.010	< 0.050	0.0339	0.0395	51.4	1.27	< 0.50	0.34	0.42	< 0.10	0.14	
4/26/2017	CM_PC2	E298733														
5/2/2017	CM_PC2	E298733	< 0.000050	< 0.010	< 0.010		0.0327	0.0522	50.7	1.45		0.32	0.43	< 0.10	0.12	
5/9/2017	CM_PC2	E298733														
5/16/2017	CM_PC2	E298733														
5/23/2017	CM_PC2	E298733														
5/30/2017	CM_PC2	E298733														
6/6/2017	CM_PC2	E298733	< 0.000050	< 0.010	< 0.010		0.0552	0.0466	32.1	1.22		0.18	0.23	< 0.10	< 0.10	
6/14/2017	CM_PC2	E298733														
6/21/2017	CM_PC2	E298733														
6/28/2017	CM_PC2	E298733														
7/5/2017	CM_PC2	E298733	< 0.000050	< 0.010	< 0.010	< 0.050	0.0371	0.0366	35.9	1.13	< 0.50	0.26	0.47	< 0.10	< 0.10	
7/12/2017	CM_PC2	E298733														
7/19/2017	CM_PC2	E298733														
7/25/2017	CM_PC2	E298733														
8/1/2017	CM_PC2	E298733														
8/8/2017	CM_PC2	E298733														
8/15/2017	CM_PC2	E298733														
8/22/2017	CM_PC2	E298733														
8/29/2017	CM_PC2	E298733														
9/5/2017	CM_PC2	E298733														
9/12/2017	CM_PC2	E298733														
9/19/2017	CM_PC2	E298733														
9/26/2017	CM_PC2	E298733														
10/3/2017	CM_PC2	E298733														
10/10/2017	CM_PC2	E298733														
10/17/2017	CM_PC2	E298733														
10/24/2017	CM_PC2	E298733														
10/31/2017	CM_PC2	E298733														
11/7/2017	CM_PC2	E298733														
11/14/2017	CM_PC2	E298733														
11/21/2017	CM_PC2	E298733														
11/24/2017	CM_PC2	E298733	< 0.000050	< 0.010	< 0.010	< 0.050	0.0679	0.076	56.8	2.74	< 0.50	0.12	0.2	0.15	0.21	
11/28/2017	CM_PC2	E298733														
12/6/2017	CM_PC2	E298733														
12/12/2017	CM_PC2	E298733														
12/19/2017	CM_PC2	E298733														
12/27/2017	CM_PC2	E298733														
1/17/2017	CM_SOW	E298734	< 0.000050	0.076	0.082	< 0.50	0.0236	0.0238	220	1.25	1.8	< 0.10	0.14	< 0.10	0.11	1259
2/1/2017	CM_SOW	E298734	< 0.00025	0.072	0.08	< 0.25	< 0.025	0.046	219	2	< 2.5	< 0.50	< 0.50	< 0.50	< 0.50	
3/1/2017	CM_SOW	E298734	< 0.000050	0.068	0.067	< 0.25	0.0231	0.0226	175	1.53	< 2.5	< 0.10	0.11	0.13	0.12	1137

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
4/5/2017	CM_SOW	E298734	< 0.000050	0.057	0.058	< 0.25	0.0877	0.0941	141	< 0.50	3	< 0.10	0.27	0.53	0.71	
5/2/2017	CM_SOW	E298734	< 0.000050	0.12	0.114	< 0.25	< 0.0050	0.064	239	1.16	4.2	< 0.10	0.52	0.24	0.44	
6/6/2017	CM_SOW	E298734	< 0.000050	0.102	0.103	< 0.25	0.006	0.0146	165	2.24	< 2.5	< 0.10	0.15	< 0.10	0.11	
7/4/2017	CM_SOW	E298734	< 0.000050	0.154	0.144	0.99	< 0.0050	0.0119	162	3.36	57.4	< 0.10	0.17	0.14	0.18	
8/1/2017	CM_SOW	E298734	< 0.000050	0.108	0.112	< 0.25	< 0.0050	< 0.0050	157	3.05	11.5	< 0.10	0.15	< 0.10	0.11	
9/12/2017	CM_SOW	E298734	< 0.000050	0.112	0.113	0.32	< 0.0050	< 0.0050	145	2.35	17.4	< 0.10	0.1	< 0.10	< 0.10	1465
10/4/2017	CM_SOW	E298734	< 0.000050	0.107	0.11	0.33	0.0057	0.0371	129	2.51	6.4	< 0.10	0.21	0.2	0.33	1354
11/7/2017	CM_SOW	E298734	0.00012	0.105	0.2	1.3	0.0156	0.838	219	3.19	89.5	< 0.10	34.9	0.27	9.16	1088
12/5/2017	CM_SOW	E298734	0.000346	0.112	0.213	1.05	0.0089	1.92	165	2.19	71.6	< 0.10	68.2	0.63	22.7	483
1/5/2017	CM_SPD	E102488	< 0.000050	0.106	0.115	< 0.25	0.39	0.392	314		5.2	< 0.10	< 0.10	31.3	31.4	1160
1/17/2017	CM_SPD	E102488	< 0.00010	0.112	0.117	< 1.0	0.332	0.373	317	0.91	6.4	< 0.20	< 0.20	31.6	33	1728
1/24/2017	CM_SPD	E102488	< 0.000050	0.11	0.113	< 0.25	0.337	0.302	307		5.3	< 0.10	< 0.10	33.4	30.7	
1/29/2017	CM_SPD	E102488														
1/30/2017	CM_SPD	E102488	< 0.000050	0.099	0.108	< 0.25	0.279	0.32	292		5.3	< 0.10	< 0.10	32.6	32.5	
1/31/2017	CM_SPD	E102488	< 0.00025	0.104	0.117	< 0.25	0.281	0.334	312		5.5	< 0.50	< 0.50	32.3	35.6	
2/1/2017	CM_SPD	E102488	< 0.00025	0.101	0.109	< 0.25	0.275	0.336	312	1.28	5.4	< 0.50	< 0.50	30.8	34.7	
2/7/2017	CM_SPD	E102488	< 0.000050	0.106	0.104	< 0.25	0.307	0.305	294		5.3	< 0.10	< 0.10	34.8	32.7	
2/21/2017	CM_SPD	E102488	< 0.000050	0.088	0.091	< 0.25	0.249	0.298	260		12.4	< 0.10	0.17	24.8	27.1	
3/1/2017	CM_SPD	E102488	< 0.000050	0.088	0.084	< 0.25	0.247	0.242	218	0.98	6.4	< 0.10	< 0.10	25.5	23.3	1641
3/7/2017	CM_SPD	E102488	< 0.000050	0.107	0.124	< 0.25	0.0667	0.339	315		5.4	< 0.10	< 0.10	39.9	53.1	
3/29/2017	CM_SPD	E102488														
3/29/2017	CM_SPD	E102488				< 0.25					5.3					
4/5/2017	CM_SPD	E102488	< 0.000050	0.086	0.086	< 0.25	0.0606	0.0695	216	< 0.50	4.7	< 0.10	< 0.10	26.8	28	
4/10/2017	CM_SPD	E102488														
4/12/2017	CM_SPD	E102488				< 0.10					4.3					
4/19/2017	CM_SPD	E102488				< 0.25					3.4					
4/26/2017	CM_SPD	E102488				< 0.25					2.9					
4/27/2017	CM_SPD	E102488														
4/28/2017	CM_SPD	E102488														
4/28/2017	CM_SPD	E102488														
5/2/2017	CM_SPD	E102488	< 0.000050	0.067	0.071	< 0.25	0.139	0.15	197	1.4	3.8	< 0.10	0.11	31.9	31.9	
5/5/2017	CM_SPD	E102488														
5/5/2017	CM_SPD	E102488														
5/6/2017	CM_SPD	E102488														
5/6/2017	CM_SPD	E102488														
5/6/2017	CM_SPD	E102488														
5/6/2017	CM_SPD	E102488														
5/7/2017	CM_SPD	E102488														
5/9/2017	CM_SPD	E102488				< 0.25					2.9					
5/16/2017	CM_SPD	E102488				< 0.25					3.1					
5/17/2017	CM_SPD	E102488														
5/17/2017	CM_SPD	E102488														
5/18/2017	CM_SPD	E102488														
5/23/2017	CM_SPD	E102488				< 0.25					< 2.5					
5/30/2017	CM_SPD	E102488				< 0.10					5.5					
6/6/2017	CM_SPD	E102488	< 0.000050	0.096	0.101	< 0.25	0.263	0.319	209	1.17	2.6	< 0.10	< 0.10	54.4	52.5	
6/14/2017	CM_SPD	E102488				< 0.25					6.9					

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
6/21/2017	CM_SPD	E102488				< 0.25					5.3					
6/28/2017	CM_SPD	E102488				< 0.25					2.8					
7/4/2017	CM_SPD	E102488	< 0.000050	0.133	0.128	< 0.25	< 0.0050	0.0861	225	0.69	2.5	< 0.10	< 0.10	53	62.6	
7/12/2017	CM_SPD	E102488				< 0.25					2.8					
7/19/2017	CM_SPD	E102488				< 0.25					3					
7/25/2017	CM_SPD	E102488				< 0.25					2.9					
8/1/2017	CM_SPD	E102488	< 0.000050	0.115	0.118	< 0.25	< 0.0050	0.225	247	1.35	3.2	< 0.10	0.37	28.2	64.4	
8/8/2017	CM_SPD	E102488				< 0.10					3.3					
8/15/2017	CM_SPD	E102488				< 0.25					3.5					
8/22/2017	CM_SPD	E102488	< 0.000050	0.118	0.113	< 0.25	< 0.0050	0.0067	245	2.67	5.2	< 0.10	< 0.10	21.1	25.4	
8/29/2017	CM_SPD	E102488				< 0.25					5					
9/5/2017	CM_SPD	E102488				< 0.10					4.4					
9/12/2017	CM_SPD	E102488	< 0.000050	0.109	0.111	< 0.25	< 0.0050	< 0.0050	247	0.76	4.3	< 0.10	< 0.10	17.5	21.9	1903
9/19/2017	CM_SPD	E102488				< 0.25					5					1729
10/3/2017	CM_SPD	E102488	< 0.000050	0.099	0.108	< 0.25	< 0.0050	0.0096	269	0.92	4.7	< 0.10	0.2	18.7	22.8	1909
10/19/2017	CM_SPD	E102488														
10/19/2017	CM_SPD	E102488														
10/20/2017	CM_SPD	E102488														
10/23/2017	CM_SPD	E102488														
11/7/2017	CM_SPD	E102488	< 0.000050	0.08	0.096	< 0.25	< 0.0050	0.0348	293	1.52	7.4	< 0.10	< 0.10	27.3	29.5	2036
11/22/2017	CM_SPD	E102488	< 0.000050	0.082	0.097	< 0.25	0.0057	0.072	304	1.33	6.3	< 0.10	0.42	21.2	24.7	
12/6/2017	CM_SPD	E102488	< 0.000050	0.061	0.072	< 0.25	0.125	0.129	239	1.16	5	< 0.10	< 0.10	15.7	16.4	1693
1/10/2017	EV_AQ1	E210369														
2/8/2017	EV_AQ1	E210369														
3/7/2017	EV_AQ1	E210369														
3/15/2017	EV_AQ1	E210369	< 0.000050	0.012	0.013	0.159	0.0354	0.0548	25	4.48	27.6	< 0.10	0.13	< 0.10	0.13	269
3/15/2017	EV_AQ1	E210369														
3/16/2017	EV_AQ1	E210369														
3/17/2017	EV_AQ1	E210369														
3/18/2017	EV_AQ1	E210369														
3/19/2017	EV_AQ1	E210369														
3/19/2017	EV_AQ1	E210369														
3/20/2017	EV_AQ1	E210369														
3/21/2017	EV_AQ1	E210369														
3/22/2017	EV_AQ1	E210369	< 0.000050	0.017	0.019	0.177	0.0264	0.122	69.6	3.8	43.5	< 0.10	0.87	< 0.10	0.56	615
3/23/2017	EV_AQ1	E210369														
3/24/2017	EV_AQ1	E210369														
3/28/2017	EV_AQ1	E210369														
4/4/2017	EV_AQ1	E210369	< 0.000050	0.015	0.019	0.177	0.0341	0.0977	78.8	3.68	44.7	< 0.10	0.65	< 0.10	0.31	642
4/12/2017	EV_AQ1	E210369														
4/20/2017	EV_AQ1	E210369														
4/26/2017	EV_AQ1	E210369														
5/3/2017	EV_AQ1	E210369	< 0.000050	0.017	0.017	0.177	0.0228	0.0375	78.3	3.77	46.3	< 0.10	0.12	0.12	0.17	659
5/10/2017	EV_AQ1	E210369														
5/17/2017	EV_AQ1	E210369														
5/24/2017	EV_AQ1	E210369														
5/31/2017	EV_AQ1	E210369														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
6/5/2017	EV_AQ1	E210369	< 0.000050	0.016	0.018	0.146	0.019	0.0296	72.6	2.67	35.5	< 0.10	0.13	0.1	0.14	
6/14/2017	EV_AQ1	E210369														
6/21/2017	EV_AQ1	E210369														
6/28/2017	EV_AQ1	E210369														
7/5/2017	EV_AQ1	E210369														
7/11/2017	EV_AQ1	E210369														
8/2/2017	EV_AQ1	E210369														
9/12/2017	EV_AQ1	E210369														
10/3/2017	EV_AQ1	E210369														
11/15/2017	EV_AQ1	E210369														
12/6/2017	EV_AQ1	E210369														
1/10/2017	EV_AQ6	E302170	< 0.000050	0.017	0.018	0.171	0.0271	0.0338	79.7	1.68	40.5	< 0.10	< 0.10	< 0.10	0.12	221
2/8/2017	EV_AQ6	E302170														
2/16/2017	EV_AQ6	E302170	< 0.000050	0.015	0.015	0.138	0.0387	0.0848	62	2.49	31.4	0.11	0.58	0.21	0.45	544
2/23/2017	EV_AQ6	E302170														
3/8/2017	EV_AQ6	E302170	< 0.000050	0.013	0.014	< 0.25	0.029	0.0362	70.5	2.02	43.5	< 0.10	< 0.10	< 0.10	< 0.10	668
3/15/2017	EV_AQ6	E302170														
3/15/2017	EV_AQ6	E302170														
3/16/2017	EV_AQ6	E302170														
3/17/2017	EV_AQ6	E302170														
3/18/2017	EV_AQ6	E302170														
3/18/2017	EV_AQ6	E302170														
3/19/2017	EV_AQ6	E302170														
3/20/2017	EV_AQ6	E302170														
3/21/2017	EV_AQ6	E302170														
3/22/2017	EV_AQ6	E302170														
3/23/2017	EV_AQ6	E302170														
3/24/2017	EV_AQ6	E302170														
3/28/2017	EV_AQ6	E302170														
3/31/2017	EV_AQ6	E302170														
4/4/2017	EV_AQ6	E302170	< 0.000050	0.014	0.017	0.177	0.0345	0.0723	74.9	4.1	42.1	< 0.10	0.42	< 0.10	0.25	611
4/12/2017	EV_AQ6	E302170														
4/20/2017	EV_AQ6	E302170														
4/26/2017	EV_AQ6	E302170														
5/2/2017	EV_AQ6	E302170														
5/3/2017	EV_AQ6	E302170	< 0.000050	0.016	0.016	0.178	< 0.0050	0.0363	77.6	3.7	43.1	< 0.10	0.12	0.12	0.16	636
5/7/2017	EV_AQ6	E302170														
5/10/2017	EV_AQ6	E302170														
5/17/2017	EV_AQ6	E302170														
5/18/2017	EV_AQ6	E302170														
5/24/2017	EV_AQ6	E302170														
5/31/2017	EV_AQ6	E302170														
6/5/2017	EV_AQ6	E302170	< 0.000050	0.018	0.019	< 0.25	0.0081	0.0133	73.8	2.41	35.1	< 0.10	< 0.10	0.13	0.16	
6/14/2017	EV_AQ6	E302170														
6/21/2017	EV_AQ6	E302170														
6/28/2017	EV_AQ6	E302170														
7/5/2017	EV_AQ6	E302170														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
7/11/2017	EV_AQ6	E302170	< 0.000050	0.04	0.043	1.18	0.0442	0.156	77.3	4.31	91.6	< 0.10	0.7	0.23	0.63	
8/2/2017	EV_AQ6	E302170	< 0.000050	0.02	0.021		< 0.0050	0.0216	59.3			< 0.10	0.12	< 0.10	< 0.10	
8/2/2017	EV_AQ6	E302170				0.182				1.6	30.8					
8/10/2017	EV_AQ6	E302170														
9/12/2017	EV_AQ6	E302170	< 0.000050	0.018	0.02	0.127	0.0147	0.0196	57.2	1.59	23.1	< 0.10	< 0.30	< 0.10	< 0.10	
10/3/2017	EV_AQ6	E302170	< 0.000050	0.017	0.017	0.08	0.0082	0.0141	59.4	1.88	21.5	< 0.10	< 0.10	< 0.10	< 0.10	
11/15/2017	EV_AQ6	E302170	< 0.000050	0.017	0.019	0.255	0.0156	0.0149	69.5	1.64	38.8	< 0.10	< 0.10	< 0.10	< 0.10	
11/23/2017	EV_AQ6	E302170														
11/23/2017	EV_AQ6	E302170														
11/24/2017	EV_AQ6	E302170														
12/6/2017	EV_AQ6	E302170	< 0.000050	0.017	0.019	0.563	0.0169	0.0174	90	3.09	71.1	< 0.10	< 0.10	< 0.10	< 0.10	
1/10/2017	EV_BC1	E102685														
2/7/2017	EV_BC1	E102685														
3/7/2017	EV_BC1	E102685														
3/16/2017	EV_BC1	E102685														
3/17/2017	EV_BC1	E102685														
3/18/2017	EV_BC1	E102685														
3/18/2017	EV_BC1	E102685														
3/20/2017	EV_BC1	E102685	< 0.000050	0.033	0.036	< 0.25	0.178	0.209	171	2.23	31.3	< 0.10	0.14	0.51	0.59	1512
3/29/2017	EV_BC1	E102685	< 0.000050	0.027	0.027	< 0.25	0.27	0.312	211	2.59	30.4	< 0.10	0.13	0.32	0.39	1982
4/5/2017	EV_BC1	E102685	< 0.000050	0.025	0.026	< 0.50	0.399	0.393	248	2.44	29.7	< 0.10	< 0.10	0.24	0.27	1994
4/7/2017	EV_BC1	E102685														
4/12/2017	EV_BC1	E102685														
4/20/2017	EV_BC1	E102685														
4/26/2017	EV_BC1	E102685														
5/2/2017	EV_BC1	E102685	< 0.00010	0.025	0.025	< 1.0	0.027	0.515	305	2.03	30.4	< 0.20	< 0.20	< 0.20	0.29	2511
5/10/2017	EV_BC1	E102685														
5/18/2017	EV_BC1	E102685														
5/24/2017	EV_BC1	E102685														
5/31/2017	EV_BC1	E102685														
6/2/2017	EV_BC1	E102685														
6/6/2017	EV_BC1	E102685	< 0.000050	0.039	0.042	< 0.50	0.0119	0.133	206	< 0.50	21	< 0.10	< 0.10	0.31	0.36	
6/14/2017	EV_BC1	E102685														
6/21/2017	EV_BC1	E102685														
6/28/2017	EV_BC1	E102685														
7/5/2017	EV_BC1	E102685														
7/12/2017	EV_BC1	E102685	< 0.000050	0.064	0.067	0.76	0.0143	0.139	199	0.83	72.6	< 0.10	< 0.10	0.58	0.67	
8/3/2017	EV_BC1	E102685	< 0.000050	0.043	0.042		0.0064	0.0703	211			< 0.10	0.1	0.23	0.3	
8/3/2017	EV_BC1	E102685				< 0.10				0.92	20.3					
8/9/2017	EV_BC1	E102685														
9/12/2017	EV_BC1	E102685														
10/2/2017	EV_BC1	E102685														
10/4/2017	EV_BC1	E102685	< 0.000050	0.059	0.068	0.28	0.009	0.0287	184	1.6	23.2	< 0.10	0.15	0.15	0.24	
11/10/2017	EV_BC1	E102685														
11/15/2017	EV_BC1	E102685	< 0.000050	0.045	0.048	< 0.25	0.0811	0.0957	250	0.9	25.5	< 0.10	< 0.10	0.25	0.3	
11/23/2017	EV_BC1	E102685														
12/6/2017	EV_BC1	E102685	< 0.000050	0.041	0.044	< 0.25	0.0775	0.102	207	1.12	23.4	< 0.10	< 0.10	0.26	0.29	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
1/9/2017	EV_BLM2	E298592	< 0.000050	0.016	0.017	< 0.050	0.0063	0.0154	51.3	1.19	1.36	< 0.10	0.15	< 0.10	< 0.10	413
2/23/2017	EV_BLM2	E298592	< 0.000050	0.018	0.02	< 0.050	0.0139	0.0237	53.5	2.77	1.16	< 0.10	0.15	< 0.10	< 0.10	419
3/6/2017	EV_BLM2	E298592	< 0.000050	0.017	0.02	< 0.050	0.0183	0.0269	54	1.57	1.25	< 0.10	0.16	< 0.10	< 0.10	425
3/15/2017	EV_BLM2	E298592														
3/22/2017	EV_BLM2	E298592														
3/28/2017	EV_BLM2	E298592														
4/3/2017	EV_BLM2	E298592	< 0.000050	0.018	0.021	< 0.050	0.0083	0.0538	49.5	5.78	1.06	< 0.10	0.59	< 0.10	0.37	354
4/11/2017	EV_BLM2	E298592														
4/19/2017	EV_BLM2	E298592														
4/20/2017	EV_BLM2	E298592														
4/21/2017	EV_BLM2	E298592														
4/22/2017	EV_BLM2	E298592														
4/23/2017	EV_BLM2	E298592														
4/25/2017	EV_BLM2	E298592														
5/2/2017	EV_BLM2	E298592	< 0.000050	0.015	0.022	< 0.050	0.0113	0.213	48.8	5.11	0.71	< 0.10	4.43	< 0.10	2.34	321
5/9/2017	EV_BLM2	E298592														
5/16/2017	EV_BLM2	E298592														
5/23/2017	EV_BLM2	E298592														
5/24/2017	EV_BLM2	E298592														
5/30/2017	EV_BLM2	E298592														
6/5/2017	EV_BLM2	E298592	< 0.000050	< 0.010	0.012	< 0.050	0.011	0.064	41.3	2.04	1.05	< 0.10	0.87	< 0.10	0.5	
6/13/2017	EV_BLM2	E298592														
6/20/2017	EV_BLM2	E298592														
6/27/2017	EV_BLM2	E298592														
7/4/2017	EV_BLM2	E298592														
7/10/2017	EV_BLM2	E298592	< 0.000050	0.014	0.014	< 0.050	0.0114	0.0359	46.9	1.99	1.05	< 0.10	0.24	< 0.10	0.11	
8/1/2017	EV_BLM2	E298592	< 0.000050	0.014	0.014	< 0.050	0.0132	0.0293	51.5	1.24	1.32	< 0.10	0.24	< 0.10	0.12	
8/10/2017	EV_BLM2	E298592														
8/15/2017	EV_BLM2	E298592														
9/11/2017	EV_BLM2	E298592	< 0.000050	0.018	0.019	< 0.050	0.0079	0.0169	52.1	1.43	1.03	< 0.10	0.42	< 0.10	< 0.10	
10/2/2017	EV_BLM2	E298592	< 0.000050	0.018	0.018	< 0.050	0.006	0.0322	52.3	2.26	1.16	< 0.10	0.19	< 0.10	0.13	
11/14/2017	EV_BLM2	E298592	< 0.00025	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025	50.2	2.82	1	< 0.50	< 0.50	< 0.50	< 0.50	
12/1/2017	EV_BLM2	E298592	< 0.000050	0.018	0.019	< 0.050	< 0.0050	0.0141	52.2	2.02	1.05	< 0.10	0.17	< 0.10	< 0.10	
1/9/2017	EV_DC1	E298590	< 0.000050	0.01	0.011	< 0.50	0.0488	0.0654	206	1.06	4.7	< 0.10	< 0.10	< 0.10	< 0.10	1712
2/21/2017	EV_DC1	E298590	< 0.000050	< 0.010	< 0.010	< 0.50	0.0364	0.0577	207	0.96	4.8	< 0.10	< 0.10	< 0.10	< 0.10	1823
3/6/2017	EV_DC1	E298590	< 0.000050	< 0.010	0.012	< 0.50	0.0286	0.0459	203	0.87	4.8	< 0.10	< 0.10	< 0.10	< 0.10	1814
3/15/2017	EV_DC1	E298590														
3/21/2017	EV_DC1	E298590														
3/28/2017	EV_DC1	E298590														
4/3/2017	EV_DC1	E298590	< 0.000050	0.011	0.011	< 0.25	0.0299	0.0896	154	1.62	3.27	< 0.10	0.13	< 0.10	< 0.10	1368
4/11/2017	EV_DC1	E298590														
4/19/2017	EV_DC1	E298590														
4/25/2017	EV_DC1	E298590														
5/1/2017	EV_DC1	E298590	< 0.000050	< 0.010	< 0.010	< 0.25	0.0588	0.122	131	2.46	2.71	< 0.10	0.1	< 0.10	< 0.10	1193
5/9/2017	EV_DC1	E298590														
5/16/2017	EV_DC1	E298590														
5/23/2017	EV_DC1	E298590														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
5/30/2017	EV_DC1	E298590														
6/5/2017	EV_DC1	E298590	< 0.000050	0.01	0.011	< 0.25	0.0908	0.137	153	1.67	2.38	< 0.10	< 0.10	< 0.10	< 0.10	
6/13/2017	EV_DC1	E298590														
6/20/2017	EV_DC1	E298590														
6/27/2017	EV_DC1	E298590														
7/4/2017	EV_DC1	E298590														
7/10/2017	EV_DC1	E298590	< 0.000050	0.013	0.013	< 0.25	0.0404	0.0481	169	1.73	2.8	< 0.10	< 0.10	< 0.10	< 0.10	
8/1/2017	EV_DC1	E298590	< 0.000050	0.012	0.012	< 0.50	0.0326	0.0335	186	1.4	4	< 0.10	< 0.10	< 0.10	< 0.10	
9/11/2017	EV_DC1	E298590	< 0.000050	0.011	0.013	< 0.25	0.0213	0.0267	199	1.06	3	< 0.10	0.15	< 0.10	< 0.10	
10/2/2017	EV_DC1	E298590														
10/4/2017	EV_DC1	E298590	< 0.000050	0.011	0.017	0.31	0.0243	0.0369	200	1.13	3.3	< 0.10	< 0.10	< 0.10	< 0.10	
10/6/2017	EV_DC1	E298590														
11/14/2017	EV_DC1	E298590	< 0.00025	< 0.050	< 0.050	< 0.25	< 0.025	0.036	193	1.33	3.6	< 0.50	1.07	< 0.50	< 0.50	
12/1/2017	EV_DC1	E298590	< 0.000050	0.01	0.011	< 0.25	0.0216	0.0508	205	1.04	3.3	< 0.10	0.35	< 0.10	< 0.10	
1/18/2017	EV_EC1	200097	< 0.000050	0.01	0.012	< 0.50	< 0.0050	0.007	222	0.7	5.4	0.23	0.19	< 0.10	< 0.10	1697
2/23/2017	EV_EC1	200097	< 0.000050	< 0.010	0.01	< 0.25	0.0072	0.0088	215	1.2	5.1	0.19	0.24	< 0.10	< 0.10	1741
3/8/2017	EV_EC1	200097	0.000087	< 0.010	< 0.010	< 0.50	0.0078	0.0073	196	0.74	5.3	0.16	0.18	< 0.10	< 0.10	1760
3/16/2017	EV_EC1	200097														
3/19/2017	EV_EC1	200097														
3/29/2017	EV_EC1	200097														
4/4/2017	EV_EC1	200097	< 0.000050	< 0.010	0.011	< 0.50	0.0085	0.0103	214	1.12	4.8	0.16	0.19	< 0.10	< 0.10	1726
4/12/2017	EV_EC1	200097														
4/19/2017	EV_EC1	200097														
4/26/2017	EV_EC1	200097														
5/3/2017	EV_EC1	200097	< 0.000050	< 0.010	< 0.010	< 0.50	0.0137	0.0168	188	1.23	4.5	0.15	0.12	< 0.10	< 0.10	1537
5/10/2017	EV_EC1	200097														
5/17/2017	EV_EC1	200097														
5/24/2017	EV_EC1	200097														
5/31/2017	EV_EC1	200097														
6/7/2017	EV_EC1	200097														
6/14/2017	EV_EC1	200097	< 0.000050	< 0.010	< 0.010	< 0.50	0.0115	0.0189	216	1.16	4.5	0.14	0.21	< 0.10	< 0.10	
6/21/2017	EV_EC1	200097														
6/28/2017	EV_EC1	200097														
7/5/2017	EV_EC1	200097														
7/11/2017	EV_EC1	200097	< 0.000050	< 0.010	< 0.010	< 0.25	0.02	0.0179	190	1.61	3.5	0.17	0.22	< 0.10	< 0.10	
8/2/2017	EV_EC1	200097	< 0.000050	< 0.010	< 0.010		0.0069	0.0114	198			< 0.20	0.2	< 0.10	< 0.10	
8/2/2017	EV_EC1	200097				< 0.25				1.2	3.5					
9/12/2017	EV_EC1	200097	< 0.000050	0.011	0.011	< 0.25	0.007	0.0165	215	0.9	3.6	0.16	< 0.40	< 0.10	< 0.10	
10/3/2017	EV_EC1	200097	< 0.000050	0.01	< 0.010	< 0.25	0.0089	0.0107	210	1.34	3.8	0.14	0.25	< 0.10	< 0.10	
11/15/2017	EV_EC1	200097	< 0.000050	0.011	0.012	< 0.25	0.0075	0.0084	201	0.72	5.2	0.16	0.2	< 0.10	< 0.10	
12/6/2017	EV_EC1	200097	< 0.000050	0.01	0.011	< 0.25	0.0094	0.0072	209	0.59	4.5	0.17	0.22	< 0.10	< 0.10	
1/10/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0109	0.0135	71.8	0.56	3.11	0.27	0.33	< 0.10	< 0.10	268
2/7/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0131	0.0065	70.6	0.62	3.41	0.25	0.31	< 0.10	< 0.10	523
2/20/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0141	0.0215	74.5	1.16	3.44	0.22	0.26	< 0.10	< 0.10	519
3/7/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0115	0.016	69.1	< 0.50	3.51	0.22	0.23	< 0.10	< 0.10	520
3/16/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0149	0.0493	59.9	1.07	3.84	0.16	0.37	< 0.10	0.15	473
3/19/2017	EV_ER1	200393														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
3/20/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0191	0.0374	55	1.94	3.07	0.17	0.36	< 0.10	0.12	448
3/29/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0139	0.0283	64.5	1.61	3.6	0.16	0.3	< 0.10	< 0.10	496
4/5/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0129	0.0198	69	1.2	3.9	0.16	0.25	< 0.10	< 0.10	499
4/12/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0156	0.0228	59.2	2.71	3.41	0.18	0.21	< 0.10	< 0.10	486
4/20/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0166	0.0356	52.9	2.33	2.72	< 0.10	0.32	< 0.10	0.14	466
4/26/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0164	0.0442	61.9	1.95	2.28	< 0.10	0.35	< 0.10	0.16	433
5/2/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0161	0.0337	60.3	1.87	2.57	0.11	0.38	< 0.10	0.12	442
5/10/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0185	0.0799	47.9	2.65	1.25	0.15	1.24	< 0.10	0.32	315
5/17/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0202	0.0872	45.9	2.18	1.24	0.14	0.99	< 0.10	0.38	336
5/24/2017	EV_ER1	200393	0.000071	< 0.010	0.011	< 0.050	0.0275	0.911	55.8	2.84	0.55	0.15	7.64	< 0.10	3.71	239
5/30/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0182	0.421	54.1	2.12	0.6	0.15	3.83	< 0.10	1.69	250
6/6/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.018	0.138	41.8	1.58	0.69	0.17	1.57	< 0.10	0.51	
6/13/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0151	0.0884	43.2	1.46	0.9	0.18	1.13	< 0.10	0.29	
6/21/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0149	0.0543	44.7	1.18	0.84	0.18	0.61	< 0.10	0.2	
6/28/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0118	0.0449	47.9	0.99	1.07	0.2	0.54	< 0.10	0.13	
7/5/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0132	0.03	49.7	1.04	1.25	0.23	0.33	< 0.10	< 0.10	
7/12/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.016	0.0236	51.3	1.22	1.37	0.2	0.26	< 0.10	< 0.10	
8/3/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010		0.013	0.0192	60.2			0.19	0.26	< 0.10	< 0.10	
8/3/2017	EV_ER1	200393				< 0.050				0.75	1.62					
9/12/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0126	0.0113	65.9	0.69	2.09	0.22	< 0.50	< 0.10	< 0.10	
10/3/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0107	0.0153	71.2	< 0.50	2.43	0.21	0.31	< 0.10	< 0.10	
11/15/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0081	0.0127	66.2	0.5	2.7	0.23	0.25	< 0.10	< 0.10	
12/6/2017	EV_ER1	200393	< 0.000050	< 0.010	< 0.010	< 0.050	0.0121	0.0201	61.7	1.08	2.78	0.2	0.23	< 0.10	< 0.10	
1/10/2017	EV_ER2	200111	< 0.000050	< 0.010	< 0.010	< 0.050	0.0079	0.0118	68.3	< 0.50	2.81	0.28	0.32	< 0.10	< 0.10	384
2/7/2017	EV_ER2	200111	< 0.000050	< 0.010	< 0.010	< 0.050	0.0111	0.0134	67.6	0.66	3.04	0.26	0.41	< 0.10	< 0.10	314
3/6/2017	EV_ER2	200111	< 0.000050	< 0.010	< 0.010	< 0.050	0.01	0.0469	70.2	< 0.50	3.17	0.24	0.84	< 0.10	0.16	312
3/16/2017	EV_ER2	200111				< 0.050					3.77					
3/17/2017	EV_ER2	200111														
3/18/2017	EV_ER2	200111														
3/19/2017	EV_ER2	200111														
3/20/2017	EV_ER2	200111														
3/21/2017	EV_ER2	200111														
3/28/2017	EV_ER2	200111														
4/3/2017	EV_ER2	200111	< 0.000050	< 0.010	0.01	< 0.050	0.0091	0.0214	68.8	0.68	3.55	0.19	0.44	< 0.10	< 0.10	499
4/11/2017	EV_ER2	200111														
4/20/2017	EV_ER2	200111														
4/25/2017	EV_ER2	200111														
5/4/2017	EV_ER2	200111	< 0.000050	< 0.010	< 0.010	< 0.050	0.0126	0.0253	69.3	1.36	2.4	0.21	0.37	< 0.10	< 0.10	493
5/9/2017	EV_ER2	200111														
5/16/2017	EV_ER2	200111														
5/23/2017	EV_ER2	200111														
5/31/2017	EV_ER2	200111														
6/5/2017	EV_ER2	200111	< 0.000050	< 0.010	< 0.010	< 0.050	0.0068	0.171	58.8	1.32	0.77	0.15	2.41	< 0.10	0.64	
6/13/2017	EV_ER2	200111														
6/20/2017	EV_ER2	200111														
6/27/2017	EV_ER2	200111														
7/4/2017	EV_ER2	200111														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
7/10/2017	EV_ER2	200111	< 0.000050	< 0.010	< 0.010	< 0.050	0.0112	0.0244	48.8	1.01	0.97	0.15	0.35	< 0.10	< 0.10	
8/1/2017	EV_ER2	200111	< 0.000050	< 0.010	< 0.010	< 0.050	0.0084	0.0161	53.7	0.85	1.51	0.23	0.36	< 0.10	< 0.10	
8/9/2017	EV_ER2	200111														
9/11/2017	EV_ER2	200111	< 0.000050	< 0.010	< 0.010	< 0.050	0.0056	0.0085	57.7	0.51	1.61	0.24	0.3	< 0.10	< 0.10	
10/2/2017	EV_ER2	200111	< 0.000050	< 0.010	< 0.010	< 0.050	0.0075	0.0132	62.7	0.84	2	0.27	0.44	< 0.10	< 0.10	
11/14/2017	EV_ER2	200111	< 0.00025	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025	65.2	1.23	2.39	< 0.50	< 0.50	< 0.50	< 0.50	
12/7/2017	EV_ER2	200111	< 0.000050	< 0.010	< 0.010	< 0.050	0.0081	0.0135	67.3	0.57	2.42	0.2	0.35	< 0.10	< 0.10	
1/10/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0089	0.0092	71.6	< 0.50	2.91	0.2	0.24	< 0.10	< 0.10	306
2/21/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0088	0.006	71.3	< 0.50	3.13	0.23	0.39	< 0.10	< 0.10	521
3/6/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.009	0.0092	72.8	< 0.50	3.18	0.19	0.23	< 0.10	< 0.10	515
3/15/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0079	0.0136	65.5	0.87	3.51	0.22	0.24	< 0.10	< 0.10	498
3/19/2017	EV_ER4	200027														
3/20/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0114	0.0208	67.3	0.61	3.03	0.19	0.24	< 0.10	< 0.10	502
3/28/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0111	0.0138	72.9	< 0.50	3.27	0.14	0.31	< 0.10	< 0.10	533
4/3/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0079	0.0166	71.2	0.56	3.27	0.15	0.32	< 0.10	< 0.10	530
4/11/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0086	0.0118	75.1	0.75	3.02	0.15	0.26	< 0.10	< 0.10	537
4/19/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0097	0.0159	72.5	1.01	2.89	0.17	0.25	< 0.10	< 0.10	536
4/24/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0151	0.0296	66.5	1.41	2.2	< 0.10	0.33	< 0.10	< 0.10	534
5/1/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0126	0.0216	73.3	1.22	2.38	0.14	0.32	< 0.10	< 0.10	518
5/9/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0157	0.0867	62.9	1.96	1.42	0.19	1.43	< 0.10	0.31	415
5/16/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0187	0.0653	56.8	1.61	1.19	0.16	0.96	< 0.10	0.2	393
5/23/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0133	0.115	58.7	1.6	0.96	0.17	1.32	< 0.10	0.38	375
5/30/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0106	0.24	64.1	2.47	0.72	0.19	4.89	< 0.10	1.02	342
6/6/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0113	0.13	50.9	1.37	0.75	0.15	2.09	< 0.10	0.46	
6/13/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0103	0.0934	52.3	1.01	0.86	0.18	1.48	< 0.10	0.31	
6/20/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0177	0.0574	53.8	1.45	0.85	0.29	0.73	< 0.10	0.14	
6/21/2017	EV_ER4	200027														
6/27/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0128	0.0467	55.2	0.78	0.85	0.17	< 0.50	< 0.10	0.1	
7/4/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0126	0.0394	54.5	0.77	0.88	0.19	0.62	< 0.10	< 0.10	
7/10/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0094	0.0256	48.8	1.06	0.89	0.18	0.37	< 0.10	< 0.10	
7/25/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0112	0.0252	62.4	0.88	1.29	0.19	0.3	< 0.10	< 0.10	
8/1/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0099	0.0178	56.2	0.83	1.46	0.18	0.3	< 0.10	< 0.10	
8/15/2017	EV_ER4	200027														
9/11/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0133	59.1	0.58	1.61	0.17	0.25	< 0.10	< 0.10	
10/2/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0081	0.0128	66.2	0.89	2.14	0.22	0.23	< 0.10	< 0.10	
11/14/2017	EV_ER4	200027	< 0.00025	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025	65.1	2.42	2.4	< 0.50	< 0.50	< 0.50	< 0.50	
12/7/2017	EV_ER4	200027	< 0.000050	< 0.010	< 0.010	< 0.050	0.0083	0.011	69.4	< 0.50	2.5	< 0.10	0.25	< 0.10	< 0.10	
1/9/2017	EV_FC1	E298591														
2/19/2017	EV_FC1	E298591														
3/6/2017	EV_FC1	E298591														
3/16/2017	EV_FC1	E298591	< 0.000050	0.026	0.03	< 0.050	0.0118	0.232	81.1	6.84	1.11	< 0.10	1.64	< 0.10	1.59	465
3/21/2017	EV_FC1	E298591														
3/28/2017	EV_FC1	E298591														
4/3/2017	EV_FC1	E298591	< 0.000050	0.025	0.031	< 0.050	0.0071	0.088	66.9	5.31	1.43	< 0.10	1.35	< 0.10	0.58	449
4/11/2017	EV_FC1	E298591														
4/19/2017	EV_FC1	E298591														
4/20/2017	EV_FC1	E298591														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
4/21/2017	EV_FC1	E298591														
4/25/2017	EV_FC1	E298591														
5/2/2017	EV_FC1	E298591	< 0.000050	0.022	0.024	< 0.050	0.0091	0.029	50.6	7.17	0.83	< 0.10	0.84	< 0.10	0.2	346
5/9/2017	EV_FC1	E298591														
5/16/2017	EV_FC1	E298591														
5/23/2017	EV_FC1	E298591														
5/30/2017	EV_FC1	E298591														
6/5/2017	EV_FC1	E298591	< 0.000050	0.031	0.034	< 0.050	0.0089	0.0165	68.3	4.57	0.8	< 0.10	0.16	< 0.10	< 0.10	
6/13/2017	EV_FC1	E298591														
6/20/2017	EV_FC1	E298591														
6/27/2017	EV_FC1	E298591														
7/4/2017	EV_FC1	E298591														
7/10/2017	EV_FC1	E298591	< 0.000050	0.044	0.045	< 0.050	0.0095	0.0133	88.1	4.02	0.91	< 0.10	< 0.10	< 0.10	< 0.10	
8/1/2017	EV_FC1	E298591	< 0.000050	0.044	0.045	< 0.25	< 0.0050	0.0133	96.2	3.26	1.5	< 0.10	0.1	< 0.10	< 0.10	
8/15/2017	EV_FC1	E298591														
9/11/2017	EV_FC1	E298591	< 0.000050	0.052	0.055	< 0.050	0.0054	< 0.0050	98.3	3.67	1.04	< 0.10	< 0.10	< 0.10	< 0.10	
10/2/2017	EV_FC1	E298591	< 0.000050	0.044	0.045	< 0.050	0.0051	0.041	99.5	5.99	1.7	< 0.10	0.18	< 0.10	0.14	
11/14/2017	EV_FC1	E298591	< 0.00025	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025	92.4	3.78	1.39	< 0.50	< 0.50	< 0.50	< 0.50	
12/1/2017	EV_FC1	E298591	< 0.000050	0.027	0.029	< 0.050	0.0072	0.0092	87.2	3.98	1.38	< 0.10	< 0.10	< 0.10	< 0.10	
1/19/2017	EV_GC2	E208043	< 0.000050	0.024	0.025	0.065	0.0092	0.0679	126	1.22	38.1	< 0.10	0.17	< 0.10	0.14	1060
1/31/2017	EV_GC2	E208043	< 0.000050	0.023	0.024	< 0.25	0.0163	0.0588	127	0.69	34.5	< 0.10	0.18	< 0.10	0.11	1072
2/8/2017	EV_GC2	E208043	< 0.000050	0.024	0.027	< 0.25	0.0266	0.0719	139	0.88	35.3	< 0.10	< 0.50	< 0.10	0.12	693
2/16/2017	EV_GC2	E208043														
2/16/2017	EV_GC2	E208043	< 0.000050	0.025	0.023	0.071	0.0466	0.0951	89.4	0.75	33.3	0.1	0.87	0.3	0.46	917
2/17/2017	EV_GC2	E208043														
2/17/2017	EV_GC2	E208043														
3/6/2017	EV_GC2	E208043	< 0.000050	0.025	0.028	< 0.25	0.008	0.0508	127	1.09	33.3	< 0.10	0.18	0.32	0.45	1005
3/15/2017	EV_GC2	E208043														
3/15/2017	EV_GC2	E208043														
3/16/2017	EV_GC2	E208043														
3/17/2017	EV_GC2	E208043														
3/18/2017	EV_GC2	E208043														
3/18/2017	EV_GC2	E208043														
3/19/2017	EV_GC2	E208043														
3/20/2017	EV_GC2	E208043														
3/28/2017	EV_GC2	E208043														
4/5/2017	EV_GC2	E208043	< 0.000050	0.022	0.024	< 0.25	0.0399	0.0595	98.7	3.77	29.4	< 0.10	0.12	0.12	0.17	772
4/11/2017	EV_GC2	E208043														
4/20/2017	EV_GC2	E208043														
4/24/2017	EV_GC2	E208043														
5/2/2017	EV_GC2	E208043	< 0.000050	0.02	0.02	< 0.25	0.059	0.0841	114	2.79	28.6	< 0.10	0.33	< 0.10	0.2	886
5/3/2017	EV_GC2	E208043														
5/4/2017	EV_GC2	E208043	< 0.000050	0.02	0.021	0.095	0.0614	0.116	116	3.42	31.7	< 0.10	0.63	< 0.10	0.26	894
5/7/2017	EV_GC2	E208043														
5/11/2017	EV_GC2	E208043														
5/18/2017	EV_GC2	E208043														
5/23/2017	EV_GC2	E208043														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
5/30/2017	EV_GC2	E208043														1105
5/30/2017	EV_GC2	E208043	< 0.000050	0.02	0.02	< 0.25	< 0.0050	0.078	130	0.83	27.9	< 0.10	0.71	0.11	0.28	
6/6/2017	EV_GC2	E208043	< 0.000050	0.019	0.019	< 0.25	< 0.0050	0.0486	124	0.75	27.2	< 0.10	0.21	0.13	0.19	
6/13/2017	EV_GC2	E208043														
6/20/2017	EV_GC2	E208043														
6/27/2017	EV_GC2	E208043														
7/4/2017	EV_GC2	E208043														
7/12/2017	EV_GC2	E208043	< 0.000050	0.024	0.024	0.159	< 0.0050	0.0384	117	1.27	35.8	< 0.10	0.14	0.19	0.25	
7/24/2017	EV_GC2	E208043														
8/3/2017	EV_GC2	E208043	< 0.000050	0.022	0.023		< 0.0050	0.0099	116			< 0.10	0.11	0.12	0.2	
8/3/2017	EV_GC2	E208043				< 0.10				1.56	28.1					
8/9/2017	EV_GC2	E208043														
9/1/2017	EV_GC2	E208043														
9/11/2017	EV_GC2	E208043	< 0.000050	0.024	0.027	< 0.25	< 0.0050	0.005	111	1.02	28.1	< 0.10	< 0.10	< 0.10	0.1	
9/26/2017	EV_GC2	E208043														
9/27/2017	EV_GC2	E208043														
9/28/2017	EV_GC2	E208043														
10/3/2017	EV_GC2	E208043	< 0.000050	0.025	0.025	< 0.050	< 0.0050	0.0055	122	0.84	27.7	< 0.10	0.15	< 0.10	< 0.10	
10/13/2017	EV_GC2	E208043	< 0.000050	0.024	0.025	< 0.050	< 0.0050	0.0087	122	2.19	28.3	< 0.10	0.11	< 0.10	< 0.10	
10/16/2017	EV_GC2	E208043														
10/24/2017	EV_GC2	E208043														
10/30/2017	EV_GC2	E208043														
10/30/2017	EV_GC2	E208043	< 0.000050	0.026	0.032	< 0.25	0.0186	0.0123	106	0.92	35.8	< 0.10	0.11	0.18	0.17	
11/14/2017	EV_GC2	E208043	< 0.00025	< 0.050	< 0.050	0.114	< 0.025	0.045	116	1.21	30	< 0.50	< 0.50	< 0.50	< 0.50	
11/23/2017	EV_GC2	E208043														
11/23/2017	EV_GC2	E208043														
11/24/2017	EV_GC2	E208043														
12/6/2017	EV_GC2	E208043	< 0.000050	0.023	0.027	0.083	0.0136	0.0539	123	3.71	30.2	< 0.10	0.2	< 0.10	0.16	
1/1/2017	EV_GH1	E296310														
1/2/2017	EV_GH1	E296310														
1/9/2017	EV_GH1	E296310														
1/16/2017	EV_GH1	E296310														
1/23/2017	EV_GH1	E296310														
1/30/2017	EV_GH1	E296310														
2/6/2017	EV_GH1	E296310														
2/13/2017	EV_GH1	E296310														
2/20/2017	EV_GH1	E296310														
2/27/2017	EV_GH1	E296310														
3/6/2017	EV_GH1	E296310														
3/13/2017	EV_GH1	E296310														
3/20/2017	EV_GH1	E296310														
3/27/2017	EV_GH1	E296310														
4/1/2017	EV_GH1	E296310														
4/3/2017	EV_GH1	E296310														
4/9/2017	EV_GH1	E296310	0.000124	< 0.010	0.036	< 0.050	0.0159	0.738	85.1	2.36	3.63	< 0.10	25.5	0.23	3.1	537
4/10/2017	EV_GH1	E296310														
4/17/2017	EV_GH1	E296310														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
4/24/2017	EV_GH1	E296310														
5/1/2017	EV_GH1	E296310														
5/8/2017	EV_GH1	E296310														
5/15/2017	EV_GH1	E296310														
5/22/2017	EV_GH1	E296310														
5/29/2017	EV_GH1	E296310														
6/5/2017	EV_GH1	E296310														
6/12/2017	EV_GH1	E296310														
6/19/2017	EV_GH1	E296310														
6/26/2017	EV_GH1	E296310														
7/1/2017	EV_GH1	E296310														
7/3/2017	EV_GH1	E296310														
7/10/2017	EV_GH1	E296310														
7/17/2017	EV_GH1	E296310														
7/24/2017	EV_GH1	E296310														
7/31/2017	EV_GH1	E296310														
8/7/2017	EV_GH1	E296310														
8/14/2017	EV_GH1	E296310														
8/21/2017	EV_GH1	E296310														
8/28/2017	EV_GH1	E296310														
9/4/2017	EV_GH1	E296310														
9/11/2017	EV_GH1	E296310														
9/18/2017	EV_GH1	E296310														
9/25/2017	EV_GH1	E296310														
10/1/2017	EV_GH1	E296310														
10/2/2017	EV_GH1	E296310														
10/3/2017	EV_GH1	E296310	0.0103	0.031	2.15	< 0.050	0.282	37.2	1260	< 0.50	2.42	< 0.10	169	1.5	128	
10/9/2017	EV_GH1	E296310														
10/16/2017	EV_GH1	E296310														
10/23/2017	EV_GH1	E296310														
10/30/2017	EV_GH1	E296310														
11/6/2017	EV_GH1	E296310														
11/13/2017	EV_GH1	E296310														
11/20/2017	EV_GH1	E296310														
11/27/2017	EV_GH1	E296310														
12/4/2017	EV_GH1	E296310														
12/11/2017	EV_GH1	E296310														
12/18/2017	EV_GH1	E296310														
12/25/2017	EV_GH1	E296310														
1/10/2017	EV_GT1	E206231	< 0.000050	0.042	0.045	< 0.50	0.0995	0.124	210	< 0.50	22.9	< 0.10	< 0.10	0.33	0.36	1674
1/31/2017	EV_GT1	E206231														1701
2/7/2017	EV_GT1	E206231	< 0.000050	0.04	0.043	< 0.50	0.117	0.117	210	0.79	22.4	< 0.10	< 0.10	0.27	0.29	1779
2/17/2017	EV_GT1	E206231														
3/7/2017	EV_GT1	E206231	< 0.000050	0.042	0.044	< 0.50	0.0261	0.108	204	0.77	22.2	< 0.10	< 0.10	0.24	0.26	1678
3/16/2017	EV_GT1	E206231														
3/17/2017	EV_GT1	E206231														
3/18/2017	EV_GT1	E206231														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
3/18/2017	EV_GT1	E206231														
3/19/2017	EV_GT1	E206231														
3/19/2017	EV_GT1	E206231														
3/20/2017	EV_GT1	E206231														
3/29/2017	EV_GT1	E206231	< 0.000050	0.014	0.015	< 0.25	0.197	0.211	207	3.04	2.9	< 0.10	0.47	< 0.10	0.2	1769
4/5/2017	EV_GT1	E206231	< 0.000050	0.013	0.014	< 0.25	0.205	0.205	227	2.35	3.23	< 0.10	0.14	< 0.10	0.12	1770
4/12/2017	EV_GT1	E206231														
4/20/2017	EV_GT1	E206231														
4/26/2017	EV_GT1	E206231														
5/2/2017	EV_GT1	E206231	< 0.000050	0.019	0.018	< 0.25	0.089	0.122	206	2.5	3.26	< 0.10	0.17	< 0.10	0.11	1638
5/10/2017	EV_GT1	E206231														
5/17/2017	EV_GT1	E206231														
5/24/2017	EV_GT1	E206231														
5/31/2017	EV_GT1	E206231														
6/6/2017	EV_GT1	E206231	< 0.000050	0.035	0.038	< 0.50	0.344	0.358	203	0.55	19.9	< 0.10	< 0.10	0.31	0.32	
6/14/2017	EV_GT1	E206231														
6/21/2017	EV_GT1	E206231														
6/28/2017	EV_GT1	E206231														
7/5/2017	EV_GT1	E206231														
7/12/2017	EV_GT1	E206231	< 0.000050	0.039	0.041	< 0.25	0.349	0.372	207	1.76	22	< 0.10	< 0.10	0.29	0.31	
8/3/2017	EV_GT1	E206231	< 0.000050	0.036	0.039		0.0081	0.291	223			< 0.10	< 0.10	0.24	0.33	
8/3/2017	EV_GT1	E206231				< 0.10				1.01	18.5					
9/12/2017	EV_GT1	E206231	< 0.000050	0.034	0.04	0.37	0.305	0.338	239	0.86	18.9	< 0.10	< 0.40	0.21	0.25	
10/2/2017	EV_GT1	E206231	< 0.000050	0.044	0.043	< 0.25	< 0.0050	0.112	251	1.46	17.6	< 0.10	< 0.10	0.12	0.33	
10/3/2017	EV_GT1	E206231														
10/4/2017	EV_GT1	E206231														
10/26/2017	EV_GT1	E206231														
10/27/2017	EV_GT1	E206231														
11/2/2017	EV_GT1	E206231														
11/3/2017	EV_GT1	E206231														
11/6/2017	EV_GT1	E206231														
11/7/2017	EV_GT1	E206231														
11/8/2017	EV_GT1	E206231														
11/9/2017	EV_GT1	E206231														
11/10/2017	EV_GT1	E206231														
11/15/2017	EV_GT1	E206231	< 0.000050	0.037	0.04	< 0.25	0.174	0.209	231	1.16	18.6	< 0.10	0.17	0.23	0.42	
11/16/2017	EV_GT1	E206231														
11/23/2017	EV_GT1	E206231														
12/6/2017	EV_GT1	E206231	< 0.000050	0.039	0.042	< 0.25	0.226	0.231	207	< 0.50	20.2	< 0.10	< 0.10	0.24	0.28	
1/9/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.25	0.016	0.0193	84.5	0.76	1.36	0.17	0.16	< 0.10	< 0.10	705
2/21/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0141	0.0213	88.9	0.72	1.26	0.15	0.23	< 0.10	< 0.10	744
3/6/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.25	0.0176	0.0186	85.9	0.7	1.36	0.14	0.2	< 0.10	< 0.10	714
3/15/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.25	0.0183	0.0227	81.7	1.34	1.45	0.11	0.18	< 0.10	< 0.10	74.5
3/21/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0175	0.0283	89.5	2	1.19	0.15	0.32	< 0.10	< 0.10	729
3/24/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0178	0.0227	84.8	3.04	1.01	0.13	0.28	< 0.10	< 0.10	693
3/28/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0165	0.0214	84.2	1.31	1.1	< 0.10	0.18	< 0.10	< 0.10	685
4/3/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.25	0.0177	0.0238	82.4	1.81	1.32	0.11	0.25	< 0.10	< 0.10	680

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
4/11/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.25	0.0127	0.025	86.3	1.99	1.14	< 0.10	0.21	< 0.10	< 0.10	683
4/19/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.25	0.0264	0.0326	76.3	2.17	1.29	0.13	0.24	< 0.10	< 0.10	689
4/24/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0252	0.0427	70.5	2.57	0.79	< 0.10	0.25	< 0.10	< 0.10	649
5/2/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0287	0.0449	84.8	2.51	1.07	< 0.10	0.26	< 0.10	< 0.10	679
5/9/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.025	0.0492	62.4	3.45	0.57	0.16	0.62	< 0.10	0.14	479
5/16/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0302	0.0621	63.4	2.59	0.62	0.11	0.59	< 0.10	0.14	503
5/23/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.03	0.0905	61.7	2.45	0.46	< 0.10	0.92	< 0.10	0.35	438
5/30/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0224	0.0545	51.8	2.09	0.39	0.11	0.62	< 0.10	0.18	412
6/6/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0172	0.0272	53.7	1.33	0.44	0.13	0.29	< 0.10	< 0.10	
6/13/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0152	0.0219	61.1	1.24	0.54	0.15	0.25	< 0.10	< 0.10	
6/20/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.018	0.0243	65.2	1.1	0.58	0.29	0.22	< 0.10	< 0.10	
6/27/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0171	0.0217	69.9	1	0.62	0.13	< 0.20	< 0.10	< 0.10	
7/4/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.018	0.0222	71	1.04	0.69	0.16	0.23	< 0.10	< 0.10	
7/10/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0155	0.0204	67.4	1.27	0.65	0.13	0.2	< 0.10	< 0.10	
7/25/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.019	0.022	82.9	0.97	0.81	0.11	0.22	< 0.10	< 0.10	
8/1/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.25	0.0175	0.026	76.4	1.09	1.14	< 0.10	0.18	< 0.10	< 0.10	
8/10/2017	EV_HC1	E102682														
9/11/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0128	0.0171	77.7	0.72	0.73	0.12	0.18	< 0.10	< 0.10	
10/2/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0096	0.0194	82	1.03	0.8	< 0.10	0.18	< 0.10	< 0.10	
10/10/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0154	0.0197	76.5	1.05	1.25	0.16	0.18	< 0.10	< 0.10	
10/17/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0165	0.0211	83.4	0.97	1.03	< 0.10	0.15	< 0.10	< 0.10	
10/24/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.021	0.0188	93.6	1.44	1.22	0.1	0.24	< 0.10	< 0.10	
10/31/2017	EV_HC1	E102682														
10/31/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.25	0.0167	0.0159	83.2	0.92	1.07	0.18	0.19	< 0.10	< 0.10	
11/14/2017	EV_HC1	E102682	< 0.00025	< 0.050	< 0.050	< 0.050	< 0.025	< 0.025	82.1	1.79	0.97	< 0.50	< 0.50	< 0.50	< 0.50	
12/1/2017	EV_HC1	E102682	< 0.000050	< 0.010	< 0.010	< 0.050	0.0185	0.0208	88.3	0.86	0.97	0.1	0.14	< 0.10	< 0.10	
1/19/2017	EV_LC1	E258135	< 0.000050	0.047	0.045	0.069	0.0495	0.0539	94.4	1.55	11.6	< 0.10	< 0.10	0.15	0.18	928
2/20/2017	EV_LC1	E258135	< 0.000050	0.041	0.046	0.062	0.0847	0.0973	89	2.28	10.6	< 0.10	< 0.10	0.57	0.67	783
3/7/2017	EV_LC1	E258135	< 0.000050	0.045	0.047	< 0.25	< 0.0050	0.0966	95.9	2.16	11.6	< 0.10	0.32	0.21	0.54	921
3/15/2017	EV_LC1	E258135														
3/16/2017	EV_LC1	E258135														
3/17/2017	EV_LC1	E258135														
3/20/2017	EV_LC1	E258135														
3/28/2017	EV_LC1	E258135	< 0.000050	0.043	0.047	< 0.25	0.0322	0.0791	124	2.76	8.41	< 0.10	< 0.10	0.23	0.29	1082
4/5/2017	EV_LC1	E258135	< 0.000050	0.039	0.04	< 0.25	0.0059	0.0762	125	2.62	8.66	< 0.10	< 0.10	0.22	0.3	1076
4/11/2017	EV_LC1	E258135														
4/19/2017	EV_LC1	E258135														
4/24/2017	EV_LC1	E258135														
5/2/2017	EV_LC1	E258135	< 0.000050	0.042	0.039	< 0.25	< 0.0050	0.0374	115	1.57	9.09	< 0.10	< 0.10	0.11	0.26	1039
5/7/2017	EV_LC1	E258135														
5/11/2017	EV_LC1	E258135														
5/18/2017	EV_LC1	E258135														
5/23/2017	EV_LC1	E258135														
5/30/2017	EV_LC1	E258135														
6/6/2017	EV_LC1	E258135	< 0.000050	0.043	0.045	< 0.25	< 0.0050	0.0491	119	1.15	15.4	< 0.10	< 0.10	0.48	0.71	
6/13/2017	EV_LC1	E258135														
6/20/2017	EV_LC1	E258135														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
6/27/2017	EV_LC1	E258135														
7/4/2017	EV_LC1	E258135														
7/12/2017	EV_LC1	E258135	< 0.000050	0.044	0.046	0.127	0.106	0.124	118	1.38	17.8	< 0.10	0.16	0.67	0.75	
8/3/2017	EV_LC1	E258135	< 0.000050	0.045	0.045		0.007	0.0586	124			< 0.10	< 0.10	< 0.10	0.14	
8/3/2017	EV_LC1	E258135				< 0.10				1.59	8.9					
8/9/2017	EV_LC1	E258135														
9/11/2017	EV_LC1	E258135	< 0.000050	0.044	0.049	< 0.25	0.0503	0.0495	127	2.19	8.7	< 0.10	< 0.10	< 0.10	0.1	
10/2/2017	EV_LC1	E258135	< 0.000050	0.042	0.043	< 0.25	< 0.0050	0.0359	123	1.7	8.8	< 0.10	< 0.10	< 0.10	0.11	
11/14/2017	EV_LC1	E258135	< 0.00025	< 0.050	< 0.050	0.073	< 0.025	0.049	94.3	1.91	9.64	< 0.50	< 0.50	< 0.50	< 0.50	
12/6/2017	EV_LC1	E258135	< 0.000050	0.039	0.042	0.06	0.0274	0.036	102	1.23	9.62	< 0.10	< 0.10	< 0.10	< 0.10	
1/10/2017	EV_MC2	E300091	< 0.000050	0.012	0.012	< 0.050	0.0218	0.0237	85.9	0.61	4.98	0.11	0.15	< 0.10	< 0.10	338
1/31/2017	EV_MC2	E300091														657
2/7/2017	EV_MC2	E300091	< 0.000050	0.012	0.013	< 0.25	0.0181	0.0177	86.2	0.94	5.46	0.13	0.16	< 0.10	< 0.10	680
2/21/2017	EV_MC2	E300091	< 0.000050	0.012	0.012	< 0.050	0.0288	0.0353	83.7	0.8	7.07	0.13	0.23	< 0.10	< 0.10	658
3/7/2017	EV_MC2	E300091	< 0.000050	0.014	0.014	< 0.25	0.0342	0.0366	91.1	0.59	7.4	0.14	0.15	< 0.10	< 0.10	723
3/16/2017	EV_MC2	E300091	< 0.000050	0.012	0.012	< 0.050	0.0439	0.0712	71.3	1.39	7.89	0.51	0.34	< 0.10	0.19	562
3/17/2017	EV_MC2	E300091														
3/18/2017	EV_MC2	E300091														
3/19/2017	EV_MC2	E300091														
3/20/2017	EV_MC2	E300091	< 0.000050	0.01	0.01	< 0.050	0.0382	0.0564	55.5	3.29	5.93	0.11	0.33	< 0.10	0.19	441
3/22/2017	EV_MC2	E300091														
3/23/2017	EV_MC2	E300091														
3/24/2017	EV_MC2	E300091														
3/29/2017	EV_MC2	E300091	< 0.000050	0.01	0.011	< 0.050	0.0331	0.0434	68.7	1.99	7.24	0.11	0.28	< 0.10	0.11	531
4/5/2017	EV_MC2	E300091	< 0.000050	< 0.010	0.01	< 0.050	0.0289	0.0348	72	1.73	7.06	< 0.10	0.19	< 0.10	< 0.10	529
4/12/2017	EV_MC2	E300091	< 0.000050	0.01	< 0.010	< 0.050	0.0293	0.0352	58.9	2.51	5.78	< 0.10	0.15	< 0.10	< 0.10	491
4/20/2017	EV_MC2	E300091	< 0.000050	0.01	0.01	< 0.050	0.0318	0.0565	54.4	3.12	5.39	< 0.10	0.23	< 0.10	0.19	439
4/24/2017	EV_MC2	E300091	< 0.000050	< 0.010	< 0.010	< 0.050	0.0297	0.0633	47.8	2.85	4.32	< 0.10	0.25	0.11	0.25	388
5/2/2017	EV_MC2	E300091	< 0.000050	< 0.010	0.01	< 0.050	0.025	0.0435	56.9	2.58	5.06	< 0.10	0.35	< 0.10	0.17	414
5/9/2017	EV_MC2	E300091	< 0.000050	< 0.010	< 0.010	< 0.050	0.0274	0.0997	44.6	3.48	2.86	0.13	1.43	< 0.10	0.46	306
5/16/2017	EV_MC2	E300091	< 0.000050	< 0.010	< 0.010	< 0.050	0.0288	0.0602	43.7	2.92	2.86	0.13	0.64	< 0.10	0.22	333
5/23/2017	EV_MC2	E300091	< 0.000050	< 0.010	< 0.010	< 0.050	0.0273	0.264	34.1	2.82	1.15	0.12	2.61	< 0.10	1.23	232
5/30/2017	EV_MC2	E300091	< 0.000050	< 0.010	< 0.010	< 0.050	0.0306	0.279	34.7	2.73	1.09	0.14	2.6	< 0.10	1.17	225
6/6/2017	EV_MC2	E300091	< 0.000050	< 0.010	< 0.010	< 0.050	0.0309	0.0854	33.7	2.6	1.81	0.14	0.86	< 0.10	0.38	
6/14/2017	EV_MC2	E300091	< 0.000050	< 0.010	< 0.010	< 0.050	0.0315	0.0939	42.6	1.58	3.28	< 0.10	0.91	< 0.10	0.47	
6/21/2017	EV_MC2	E300091	< 0.000050	< 0.010	< 0.010	< 0.050	0.0298	0.0489	42.8	1.48	3.12	< 0.10	0.38	0.1	0.24	
6/28/2017	EV_MC2	E300091	< 0.000050	< 0.010	< 0.010	< 0.050	0.025	0.0311	50.9	1.41	4.22	< 0.10	0.21	< 0.10	0.12	
7/5/2017	EV_MC2	E300091	< 0.000050	0.01	0.011	< 0.050	0.0272	0.0341	59.2	1.13	4.75	0.15	0.13	< 0.10	< 0.10	
7/12/2017	EV_MC2	E300091	< 0.000050	0.012	0.012	< 0.050	0.0304	0.0404	61.9	1.9	5.15	0.12	0.18	< 0.10	< 0.10	
7/25/2017	EV_MC2	E300091	< 0.000050	0.012	0.012	< 0.050	0.0308	0.0391	78.2	1.3	4.85	< 0.10	0.15	< 0.10	< 0.10	
8/3/2017	EV_MC2	E300091	< 0.000050	0.014	0.014		0.0319	0.0342	78.5			0.12	0.18	< 0.10	< 0.10	
8/3/2017	EV_MC2	E300091				< 0.050				1.01	6.69					
9/12/2017	EV_MC2	E300091	< 0.000050	0.014	0.016	0.092	0.0434	0.0424	99.6	0.88	8.42	0.12	< 0.40	< 0.10	< 0.10	
10/2/2017	EV_MC2	E300091	< 0.000050	0.014	0.014	< 0.050	< 0.0050	0.0341	86.8	1.01	6.1	0.11	0.19	< 0.10	< 0.10	
10/10/2017	EV_MC2	E300091	< 0.000050	0.011	0.012	< 0.050	0.0215	0.0272	72.5	< 0.50	4.56	0.13	0.15	< 0.10	< 0.10	
10/16/2017	EV_MC2	E300091														
10/17/2017	EV_MC2	E300091	< 0.000050	0.016	0.017	< 0.25	0.0498	0.0564	105	1.01	14.3	< 0.10	0.14	< 0.10	< 0.10	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
10/24/2017	EV_MC2	E300091	< 0.000050	0.011	0.012	< 0.050	0.0275	0.0292	70.9	1.33	5.29	< 0.10	0.13	< 0.10	< 0.10	
10/31/2017	EV_MC2	E300091														
10/31/2017	EV_MC2	E300091	< 0.000050	< 0.010	0.012	< 0.050	0.0253	0.0287	70.3	0.81	5.37	0.11	0.15	< 0.10	< 0.10	
11/15/2017	EV_MC2	E300091	< 0.000050	0.014	0.014	< 0.050	0.0325	0.0359	89.7	0.68	8.49	0.1	0.13	< 0.10	< 0.10	
12/6/2017	EV_MC2	E300091	< 0.000050	0.01	0.012	< 0.050	0.0325	0.0361	78.1	1.63	6.15	0.12	0.14	< 0.10	< 0.10	
1/10/2017	EV_MC2A	E310168	< 0.000050	< 0.010	< 0.010	< 0.050	0.0155	0.027	68.7	0.75	1.81	0.13	0.19	< 0.10	< 0.10	405
1/31/2017	EV_MC2A	E310168														532
2/7/2017	EV_MC2A	E310168	< 0.000050	< 0.010	< 0.010	< 0.050	0.0112	0.021	70.7	0.75	1.95	0.13	0.17	< 0.10	< 0.10	426
3/7/2017	EV_MC2A	E310168	< 0.000050	< 0.010	< 0.010	< 0.050	0.0154	0.0214	67.2	0.9	2.29	0.13	0.16	< 0.10	< 0.10	509
3/16/2017	EV_MC2A	E310168														
3/17/2017	EV_MC2A	E310168														
3/18/2017	EV_MC2A	E310168														
3/19/2017	EV_MC2A	E310168														
3/20/2017	EV_MC2A	E310168														
3/29/2017	EV_MC2A	E310168	< 0.000050	< 0.010	< 0.010	< 0.050	0.0154	0.0376	55	2.11	3.2	< 0.10	0.29	< 0.10	0.1	457
4/5/2017	EV_MC2A	E310168	< 0.000050	< 0.010	< 0.010	< 0.050	0.019	0.0342	63.2	1.89	3.54	< 0.10	0.23	< 0.10	< 0.10	459
5/2/2017	EV_MC2A	E310168	< 0.000050	< 0.010	< 0.010	< 0.050	0.0232	0.0349	49.1	2.82	2.06	< 0.10	0.34	< 0.10	0.18	361
6/6/2017	EV_MC2A	E310168	< 0.000050	< 0.010	< 0.010	< 0.050	0.0265	0.107	29.4	1.93	0.39	0.14	1.23	< 0.10	0.5	
7/12/2017	EV_MC2A	E310168	< 0.000050	< 0.010	< 0.010	< 0.050	0.0151	0.0218	49.6	1.33	0.91	0.15	0.18	< 0.10	< 0.10	
8/3/2017	EV_MC2A	E310168	< 0.000050	0.011	0.012		0.017	0.0236	64.5			0.11	0.17	< 0.10	< 0.10	
8/3/2017	EV_MC2A	E310168				< 0.050				1.01	1.22					
9/12/2017	EV_MC2A	E310168	< 0.000050	0.011	0.012	< 0.050	0.0146	0.0238	74.7	0.84	1.69	< 0.10	< 0.40	< 0.10	< 0.10	
10/2/2017	EV_MC2A	E310168	< 0.000050	0.011	0.012	< 0.050	0.0159	0.0171	70.2	1.16	1.39	0.12	0.18	< 0.10	< 0.10	
11/15/2017	EV_MC2A	E310168														
11/15/2017	EV_MC2A	E310168	< 0.000050	< 0.010	0.01	< 0.050	0.0119	0.0151	65.7	0.92	1.75	0.12	0.14	< 0.10	< 0.10	
12/6/2017	EV_MC2A	E310168	< 0.000050	< 0.010	< 0.010	< 0.050	0.0112	0.0236	55.3	3.03	1.69	0.11	0.16	< 0.10	< 0.10	
1/20/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.017	0.0229	58.5	1.08	1.08	0.14	0.16	< 0.10	< 0.10	399
2/7/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0151	0.0294	58.8	1.17	1.36	0.13	0.23	< 0.10	< 0.10	216
3/7/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0161	0.0215	57.5	0.69	1.65	0.13	0.19	< 0.10	< 0.10	416
3/16/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0189	0.226	55.9	1.52	2.3	0.11	2.01	< 0.10	0.81	384
3/19/2017	EV_MC3	200203														
3/20/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.034	0.0776	40.5	3.31	1.7	0.12	0.77	0.12	0.43	326
3/29/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0261	0.0404	47.2	2.23	2.43	0.14	0.32	< 0.10	0.12	382
4/4/2017	EV_MC3	200203	< 0.000050	< 0.010	0.01	< 0.050	0.0254	0.0771	54.4	1.7	2.95	< 0.10	0.94	< 0.10	0.28	386
4/12/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.02	0.0343	46.6	2.77	2.36	< 0.10	0.21	< 0.10	0.12	366
4/20/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0246	0.0501	43.2	3.35	1.77	< 0.10	0.3	0.11	0.26	349
4/26/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0222	0.0627	44.7	2.98	1.25	< 0.10	0.52	0.11	0.34	307
5/3/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0167	0.0364	41.1	3.01	1.45	< 0.10	0.34	0.11	0.22	301
5/10/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0272	0.0874	32.5	3.66	0.52	0.13	1.3	< 0.10	0.45	222
5/17/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0388	0.136	31.6	3.65	0.52	0.13	1.24	0.12	0.66	237
5/24/2017	EV_MC3	200203	0.000074	< 0.010	0.01	< 0.050	0.0303	1.02	39.3	3.58	0.2	0.15	8.39	< 0.10	4.45	162
5/30/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0279	0.286	30.2	3.06	0.2	0.16	2.1	< 0.10	1.15	169
6/6/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0394	0.118	24.1	2.15	0.21	0.11	1.19	< 0.10	0.6	
6/13/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0261	0.055	28.5	2.13	0.28	0.14	0.49	0.15	0.3	
6/21/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0229	0.0519	28.7	1.64	0.26	0.13	0.46	0.14	0.34	
6/28/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0256	0.0582	32.3	1.72	0.36	0.12	0.47	0.13	0.34	
7/5/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0181	0.0226	38.5	1.29	0.48	0.16	0.16	< 0.10	0.13	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
7/11/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0179	0.0285	42.4	1.8	< 0.50	< 0.10	0.18	< 0.10	0.1	
8/2/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010		0.0168	0.0243	53.5			< 0.10	0.13	< 0.10	< 0.10	
8/2/2017	EV_MC3	200203				< 0.050				1.17	0.76					
9/12/2017	EV_MC3	200203	< 0.000050	< 0.010	0.01	< 0.050	0.0135	0.0217	59.2	0.98	0.93	0.13	< 0.50	< 0.10	< 0.10	
10/2/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0164	57.3	1.05	0.9	< 0.10	0.16	< 0.10	< 0.10	
11/15/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0112	0.0169	52.1	0.76	1.44	0.12	0.14	< 0.10	< 0.10	
12/6/2017	EV_MC3	200203	< 0.000050	< 0.010	< 0.010	< 0.050	0.0214	0.023	45.8	1.51	1.18	0.11	0.15	< 0.10	< 0.10	
1/18/2017	EV_MG1	E208057	< 0.000050	< 0.010	< 0.010	< 0.25	0.0152	0.0208	196	3.08	1.6	0.13	< 0.10	< 0.10	< 0.10	1401
2/23/2017	EV_MG1	E208057	< 0.000050	< 0.010	< 0.010	< 0.25	0.0417	0.0669	180	3.21	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1339
3/8/2017	EV_MG1	E208057	0.000059	< 0.010	< 0.010	< 0.25	0.0405	0.0451	157	2.71	1.68	< 0.10	< 0.10	< 0.10	< 0.10	11.89
3/16/2017	EV_MG1	E208057														
3/19/2017	EV_MG1	E208057														
3/29/2017	EV_MG1	E208057														
4/4/2017	EV_MG1	E208057	< 0.000050	< 0.010	< 0.010	< 0.25	0.0541	0.112	111	4.52	1.73	< 0.10	0.22	< 0.10	< 0.10	841
4/12/2017	EV_MG1	E208057														
4/19/2017	EV_MG1	E208057														
4/26/2017	EV_MG1	E208057														
5/2/2017	EV_MG1	E208057														
5/3/2017	EV_MG1	E208057	< 0.000050	< 0.010	< 0.010	< 0.25	0.13	0.189	112	3.74	1.16	< 0.10	< 0.10	< 0.10	< 0.10	919
5/10/2017	EV_MG1	E208057														
5/17/2017	EV_MG1	E208057														
5/24/2017	EV_MG1	E208057														
5/31/2017	EV_MG1	E208057														
6/7/2017	EV_MG1	E208057														
6/14/2017	EV_MG1	E208057	< 0.000050	< 0.010	< 0.010	< 0.25	0.0364	0.166	121	4.17	0.84	< 0.10	0.1	< 0.10	< 0.10	
6/21/2017	EV_MG1	E208057														
6/28/2017	EV_MG1	E208057														
7/5/2017	EV_MG1	E208057														
7/11/2017	EV_MG1	E208057	< 0.000050	0.012	0.013	< 0.25	0.0185	0.0368	131	5.1	< 2.5	< 0.10	0.1	0.17	0.26	
8/2/2017	EV_MG1	E208057	< 0.000050	0.011	0.011		0.0094	0.0178	151			< 0.10	< 0.10	0.1	0.27	
8/2/2017	EV_MG1	E208057				< 0.25				3.98	< 2.5					
8/10/2017	EV_MG1	E208057														
9/12/2017	EV_MG1	E208057	< 0.000050	< 0.010	< 0.010	0.25	< 0.0050	0.0123	155	3.57	< 2.5	< 0.10	< 0.20	< 0.10	0.1	
10/3/2017	EV_MG1	E208057	< 0.000050	< 0.010	< 0.010	< 0.25	< 0.0050	0.0051	143	1.87	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	
10/17/2017	EV_MG1	E208057														
10/18/2017	EV_MG1	E208057														
11/15/2017	EV_MG1	E208057	< 0.000050	< 0.010	< 0.010	< 0.25	0.0175	0.0223	191	3.45	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	
11/23/2017	EV_MG1	E208057														
12/6/2017	EV_MG1	E208057	< 0.000050	< 0.010	< 0.010	< 0.25	0.0494	0.0622	178	3.02	< 2.5	< 0.10	0.11	< 0.10	< 0.10	
1/10/2017	EV_OC1	E102679	< 0.000050	0.041	0.041	< 0.25	< 0.0050	0.0058	94.2	1.34	16.7	< 0.10	< 0.10	0.11	0.12	530
2/8/2017	EV_OC1	E102679	< 0.000050	0.043	0.045	< 0.25	< 0.0050	0.0059	95.3	9.01	20.5	< 0.10	< 0.30	0.22	0.26	333
2/20/2017	EV_OC1	E102679	< 0.000050	0.042	0.048	0.103	0.0142	0.0646	73.5	22.2	21.1	< 0.10	0.5	0.49	0.89	582
2/21/2017	EV_OC1	E102679														
3/6/2017	EV_OC1	E102679	< 0.000050	0.051	0.053	< 0.25	0.0059	0.0178	78.8	9.11	23.9	< 0.10	0.13	0.6	0.72	694
3/14/2017	EV_OC1	E102679														
3/15/2017	EV_OC1	E102679														
3/15/2017	EV_OC1	E102679														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
3/16/2017	EV_OC1	E102679														
3/17/2017	EV_OC1	E102679	< 0.000050	0.041	0.044	0.052	0.0262	0.195	55.6	6.04	14.9	< 0.10	1.44	0.5	1.42	500
3/18/2017	EV_OC1	E102679														
3/19/2017	EV_OC1	E102679														
3/20/2017	EV_OC1	E102679														
3/21/2017	EV_OC1	E102679														
3/22/2017	EV_OC1	E102679														
3/28/2017	EV_OC1	E102679														
4/3/2017	EV_OC1	E102679	< 0.000050	0.052	0.055	< 0.25	0.0072	0.0345	83.4	3.87	27.5	< 0.10	0.35	0.31	0.5	692
4/11/2017	EV_OC1	E102679														
4/20/2017	EV_OC1	E102679														
4/25/2017	EV_OC1	E102679														
5/4/2017	EV_OC1	E102679	< 0.000050	0.054	0.056	0.147	0.0057	0.0157	88.9	3.63	27.2	< 0.10	0.13	0.13	0.19	702
5/7/2017	EV_OC1	E102679														
5/9/2017	EV_OC1	E102679														
5/16/2017	EV_OC1	E102679														
5/23/2017	EV_OC1	E102679														
5/31/2017	EV_OC1	E102679														
6/5/2017	EV_OC1	E102679	< 0.000050	0.05	0.057	< 0.25	0.0051	0.0135	88	2.34	22.3	< 0.10	< 0.10	< 0.10	0.14	
6/13/2017	EV_OC1	E102679														
6/20/2017	EV_OC1	E102679														
6/27/2017	EV_OC1	E102679														
7/4/2017	EV_OC1	E102679														
7/10/2017	EV_OC1	E102679	< 0.000050	0.052	0.052	0.125	< 0.0050	0.0106	69.6	2.72	18.7	< 0.10	0.16	< 0.10	0.11	
8/1/2017	EV_OC1	E102679	< 0.000050	0.042	0.042	0.099	< 0.0050	0.0075	64.7	2.4	17.5	< 0.10	< 0.10	< 0.10	< 0.10	
9/11/2017	EV_OC1	E102679	< 0.000050	0.036	0.038	0.08	< 0.0050	< 0.0050	64.2	2.06	12.2	< 0.10	< 0.10	< 0.10	< 0.10	
10/2/2017	EV_OC1	E102679	< 0.000050	0.035	0.036	0.057	< 0.0050	0.0097	69.4	2.51	12	< 0.10	< 0.10	< 0.10	0.1	
11/14/2017	EV_OC1	E102679	< 0.00025	< 0.050	< 0.050	0.158	< 0.025	< 0.025	87.9	2.91	21	< 0.50	< 0.50	< 0.50	< 0.50	
12/7/2017	EV_OC1	E102679	< 0.000050	0.045	0.048	0.124	0.0073	0.0109	100	2.79	24	< 0.10	< 0.10	0.18	0.21	
1/9/2017	EV_SM1	E102681	< 0.000050	0.054	0.057	< 0.050	< 0.0050	0.0098	71.1	1.59	0.63	< 0.10	0.29	< 0.10	< 0.10	503
2/23/2017	EV_SM1	E102681	< 0.000050	0.068	0.067	< 0.050	< 0.0050	0.0068	62.7	2.33	0.79	< 0.10	0.12	< 0.10	< 0.10	561
3/6/2017	EV_SM1	E102681	< 0.000050	0.065	0.07	< 0.050	< 0.0050	0.0075	72	1.55	0.89	< 0.10	0.17	< 0.10	< 0.10	581
3/15/2017	EV_SM1	E102681														
3/19/2017	EV_SM1	E102681														
3/20/2017	EV_SM1	E102681														
3/21/2017	EV_SM1	E102681														
3/22/2017	EV_SM1	E102681														
3/23/2017	EV_SM1	E102681														
3/28/2017	EV_SM1	E102681														
3/29/2017	EV_SM1	E102681														
4/3/2017	EV_SM1	E102681	< 0.000050	0.057	0.062	< 0.050	0.0055	0.0201	66.9	2.96	0.83	< 0.10	0.54	< 0.10	0.19	504
4/11/2017	EV_SM1	E102681														
4/19/2017	EV_SM1	E102681														
4/25/2017	EV_SM1	E102681														
5/2/2017	EV_SM1	E102681	< 0.000050	0.052	0.057	< 0.050	0.0086	0.0387	71.9	3.77	0.69	< 0.10	2.1	< 0.10	0.4	518
5/7/2017	EV_SM1	E102681														
5/8/2017	EV_SM1	E102681														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
5/9/2017	EV_SM1	E102681														
5/10/2017	EV_SM1	E102681														
5/11/2017	EV_SM1	E102681														
5/12/2017	EV_SM1	E102681														
5/13/2017	EV_SM1	E102681														
5/14/2017	EV_SM1	E102681														
5/15/2017	EV_SM1	E102681														
5/16/2017	EV_SM1	E102681														
5/17/2017	EV_SM1	E102681														
5/18/2017	EV_SM1	E102681														
5/19/2017	EV_SM1	E102681														
5/20/2017	EV_SM1	E102681														
5/23/2017	EV_SM1	E102681														
5/24/2017	EV_SM1	E102681														
5/25/2017	EV_SM1	E102681														
5/26/2017	EV_SM1	E102681														
5/27/2017	EV_SM1	E102681														
5/28/2017	EV_SM1	E102681														
5/29/2017	EV_SM1	E102681														
5/30/2017	EV_SM1	E102681														
6/5/2017	EV_SM1	E102681	< 0.000050	0.036	0.041	< 0.050	0.0098	0.0474	58.9	1.96	0.34	< 0.10	0.75	< 0.10	0.38	
6/13/2017	EV_SM1	E102681														
6/20/2017	EV_SM1	E102681														
6/27/2017	EV_SM1	E102681														
7/4/2017	EV_SM1	E102681														
7/10/2017	EV_SM1	E102681	< 0.000050	0.069	0.071	< 0.050	< 0.0050	< 0.0050	57.4	2.18	< 0.50	< 0.10	0.14	< 0.10	< 0.10	
8/1/2017	EV_SM1	E102681	< 0.000050	0.063	0.067	< 0.050	< 0.0050	< 0.0050	56.6	1.88	0.23	< 0.10	0.13	< 0.10	< 0.10	
9/11/2017	EV_SM1	E102681	< 0.000050	0.099	0.082	< 0.050	< 0.0050	< 0.0050	52.8	1.97	< 0.50	< 0.10	0.14	< 0.10	< 0.10	
10/2/2017	EV_SM1	E102681	< 0.000050	0.085	0.083	< 0.050	< 0.0050	0.006	56.2	2.12	0.57	< 0.10	< 0.10	< 0.10	< 0.10	
10/4/2017	EV_SM1	E102681														
10/6/2017	EV_SM1	E102681														
10/10/2017	EV_SM1	E102681														
11/14/2017	EV_SM1	E102681	< 0.00025	0.077	0.07	< 0.050	< 0.025	< 0.025	61.7	3.74	1.07	< 0.50	< 0.50	< 0.50	< 0.50	
11/23/2017	EV_SM1	E102681														
12/1/2017	EV_SM1	E102681	< 0.000050	0.065	0.069	< 0.050	< 0.0050	0.0109	63.6	2.06	0.74	< 0.10	0.34	< 0.10	< 0.10	
1/18/2017	EV_SP1	E296311	< 0.000050	0.042	0.052	< 0.50	0.714	0.751	219	0.77	1.5	< 0.10	< 0.10	< 0.10	< 0.10	1607
2/23/2017	EV_SP1	E296311	< 0.000050	0.047	0.048	< 0.25	0.693	0.67	202	1.42	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1062
3/8/2017	EV_SP1	E296311	< 0.000050	0.031	0.035	< 0.50	0.0835	0.101	212	2.16	1.8	< 0.10	0.16	0.17	0.26	1670
3/16/2017	EV_SP1	E296311														
3/19/2017	EV_SP1	E296311														
3/29/2017	EV_SP1	E296311														
4/4/2017	EV_SP1	E296311	< 0.000050	0.037	0.042	< 0.25	0.0825	0.676	179	1.05	1.05	< 0.10	0.14	< 0.10	0.11	1484
4/12/2017	EV_SP1	E296311														
4/19/2017	EV_SP1	E296311														
4/26/2017	EV_SP1	E296311														
5/3/2017	EV_SP1	E296311	< 0.000050	0.037	0.037	< 0.50	0.0073	0.929	196	0.75	1.4	< 0.10	< 0.10	< 0.10	< 0.10	1608
5/10/2017	EV_SP1	E296311														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
5/17/2017	EV_SP1	E296311														
5/24/2017	EV_SP1	E296311														
5/31/2017	EV_SP1	E296311														
6/7/2017	EV_SP1	E296311														
6/14/2017	EV_SP1	E296311	< 0.000050	0.048	0.052	< 0.50	0.0058	1.18	216	0.93	1.4	< 0.10	0.18	< 0.10	< 0.10	
6/21/2017	EV_SP1	E296311														
6/28/2017	EV_SP1	E296311														
7/5/2017	EV_SP1	E296311														
7/11/2017	EV_SP1	E296311	< 0.000050	0.056	0.058	< 0.25	1.24	1.3	204	1.52	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	
8/2/2017	EV_SP1	E296311	< 0.000050	0.053	0.056		0.779	0.799	223			< 0.10	< 0.10	< 0.10	< 0.10	
8/2/2017	EV_SP1	E296311				< 0.25				1.3	< 2.5					
9/12/2017	EV_SP1	E296311	< 0.000050	0.057	0.065	0.3	0.436	0.477	256	1.42	< 2.5	< 0.10	< 0.20	< 0.10	< 0.10	
10/3/2017	EV_SP1	E296311	< 0.000050	0.06	0.069	< 0.25	0.344	0.394	271	4.4	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	
10/3/2017	EV_SP1	E296311														
10/17/2017	EV_SP1	E296311	< 0.000050	0.056	0.059	< 0.25	0.0218	0.854	244	1.44	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	
11/15/2017	EV_SP1	E296311	< 0.000050	0.061	0.068	< 0.25	1.56	1.74	260	0.95	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	
12/6/2017	EV_SP1	E296311	< 0.000050	0.054	0.061	< 0.25	0.992	1.48	241	0.83	< 2.5	< 0.10	0.13	0.18	< 0.10	
1/10/2017	EV_SPR2	E298594	< 0.000050	0.02	0.021	< 0.25	0.0653	0.0756	106	0.82	32.5	0.11	0.27	< 0.10	< 0.10	581
2/8/2017	EV_SPR2	E298594	< 0.000050	0.019	0.02	< 0.25	0.0621	0.0781	108	0.7	28.1	0.13	< 0.70	< 0.10	< 0.10	788
2/23/2017	EV_SPR2	E298594	< 0.000050	0.02	0.021	0.164	0.0829	0.0891	111	1.34	35.9	0.13	0.15	< 0.10	< 0.10	807
3/7/2017	EV_SPR2	E298594	< 0.000050	0.021	0.022	< 0.25	0.0771	0.0795	113	0.76	35.9	0.11	0.13	< 0.10	< 0.10	780
3/15/2017	EV_SPR2	E298594														
3/22/2017	EV_SPR2	E298594														
3/28/2017	EV_SPR2	E298594	< 0.000050	0.017	0.019	< 0.25	0.0533	0.0598	102	2.52	53.5	< 0.10	0.13	< 0.10	< 0.10	777
4/4/2017	EV_SPR2	E298594	< 0.000050	0.018	0.019	< 0.25	0.0478	0.0589	101	2.68	52.4	< 0.10	0.12	< 0.10	< 0.10	758
5/3/2017	EV_SPR2	E298594	< 0.000050	0.018	0.018	< 0.25	0.0495	0.0577	97.4	2.35	53.4	< 0.10	< 0.10	< 0.10	< 0.10	773
6/5/2017	EV_SPR2	E298594	< 0.000050	0.019	0.022	< 0.25	0.0529	0.0705	98.1	1.86	36.9	< 0.10	0.14	< 0.10	< 0.10	
7/11/2017	EV_SPR2	E298594	< 0.000050	0.023	0.023	0.164	0.0601	0.0665	93.3	2.08	33.2	< 0.10	0.15	< 0.10	< 0.10	
8/2/2017	EV_SPR2	E298594	< 0.000050	0.023	0.024		0.0542	0.0749	106			< 0.10	0.69	< 0.10	< 0.10	
8/2/2017	EV_SPR2	E298594				0.157				1.35	31					
9/12/2017	EV_SPR2	E298594	< 0.000050	0.024	0.027	0.18	0.0657	0.0571	114	0.98	26.1	< 0.10	< 0.40	< 0.10	< 0.10	
10/3/2017	EV_SPR2	E298594	< 0.000050	0.024	0.025	0.116	0.0426	0.0661	117	1.61	25.5	0.12	0.26	< 0.10	< 0.10	
11/15/2017	EV_SPR2	E298594	< 0.000050	0.024	0.027	0.163	0.0457	0.0628	105	0.86	31.4	< 0.10	0.15	< 0.10	< 0.10	
12/6/2017	EV_SPR2	E298594	< 0.000050	0.019	0.022	0.214	0.0265	0.0721	104	1.89	36.1	0.11	0.15	< 0.10	< 0.10	
1/18/2017	EV_TC1	E298593														
2/23/2017	EV_TC1	E298593														
3/8/2017	EV_TC1	E298593														
3/16/2017	EV_TC1	E298593	< 0.000050	< 0.010	< 0.010	< 0.050	0.0752	0.124	55.9	3.53	1.01	< 0.10	< 0.10	< 0.10	< 0.10	461
3/19/2017	EV_TC1	E298593														
3/29/2017	EV_TC1	E298593														
4/4/2017	EV_TC1	E298593	< 0.000050	< 0.010	< 0.010	< 0.050	0.0708	0.0834	52.5	4.94	1.35	< 0.10	< 0.10	< 0.10	< 0.10	370
4/12/2017	EV_TC1	E298593														
4/19/2017	EV_TC1	E298593														
4/26/2017	EV_TC1	E298593														
5/3/2017	EV_TC1	E298593	< 0.000050	< 0.010	< 0.010	< 0.050	0.117	0.14	42.5	4.26	0.88	< 0.10	< 0.10	< 0.10	< 0.10	355
5/10/2017	EV_TC1	E298593														
5/17/2017	EV_TC1	E298593														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
5/24/2017	EV_TC1	E298593														
5/31/2017	EV_TC1	E298593														
6/7/2017	EV_TC1	E298593														
6/14/2017	EV_TC1	E298593	< 0.000050	< 0.010	< 0.010	< 0.050	0.117	0.12	58.9	2.97	0.58	< 0.10	< 0.10	< 0.10	< 0.10	
6/21/2017	EV_TC1	E298593														
6/28/2017	EV_TC1	E298593														
7/5/2017	EV_TC1	E298593														
7/11/2017	EV_TC1	E298593														
8/2/2017	EV_TC1	E298593														
9/12/2017	EV_TC1	E298593														
10/3/2017	EV_TC1	E298593														
11/15/2017	EV_TC1	E298593														
12/6/2017	EV_TC1	E298593														
1/31/2017	FR_3PIT	E217403														
2/28/2017	FR_3PIT	E217403														
3/7/2017	FR_3PIT	E217403														
3/16/2017	FR_3PIT	E217403														
3/23/2017	FR_3PIT	E217403														
3/31/2017	FR_3PIT	E217403														
4/3/2017	FR_3PIT	E217403														
4/10/2017	FR_3PIT	E217403														
4/18/2017	FR_3PIT	E217403														
4/24/2017	FR_3PIT	E217403														
5/1/2017	FR_3PIT	E217403														
5/8/2017	FR_3PIT	E217403														
5/15/2017	FR_3PIT	E217403														
5/23/2017	FR_3PIT	E217403														
5/29/2017	FR_3PIT	E217403														
6/6/2017	FR_3PIT	E217403														
6/16/2017	FR_3PIT	E217403														
6/22/2017	FR_3PIT	E217403														
6/29/2017	FR_3PIT	E217403														
7/3/2017	FR_3PIT	E217403														
7/10/2017	FR_3PIT	E217403														
8/7/2017	FR_3PIT	E217403														
9/4/2017	FR_3PIT	E217403														
10/2/2017	FR_3PIT	E217403														
11/6/2017	FR_3PIT	E217403														
12/4/2017	FR_3PIT	E217403														
1/23/2017	FR_CC1	E102481	< 0.000050	0.019	0.024	< 0.25	0.544	0.616	254	0.51	< 2.5	< 0.10	< 0.10	0.18	0.22	1392
2/2/2017	FR_CC1	E102481	< 0.000050	0.019	0.018	< 0.25	0.602	0.543	202	0.65	< 2.5	< 0.10	< 0.10	0.19	0.17	1447
3/9/2017	FR_CC1	E102481	< 0.000050	0.022	0.021	< 0.050	0.597	0.54	228	< 0.50	1.41	< 0.10	0.12	0.19	0.19	1501
3/14/2017	FR_CC1	E102481	< 0.000050	0.02	0.02	< 0.25	0.597	0.592	198	< 0.50	< 2.5	< 0.10	< 0.10	0.18	0.18	1616
3/23/2017	FR_CC1	E102481														1571
3/28/2017	FR_CC1	E102481														1557
4/3/2017	FR_CC1	E102481	< 0.000050	0.021	0.022	< 0.25	0.643	0.636	218	0.69	< 2.5	< 0.10	< 0.10	0.27	0.29	1571
4/11/2017	FR_CC1	E102481														1664

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
4/20/2017	FR_CC1	E102481														1605
4/26/2017	FR_CC1	E102481														1897
5/1/2017	FR_CC1	E102481	< 0.000050	0.022	0.023	< 0.25	0.223	0.637	231	0.65	< 2.5	< 0.10	< 0.10	0.41	0.46	1837
5/3/2017	FR_CC1	E102481														
5/6/2017	FR_CC1	E102481														
5/10/2017	FR_CC1	E102481														1709
5/15/2017	FR_CC1	E102481														1632
5/23/2017	FR_CC1	E102481														1557
5/29/2017	FR_CC1	E102481														1489
6/5/2017	FR_CC1	E102481	< 0.000050	0.019	0.021	< 0.25	0.527	0.567	172	1.35	< 2.5	< 0.10	< 0.10	0.3	0.36	1437
6/15/2017	FR_CC1	E102481														1378
6/20/2017	FR_CC1	E102481														1331
6/27/2017	FR_CC1	E102481														1399
7/3/2017	FR_CC1	E102481	< 0.000050	0.022	0.025	< 0.25	0.226	0.374	180	1.43	< 2.5	< 0.10	< 0.10	0.21	0.24	1452
7/10/2017	FR_CC1	E102481														1447
8/8/2017	FR_CC1	E102481	< 0.000050	0.021	0.021	< 0.25	< 0.0050	0.148	195	1.03	1.41	< 0.10	< 0.10	0.1	0.16	1328
9/5/2017	FR_CC1	E102481	< 0.000050	0.016	0.017	< 0.25	< 0.0050	0.134	154	0.92	< 2.5	< 0.10	0.11	< 0.10	0.13	1104
10/11/2017	FR_CC1	E102481	< 0.000050	0.014	0.015	< 0.25	0.0401	0.201	138	0.8	< 2.5	< 0.10	< 0.20	< 0.10	0.14	1037
11/20/2017	FR_CC1	E102481	< 0.000050	0.018	0.02	< 0.25	0.552	0.548	199	0.85	< 2.5	< 0.10	0.11	0.12	0.13	1319
12/6/2017	FR_CC1	E102481	< 0.000050	0.016	0.017	< 0.25	0.631	0.611	183	0.51	< 2.5	< 0.10	0.11	0.12	0.12	1314
1/30/2017	FR_EC1	E102480														
2/28/2017	FR_EC1	E102480														
3/8/2017	FR_EC1	E102480														
3/16/2017	FR_EC1	E102480														
3/22/2017	FR_EC1	E102480	< 0.000050	0.074	0.08	< 0.25	0.155	0.191	127	0.98	< 2.5	< 0.10	0.3	0.4	0.49	1733
3/23/2017	FR_EC1	E102480														
3/27/2017	FR_EC1	E102480														1811
4/3/2017	FR_EC1	E102480	< 0.000050	0.068	0.074	< 0.25	0.142	0.17	116	1.51	< 2.5	< 0.10	0.14	0.54	0.66	1663
4/10/2017	FR_EC1	E102480														828.2
4/19/2017	FR_EC1	E102480														1988
4/26/2017	FR_EC1	E102480														1552
5/1/2017	FR_EC1	E102480	< 0.000050	0.047	0.05	< 0.25	0.0242	0.108	243	1.44	7.5	< 0.10	< 0.10	0.52	0.62	2003
5/3/2017	FR_EC1	E102480														
5/6/2017	FR_EC1	E102480														
5/10/2017	FR_EC1	E102480														1721
5/15/2017	FR_EC1	E102480														2124
5/23/2017	FR_EC1	E102480														2076
5/29/2017	FR_EC1	E102480														2258
6/5/2017	FR_EC1	E102480	< 0.000050	0.05	0.052	< 0.25	0.0089	0.0063	252	2.42	9.9	< 0.10	< 0.10	< 0.10	< 0.10	2157
6/13/2017	FR_EC1	E102480														2270
6/19/2017	FR_EC1	E102480														2199
6/26/2017	FR_EC1	E102480														2493
7/3/2017	FR_EC1	E102480	< 0.000050	0.048	0.053	< 0.25	0.0222	0.0339	286	3.11	11.2	< 0.10	< 0.10	< 0.10	< 0.10	2634
7/10/2017	FR_EC1	E102480														2666
8/7/2017	FR_EC1	E102480														
9/25/2017	FR_EC1	E102480														
10/31/2017	FR_EC1	E102480														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
11/28/2017	FR_EC1	E102480	< 0.000050	0.035	0.031	< 0.25	0.061	0.0721	296	2.57	9.5	< 0.20	0.12	0.31	0.28	2731
12/31/2017	FR_EC1	E102480														
8/31/2017	FR_EC1H	E310047	< 0.00010	0.039	0.039	< 0.25	0.188	0.069	317	3.35	10.6	< 0.20	< 0.20	< 0.20	< 0.20	2907
9/25/2017	FR_EC1H	E310047	< 0.000050	0.032	0.033	< 0.25	0.0287	0.0284	309	2.99	10.5	< 0.10	< 0.10	< 0.10	< 0.10	2952
10/30/2017	FR_EC1H	E310047	< 0.00010	0.029	0.031	< 0.25	0.056	0.054	276	1.83	9.9	< 0.20	< 0.20	< 0.20	< 0.20	2857
11/23/2017	FR_EC1H	E310047	< 0.00010	0.03	0.038	< 0.25	0.071	0.049	372	3.08	10.1	< 0.10	< 0.20	< 0.10	< 0.20	3093
12/11/2017	FR_EC1H	E310047	< 0.000050	0.039	0.039	< 0.25	0.07	0.089	312	1.97	9.9	< 0.20	0.13	0.22	0.26	2796
1/17/2017	FR_FR1	200251														
2/28/2017	FR_FR1	200251														
3/8/2017	FR_FR1	200251														
3/14/2017	FR_FR1	200251														
3/22/2017	FR_FR1	200251														
3/27/2017	FR_FR1	200251	< 0.000050	< 0.010	< 0.010	< 0.050	0.0155	0.0211	71	0.97	< 0.50	< 0.10	0.13	< 0.10	< 0.10	546.9
4/4/2017	FR_FR1	200251	< 0.000050	< 0.010	< 0.010	< 0.050	0.016	0.0263	82.7	0.84	< 0.50	< 0.10	0.15	< 0.10	< 0.10	567.6
4/11/2017	FR_FR1	200251														534.7
4/18/2017	FR_FR1	200251														513.6
4/26/2017	FR_FR1	200251														491
5/1/2017	FR_FR1	200251	< 0.000050	< 0.010	< 0.010	< 0.050	0.0162	0.0222	65.5	1.53	< 0.50	0.13	0.16	< 0.10	< 0.10	484.6
5/5/2017	FR_FR1	200251														
5/6/2017	FR_FR1	200251														
5/7/2017	FR_FR1	200251														
5/10/2017	FR_FR1	200251														335.5
5/15/2017	FR_FR1	200251														296
5/23/2017	FR_FR1	200251														247.3
5/29/2017	FR_FR1	200251														229.7
6/5/2017	FR_FR1	200251	< 0.000050	< 0.010	< 0.010	< 0.050	0.0089	0.0131	34.8	1.92	< 0.50	< 0.10	0.28	< 0.10	< 0.10	250.4
6/14/2017	FR_FR1	200251														228.7
6/20/2017	FR_FR1	200251														256.9
6/28/2017	FR_FR1	200251														264.9
7/3/2017	FR_FR1	200251	< 0.000050	< 0.010	< 0.010	< 0.050	0.0087	0.0146	38.8	1.05	< 0.50	< 0.10	0.17	< 0.10	< 0.10	275.3
7/11/2017	FR_FR1	200251														305.6
8/9/2017	FR_FR1	200251	< 0.000050	< 0.010	< 0.010	< 0.050	0.0158	0.0173	66.1	0.92	0.2	< 0.10	0.12	< 0.10	< 0.10	409.4
8/28/2017	FR_FR1	200251	< 0.000050	< 0.010	< 0.010	< 0.050	0.015	0.0209	70.3	0.96	< 0.50	< 0.10	0.17	< 0.10	< 0.10	463.1
9/11/2017	FR_FR1	200251	< 0.000050	< 0.010	< 0.010	< 0.050	0.0171	0.0229	77.5	< 0.50	< 0.50	0.15	0.12	< 0.10	< 0.10	521
10/11/2017	FR_FR1	200251	< 0.000050	< 0.010	< 0.010	< 0.050	0.0184	0.0218	67.8	0.72	< 0.50	< 0.10	< 0.20	< 0.10	< 0.10	487
11/29/2017	FR_FR1	200251	< 0.000050	< 0.010	< 0.010	< 0.050	0.0172	0.0216	72.7	0.62	< 0.50	< 0.10	0.11	< 0.10	< 0.10	494.6
12/4/2017	FR_FR1	200251														
1/16/2017	FR_FR2	200201	< 0.000050	0.011	0.011	< 0.050	0.0653	0.0815	113	1.19	1.24	< 0.10	0.14	< 0.10	0.12	795
2/1/2017	FR_FR2	200201	< 0.000050	0.011	0.012	< 0.050	0.0741	0.0877	131	0.85	1.42	< 0.10	0.13	0.11	0.11	840.3
3/9/2017	FR_FR2	200201	< 0.000050	< 0.010	0.01	< 0.25	0.0641	0.0724	123	0.72	1.77	< 0.10	< 0.10	0.1	0.1	870.9
3/15/2017	FR_FR2	200201	< 0.000050	0.011	0.012	0.051	0.0726	0.0933	124	0.81	1.68	< 0.10	0.22	0.12	0.16	860
3/22/2017	FR_FR2	200201	< 0.000050	0.011	0.013	< 0.050	0.0676	0.0916	131	< 0.50	1.52	< 0.10	0.15	< 0.10	0.12	789.5
3/29/2017	FR_FR2	200201	< 0.000050	0.011	0.011	< 0.050	0.0752	0.0846	110	1.39	1.36	< 0.10	0.29	< 0.10	0.12	801.5
4/5/2017	FR_FR2	200201	< 0.000050	0.01	< 0.010	< 0.050	0.0655	0.0795	114	0.84	1.5	< 0.10	0.16	< 0.10	0.11	839.3
4/5/2017	FR_FR2	200201	< 0.000050	< 0.010	0.01	< 0.25	0.0724	0.088	119	0.92	1.74	< 0.10	0.17	< 0.10	0.12	
4/12/2017	FR_FR2	200201	< 0.000050	< 0.010	< 0.010	< 0.050	0.0744	0.0875	106	2.09	1.36	< 0.10	0.13	< 0.10	0.14	837.1
4/20/2017	FR_FR2	200201	< 0.000050	< 0.010	< 0.010	< 0.050	0.0607	0.574	98.2	2.94	0.76	< 0.10	2.4	< 0.10	1.39	647.4

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
4/25/2017	FR_FR2	200201	< 0.000050	< 0.010	< 0.010	< 0.050	0.078	0.132	81.2	1.99	0.69	< 0.10	0.61	0.1	0.21	696
5/2/2017	FR_FR2	200201	< 0.000050	< 0.010	< 0.010	< 0.25	0.067	0.0877	106	1.41	1.2	< 0.10	0.47	< 0.10	0.13	757.6
5/8/2017	FR_FR2	200201	< 0.000050	< 0.010	< 0.010	< 0.050	0.0841	0.105	67.2	2.82	< 0.50	< 0.10	0.52	0.15	0.23	479.4
5/16/2017	FR_FR2	200201	< 0.000050	< 0.010	< 0.010	< 0.050	0.0453	0.0574	57.9	2.21	< 0.50	< 0.10	0.27	< 0.10	< 0.10	445.1
5/23/2017	FR_FR2	200201	< 0.000050	< 0.010	< 0.010	< 0.050	0.0268	0.0576	48.1	2.02	< 0.50	< 0.10	0.33	< 0.10	0.15	357.8
5/30/2017	FR_FR2	200201	< 0.000050	< 0.010	< 0.010	< 0.050	0.0214	0.108	48.9	1.52	< 0.50	< 0.10	0.94	< 0.10	0.39	307.1
6/6/2017	FR_FR2	200201	< 0.000050	< 0.010	< 0.010	< 0.050	0.027	0.0343	44.8	1.9	< 0.50	< 0.10	0.22	< 0.10	< 0.10	327.5
6/6/2017	FR_FR2	200201	< 0.000050	< 0.010	< 0.010	< 0.050	0.0214	0.0374	46.2	1.19	0.24	< 0.10	0.29	< 0.10	< 0.10	
6/13/2017	FR_FR2	200201	< 0.000050	< 0.010	< 0.010	< 0.050	0.0286	0.0358	48.6	1.59	< 0.50	< 0.10	0.17	< 0.10	< 0.10	371.3
6/20/2017	FR_FR2	200201	< 0.000050	< 0.010	< 0.010	< 0.050	0.0291	0.0385	50.5	1	< 0.50	< 0.10	0.17	< 0.10	< 0.10	371
6/26/2017	FR_FR2	200201	< 0.000050	< 0.010	< 0.010	< 0.050	0.0229	0.0372	54.8	1.51	< 0.50	< 0.10	0.14	< 0.10	< 0.10	404.1
7/5/2017	FR_FR2	200201	< 0.000050	< 0.010	< 0.010	< 0.050	0.0386	0.0467	62.8	1.27	< 0.50	< 0.10	0.14	< 0.10	< 0.10	442
7/5/2017	FR_FR2	200201	< 0.000050	< 0.010	< 0.010	< 0.050	0.034	0.0419	63.3	1.58	< 0.50	< 0.10	0.12	< 0.10	< 0.10	
7/11/2017	FR_FR2	200201	< 0.000050	< 0.010	< 0.010	< 0.050	0.0376	0.0405	66.4	1.31	< 0.50	< 0.10	0.13	< 0.10	< 0.10	490.8
7/17/2017	FR_FR2	200201														
8/10/2017	FR_FR2	200201	< 0.000050	0.011	0.012	< 0.25	0.0418	0.0667	89.8	1.34	1.3	< 0.10	0.11	< 0.10	0.1	667
8/28/2017	FR_FR2	200201	< 0.000050	0.013	0.012	< 0.050	0.0644	0.0823	109	0.7	1.06	< 0.10	0.11	0.11	0.1	737
9/6/2017	FR_FR2	200201	< 0.000050	0.013	0.013	< 0.050	0.0296	0.0744	111	0.58	1.09	< 0.10	0.14	0.12	0.12	803
9/20/2017	FR_FR2	200201														
10/4/2017	FR_FR2	200201	< 0.000050	0.014	0.015	0.062	0.0629	0.0776	117	0.64	1.5	< 0.10	0.12	0.11	0.13	778
10/19/2017	FR_FR2	200201	< 0.000050	0.01	0.011	< 0.050	0.0359	0.0601	106	0.72	1.35	< 0.10	0.11	0.11	0.13	768.7
10/31/2017	FR_FR2	200201	< 0.000050	< 0.010	0.013	0.056	0.0618	0.0694	109	0.68	1.42	< 0.10	0.1	0.11	0.11	
11/1/2017	FR_FR2	200201	< 0.000050	< 0.050	0.011	0.066	0.039	0.0681	110	0.68	1.39	< 0.50	< 0.30	< 0.50	0.12	793
11/2/2017	FR_FR2	200201	< 0.00025	0.011	< 0.050	0.051	0.0196	0.063	109	0.57	1.73	< 0.10	< 0.50	0.1	< 0.50	736.1
11/16/2017	FR_FR2	200201														
12/5/2017	FR_FR2	200201	< 0.000050	< 0.010	0.012	< 0.050	0.0789	0.106	117	0.66	2.13	< 0.10	< 0.10	0.12	0.13	776.4
1/19/2017	FR_FRCP1	E300071														
2/21/2017	FR_FRCP1	E300071	< 0.000050	0.01	0.011	< 0.25	0.052	0.0622	179	1.53	< 2.5	< 0.10	0.78	< 0.10	< 0.10	1394
2/28/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	0.01	< 0.25	0.056	0.0659	179	1.52	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1342
3/7/2017	FR_FRCP1	E300071	< 0.000050	0.011	0.011	< 0.25	0.0354	0.0448	278	1.02	3.8	< 0.10	< 0.10	< 0.10	< 0.10	1820
3/14/2017	FR_FRCP1	E300071	< 0.000050	0.01	< 0.010	< 0.25	0.0279	0.0544	150	0.92	< 2.5	< 0.10	0.11	< 0.10	< 0.10	1415
3/21/2017	FR_FRCP1	E300071	< 0.000050	0.011	0.013	< 0.25	0.0551	0.0761	143	0.91	< 2.5	< 0.10	0.17	< 0.10	0.12	1016
3/28/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	< 0.010	< 0.25	0.0575	0.0648	117	1.26	< 2.5	< 0.10	0.24	< 0.10	0.11	971
4/5/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	< 0.010	< 0.25	0.0636	0.0698	132	0.79	< 2.5	< 0.10	0.13	< 0.10	< 0.10	1019
4/10/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	0.01	< 0.050	0.0732	0.0841	123	2.5	1.51	< 0.10	0.33	< 0.10	0.15	939
4/20/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	< 0.010	< 0.050	0.0643	0.247	87.9	2.91	0.83	< 0.10	1.32	< 0.10	0.5	712.9
4/24/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	< 0.010	< 0.050	0.0606	0.134	85.9	2.08	0.72	0.11	0.82	< 0.10	0.27	709.5
5/2/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	0.01	< 0.050	0.0781	0.104	114	1.84	0.96	< 0.10	0.42	< 0.10	0.13	880
5/9/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	< 0.010	< 0.050	0.0635	0.112	72.1	2.72	< 0.50	< 0.10	0.69	< 0.10	0.25	554.2
5/16/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	< 0.010	< 0.050	0.0553	0.0712	75.2	1.98	0.51	< 0.10	0.43	< 0.10	0.11	581.9
5/23/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	< 0.010	< 0.050	0.0257	0.117	64.8	1.89	< 0.50	< 0.10	0.64	< 0.10	0.34	483.8
5/30/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	< 0.010	< 0.050	0.0296	0.144	64.3	1.8	< 0.50	< 0.10	0.95	< 0.10	0.5	460
6/6/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	< 0.010	< 0.050	0.0739	0.0982	61.7	1.68	< 0.50	< 0.10	0.23	< 0.10	0.14	482.1
6/13/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	< 0.010	< 0.050	0.0693	0.0714	64.8	1.74	< 0.50	< 0.10	0.17	< 0.10	< 0.10	513
6/20/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	< 0.010	< 0.050	0.0408	0.0399	66.1	0.88	< 0.50	< 0.10	0.14	< 0.10	< 0.10	509.3
6/26/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	< 0.010	< 0.050	0.0347	0.041	68	1.38	< 0.50	< 0.10	0.12	< 0.10	< 0.10	534.6
7/5/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	< 0.010	< 0.050	0.0416	0.0435	80.3	1.34	0.52	< 0.10	0.13	< 0.10	< 0.10	601.7

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
7/11/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	< 0.010	< 0.050	0.0352	0.0438	84.8	1.1	0.55	< 0.10	0.12	< 0.10	< 0.10	650.7
7/25/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	0.01	< 0.050	0.044	0.0511	99.6	1.59	0.87	< 0.10	0.12	< 0.10	< 0.10	792
8/1/2017	FR_FRCP1	E300071	< 0.000050	0.011	0.012	< 0.25	0.025	0.0493	131	1.05	1.5	0.12	0.19	< 0.10	< 0.10	951
8/8/2017	FR_FRCP1	E300071	< 0.000050	0.011	0.011	< 0.25	< 0.0050	0.0518	142	1.02	1.63	< 0.10	0.19	< 0.10	< 0.10	980
8/15/2017	FR_FRCP1	E300071	< 0.000050	0.011	0.011	< 0.25	0.0152	0.0491	135	1.02	1.69	0.1	0.19	< 0.10	< 0.10	962
8/22/2017	FR_FRCP1	E300071	< 0.000050	< 0.020	0.012	< 0.25	< 0.0050	0.0415	141	2.27	< 2.5	< 0.20	0.6	< 0.20	< 0.10	1080
9/11/2017	FR_FRCP1	E300071	< 0.000050	0.012	0.012	< 0.10	0.0061	0.0592	171	0.77	< 2.5	< 0.10	0.1	< 0.10	< 0.10	1280
10/2/2017	FR_FRCP1	E300071	< 0.000050	0.011	0.011	< 0.25	0.0117	0.0513	153	0.96	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1167
10/10/2017	FR_FRCP1	E300071	< 0.000050	0.011	0.012	0.29	0.0275	0.0744	150	1.03	< 2.5	< 0.10	0.2	< 0.10	0.15	1168
10/17/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	0.01	0.36	< 0.0050	0.0496	153	1.17	< 2.5	< 0.10	0.11	< 0.10	< 0.10	1249
10/24/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	0.011	0.31	< 0.0050	0.0501	142	0.93	< 2.5	< 0.10	< 0.20	< 0.10	< 0.10	1136
10/31/2017	FR_FRCP1	E300071	< 0.000050	0.011	< 0.010	< 0.25	0.0109	0.0553	156	0.78	< 2.5	< 0.10	0.27	< 0.10	< 0.10	1229
11/15/2017	FR_FRCP1	E300071	< 0.000050	0.012	0.011	< 0.25	< 0.0050	0.057	180	0.72	< 2.5	< 0.10	0.18	< 0.10	0.11	1282
12/5/2017	FR_FRCP1	E300071	< 0.000050	0.01	0.011	< 0.25	0.0138	0.0835	186	0.67	2.5	< 0.10	< 0.10	< 0.10	0.1	1358
12/6/2017	FR_FRCP1	E300071	< 0.000050	< 0.010	0.01	< 0.25	0.0132	0.0707	194	0.96	2.9	< 0.10	0.15	< 0.10	< 0.10	1466
12/12/2017	FR_FRCP1	E300071	< 0.000050	0.01	0.011	< 0.25	0.0809	0.091	228	1.05	3.6	< 0.10	0.1	< 0.10	0.11	1709
12/28/2017	FR_FRCP1	E300071	< 0.000050	0.011	0.011	< 0.050	0.0257	0.0734	221	< 0.50	3.08	< 0.10	< 0.10	0.12	0.12	1627
1/19/2017	FR_FRRD	E300097	< 0.000050	0.016	0.016	< 0.25	0.0363	0.0462	151	0.56	< 2.5	0.13	0.17	< 0.10	< 0.10	1017
2/22/2017	FR_FRRD	E300097	< 0.000050	0.013	0.013	< 0.25	0.0454	0.0454	150	0.51	1.94	0.13	0.16	< 0.10	< 0.10	1012
3/15/2017	FR_FRRD	E300097	< 0.000050	0.012	0.013	< 0.25	0.0438	0.0471	150	0.74	4.6	< 0.10	0.19	< 0.10	0.1	1062
4/25/2017	FR_FRRD	E300097	< 0.000050	< 0.010	< 0.010	< 0.050	0.0689	0.136	101	1.76	1.14	< 0.10	0.93	< 0.10	0.26	843
5/3/2017	FR_FRRD	E300097	< 0.000050	< 0.010	0.011	< 0.050	0.07	0.0731	124	1.52	1.5	< 0.10	2.75	< 0.10	0.11	844
5/3/2017	FR_FRRD	E300097	< 0.000050	< 0.010	< 0.010	< 0.25	0.0651	0.0735	126	1.44	1.74	0.3	0.36	< 0.10	0.11	
5/18/2017	FR_FRRD	E300097	< 0.000050	< 0.010	< 0.010	< 0.050	0.0437	0.0575	94.3	1.55	0.69	< 0.10	0.18	< 0.10	0.1	691.6
6/13/2017	FR_FRRD	E300097	< 0.000050	< 0.010	< 0.010	< 0.050	0.0562	0.0732	74.3	1.2	< 0.50	< 0.10	0.21	< 0.10	< 0.10	589.5
7/13/2017	FR_FRRD	E300097	< 0.000050	0.01	< 0.010	< 0.050	0.035	0.0385	90.1	1.92	0.64	< 0.10	0.13	< 0.10	< 0.10	742
7/13/2017	FR_FRRD	E300097	< 0.000050	< 0.010	0.01	< 0.25	0.0299	0.037	88.8	0.85	1.06	< 0.10	0.12	< 0.10	< 0.10	742
8/10/2017	FR_FRRD	E300097	< 0.000050	0.013	0.013	< 0.25	0.0362	0.0405	131	1.05	1.57	< 0.10	0.15	< 0.10	< 0.10	996
9/13/2017	FR_FRRD	E300097	< 0.000050	0.012	0.013	< 0.25	0.0276	0.0481	141	1	< 2.5	< 0.10	0.27	< 0.10	0.11	1052
10/18/2017	FR_FRRD	E300097	< 0.000050	0.011	0.011	< 0.25	0.0321	0.0384	164	1.01	< 2.5	< 0.10	0.13	< 0.10	< 0.10	1133
11/6/2017	FR_FRRD	E300097	< 0.000050	< 0.050	0.013	< 0.25	< 0.025	0.0422	157	0.75	< 2.5	< 0.50	0.15	< 0.50	< 0.10	1138
12/5/2017	FR_FRRD	E300097	< 0.000050	0.014	0.015	< 0.25	0.0447	0.05	155	0.58	< 2.5	0.1	0.23	< 0.10	0.1	962
1/9/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0275	0.0388	87.9	1.28	< 0.50	0.11	0.21	< 0.10	< 0.10	552.4
2/14/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0388	0.0325	91.8	0.85	< 0.50	< 0.10	0.12	< 0.10	< 0.10	595.4
3/7/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0319	0.0358	99.1	< 0.50	< 0.50	0.11	0.14	< 0.10	< 0.10	592.4
3/14/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0354	0.0322	82.1	< 0.50	< 0.50	0.1	0.73	< 0.10	< 0.10	629
3/22/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0366	0.0425	103	< 0.50	< 0.50	< 0.10	0.14	< 0.10	< 0.10	633.9
3/28/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0347	0.0364	83	0.53	< 0.50	< 0.10	0.13	< 0.10	0.1	658.3
4/4/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0415	0.0406	86.1	0.82	< 0.50	< 0.10	< 0.10	< 0.10	< 0.10	646.2
4/11/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.039	0.0377	86.1	1.18	0.52	< 0.10	0.11	< 0.10	< 0.10	685.7
4/18/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0345	0.0418	96.4	0.51	< 0.50	< 0.10	0.16	< 0.10	0.11	752.47
4/26/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0382	0.0401	93	0.62	< 0.50	< 0.10	0.14	0.12	0.12	717.7
5/1/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0357	0.0377	91.1	0.73	< 0.50	< 0.10	0.12	< 0.10	0.11	724.2
5/5/2017	FR_HC1	E216778														
5/6/2017	FR_HC1	E216778														
5/7/2017	FR_HC1	E216778														
5/9/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0159	0.0209	62.1	1.51	< 0.50	< 0.10	0.13	< 0.10	< 0.10	442.4

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
5/15/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0146	0.0161	48.7	1.63	< 0.50	< 0.10	0.38	< 0.10	< 0.10	364.6
5/23/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0092	0.0429	34.8	1.52	< 0.50	< 0.10	0.44	< 0.10	0.17	275
5/29/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0069	0.0311	41.3	1.53	< 0.50	< 0.10	0.55	< 0.10	0.14	246.1
6/5/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0127	0.0197	38	1.45	< 0.50	< 0.10	0.22	< 0.10	< 0.10	271.6
6/14/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0086	0.0173	35.8	1.01	< 0.50	< 0.10	0.23	< 0.10	< 0.10	229.6
6/20/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0125	0.013	38.6	0.66	0.78	< 0.10	0.14	< 0.10	< 0.10	272.1
6/27/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0067	0.0121	38.7	0.91	< 0.50	< 0.10	0.12	< 0.10	< 0.10	205.2
7/3/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0084	0.01	39.8	0.84	< 0.50	< 0.10	0.14	< 0.10	< 0.10	280.6
7/11/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0114	0.0124	45.7	1	< 0.50	< 0.10	0.14	< 0.10	< 0.10	314.4
8/8/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0207	0.0203	67.8	0.92	0.22	< 0.10	0.12	< 0.10	< 0.10	438.9
9/5/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0217	0.0323	79.6	0.61	< 0.50	< 0.10	0.11	< 0.10	< 0.10	526.4
10/11/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0248	0.0297	76.6	0.66	< 0.50	0.1	< 0.20	< 0.10	< 0.10	535.6
10/30/2017	FR_HC1	E216778														
11/7/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0217	0.0307	85.4	< 0.50	< 0.50	< 0.10	0.17	< 0.10	< 0.10	554.4
11/14/2017	FR_HC1	E216778														
12/6/2017	FR_HC1	E216778	< 0.000050	< 0.010	< 0.010	< 0.050	0.0225	0.026	82.8	< 0.50	< 0.50	< 0.10	0.13	< 0.10	< 0.10	589.1
1/17/2017	FR_HC3	E300096	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	52.8	< 0.50	0.27	0.12	0.17	< 0.10	< 0.10	316.5
2/14/2017	FR_HC3	E300096	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	57	0.59	0.28	0.13	0.17	< 0.10	< 0.10	337.3
3/1/2017	FR_HC3	E300096	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0056	51.1	0.58	< 0.50	0.14	0.16	< 0.10	< 0.10	323.2
3/16/2017	FR_HC3	E300096														331.3
3/23/2017	FR_HC3	E300096														339.4
3/27/2017	FR_HC3	E300096														335.8
4/4/2017	FR_HC3	E300096	< 0.000050	< 0.010	< 0.010	< 0.050	0.0058	0.0072	45.6	< 0.50	< 0.50	0.14	0.13	< 0.10	< 0.10	323.2
4/4/2017	FR_HC3	E300096	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	58.1	< 0.50	0.3	0.13	0.14	< 0.10	< 0.10	
4/11/2017	FR_HC3	E300096														327.1
4/18/2017	FR_HC3	E300096														332.7
4/26/2017	FR_HC3	E300096														331.5
5/1/2017	FR_HC3	E300096	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0059	46	0.56	< 0.50	0.11	0.13	< 0.10	< 0.10	336.3
5/1/2017	FR_HC3	E300096	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0066	50.8	< 0.50	0.23	0.11	0.13	< 0.10	< 0.10	
5/10/2017	FR_HC3	E300096														262.8
5/15/2017	FR_HC3	E300096														293.3
5/24/2017	FR_HC3	E300096														182.5
5/29/2017	FR_HC3	E300096														182.9
6/5/2017	FR_HC3	E300096	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0071	29.3	0.97	< 0.50	< 0.10	0.16	< 0.10	< 0.10	182
6/5/2017	FR_HC3	E300096	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0072	31.5	0.56	< 0.10	< 0.10	0.17	< 0.10	< 0.10	
6/14/2017	FR_HC3	E300096														168.8
6/21/2017	FR_HC3	E300096														177.3
6/27/2017	FR_HC3	E300096														176
7/3/2017	FR_HC3	E300096	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	30.3	< 0.50	< 0.10	< 0.10	0.12	< 0.10	< 0.10	
7/3/2017	FR_HC3	E300096	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	31.8	0.66	< 0.50	< 0.10	0.14	< 0.10	< 0.10	185.5
7/11/2017	FR_HC3	E300096														199.5
8/9/2017	FR_HC3	E300096	< 0.000050	< 0.010	< 0.010	< 0.050	0.005	< 0.0050	46.7	< 0.50	0.18	0.11	0.14	< 0.10	< 0.10	261
9/5/2017	FR_HC3	E300096	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0057	49.9	< 0.50	< 0.50	< 0.10	0.15	< 0.10	< 0.10	296.3
10/11/2017	FR_HC3	E300096	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0053	47.7	< 0.50	< 0.50	0.11	< 0.20	< 0.10	< 0.10	312.2
11/14/2017	FR_HC3	E300096	< 0.000050	< 0.010	< 0.010	< 0.050	0.006	< 0.0050	51.4	< 0.50	< 0.50	< 0.10	0.17	< 0.10	< 0.10	320.1
12/21/2017	FR_HC3	E300096	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	54.3	< 0.50	< 0.50	0.1	0.2	< 0.10	< 0.10	331
1/31/2017	FR_HP1	E216781														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
2/28/2017	FR_HP1	E216781														
3/8/2017	FR_HP1	E216781														
3/15/2017	FR_HP1	E216781														
3/22/2017	FR_HP1	E216781														
3/31/2017	FR_HP1	E216781														
4/3/2017	FR_HP1	E216781														
4/10/2017	FR_HP1	E216781														
4/17/2017	FR_HP1	E216781														
4/24/2017	FR_HP1	E216781														
5/1/2017	FR_HP1	E216781														
5/8/2017	FR_HP1	E216781														
5/15/2017	FR_HP1	E216781														
5/22/2017	FR_HP1	E216781														
5/29/2017	FR_HP1	E216781														
6/5/2017	FR_HP1	E216781														
6/15/2017	FR_HP1	E216781														
6/22/2017	FR_HP1	E216781														
6/29/2017	FR_HP1	E216781														
7/3/2017	FR_HP1	E216781														
7/10/2017	FR_HP1	E216781														
8/7/2017	FR_HP1	E216781														
9/4/2017	FR_HP1	E216781														
10/2/2017	FR_HP1	E216781														
11/6/2017	FR_HP1	E216781														
12/4/2017	FR_HP1	E216781														
1/19/2017	FR_KC1	200252	< 0.000050	0.021	0.02	< 0.25	0.304	0.687	261	0.7	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1733
2/1/2017	FR_KC1	200252	< 0.000050	0.021	0.021	< 0.25	0.438	0.721	279	1.01	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1773
3/6/2017	FR_KC1	200252	< 0.000050	0.021	0.021	< 0.25	0.389	0.879	292	0.8	< 2.5	< 0.10	0.12	< 0.10	< 0.10	1867
3/15/2017	FR_KC1	200252														1890
3/22/2017	FR_KC1	200252														1904
3/29/2017	FR_KC1	200252														1981
4/5/2017	FR_KC1	200252	< 0.000050	0.021	0.019	< 0.25	0.901	0.822	286	< 0.50	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	2026
4/12/2017	FR_KC1	200252														2048
4/20/2017	FR_KC1	200252														2004
4/25/2017	FR_KC1	200252														2182
5/2/2017	FR_KC1	200252	< 0.000050	0.022	0.023	< 0.25	0.948	0.938	281	0.78	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	2009
5/7/2017	FR_KC1	200252														
5/8/2017	FR_KC1	200252														1596
5/16/2017	FR_KC1	200252														1216
5/23/2017	FR_KC1	200252														1099
5/30/2017	FR_KC1	200252														953
6/6/2017	FR_KC1	200252	< 0.000050	0.016	0.017	< 0.050	0.52	0.517	99.3	1.24	< 0.50	< 0.10	< 0.10	0.31	0.34	768.5
6/13/2017	FR_KC1	200252														824.1
6/19/2017	FR_KC1	200252														866
6/26/2017	FR_KC1	200252														926
7/5/2017	FR_KC1	200252	< 0.000050	0.022	0.023	< 0.25	0.576	0.618	138	0.91	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	989
7/10/2017	FR_KC1	200252														1062

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
8/8/2017	FR_KC1	200252	< 0.000050	0.023	0.025	< 0.25	0.688	0.698	198	1.03	1.03	< 0.10	< 0.10	< 0.10	< 0.10	1278
9/6/2017	FR_KC1	200252	< 0.000050	0.028	0.028	< 0.10	0.689	0.818	223	< 0.50	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1557
9/20/2017	FR_KC1	200252														
10/4/2017	FR_KC1	200252	< 0.000050	0.027	0.028	0.32	0.55	0.818	244	0.74	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1648
10/19/2017	FR_KC1	200252	< 0.000050	0.025	0.026	< 0.25	0.0701	0.739	254	0.58	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1797
11/1/2017	FR_KC1	200252	< 0.000050	0.028	0.027	0.41	< 0.0050	0.845	271	0.6	< 2.5	< 0.10	< 0.30	< 0.10	< 0.10	1810
11/16/2017	FR_KC1	200252														
12/12/2017	FR_KC1	200252	< 0.000050	0.028	0.025	< 0.25	0.806	0.874	277	< 0.50	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1923
1/10/2017	FR_LMP1	E306924	< 0.000050	0.015	0.016	< 0.050	0.0313	0.0338	66.6	2.15	< 0.50	< 0.10	< 0.10	< 0.10	0.11	418
1/10/2017	FR_LMP1	E306924	< 0.000050		0.015	< 0.050		0.0374	62		< 0.50		< 0.10		0.11	417.7
1/11/2017	FR_LMP1	E306924	< 0.000050	0.014	0.015	< 0.050	0.0303	0.0368	62.3	2.45	< 0.50	< 0.10	< 0.10	< 0.10	0.11	431.3
1/12/2017	FR_LMP1	E306924	< 0.000050	0.014	0.015	< 0.050	0.032	0.0354	62.7	2.24	< 0.50	< 0.10	< 0.10	< 0.10	0.11	423
1/13/2017	FR_LMP1	E306924	< 0.000050	0.015	0.016	< 0.050	0.0322	0.0419	65.6	1.99	< 0.50	< 0.10	< 0.10	< 0.10	0.12	408
1/14/2017	FR_LMP1	E306924	< 0.000050	0.015	0.016	< 0.050	0.0318	0.0283	60	2.07	< 0.50	< 0.10	< 0.10	< 0.10	0.11	422
1/15/2017	FR_LMP1	E306924	< 0.000050	0.016	0.017	< 0.050	0.0301	0.0361	61	2.11	< 0.50	< 0.10	< 0.10	0.13	0.15	434.3
1/16/2017	FR_LMP1	E306924	< 0.000050	0.019	0.019	< 0.050	0.0344	0.0483	66.1	1.95	< 0.50	< 0.10	< 0.10	0.16	0.2	459.5
1/17/2017	FR_LMP1	E306924	< 0.000050	0.021	0.022	< 0.050	0.0396	0.0611	69.4	1.92	< 0.50	< 0.10	< 0.10	0.18	0.22	472.5
1/24/2017	FR_LMP1	E306924	< 0.000050	0.021	0.022	< 0.050	0.0625	0.0811	77.6	1.72	< 0.50	< 0.10	< 0.10	0.13	0.13	530.1
2/15/2017	FR_LMP1	E306924	< 0.000050	0.015	0.016	< 0.050	0.0335	0.0445	80.5	1.37	0.23	< 0.10	< 0.10	< 0.10	< 0.10	518.9
3/2/2017	FR_LMP1	E306924	< 0.000050	0.013	0.015	< 0.050	0.0294	0.0431	79	2.1	< 0.50	< 0.10	< 0.10	< 0.10	< 0.10	524
3/14/2017	FR_LMP1	E306924														540.3
3/18/2017	FR_LMP1	E306924														
3/19/2017	FR_LMP1	E306924														
3/22/2017	FR_LMP1	E306924														438.2
3/27/2017	FR_LMP1	E306924														439
4/3/2017	FR_LMP1	E306924	< 0.000050	< 0.010	< 0.010	< 0.050	0.0342	0.124	56	3.43	< 0.50	< 0.10	0.92	< 0.10	0.31	422.2
4/3/2017	FR_LMP1	E306924	< 0.000050	< 0.010	< 0.010	< 0.050	0.0398	0.114	67.7	2.75	0.3	< 0.10	1.03	< 0.10	0.31	
4/8/2017	FR_LMP1	E306924														
4/8/2017	FR_LMP1	E306924														
4/9/2017	FR_LMP1	E306924														
4/10/2017	FR_LMP1	E306924														424.6
4/11/2017	FR_LMP1	E306924														
4/14/2017	FR_LMP1	E306924														
4/17/2017	FR_LMP1	E306924														
4/18/2017	FR_LMP1	E306924														413.5
4/19/2017	FR_LMP1	E306924	< 0.000050	< 0.010	0.011	< 0.050	0.0443	0.519	46.4	4.04	< 0.50	< 0.10	7.7	< 0.10	1.21	354.6
4/19/2017	FR_LMP1	E306924														
4/20/2017	FR_LMP1	E306924														
4/20/2017	FR_LMP1	E306924	0.000065	< 0.010	0.017	< 0.050	0.044	0.985	48.9	5.71	< 0.50	< 0.10	9.36	< 0.10	2.44	
4/20/2017	FR_LMP1	E306924														
4/21/2017	FR_LMP1	E306924														
4/21/2017	FR_LMP1	E306924	< 0.000050	< 0.010	< 0.010	< 0.050	0.0453	0.571	37.2	6.95	< 0.50	< 0.10	4.61	< 0.10	1.25	438.9
4/21/2017	FR_LMP1	E306924														
4/22/2017	FR_LMP1	E306924														
4/22/2017	FR_LMP1	E306924														
4/23/2017	FR_LMP1	E306924	< 0.000050	< 0.010	< 0.010	< 0.050	0.0484	0.238	43.8	4.5	< 0.50	< 0.10	2.32	< 0.10	0.5	350.2
4/25/2017	FR_LMP1	E306924														349

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
4/27/2017	FR_LMP1	E306924	< 0.000050	< 0.010	0.01	< 0.050	0.0509	0.257	50.8	3.43	< 0.50	< 0.10	2.58	< 0.10	0.6	381.9
4/27/2017	FR_LMP1	E306924														
5/1/2017	FR_LMP1	E306924	< 0.000050	< 0.010	< 0.010	< 0.050	0.0418	0.117	46.6	3.19	< 0.50	< 0.10	1.22	< 0.10	0.28	412.2
5/1/2017	FR_LMP1	E306924	< 0.000050	< 0.010	< 0.010	< 0.050	0.042	0.13	50.9	3.08	0.26	0.12	1.52	< 0.10	0.3	
5/2/2017	FR_LMP1	E306924														
5/3/2017	FR_LMP1	E306924														
5/4/2017	FR_LMP1	E306924														
5/5/2017	FR_LMP1	E306924														
5/5/2017	FR_LMP1	E306924	< 0.000050	< 0.010	< 0.010	< 0.050	0.0519	0.493	28.4	5.97	< 0.50	< 0.10	4.67	< 0.10	1.2	250.4
5/5/2017	FR_LMP1	E306924														
5/5/2017	FR_LMP1	E306924														
5/6/2017	FR_LMP1	E306924														
5/6/2017	FR_LMP1	E306924	< 0.000050	< 0.010	< 0.010	< 0.050	0.0615	0.171	38.6	4.05	< 0.50	< 0.10	0.75	< 0.10	0.29	
5/6/2017	FR_LMP1	E306924														
5/7/2017	FR_LMP1	E306924														
5/7/2017	FR_LMP1	E306924														
5/8/2017	FR_LMP1	E306924														
5/9/2017	FR_LMP1	E306924														
5/10/2017	FR_LMP1	E306924	< 0.000050	0.01	0.011	< 0.050	0.047	0.126	46.5	4.05	< 0.50	< 0.10	0.63	< 0.10	0.21	355.1
5/15/2017	FR_LMP1	E306924														341.3
5/23/2017	FR_LMP1	E306924														367.5
5/29/2017	FR_LMP1	E306924														339.4
6/5/2017	FR_LMP1	E306924	< 0.000050	< 0.010	< 0.010	< 0.050	0.0427	0.0694	33.6	3.63	< 0.50	< 0.10	0.45	< 0.10	0.14	290
6/5/2017	FR_LMP1	E306924	< 0.000050	< 0.010	< 0.010	< 0.050	0.035	0.0674	36	3.28	0.13	< 0.10	0.67	< 0.10	0.15	
6/15/2017	FR_LMP1	E306924														294.4
6/20/2017	FR_LMP1	E306924														300.3
6/26/2017	FR_LMP1	E306924														328.7
7/3/2017	FR_LMP1	E306924	< 0.000050	< 0.010	0.011	< 0.050	0.0318	0.0435	45.6	3.56	< 0.50	< 0.10	0.14	< 0.10	< 0.10	360.9
7/3/2017	FR_LMP1	E306924	< 0.000050	0.012	0.01	< 0.050	0.0293	0.0455	45.4	2.67	0.17	< 0.10	0.22	< 0.10	< 0.10	
7/10/2017	FR_LMP1	E306924														381.3
8/8/2017	FR_LMP1	E306924	< 0.000050	0.012	0.011	< 0.050	0.0137	0.0309	64.5	2.7	0.23	< 0.10	0.15	< 0.10	0.11	442.2
9/4/2017	FR_LMP1	E306924														
10/2/2017	FR_LMP1	E306924														
11/20/2017	FR_LMP1	E306924	< 0.000050	< 0.010	0.011	< 0.050	0.0277	0.0286	84.4	2.18	< 0.50	< 0.10	< 0.10	< 0.10	< 0.10	547.1
12/11/2017	FR_LMP1	E306924	< 0.000050	< 0.010	< 0.010	< 0.050	0.0264	0.0388	71.7	2.96	< 0.50	< 0.10	0.18	< 0.10	< 0.10	530.8
12/14/2017	FR_LMP1	E306924														
1/11/2017	FR_LP1	E304835														
1/11/2017	FR_LP1	E304835														
1/12/2017	FR_LP1	E304835														
1/16/2017	FR_LP1	E304835	< 0.000050	0.026	0.028	< 0.25	0.139	0.176	155	2.67	< 2.5	< 0.10	0.22	0.49	0.67	1198
2/16/2017	FR_LP1	E304835	< 0.000050	0.0192	0.022	< 0.25	0.118	0.165	124	2.11	1.48	< 0.10	0.81	0.22	0.48	1004
3/2/2017	FR_LP1	E304835	< 0.000050	0.024	0.024	< 0.25	0.141	0.186	144	2.62	< 2.5	< 0.10	0.15	0.29	0.37	1209
3/9/2017	FR_LP1	E304835														
3/14/2017	FR_LP1	E304835	< 0.000050	0.025	0.021	< 0.25	0.147	0.134	122	2.28	< 2.5	< 0.10	0.1	0.26	0.28	1270
3/18/2017	FR_LP1	E304835														
3/19/2017	FR_LP1	E304835														
3/20/2017	FR_LP1	E304835														863.5

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
3/29/2017	FR_LP1	E304835														970
4/3/2017	FR_LP1	E304835	< 0.000050	0.021	0.021	< 0.050	0.125	0.167	113	2.17	1.25	< 0.10	0.3	0.56	0.68	1000
4/3/2017	FR_LP1	E304835	< 0.000050	0.019	0.022	< 0.25	0.127	0.145	132	1.67	1.56	< 0.10	0.15	0.52	0.66	
4/10/2017	FR_LP1	E304835														1016
4/19/2017	FR_LP1	E304835														1133
4/26/2017	FR_LP1	E304835														1226
5/1/2017	FR_LP1	E304835	< 0.000050	0.024	0.024	< 0.25	< 0.0050	0.028	122	2.36	< 2.5	< 0.10	< 0.10	< 0.10	0.14	1219
5/1/2017	FR_LP1	E304835	< 0.000050	0.021	0.024	< 0.25	< 0.0050	0.033	134	2.33	1.55	< 0.10	0.18	< 0.10	0.15	
5/7/2017	FR_LP1	E304835														
5/10/2017	FR_LP1	E304835														1203
5/15/2017	FR_LP1	E304835														1069
5/23/2017	FR_LP1	E304835														962
5/29/2017	FR_LP1	E304835														893
6/5/2017	FR_LP1	E304835	< 0.000050	0.017	0.018	< 0.050	0.0228	0.0224	85.3	2.59	< 0.50	< 0.10	< 0.10	< 0.10	< 0.10	848
6/5/2017	FR_LP1	E304835	< 0.000050	0.017	0.019	< 0.25	0.0192	0.0275	92	2.69	0.81	< 0.10	0.1	< 0.10	< 0.10	
6/13/2017	FR_LP1	E304835														833
6/19/2017	FR_LP1	E304835														790
6/26/2017	FR_LP1	E304835														
7/3/2017	FR_LP1	E304835														
7/10/2017	FR_LP1	E304835														
8/7/2017	FR_LP1	E304835														
9/25/2017	FR_LP1	E304835	< 0.000050	0.031	0.034	< 0.25	0.006	0.0168	163	3.43	< 2.5	< 0.10	< 0.10	0.2	0.31	1470
10/2/2017	FR_LP1	E304835														
11/20/2017	FR_LP1	E304835	< 0.000050	0.032	0.035	< 0.25	< 0.0050	0.0386	185	2.63	< 2.5	< 0.10	0.19	0.47	1	1456
12/11/2017	FR_LP1	E304835	< 0.000050	0.031	0.03	< 0.25	0.0597	0.0824	167	2.89	< 2.5	< 0.10	0.22	0.39	0.52	1333
12/14/2017	FR_LP1	E304835														
12/18/2017	FR_LP1	E304835	< 0.000050	0.028	0.03	< 0.25	0.0727	0.211	184	3	< 2.5	< 0.10	0.6	0.45	1.1	1542
12/19/2017	FR_LP1	E304835	< 0.000050	0.029	0.034	< 0.050	0.138	0.146	190	2.85	1.7	< 0.10	0.15	1.5	1.63	1427
12/20/2017	FR_LP1	E304835	< 0.000050	0.04	0.04	< 0.050	< 0.0050	0.213	195	1.82	1.62	< 0.10	0.33	1.94	3.4	1434
12/21/2017	FR_LP1	E304835	< 0.000050	0.04	0.04	< 0.050	< 0.0050	0.134	189	1.56	1.55	< 0.10	< 0.10	1.98	3.97	
7/26/2017	FR_LP1H	E310052	< 0.000050	0.025	0.026	< 0.25	0.0745	0.126	136	2.87	< 2.5	< 0.10	0.26	0.29	0.37	1368
8/28/2017	FR_LP1H	E310052	< 0.000050	0.033	0.03	< 0.25	< 0.0050	0.0239	157	3.9	< 2.5	< 0.10	0.14	< 0.10	0.56	1434
10/30/2017	FR_LP1H	E310052	< 0.000050	0.03	0.031	< 0.25	< 0.0050	0.0655	182	2.81	< 2.5	< 0.10	0.16	< 0.10	0.27	1522
1/31/2017	FR_MS1	E102478														
2/28/2017	FR_MS1	E102478														
3/7/2017	FR_MS1	E102478														
3/16/2017	FR_MS1	E102478														
3/23/2017	FR_MS1	E102478														
3/31/2017	FR_MS1	E102478														
4/4/2017	FR_MS1	E102478														
4/10/2017	FR_MS1	E102478														
4/17/2017	FR_MS1	E102478														
4/24/2017	FR_MS1	E102478														
5/1/2017	FR_MS1	E102478														
5/8/2017	FR_MS1	E102478														
5/15/2017	FR_MS1	E102478														
5/25/2017	FR_MS1	E102478														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
5/29/2017	FR_MS1	E102478														
6/5/2017	FR_MS1	E102478														
6/16/2017	FR_MS1	E102478														
6/22/2017	FR_MS1	E102478														
6/27/2017	FR_MS1	E102478														
7/3/2017	FR_MS1	E102478														
7/10/2017	FR_MS1	E102478														
8/7/2017	FR_MS1	E102478														
9/4/2017	FR_MS1	E102478														
10/2/2017	FR_MS1	E102478														
11/6/2017	FR_MS1	E102478														
12/4/2017	FR_MS1	E102478														
1/31/2017	FR_NL1	E102476														
2/28/2017	FR_NL1	E102476														
3/7/2017	FR_NL1	E102476														
3/11/2017	FR_NL1	E102476														
3/21/2017	FR_NL1	E102476														
3/28/2017	FR_NL1	E102476	< 0.000050	0.012	0.013	< 0.050	< 0.0050	0.0493	84.1	2.84	4.99	< 0.10	0.51	0.87	0.87	1020
4/4/2017	FR_NL1	E102476	< 0.000050	0.015	0.014	0.059	< 0.0050	0.01	82.6	3.09	4.93	< 0.10	0.11	1.08	1.02	1103
4/11/2017	FR_NL1	E102476														729.8
4/18/2017	FR_NL1	E102476														
4/25/2017	FR_NL1	E102476														
5/1/2017	FR_NL1	E102476														
5/8/2017	FR_NL1	E102476														
5/17/2017	FR_NL1	E102476														
5/25/2017	FR_NL1	E102476														
5/29/2017	FR_NL1	E102476														
6/5/2017	FR_NL1	E102476														
6/16/2017	FR_NL1	E102476														
6/22/2017	FR_NL1	E102476														
6/26/2017	FR_NL1	E102476														
7/3/2017	FR_NL1	E102476														
7/10/2017	FR_NL1	E102476														
8/7/2017	FR_NL1	E102476														
9/4/2017	FR_NL1	E102476														
10/2/2017	FR_NL1	E102476														
11/27/2017	FR_NL1	E102476	< 0.000050	0.021	0.02	0.217	0.339	0.342	94.8	1.83	19.3	< 0.10	0.24	1.44	1.45	809.7
12/4/2017	FR_NL1	E102476	< 0.000050	0.016	0.017	0.172	0.25	0.362	102	1.17	14.8	< 0.10	< 0.10	0.97	1	816.9
7/26/2017	FR_NL1H	E310046	< 0.000050	0.014	0.014	0.207	0.182	0.183	64.9	2.01	18.1	0.12	0.24	0.4	0.46	602
8/28/2017	FR_NL1H	E310046	< 0.000050	0.014	0.013	0.123	0.0707	0.111	74.3	1.44	12.2	< 0.10	0.17	0.18	0.22	527.3
9/25/2017	FR_NL1H	E310046	< 0.000050	0.012	0.014	0.152	0.0491	0.0457	71.7	1.17	10.5	0.11	0.14	0.12	0.14	517
10/23/2017	FR_NL1H	E310046	< 0.000050	0.013	0.014	0.205	0.0781	0.0896	71.4	0.78	16.9	0.13	0.18	0.17	0.22	368.4
9/4/2017	FR_PP1	E304750														
1/31/2017	FR_SKP1	E208394														
2/28/2017	FR_SKP1	E208394														
3/6/2017	FR_SKP1	E208394														
3/15/2017	FR_SKP1	E208394														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
3/21/2017	FR_SKP1	E208394														
3/28/2017	FR_SKP1	E208394														
4/3/2017	FR_SKP1	E208394														
4/10/2017	FR_SKP1	E208394														
4/17/2017	FR_SKP1	E208394														
4/24/2017	FR_SKP1	E208394														
5/1/2017	FR_SKP1	E208394														
5/9/2017	FR_SKP1	E208394														
5/17/2017	FR_SKP1	E208394														
5/23/2017	FR_SKP1	E208394														
5/31/2017	FR_SKP1	E208394														
6/5/2017	FR_SKP1	E208394														
6/16/2017	FR_SKP1	E208394														
6/19/2017	FR_SKP1	E208394														
6/27/2017	FR_SKP1	E208394														
7/3/2017	FR_SKP1	E208394														
7/10/2017	FR_SKP1	E208394														
8/7/2017	FR_SKP1	E208394														
9/4/2017	FR_SKP1	E208394														
10/2/2017	FR_SKP1	E208394														
11/6/2017	FR_SKP1	E208394														
12/4/2017	FR_SKP1	E208394														
7/26/2017	FR_SKP1H	E310049	< 0.000050	0.022	0.023	< 0.25	0.0176	0.0524	108	3.05	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	927
8/28/2017	FR_SKP1H	E310049	< 0.000050	0.023	0.026	< 0.25	< 0.0050	0.0433	162	2.64	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1140
9/25/2017	FR_SKP1H	E310049	< 0.000050	0.027	0.028	0.26	0.035	0.0138	189	2.68	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1404
10/23/2017	FR_SKP1H	E310049	< 0.000050	0.025	0.027	< 0.25	0.0305	< 0.0050	204	1.91	< 2.5	0.16	0.19	< 0.10	< 0.10	1383
11/22/2017	FR_SKP1H	E310049	< 0.000050	0.028	0.031	< 0.25	0.0097	0.0278	229	1.85	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1632
12/12/2017	FR_SKP1H	E310049	< 0.000050	0.031	0.031	< 0.25	0.0361	0.037	249	1.66	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1849
1/31/2017	FR_SKP2	E208395														
2/28/2017	FR_SKP2	E208395														
3/6/2017	FR_SKP2	E208395														
3/15/2017	FR_SKP2	E208395														
3/21/2017	FR_SKP2	E208395														
3/28/2017	FR_SKP2	E208395														
4/3/2017	FR_SKP2	E208395														
4/10/2017	FR_SKP2	E208395														
4/17/2017	FR_SKP2	E208395														
4/24/2017	FR_SKP2	E208395														
5/2/2017	FR_SKP2	E208395														
5/9/2017	FR_SKP2	E208395														
5/16/2017	FR_SKP2	E208395														
5/23/2017	FR_SKP2	E208395														
5/30/2017	FR_SKP2	E208395	< 0.000050	0.014	0.015	< 0.10	0.457	0.467	130	1.39	< 2.5	< 0.10	< 0.10	0.23	0.26	1006
6/6/2017	FR_SKP2	E208395	< 0.000050	0.016	0.017	< 0.050	0.509	0.524	104	1.15	< 0.50	< 0.10	< 0.10	0.33	0.36	807.3
6/13/2017	FR_SKP2	E208395														828
6/19/2017	FR_SKP2	E208395														867
6/27/2017	FR_SKP2	E208395														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
7/3/2017	FR_SKP2	E208395														
7/10/2017	FR_SKP2	E208395														
8/7/2017	FR_SKP2	E208395														
9/4/2017	FR_SKP2	E208395														
10/2/2017	FR_SKP2	E208395														
11/6/2017	FR_SKP2	E208395														
12/4/2017	FR_SKP2	E208395														
7/26/2017	FR_SKP2H	E310050	< 0.000050	0.023	0.023	< 0.25	< 0.0050	0.0873	135	0.85	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1129
8/28/2017	FR_SKP2H	E310050	< 0.000050	0.029	0.027	< 0.25	< 0.0050	0.0102	194	0.91	< 2.5	< 0.10	0.74	< 0.10	< 0.10	1283
9/25/2017	FR_SKP2H	E310050	< 0.000050	0.027	0.029	< 0.25	< 0.0050	0.0217	216	1.07	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1502
10/23/2017	FR_SKP2H	E310050	< 0.000050	0.024	0.026	< 0.25	< 0.0050	0.0576	245	0.69	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1400
11/22/2017	FR_SKP2H	E310050	< 0.000050	0.025	0.025	< 0.25	< 0.0050	0.0865	259	0.58	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1794
12/12/2017	FR_SKP2H	E310050	< 0.000050	0.026	0.027	< 0.25	< 0.0050	0.253	276	< 0.50	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1889
1/18/2017	FR_SP1	E261897	< 0.000050	0.02	0.02	< 0.25	0.136	0.248	161	1.26	< 2.5	< 0.10	< 0.10	0.14	0.15	1135
2/15/2017	FR_SP1	E261897	< 0.000050	0.023	0.023	< 0.25	0.128	0.231	182	< 0.50	< 2.5	< 0.10	< 0.10	0.15	0.15	1166
3/2/2017	FR_SP1	E261897	< 0.000050	0.022	0.023	< 0.25	0.133	0.27	181	1.21	< 2.5	< 0.10	< 0.10	0.14	0.15	1186
3/16/2017	FR_SP1	E261897														1203
3/22/2017	FR_SP1	E261897	< 0.000050	0.021	0.025	< 0.25	0.11	0.271	197	0.85	< 2.5	< 0.10	< 0.10	0.15	0.18	1211
3/27/2017	FR_SP1	E261897														1241
4/3/2017	FR_SP1	E261897	< 0.000050	0.021	0.021	< 0.25	0.146	0.241	165	1.31	< 2.5	< 0.10	< 0.10	0.18	0.19	1205
4/10/2017	FR_SP1	E261897														1290
4/20/2017	FR_SP1	E261897														1277
4/26/2017	FR_SP1	E261897														1325
5/1/2017	FR_SP1	E261897	< 0.000050	0.02	0.02	< 0.25	0.171	0.216	159	1.04	< 2.5	< 0.10	< 0.10	0.15	0.15	1276
5/2/2017	FR_SP1	E261897														
5/7/2017	FR_SP1	E261897														
5/8/2017	FR_SP1	E261897														1174
5/15/2017	FR_SP1	E261897														1136
5/24/2017	FR_SP1	E261897														1067
5/29/2017	FR_SP1	E261897														1108
6/5/2017	FR_SP1	E261897	< 0.000050	0.017	0.019	< 0.25	0.164	0.203	135	0.91	< 2.5	< 0.10	< 0.10	0.13	0.14	1081
6/13/2017	FR_SP1	E261897														1058
6/19/2017	FR_SP1	E261897														996
6/26/2017	FR_SP1	E261897														1028
7/3/2017	FR_SP1	E261897	< 0.000050	0.019	0.022	< 0.25	0.155	0.209	142	1.27	< 2.5	< 0.10	< 0.10	0.13	0.12	1082
7/10/2017	FR_SP1	E261897														1094
8/8/2017	FR_SP1	E261897	< 0.000050	0.021	0.02	< 0.25	0.162	0.223	180	1.34	1.13	< 0.10	< 0.10	0.12	0.13	1168
9/6/2017	FR_SP1	E261897	< 0.000050	0.021	0.02	< 0.10	0.0815	0.221	160	1.24	< 2.5	< 0.10	< 0.10	0.12	0.14	1214
10/11/2017	FR_SP1	E261897	< 0.000050	0.02	0.021	< 0.25	0.0946	0.224	162	1.25	< 2.5	< 0.10	< 0.10	0.11	0.13	1152
11/20/2017	FR_SP1	E261897	< 0.000050	0.02	0.023	< 0.25	0.0669	0.196	176	1.28	< 2.5	< 0.10	< 0.10	0.1	0.12	1122
12/11/2017	FR_SP1	E261897	< 0.000050	0.021	0.021	< 0.25	0.0789	0.239	156	0.9	< 2.5	< 0.10	< 0.10	0.11	0.11	1131
1/31/2017	FR_TP1	E102475														
3/31/2017	FR_TP1	E102475														
10/2/2017	FR_TP1	E102475														
1/31/2017	FR_TP3	E206660														
3/31/2017	FR_TP3	E206660														
1/9/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0119	0.0115	52.4	0.99	< 0.50	0.11	0.17	< 0.10	< 0.10	302.2

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
2/21/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0102	0.0109	52.4	0.96	< 0.50	< 0.10	0.11	< 0.10	< 0.10	326.6
2/28/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0079	0.0101	47.6	0.92	< 0.50	0.1	0.11	< 0.10	< 0.10	314.6
3/7/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0073	0.0094	53	< 0.50	< 0.50	< 0.10	0.14	< 0.10	< 0.10	311.7
3/14/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0084	0.0132	42.6	0.51	< 0.50	0.1	0.17	< 0.10	< 0.10	326.4
3/21/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0084	0.0118	55.4	< 0.50	< 0.50	< 0.10	0.18	< 0.10	< 0.10	302.2
3/27/2017	FR_UFR1	E216777														299.6
4/4/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0111	0.0247	38.6	1.37	< 0.50	< 0.10	0.13	< 0.10	< 0.10	276.6
4/11/2017	FR_UFR1	E216777														277.1
4/18/2017	FR_UFR1	E216777														258.7
4/24/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0155	0.0234	31.3	3.27	< 0.50	0.22	0.4	< 0.10	< 0.10	234.7
5/2/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.01	0.0129	36.6	2.63	< 0.50	0.1	0.27	< 0.10	< 0.10	256.2
5/5/2017	FR_UFR1	E216777														
5/6/2017	FR_UFR1	E216777														
5/7/2017	FR_UFR1	E216777														
5/9/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0128	0.0236	32.8	3.71	< 0.50	0.1	0.52	< 0.10	< 0.10	228.6
5/16/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0083	0.0134	30.8	2.58	< 0.50	< 0.10	0.64	< 0.10	< 0.10	211.4
5/23/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0087	0.0368	30.6	2.55	< 0.50	< 0.10	0.62	< 0.10	0.19	196.9
5/30/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0091	0.0401	29.1	2.04	< 0.50	< 0.10	0.92	< 0.10	0.2	189.8
6/6/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0081	0.0135	29.9	1.86	< 0.50	< 0.10	0.22	< 0.10	< 0.10	198.1
6/14/2017	FR_UFR1	E216777														213.5
6/20/2017	FR_UFR1	E216777														222
6/27/2017	FR_UFR1	E216777														243.5
7/3/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0085	0.0116	38.5	1.42	< 0.50	< 0.10	0.11	< 0.10	< 0.10	261.1
7/11/2017	FR_UFR1	E216777														275.1
7/25/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.008	0.012	45.3	1.75	< 0.50	< 0.10	0.28	< 0.10	< 0.10	294.3
8/1/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0089	0.0126	51.5	0.93	0.11	0.1	0.12	< 0.10	< 0.10	314
8/8/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0096	0.012	53.7	0.88	0.11	0.12	0.22	< 0.10	< 0.10	303.1
8/15/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0063	0.0104	51.1	0.88	0.12	0.1	0.21	< 0.10	< 0.10	306.5
8/22/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0085	0.0113	49.9	2.29	< 0.50	< 0.10	0.16	< 0.10	< 0.10	319.9
9/5/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0078	0.0087	54.8	0.64	< 0.50	< 0.10	0.13	< 0.10	< 0.10	321.5
10/2/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0069	0.0101	49.6	1.08	< 0.50	< 0.10	0.12	< 0.10	< 0.10	322.6
10/10/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	0.058	0.0069	0.0097	53.7	0.62	< 0.50	0.1	0.1	< 0.10	< 0.10	327.2
10/17/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0074	0.0121	50.7	0.55	< 0.50	< 0.10	0.15	< 0.10	< 0.10	327.4
10/24/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0061	0.0097	50.1	0.65	< 0.50	0.1	< 0.20	< 0.10	< 0.10	306.7
10/31/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0069	0.0072	51.8	0.67	< 0.50	< 0.10	0.31	< 0.10	< 0.10	319.3
11/7/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	0.0098	0.0119	55.4	0.58	< 0.50	0.1	0.17	< 0.10	< 0.10	333.3
12/21/2017	FR_UFR1	E216777	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	55.3	0.73	< 0.50	0.12	0.17	< 0.10	< 0.10	321.1
1/16/2017	GH_BR_F	E287437														
2/14/2017	GH_BR_F	E287437														
3/6/2017	GH_BR_F	E287437														
3/16/2017	GH_BR_F	E287437														
3/21/2017	GH_BR_F	E287437	< 0.000050	< 0.010	< 0.010	< 0.050	0.0096	0.0169	32.1	5.23	0.16	< 0.10	< 0.10	< 0.10	< 0.10	196
3/27/2017	GH_BR_F	E287437														165.9
4/4/2017	GH_BR_F	E287437														175.2
4/10/2017	GH_BR_F	E287437														178.5
4/18/2017	GH_BR_F	E287437	< 0.000050	< 0.010	< 0.010	< 0.050	0.0169	0.0251	28.7	6.43	< 0.10	< 0.10	0.25	< 0.10	< 0.10	179.8
4/25/2017	GH_BR_F	E287437														169.6

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
5/1/2017	GH_BR_F	E287437	< 0.000050	< 0.010	< 0.010	< 0.050	0.0124	0.0238	29.8	7.39	< 0.10	< 0.10	0.33	< 0.10	< 0.10	180.5
5/8/2017	GH_BR_F	E287437														143.1
5/15/2017	GH_BR_F	E287437														169.6
5/24/2017	GH_BR_F	E287437														167.7
5/29/2017	GH_BR_F	E287437														193.6
6/5/2017	GH_BR_F	E287437	< 0.000050	< 0.010	< 0.010	< 0.050	0.0163	0.0196	32.8	5.61	< 0.10	< 0.10	0.12	< 0.10	< 0.10	212
6/12/2017	GH_BR_F	E287437														226.7
6/20/2017	GH_BR_F	E287437														
6/27/2017	GH_BR_F	E287437														
7/4/2017	GH_BR_F	E287437														
7/10/2017	GH_BR_F	E287437														
8/1/2017	GH_BR_F	E287437														
9/12/2017	GH_BR_F	E287437														
10/3/2017	GH_BR_F	E287437														
11/6/2017	GH_BR_F	E287437														
12/6/2017	GH_BR_F	E287437														
1/10/2017	GH_CC1	E0200384	< 0.00010	< 0.020	< 0.020	< 1.0	0.131	0.146	443	1.33	7.7	< 0.20	< 0.20	< 0.20	< 0.20	2921
2/9/2017	GH_CC1	E0200384	< 0.000050	0.011	0.01	< 0.25	0.0343	0.104	438	1.76	6.3	< 0.10	< 0.10	< 0.10	< 0.10	3165
3/6/2017	GH_CC1	E0200384	< 0.000050	< 0.010	< 0.010	< 0.25	0.0483	0.0904	417	1.62	6.4	< 0.10	0.13	< 0.10	< 0.10	3011
3/15/2017	GH_CC1	E0200384														3024
3/21/2017	GH_CC1	E0200384	< 0.000050	< 0.010	< 0.010	< 0.25	0.0457	0.126	392	1.71	5.7	< 0.10	0.12	< 0.10	< 0.10	2875
3/29/2017	GH_CC1	E0200384														2827
4/5/2017	GH_CC1	E0200384	< 0.000050	< 0.010	< 0.010	< 0.25	0.153	0.13	347	1.27	5	< 0.10	0.14	< 0.10	< 0.10	2779
4/5/2017	GH_CC1	E0200384	< 0.00010	< 0.020	< 0.020	< 1.0	0.1	0.141	381	1.38	6.2	< 0.20	< 0.20	< 0.20	< 0.20	
4/12/2017	GH_CC1	E0200384														289.5
4/20/2017	GH_CC1	E0200384														2602
4/25/2017	GH_CC1	E0200384														2761
5/2/2017	GH_CC1	E0200384														
5/3/2017	GH_CC1	E0200384	< 0.000050	< 0.010	< 0.010	< 0.25	0.277	0.276	362	1.65	4.4	< 0.10	0.22	< 0.10	< 0.10	2563
5/3/2017	GH_CC1	E0200384	< 0.00010	< 0.020	< 0.020	< 1.0	0.266	0.3	383	1.48	5.7	< 0.20	< 0.20	< 0.20	< 0.20	
5/7/2017	GH_CC1	E0200384														
5/8/2017	GH_CC1	E0200384	< 0.000050	< 0.010	< 0.010	< 0.25	0.657	0.687	323	2.9	3.6	0.17	0.28	< 0.10	< 0.10	2315
5/17/2017	GH_CC1	E0200384														2518
5/23/2017	GH_CC1	E0200384														2778
5/31/2017	GH_CC1	E0200384														2853
6/6/2017	GH_CC1	E0200384	< 0.000050	< 0.010	< 0.010	< 0.25	0.508	0.738	408	1.81	4.5	< 0.10	0.13	< 0.10	< 0.10	2888
6/6/2017	GH_CC1	E0200384	< 0.00010	< 0.020	< 0.020	< 1.0	0.507	0.741	418	1.66	5.9	< 0.20	< 0.20	< 0.20	< 0.20	
6/13/2017	GH_CC1	E0200384														3007
6/19/2017	GH_CC1	E0200384														2881
6/27/2017	GH_CC1	E0200384														3066
7/5/2017	GH_CC1	E0200384	< 0.000050	< 0.010	0.013	< 0.25	0.0377	0.13	412	1.81	4.9	< 0.10	0.14	< 0.10	< 0.10	3050
7/5/2017	GH_CC1	E0200384	< 0.00010	< 0.020	< 0.020	< 1.0	0.095	0.596	457	2.11	6.8	< 0.20	< 0.20	< 0.20	< 0.20	
7/10/2017	GH_CC1	E0200384														3155
8/8/2017	GH_CC1	E0200384	< 0.00010	< 0.020	< 0.020	< 1.0	0.112	0.538	490	2.37	6.9	< 0.20	< 0.20	< 0.20	< 0.20	3159
9/6/2017	GH_CC1	E0200384	< 0.00010	0.011	< 0.020	< 0.10	0.0998	0.512	465	1.28	5.3	< 0.10	< 0.20	< 0.10	< 0.20	3295
9/20/2017	GH_CC1	E0200384														
10/4/2017	GH_CC1	E0200384	< 0.000050	0.011	0.012	< 0.25	0.0117	0.415	443	1.64	6.4	< 0.10	0.11	< 0.10	< 0.10	3178

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
10/19/2017	GH_CC1	E0200384	< 0.00010	< 0.020	< 0.020	< 0.25	0.045	0.354	432	2.3	8.6	< 0.20	< 0.20	< 0.20	< 0.20	3062
11/1/2017	GH_CC1	E0200384	< 0.000050	< 0.020	0.011	< 0.25	< 0.010	0.312	446	1.31	5.4	< 0.20	< 0.30	< 0.20	< 0.10	3271
11/16/2017	GH_CC1	E0200384														
12/5/2017	GH_CC1	E0200384	< 0.00010	0.01	< 0.020	< 0.25	0.0306	0.219	481	1.42	5.7	< 0.10	< 0.20	< 0.10	< 0.20	3159
1/16/2017	GH_COUGAR	E287432														
2/15/2017	GH_COUGAR	E287432														
3/6/2017	GH_COUGAR	E287432														
3/16/2017	GH_COUGAR	E287432	< 0.000050	0.016	0.015	< 0.050	0.0212	0.0372	43.1	5.61	0.63	< 0.10	0.14	< 0.10	< 0.10	293.6
3/22/2017	GH_COUGAR	E287432														325.7
3/27/2017	GH_COUGAR	E287432														272
4/4/2017	GH_COUGAR	E287432														267.7
4/10/2017	GH_COUGAR	E287432														256.3
4/18/2017	GH_COUGAR	E287432	< 0.000050	0.011	0.012	< 0.050	0.0291	0.106	44.4	7.19	0.35	< 0.10	0.49	< 0.10	0.24	259.3
4/25/2017	GH_COUGAR	E287432														272.8
5/1/2017	GH_COUGAR	E287432	< 0.000050	0.01	0.011	< 0.050	0.0289	0.104	50.6	7.08	0.41	< 0.10	0.43	< 0.10	0.24	261
5/8/2017	GH_COUGAR	E287432														302.4
5/15/2017	GH_COUGAR	E287432														311.4
5/24/2017	GH_COUGAR	E287432														316.9
5/29/2017	GH_COUGAR	E287432														326.4
6/5/2017	GH_COUGAR	E287432	< 0.000050	0.016	0.018	< 0.050	0.0307	0.0376	59.6	4.81	0.4	< 0.10	< 0.10	< 0.10	< 0.10	341.2
6/12/2017	GH_COUGAR	E287432														247.2
6/20/2017	GH_COUGAR	E287432														
6/27/2017	GH_COUGAR	E287432														
7/4/2017	GH_COUGAR	E287432														
7/10/2017	GH_COUGAR	E287432														
8/2/2017	GH_COUGAR	E287432														
9/12/2017	GH_COUGAR	E287432														
10/3/2017	GH_COUGAR	E287432														
11/6/2017	GH_COUGAR	E287432														
12/6/2017	GH_COUGAR	E287432														
1/16/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0061	0.0069	57	< 0.50	0.65	0.24	0.26	< 0.10	< 0.10	297.8
2/14/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	45.7	< 0.50	0.61	0.22	0.26	< 0.10	< 0.10	301.1
2/21/2017	GH_ER1	206661				< 0.050					0.57					
3/6/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0065	0.0064	53.7	< 0.50	0.55	0.21	0.28	< 0.10	< 0.10	290.5
3/16/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.006	0.0097	52.1	< 0.50	0.56	0.21	0.34	< 0.10	< 0.10	188.5
3/21/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0069	0.0095	55.3	0.59	0.63	0.26	0.28	< 0.10	< 0.10	285.2
3/27/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0053	0.009	53.7	< 0.50	0.65	0.21	0.28	< 0.10	< 0.10	289.6
4/4/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0053	0.008	57	0.78	0.78	0.22	0.27	< 0.10	< 0.10	304.9
4/10/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0069	58	0.67	0.8	0.24	0.26	< 0.10	< 0.10	304.3
4/20/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0062	0.0098	44.9	1.01	0.77	0.18	0.24	< 0.10	< 0.10	266.4
4/25/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0072	0.0154	56.3	0.96	0.77	0.24	0.34	< 0.10	< 0.10	300.4
5/1/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0072	0.0119	57.6	1.27	0.95	0.22	0.28	< 0.10	< 0.10	321.9
5/8/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0087	0.0805	58.7	1.95	0.72	0.18	9.1	< 0.10	0.33	277.5
5/15/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0098	0.0446	54.5	1.6	0.75	0.18	1.09	< 0.10	0.23	275.2
5/24/2017	GH_ER1	206661	0.000055	< 0.010	< 0.010	< 0.050	0.011	0.635	86.5	1.64	0.42	0.18	8.51	< 0.10	2.73	247.3
5/29/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0103	0.194	58.8	1.73	0.47	0.17	3.16	< 0.10	0.84	249
6/6/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0089	0.147	52	1.32	0.38	0.18	2.68	< 0.10	0.55	239.4

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
6/12/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0108	0.11	49.2	1.8	< 0.50	0.23	1.79	< 0.10	0.41	246.2
6/20/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0094	0.0321	40.1	1.91	< 0.50	0.26	0.66	< 0.10	0.12	241.2
6/27/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0108	0.0394	42.1	1.88	< 0.50	0.16	0.75	< 0.10	0.15	238.1
7/4/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0158	0.0327	40.9	1.92	< 0.50	0.19	0.56	< 0.10	0.11	229.6
7/11/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0078	0.0208	38.6	1.14	< 0.50	0.17	0.49	< 0.10	< 0.10	241.9
8/2/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0108	44.3	0.83	0.4	< 0.30	0.63	< 0.10	< 0.10	275.1
9/5/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0092	0.0057	47.9	< 0.50	< 0.50	0.19	0.23	< 0.10	< 0.10	316
9/11/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0051	0.0058	47.4	0.75	< 0.50	0.23	< 0.40	< 0.10	< 0.10	308
10/4/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0066	49.3	0.64	0.47	0.21	0.27	< 0.10	< 0.10	291.2
11/6/2017	GH_ER1	206661	< 0.00025	< 0.010	< 0.050	< 0.050	0.0058	< 0.025	49.6	0.58	< 0.50	0.29	< 0.50	< 0.10	< 0.50	298.3
12/5/2017	GH_ER1	206661	< 0.000050	< 0.010	< 0.010	< 0.050	0.0068	< 0.0050	46.4	0.61	0.56	0.3	0.28	< 0.10	< 0.10	306.6
1/16/2017	GH_ER1A	E305876	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0059	49.3	< 0.50	0.28	0.26	0.26	< 0.10	< 0.10	261.5
2/15/2017	GH_ER1A	E305876	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0056	48.1	< 0.50	0.27	0.23	0.26	< 0.10	< 0.10	257.5
3/6/2017	GH_ER1A	E305876														
3/16/2017	GH_ER1A	E305876														
3/21/2017	GH_ER1A	E305876														
3/27/2017	GH_ER1A	E305876														
4/4/2017	GH_ER1A	E305876														560.9
4/10/2017	GH_ER1A	E305876														538.4
4/18/2017	GH_ER1A	E305876	< 0.000050	< 0.010	< 0.010	< 0.050	0.018	0.02	64.6	1.27	0.82	0.17	0.25	< 0.10	< 0.10	52.2
4/25/2017	GH_ER1A	E305876														3820
5/1/2017	GH_ER1A	E305876	< 0.000050	< 0.010	< 0.010	< 0.050	0.0128	0.0229	65.1	1.32	0.6	0.13	0.31	< 0.10	< 0.10	404.9
5/8/2017	GH_ER1A	E305876														283.9
5/15/2017	GH_ER1A	E305876														275.1
5/24/2017	GH_ER1A	E305876														317.2
5/29/2017	GH_ER1A	E305876														248.9
6/6/2017	GH_ER1A	E305876	< 0.000050	< 0.010	< 0.010	< 0.050	0.0078	0.108	51.3	1.48	0.29	0.17	1.92	< 0.10	0.43	254.7
6/12/2017	GH_ER1A	E305876														261.3
6/19/2017	GH_ER1A	E305876	< 0.000050	< 0.010	< 0.010	< 0.050	0.0082	0.0504	42.9	1.77	< 0.50	0.17	0.79	< 0.10	0.17	238.5
6/27/2017	GH_ER1A	E305876														
7/11/2017	GH_ER1A	E305876	< 0.000050	< 0.010	< 0.010	< 0.050	0.007	0.0209	36.9	0.92	< 0.50	0.15	0.53	< 0.10	< 0.10	228.1
8/2/2017	GH_ER1A	E305876	< 0.000050	< 0.010	< 0.010	< 0.050	0.0054	0.0132	41.4	0.65	0.26	< 0.30	0.32	< 0.10	< 0.10	249.5
9/8/2017	GH_ER1A	E305876	< 0.000050	< 0.010	< 0.010	< 0.050	0.0079	0.0088	44.5	1.33	< 0.50	0.2	0.24	< 0.10	< 0.10	194
9/12/2017	GH_ER1A	E305876	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0067	46.6	0.64	< 0.50	0.17	0.23	< 0.10	< 0.10	278
10/3/2017	GH_ER1A	E305876	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0081	49.2	0.86	< 0.50	0.21	0.27	< 0.10	< 0.10	272.4
11/28/2017	GH_ER1A	E305876	< 0.000050	< 0.010	< 0.010	< 0.050	0.0089	0.0088	49.6	1.07	< 0.50	0.2	0.29	< 0.10	< 0.10	283
12/12/2017	GH_ER1A	E305876														
1/16/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	49.5	< 0.50	0.27	0.24	0.28	< 0.10	< 0.10	257.4
2/14/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	49.4	< 0.50	0.25	0.25	0.3	< 0.10	< 0.10	256.6
2/21/2017	GH_ER2	200389				< 0.050					0.24					
3/6/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0067	0.0069	50.1	< 0.50	0.24	0.23	0.28	< 0.10	< 0.10	255.9
3/16/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0067	0.016	40.1	< 0.50	< 0.50	0.23	0.39	< 0.10	< 0.10	262.6
3/21/2017	GH_ER2	200389														263
3/27/2017	GH_ER2	200389														253.1
4/4/2017	GH_ER2	200389														257.5
4/10/2017	GH_ER2	200389														257.5
4/18/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0063	0.0102	49	0.7	0.24	0.23	0.29	< 0.10	< 0.10	272.7

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
4/24/2017	GH_ER2	200389														266.5
4/25/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0098	0.0186	50.7	0.83	0.27	0.21	0.38	< 0.10	< 0.10	266.5
5/2/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.006	0.0115	46.4	0.76	0.28	0.19	0.29	< 0.10	< 0.10	270.3
5/9/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0068	0.04	51.2	1.73	0.61	0.19	0.73	< 0.10	0.13	252.4
5/16/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0098	0.0302	45.8	1.66	0.51	0.22	0.8	< 0.10	0.1	249.1
5/23/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0066	0.117	54.9	1.74	0.32	0.17	1.92	< 0.10	0.49	236.8
5/30/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0092	0.277	61.4	1.77	0.31	0.18	3.95	< 0.10	1.12	221.1
6/11/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0074	0.115	49.2	1.94	< 0.50	< 0.10	1.9	< 0.10	0.53	223.9
6/13/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0076	0.054	43.6	1.74	< 0.50	< 0.10	0.89	< 0.10	0.17	223.9
6/20/2017	GH_ER2	200389														217.9
6/27/2017	GH_ER2	200389														215.1
7/4/2017	GH_ER2	200389														209.2
7/10/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.006	0.0126	37.4	1.51	< 0.50	0.16	0.25	< 0.10	< 0.10	216.6
7/25/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0081	0.0078	40.4	0.79	< 0.50	0.19	0.24	< 0.10	< 0.10	236.2
8/1/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0063	0.0076	46.5	0.71	0.24	0.17	0.25	< 0.10	< 0.10	252.3
8/8/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0081	0.0109	46.2	0.64	0.25	0.31	0.27	< 0.10	< 0.10	242.4
8/15/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0066	0.009	45.6	0.96	0.27	0.2	0.21	< 0.10	< 0.10	245.1
8/22/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.005	0.007	46.7	1.07	< 0.50	0.18	0.23	< 0.10	< 0.10	279
9/10/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0081	43.7	< 0.50	< 0.50	0.21	0.26	< 0.10	< 0.10	177
9/12/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0057	44.5	0.74	2.1	0.17	0.24	< 0.10	< 0.10	272
10/2/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0056	0.0074	46.7	0.81	< 0.50	0.22	0.26	< 0.10	< 0.10	263.5
10/10/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0077	39.5	< 0.50	< 0.50	0.27	0.3	< 0.10	< 0.10	251
10/16/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0063	0.0067	49.5	0.73	< 0.50	0.21	0.28	< 0.10	< 0.10	261.7
10/17/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	0.0055	0.0099	43.1	0.62	< 0.50	0.25	0.28	< 0.10	< 0.10	261.8
10/24/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0071	43.1	0.74	< 0.50	0.26	0.31	< 0.10	< 0.10	
10/31/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0055	42.2	< 0.50	< 0.50	0.23	0.27	< 0.10	< 0.10	247.4
11/6/2017	GH_ER2	200389	< 0.00025	< 0.010	< 0.050	< 0.050	< 0.0050	< 0.025	46.9	0.61	< 0.50	0.26	< 0.50	< 0.10	< 0.50	274.9
12/6/2017	GH_ER2	200389	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	47.1	< 0.50	0.35	0.22	0.26	< 0.10	< 0.10	278.9
1/16/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.006	0.0066	57.8	< 0.50	0.47	0.22	0.27	< 0.10	< 0.10	310.2
2/1/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0072	0.0082	55.8	< 0.50	0.46	0.24	0.28	< 0.10	< 0.10	
2/14/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	55.7	< 0.50	0.41	0.23	0.26	< 0.10	< 0.10	297.5
2/21/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0071	55.7	< 0.50	0.38	0.26	0.27	< 0.10	< 0.10	
3/6/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0057	0.0065	53.7	< 0.50	0.35	0.24	0.26	< 0.10	< 0.10	183.9
3/16/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.007	0.0272	47.9	< 0.50	< 0.50	0.2	0.67	< 0.10	0.11	276.8
3/21/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0075	0.0076	53.6	< 0.50	0.31	0.21	0.27	< 0.10	< 0.10	280.5
3/28/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0093	0.0151	54.8	< 0.50	0.37	0.24	0.39	< 0.10	< 0.10	284.7
4/4/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0074	0.0085	53.1	0.77	0.41	0.26	< 0.40	< 0.10	< 0.10	291.4
4/10/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0052	0.0096	57.2	0.77	0.46	0.23	0.33	< 0.10	< 0.10	296.2
4/20/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0063	0.0115	52.3	1.25	0.84	0.21	0.65	< 0.10	< 0.10	304.6
4/24/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0089	0.0189	56.3	0.79	0.5	0.23	0.5	< 0.10	< 0.10	298.4
5/2/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0068	0.0148	53.3	0.77	0.67	0.2	0.31	< 0.10	< 0.10	315.9
5/9/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0121	0.0539	56.2	1.92	0.81	0.19	1.22	< 0.10	0.27	283.7
5/16/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.01	0.0407	49.3	1.67	0.63	0.21	1.03	< 0.10	0.17	275.4
5/23/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0104	0.148	59.5	1.76	0.43	0.2	3.07	< 0.10	0.61	257
5/30/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0103	0.296	65.4	1.72	0.4	0.24	4.18	< 0.10	1.28	244.7
6/11/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0117	0.146	51.8	2.01	< 0.50	0.19	2.23	< 0.10	0.59	243.8
6/13/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0114	0.0961	47.2	1.71	< 0.50	0.14	1.49	< 0.10	0.39	243.8

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
6/19/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.011	0.0372	40.2	1.49	< 0.50	0.26	0.7	< 0.10	0.14	238.9
6/27/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0068	0.0454	41.9	1.93	< 0.50	0.13	0.89	< 0.10	0.18	234.9
7/4/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0096	0.0317	40.3	1.9	< 0.50	0.2	0.63	< 0.10	0.12	230.7
7/11/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0066	0.0189	37	1.17	< 0.50	0.17	0.41	< 0.10	< 0.10	236.2
7/25/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0073	0.0131	41.5	0.89	< 0.50	0.15	0.29	< 0.10	< 0.10	253.7
8/1/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0073	0.0069	48.8	0.7	0.28	0.2	0.31	< 0.10	< 0.10	265.7
9/5/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0078	< 0.0050	46.6	< 0.50	< 0.50	0.2	0.46	< 0.10	< 0.10	300
9/11/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.009	45.8	0.98	< 0.50	0.21	< 0.40	< 0.10	< 0.10	300
10/2/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0058	0.0075	47.8	1.1	< 0.50	0.22	0.25	< 0.10	< 0.10	284.1
10/10/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0079	0.0069	48.4	< 0.50	< 0.50	0.21	0.3	< 0.10	< 0.10	278.1
10/17/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0059	0.008	46.2	0.61	< 0.50	0.22	0.28	< 0.10	< 0.10	797
10/24/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0054	0.0055	45	0.71	< 0.50	0.23	0.36	< 0.10	< 0.10	
10/31/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0064	0.007	48.8	< 0.50	< 0.50	0.22	0.27	< 0.10	< 0.10	289
11/14/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0051	0.0068	54	0.51	< 0.50	0.19	0.3	< 0.10	< 0.10	297.4
12/5/2017	GH_ERC	E300090	< 0.000050	< 0.010	< 0.010	< 0.050	0.0074	< 0.0050	46.9	0.55	0.37	0.24	0.3	< 0.10	< 0.10	303.6
1/16/2017	GH_ERSC2	E305877														
2/15/2017	GH_ERSC2	E305877														
3/6/2017	GH_ERSC2	E305877														
3/16/2017	GH_ERSC2	E305877														
3/22/2017	GH_ERSC2	E305877														
3/29/2017	GH_ERSC2	E305877														
4/5/2017	GH_ERSC2	E305877														
4/10/2017	GH_ERSC2	E305877														
4/20/2017	GH_ERSC2	E305877														
4/25/2017	GH_ERSC2	E305877	< 0.000050	0.013	0.014	< 0.25	0.0186	0.048	86.3	4.43	6.43	< 0.10	0.45	< 0.10	0.19	567
5/3/2017	GH_ERSC2	E305877	< 0.000050	0.015	0.015	< 0.050	0.0204	0.0297	80.1	4.98	5.97	< 0.10	0.27	< 0.10	< 0.10	570.3
5/10/2017	GH_ERSC2	E305877														349.8
5/15/2017	GH_ERSC2	E305877														345.3
5/24/2017	GH_ERSC2	E305877														333.3
5/29/2017	GH_ERSC2	E305877														309.2
6/7/2017	GH_ERSC2	E305877	< 0.000050	< 0.010	< 0.010	< 0.050	0.0721	0.0599	49.5	1.38	0.81	0.43	1.27	0.2	0.26	276.1
6/12/2017	GH_ERSC2	E305877														298.2
6/19/2017	GH_ERSC2	E305877	< 0.000050	< 0.010	< 0.010	< 0.050	0.0093	0.0596	46.5	1.78	< 0.50	0.18	0.94	< 0.10	0.19	318.9
6/27/2017	GH_ERSC2	E305877														
7/4/2017	GH_ERSC2	E305877														
7/11/2017	GH_ERSC2	E305877	< 0.000050	< 0.010	< 0.010	< 0.050	0.0071	0.0409	40.6	1.56	< 0.50	0.13	0.92	< 0.10	0.19	267.1
8/2/2017	GH_ERSC2	E305877	< 0.000050	< 0.010	< 0.010	< 0.050	0.0082	0.0295	47.3	0.81	0.54	< 0.20	0.53	< 0.10	0.11	290.3
9/13/2017	GH_ERSC2	E305877														
10/3/2017	GH_ERSC2	E305877														
11/14/2017	GH_ERSC2	E305877														
12/18/2017	GH_ERSC2	E305877														
1/16/2017	GH_ERSC4	E305878	< 0.000050	< 0.010	< 0.010	< 0.050	0.008	0.0092	89.9	0.93	0.51	0.38	0.51	< 0.10	< 0.10	266.4
2/15/2017	GH_ERSC4	E305878	< 0.000050	< 0.010	< 0.010	< 0.050	0.0058	0.0088	49.9	< 0.50	0.27	0.23	0.3	< 0.10	< 0.10	256.6
3/6/2017	GH_ERSC4	E305878														
3/16/2017	GH_ERSC4	E305878														
3/21/2017	GH_ERSC4	E305878														
3/29/2017	GH_ERSC4	E305878														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
4/4/2017	GH_ERSC4	E305878														
4/10/2017	GH_ERSC4	E305878														
4/20/2017	GH_ERSC4	E305878	< 0.000050	< 0.010	< 0.010	< 0.050	0.0083	0.0101	45.8	1.68	< 0.50	0.2	0.27	< 0.10	< 0.10	294.6
4/25/2017	GH_ERSC4	E305878														272.5
5/1/2017	GH_ERSC4	E305878	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0147	53.6	1.39	0.32	0.11	0.31	< 0.10	< 0.10	287.3
5/10/2017	GH_ERSC4	E305878														255.6
5/15/2017	GH_ERSC4	E305878														253.5
5/24/2017	GH_ERSC4	E305878														228.9
5/29/2017	GH_ERSC4	E305878														228.5
6/5/2017	GH_ERSC4	E305878	< 0.000050	< 0.010	< 0.010	< 0.050	0.006	0.162	52.6	1.25	0.29	0.2	2.71	< 0.10	0.7	1395
6/12/2017	GH_ERSC4	E305878														228.7
6/19/2017	GH_ERSC4	E305878														
6/27/2017	GH_ERSC4	E305878														
7/10/2017	GH_ERSC4	E305878	< 0.000050	< 0.010	< 0.010	< 0.050	0.009	0.0209	38.4	1.15	< 0.50	0.17	0.34	< 0.10	< 0.10	222.1
8/2/2017	GH_ERSC4	E305878	< 0.000050	< 0.010	< 0.010	< 0.050	0.0079	0.0131	41.8	0.78	0.25	< 0.20	0.3	< 0.10	< 0.10	25.3
9/8/2017	GH_ERSC4	E305878	< 0.000050	< 0.010	< 0.010	< 0.050	0.0052	0.0075	44.4	1.4	< 0.50	0.14	0.22	< 0.10	< 0.10	193
9/12/2017	GH_ERSC4	E305878	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0207	47.2	0.82	0.84	0.15	0.5	< 0.10	< 0.10	271
10/3/2017	GH_ERSC4	E305878	< 0.000050	< 0.010	< 0.010	< 0.050	0.005	0.0053	48.9	0.77	< 0.50	0.2	0.27	< 0.10	< 0.10	270.6
11/14/2017	GH_ERSC4	E305878	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0101	52.1	0.89	< 0.50	0.26	0.27	< 0.10	< 0.10	281.9
12/12/2017	GH_ERSC4	E305878	< 0.000050	< 0.010	< 0.010	< 0.050	0.0062	0.0087	51.9	0.91	0.3	0.22	0.35	< 0.10	< 0.10	302
1/9/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0155	0.0183	112	1.24	1.89	0.11	0.15	< 0.10	< 0.10	701.7
2/1/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0157	0.0175	117	0.82	1.93	< 0.10	0.13	< 0.10	< 0.10	
2/14/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.018	0.0187	116	0.57	1.83	0.12	0.13	< 0.10	< 0.10	713
2/21/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0136	0.0182	115	0.57	1.83	< 0.10	0.14	< 0.10	< 0.10	
2/28/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0172	0.0179	112	0.72	1.91	0.11	0.14	< 0.10	< 0.10	
3/7/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0148	0.0176	125	0.68	2.14	< 0.10	0.13	< 0.10	< 0.10	737.7
3/14/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0152	0.0168	117	1.45	1.83	< 0.10	0.12	< 0.10	< 0.10	706
3/16/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0154	0.0239	119	0.98	2.21	< 0.10	0.17	< 0.10	< 0.10	798
3/21/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0238	0.0244	119	0.93	2.67	< 0.10	0.16	< 0.10	< 0.10	731.4
3/27/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0199	0.0227	113	0.8	2.78	< 0.10	0.15	< 0.10	< 0.10	734
4/4/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0202	0.0234	116	1.28	2.87	< 0.10	0.16	< 0.10	< 0.10	735
4/11/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0197	0.0277	112	1.51	2.47	< 0.10	0.15	< 0.10	< 0.10	704.2
4/18/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0246	0.0303	110	1.69	2.38	0.1	0.14	< 0.10	< 0.10	660
4/24/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0349	0.0832	92.3	3.39	1.69	< 0.10	1.18	< 0.10	0.37	899.8
5/2/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0285	0.041	88.1	2.05	2.08	< 0.10	0.25	< 0.10	0.11	613.9
5/9/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0291	0.0797	71.1	2.86	1.12	< 0.10	0.74	< 0.10	0.34	442.5
5/16/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0282	0.0568	66.6	2.2	1.03	< 0.10	0.72	< 0.10	0.16	458.3
5/23/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0214	0.116	71.4	1.95	0.76	< 0.10	0.98	< 0.10	0.38	421.4
5/30/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0192	0.14	61.5	1.78	0.61	0.11	1.15	< 0.10	0.46	376.5
6/11/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0256	0.0488	67.2	1.67	0.67	< 0.10	0.31	< 0.10	0.13	465.6
6/13/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0232	0.0495	68.6	2.26	0.69	< 0.10	0.25	< 0.10	< 0.10	451.1
6/19/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0256	0.0345	68.3	1.78	0.74	< 0.10	0.18	< 0.10	< 0.10	475.6
6/27/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0186	0.0272	71.8	1.67	0.86	< 0.10	0.17	< 0.10	< 0.10	509.5
7/4/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0199	0.0244	76.2	1.85	0.85	< 0.10	0.13	< 0.10	< 0.10	538.2
7/11/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0196	0.0232	76.8	1.36	0.91	< 0.10	0.14	< 0.10	< 0.10	686
7/25/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0187	0.0193	86	1.01	1.07	< 0.10	0.16	< 0.10	< 0.10	643
8/1/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0202	0.0195	106	0.9	1.53	0.11	0.14	< 0.10	< 0.10	702

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
8/8/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0212	0.0185	98.8	1.03	1.53	0.11	0.14	< 0.10	< 0.10	674
8/15/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0198	0.0184	103	0.85	1.38	0.11	0.17	< 0.10	< 0.10	688
8/22/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0169	0.0171	101	1.4	1.13	0.11	0.11	< 0.10	< 0.10	812
9/5/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0213	0.0132	101	1.38	1.17	0.1	0.14	< 0.10	< 0.10	806
9/11/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0134	0.0201	101	0.79	1.18	0.11	< 0.30	< 0.10	< 0.10	744
10/2/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0153	0.0193	102	1.6	1.23	< 0.10	0.15	< 0.10	< 0.10	737
10/10/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0163	0.0188	115	1.01	1.27	0.12	0.19	< 0.10	< 0.10	852
10/17/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0157	0.0199	106	1.27	1.33	< 0.10	0.14	< 0.10	< 0.10	280
10/24/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	0.05	0.0194	0.0187	104	1.07	1.34	0.17	0.12	< 0.10	< 0.10	893
10/31/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	0.051	0.0158	0.021	104	0.65	1.37	0.11	0.14	< 0.10	< 0.10	787
11/7/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0197	0.0159	121	0.94	1.51	0.11	0.2	< 0.10	< 0.10	917.1
11/14/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.050	0.0163	0.0181	122	0.67	1.42	< 0.10	0.21	< 0.10	< 0.10	872.1
11/21/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0134	0.0153	122	0.89	< 2.5	< 0.10	0.16	< 0.10	< 0.10	878.8
12/5/2017	GH_FR1	200378	< 0.000050	< 0.010	< 0.010	< 0.25	0.0187	0.0203	112	0.73	2.03	0.16	0.2	< 0.10	< 0.10	790
1/9/2017	GH_GH1	E102709	< 0.000050	0.012	0.011	< 0.50	0.0167	0.0102	199	1.68	2.5	< 0.10	0.4	< 0.10	< 0.10	1319
2/15/2017	GH_GH1	E102709	< 0.000050	< 0.010	0.01	< 0.50	0.0099	0.0098	216	1.45	2.8	< 0.10	0.13	< 0.10	< 0.10	1408
3/7/2017	GH_GH1	E102709	0.000067	< 0.010	< 0.010	< 0.50	0.0115	0.0116	212	1.56	2.6	< 0.10	0.13	< 0.10	< 0.10	1338
3/14/2017	GH_GH1	E102709	< 0.000050	< 0.010	< 0.010	< 0.50	0.01	0.0117	211	2.02	2.7	< 0.10	0.13	< 0.10	< 0.10	1384
3/16/2017	GH_GH1	E102709														1297
3/21/2017	GH_GH1	E102709														901
3/27/2017	GH_GH1	E102709														928
4/4/2017	GH_GH1	E102709														746
4/11/2017	GH_GH1	E102709														760
4/18/2017	GH_GH1	E102709	< 0.000050	< 0.010	< 0.010	< 0.25	0.0372	0.0423	123	3.59	2.62	< 0.10	0.25	< 0.10	0.12	873
4/24/2017	GH_GH1	E102709														515.9
4/27/2017	GH_GH1	E102709														
5/2/2017	GH_GH1	E102709	< 0.000050	0.012	< 0.010	< 0.050	0.0501	0.085	70.8	4.72	1.41	< 0.10	0.44	0.1	0.23	552
5/3/2017	GH_GH1	E102709														
5/9/2017	GH_GH1	E102709	< 0.000050	< 0.010	0.01	< 0.050	0.0551	0.147	57.5	6.51	0.86	< 0.10	1.31	0.2	1.01	388.1
5/10/2017	GH_GH1	E102709														
5/15/2017	GH_GH1	E102709														408
5/24/2017	GH_GH1	E102709														648
5/29/2017	GH_GH1	E102709														735
6/7/2017	GH_GH1	E102709	< 0.000050	< 0.010	0.011	< 0.25	0.209	0.21	131	3.75	1.35	< 0.10	0.15	< 0.10	0.16	
6/8/2017	GH_GH1	E102709	< 0.000050	0.01	< 0.010	< 0.25	0.204	0.223	133	4.31	< 2.5	< 0.10	0.16	0.1	0.15	1022
6/12/2017	GH_GH1	E102709														1119
6/19/2017	GH_GH1	E102709														1145
6/27/2017	GH_GH1	E102709														1220
7/4/2017	GH_GH1	E102709														1292
7/11/2017	GH_GH1	E102709	< 0.000050	< 0.010	0.01	< 0.25	0.0066	0.0052	158	2.86	< 2.5	< 0.10	0.12	< 0.10	< 0.10	1384
8/3/2017	GH_GH1	E102709	< 0.000050	0.01	0.012	< 0.10	< 0.0050	0.0111	189	3.43	< 2.5	< 0.10	0.12	< 0.10	< 0.10	1525
9/11/2017	GH_GH1	E102709	< 0.000050	< 0.010	0.01	< 0.10	0.0157	0.0173	191	3.02	< 2.5	0.11	< 0.30	< 0.10	< 0.10	1664
10/4/2017	GH_GH1	E102709	< 0.000050	< 0.010	< 0.010	< 0.50	0.0128	0.0129	176	1.91	1.8	< 0.10	0.12	< 0.10	< 0.10	1581
11/7/2017	GH_GH1	E102709	< 0.000050	< 0.010	< 0.010	0.32	< 0.0050	0.0123	194	1.84	< 2.5	< 0.10	0.16	< 0.10	< 0.10	1546
12/11/2017	GH_GH1	E102709	< 0.000050	< 0.010	0.011	< 0.25	< 0.0050	0.0129	212	2.02	2.86	< 0.10	0.21	< 0.10	< 0.10	1630
5/9/2017	GH_GH2	E309911	< 0.000050	< 0.010	0.01	< 0.050	0.0488	0.126	57	6.6	0.98	0.11	1.31	0.19	0.99	396
6/7/2017	GH_GH2	E309911	< 0.000050	< 0.010	0.011	< 0.25	0.166	0.171	132	3.83	1.78	< 0.10	0.18	< 0.10	0.13	979

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
6/19/2017	GH_GH2	E309911	< 0.000050	< 0.010	0.01	< 0.25	0.0786	0.0932	154	3.84	< 2.5	< 0.10	0.14	< 0.10	0.14	1143
7/11/2017	GH_GH2	E309911	< 0.000050	0.01	0.011	< 0.25	0.0117	0.0089	158	2.65	< 2.5	< 0.10	0.15	< 0.10	< 0.10	1350
8/3/2017	GH_GH2	E309911														1511
8/7/2017	GH_GH2	E309911	< 0.000050	0.011	0.011	< 0.10	< 0.0050	0.0074	180	3.56	< 2.5	< 0.10	0.12	< 0.10	< 0.10	
9/12/2017	GH_GH2	E309911	< 0.000050	0.011	0.012	< 0.25	0.0154	0.0178	198	2.08	< 2.5	< 0.10	0.13	< 0.10	< 0.10	1713
10/25/2017	GH_GH2	E309911	< 0.000050	< 0.010	< 0.010	< 0.25	0.011	0.0119	174	2.1	< 2.5	< 0.10	0.1	< 0.10	< 0.10	1554
11/7/2017	GH_GH2	E309911	< 0.000050	< 0.010	< 0.010	0.32	0.0157	0.0177	195	1.99	< 2.5	< 0.10	0.16	< 0.10	< 0.10	1567
12/11/2017	GH_GH2	E309911	< 0.000050	< 0.010	0.01	< 0.25	0.0148	0.0187	213	1.98	3.15	0.2	0.12	< 0.10	< 0.10	1629
1/16/2017	GH_LC1	E257796														
2/14/2017	GH_LC1	E257796	< 0.000050	0.017	0.016	< 0.50	0.0079	0.183	167	1.43	4.7	< 0.10	< 0.10	1.07	1.18	1303
2/21/2017	GH_LC1	E257796	< 0.000050	0.018	0.02	< 0.25	0.0183	0.16	203	1.86	4.72	< 0.10	0.1	0.93	1.09	
3/6/2017	GH_LC1	E257796	< 0.000050	0.014	0.018	< 0.50	0.0076	0.0986	206	1.05	5.1	< 0.10	< 0.10	1.25	1.57	1387
3/16/2017	GH_LC1	E257796														1467
3/21/2017	GH_LC1	E257796														1439
3/27/2017	GH_LC1	E257796														1416
4/4/2017	GH_LC1	E257796														1460
4/10/2017	GH_LC1	E257796														1452
4/18/2017	GH_LC1	E257796	< 0.000050	0.015	0.017	< 0.50	< 0.0050	0.0551	248	1.2	5.6	< 0.10	< 0.10	2.02	2.47	1623
4/25/2017	GH_LC1	E257796														1633
5/1/2017	GH_LC1	E257796	< 0.000050	0.014	0.015	< 0.25	< 0.0050	0.15	217	1.33	4.58	< 0.10	0.1	1.96	2.44	1444
5/8/2017	GH_LC1	E257796														1370
5/15/2017	GH_LC1	E257796														159.8
5/24/2017	GH_LC1	E257796														1645
5/29/2017	GH_LC1	E257796														1670
6/5/2017	GH_LC1	E257796	< 0.000050	0.02	0.021	< 0.50	< 0.0050	0.0169	219	1.82	5.1	< 0.10	< 0.10	0.84	1.01	1703
6/12/2017	GH_LC1	E257796														1692
6/19/2017	GH_LC1	E257796														1608
6/20/2017	GH_LC1	E257796														
6/27/2017	GH_LC1	E257796														1457
7/4/2017	GH_LC1	E257796														1539
7/10/2017	GH_LC1	E257796	< 0.000050	0.022	0.022	< 0.25	0.0097	0.0225	198	1.74	4.3	< 0.10	< 0.10	1.11	1.21	1577
8/2/2017	GH_LC1	E257796	< 0.00010	0.021	0.02	< 0.50	< 0.010	< 0.010	213	1.69	5.6	< 0.20	< 0.20	1.28	1.48	1729
9/11/2017	GH_LC1	E257796	< 0.000050	0.022	0.024	0.14	0.0052	< 0.010	250	5.39	4.4	< 0.10	< 0.20	0.62	0.75	2106
10/3/2017	GH_LC1	E257796	< 0.000050	0.024	0.025	< 0.050	< 0.0050	0.0052	254	3.54	5.1	< 0.10	< 0.10	0.5	0.46	1888
11/6/2017	GH_LC1	E257796														
12/12/2017	GH_LC1	E257796														
1/16/2017	GH_MC1	200388														
2/15/2017	GH_MC1	200388														
3/6/2017	GH_MC1	200388														
3/16/2017	GH_MC1	200388	< 0.000050	0.022	0.02	< 0.050	0.0349	0.0357	65.3	3.02	3.18	< 0.10	0.11	0.24	0.26	478.4
3/22/2017	GH_MC1	200388	< 0.000050	0.032	0.025	< 0.25	0.0218	0.0388	72.8	2.9	3.06	< 0.10	0.13	0.45	0.64	575.4
3/27/2017	GH_MC1	200388														559.4
4/4/2017	GH_MC1	200388														479.1
4/10/2017	GH_MC1	200388														452.4
4/18/2017	GH_MC1	200388	< 0.000050	0.022	0.023	< 0.050	0.031	0.0434	65	4.47	0.91	< 0.10	0.15	< 0.10	0.14	454.1
4/25/2017	GH_MC1	200388														221.6
5/1/2017	GH_MC1	200388	< 0.000050	0.021	0.021	< 0.050	0.0274	0.0545	62.6	5.46	0.71	< 0.10	0.19	< 0.10	0.2	402.5

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
5/8/2017	GH_MC1	200388														366.9
5/15/2017	GH_MC1	200388														397.5
5/24/2017	GH_MC1	200388														419.3
5/29/2017	GH_MC1	200388														441.6
6/5/2017	GH_MC1	200388	< 0.000050	0.03	0.027	< 0.050	0.0359	0.0378	61.8	3.58	1.06	< 0.10	< 0.10	< 0.10	< 0.10	466.7
6/12/2017	GH_MC1	200388														486.5
6/20/2017	GH_MC1	200388														486.1
6/27/2017	GH_MC1	200388														493.6
7/4/2017	GH_MC1	200388														503.9
7/10/2017	GH_MC1	200388	< 0.000050	0.035	0.036	< 0.050	0.0321	0.0323	63.4	2.98	1.8	< 0.10	< 0.10	< 0.10	< 0.10	512.2
8/2/2017	GH_MC1	200388														
9/12/2017	GH_MC1	200388														
10/3/2017	GH_MC1	200388														
11/28/2017	GH_MC1	200388	< 0.000050	0.028	0.029	< 0.050	0.0292	0.0317	74	3.29	2.98	< 0.10	< 0.10	< 0.10	< 0.10	584
12/6/2017	GH_MC1	200388	< 0.000050	0.022	0.021	< 0.050	0.024	0.0308	71.7	2.44	3.38	< 0.10	< 0.10	< 0.10	< 0.10	589
1/16/2017	GH_NNC	E305875	< 0.000050	0.013	0.016	< 0.050	0.0138	0.0189	73.5	4.47	0.63	< 0.10	0.11	< 0.10	< 0.10	372.3
2/15/2017	GH_NNC	E305875														
3/6/2017	GH_NNC	E305875	< 0.000050	0.017	0.02	< 0.050	0.0115	0.0464	71.9	3.62	0.48	< 0.10	0.25	< 0.10	0.16	374.8
3/16/2017	GH_NNC	E305875														305.6
3/22/2017	GH_NNC	E305875														349.3
3/28/2017	GH_NNC	E305875														
4/4/2017	GH_NNC	E305875														
4/10/2017	GH_NNC	E305875														
4/20/2017	GH_NNC	E305875	< 0.000050	0.018	0.02	< 0.050	0.0115	0.0496	55.1	9.7	< 0.50	< 0.10	0.12	< 0.10	0.11	301.6
4/25/2017	GH_NNC	E305875														307.1
5/1/2017	GH_NNC	E305875	< 0.000050	0.015	0.017	< 0.050	0.0086	0.0167	59.1	7.55	0.42	< 0.10	< 0.10	< 0.10	< 0.10	304.4
5/8/2017	GH_NNC	E305875														314.5
5/15/2017	GH_NNC	E305875														331
5/24/2017	GH_NNC	E305875														346.9
5/29/2017	GH_NNC	E305875														354.8
6/5/2017	GH_NNC	E305875	< 0.000050	0.024	0.026	< 0.050	0.0119	0.0288	64.8	5.2	0.37	< 0.10	0.22	< 0.10	< 0.10	240.5
6/12/2017	GH_NNC	E305875														373.4
6/19/2017	GH_NNC	E305875														
6/26/2017	GH_NNC	E305875														
7/4/2017	GH_NNC	E305875														
7/10/2017	GH_NNC	E305875	< 0.000050	0.03	0.031	< 0.050	0.0157	0.0189	68.7	4.2	< 0.50	< 0.10	< 0.10	< 0.10	< 0.10	395.6
8/2/2017	GH_NNC	E305875	< 0.000050	0.023	0.022	< 0.050	0.0085	0.0198	66.7	4.52	0.28	< 0.10	< 0.10	< 0.10	< 0.10	430.5
9/12/2017	GH_NNC	E305875														
10/3/2017	GH_NNC	E305875														
11/28/2017	GH_NNC	E305875	< 0.000050	0.029	0.03	< 0.050	0.0108	0.0124	69.8	5.59	0.56	< 0.10	< 0.10	< 0.10	< 0.10	28.8
12/6/2017	GH_NNC	E305875	< 0.000050	0.028	0.029	< 0.050	0.0062	0.0113	72.1	4.03	0.7	< 0.10	< 0.10	< 0.10	< 0.10	426.1
1/9/2017	GH_PC1	200385	< 0.000050	< 0.010	< 0.010	< 0.25	0.0183	0.0242	121	0.96	1.46	0.24	0.29	< 0.10	< 0.10	932
2/9/2017	GH_PC1	200385	< 0.000050	< 0.010	< 0.010	< 0.050	0.0204	0.0246	121	1.16	1.12	0.24	0.28	< 0.10	< 0.10	991
2/9/2017	GH_PC1	200385														
3/6/2017	GH_PC1	200385	< 0.000050	< 0.010	< 0.010	< 0.25	0.0207	0.0273	123	0.9	1.45	0.23	0.25	< 0.10	< 0.10	947
3/15/2017	GH_PC1	200385														951
3/21/2017	GH_PC1	200385	< 0.000050	< 0.010	< 0.010	< 0.050	0.0192	0.025	126	1.07	1.05	0.21	0.26	< 0.10	< 0.10	917

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
3/29/2017	GH_PC1	200385														918
4/5/2017	GH_PC1	200385	< 0.000050	< 0.010	< 0.010	< 0.25	0.0193	0.0203	112	1.26	1.22	0.2	0.24	< 0.10	< 0.10	878.8
4/12/2017	GH_PC1	200385														901
4/20/2017	GH_PC1	200385														795
4/25/2017	GH_PC1	200385														932
5/3/2017	GH_PC1	200385	< 0.000050	< 0.010	< 0.010	< 0.25	0.0289	0.0299	119	1.77	1.28	0.16	0.24	< 0.10	< 0.10	858
5/8/2017	GH_PC1	200385	< 0.000050	< 0.010	< 0.010	< 0.050	0.033	0.15	102	4.55	0.92	0.18	0.74	< 0.10	0.51	775.7
5/17/2017	GH_PC1	200385														867
5/23/2017	GH_PC1	200385														8.17
5/31/2017	GH_PC1	200385														958
6/6/2017	GH_PC1	200385	< 0.000050	< 0.010	< 0.010	< 0.25	0.0282	0.0376	134	2.15	< 2.5	0.24	0.33	< 0.10	< 0.10	1094
6/13/2017	GH_PC1	200385														1124
6/19/2017	GH_PC1	200385														1073
6/27/2017	GH_PC1	200385														1049
7/5/2017	GH_PC1	200385	< 0.000050	< 0.010	< 0.010	< 0.25	0.0221	0.0208	125	1.06	1.09	0.26	0.29	< 0.10	< 0.10	1006
7/10/2017	GH_PC1	200385														1053
7/27/2017	GH_PC1	200385	< 0.000050	< 0.010	< 0.010	< 0.25	0.0218	0.0195	112	1.44	< 2.5	0.29	0.32	< 0.10	< 0.10	1022
8/8/2017	GH_PC1	200385														
8/8/2017	GH_PC1	200385	< 0.000050	< 0.010	< 0.010	< 0.25	0.023	0.023	123	1.14	1.22	0.25	0.43	< 0.10	< 0.10	981
12/5/2017	GH_PC1	200385														
1/9/2017	GH_RLP	E207437														
2/7/2017	GH_RLP	E207437														
3/16/2017	GH_RLP	E207437	0.000054	< 0.010	0.014	0.13	0.0311	0.306	20.6	5.89	24.3	< 0.10	4.12	< 0.10	2.91	186.8
3/21/2017	GH_RLP	E207437														278.4
3/27/2017	GH_RLP	E207437														305.9
4/4/2017	GH_RLP	E207437														
4/11/2017	GH_RLP	E207437														305.5
4/18/2017	GH_RLP	E207437	< 0.000050	0.013	0.013	0.121	0.0368	0.0528	36.4	1.14	33.2	< 0.10	0.14	< 0.10	0.27	345.1
4/25/2017	GH_RLP	E207437														366.2
5/3/2017	GH_RLP	E207437	< 0.000050	0.019	0.021	0.153	0.0724	0.092	62.5	2.98	26	< 0.10	0.27	0.24	0.31	333.5
5/10/2017	GH_RLP	E207437														563.2
5/15/2017	GH_RLP	E207437														582
5/24/2017	GH_RLP	E207437														601
5/29/2017	GH_RLP	E207437														
6/7/2017	GH_RLP	E207437														
6/12/2017	GH_RLP	E207437														
6/22/2017	GH_RLP	E207437														
6/27/2017	GH_RLP	E207437														
7/4/2017	GH_RLP	E207437														709
7/11/2017	GH_RLP	E207437														
7/27/2017	GH_RLP	E207437	< 0.000050	0.035	0.035	0.217	0.0181	0.0246	59.2	4.79	26.4	< 0.10	< 0.10	0.34	0.43	692
8/3/2017	GH_RLP	E207437														
9/27/2017	GH_RLP	E207437														
10/25/2017	GH_RLP	E207437														
11/14/2017	GH_RLP	E207437														
12/7/2017	GH_RLP	E207437	< 0.000050	0.034	0.038	0.608	0.14	0.153	93.7	1.47	52.4	0.14	0.16	0.59	0.66	848
1/10/2017	GH_SC1	E221329	< 0.000050	< 0.010	< 0.010	< 0.25	0.345	0.347	391	2.41	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	2387

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
2/9/2017	GH_SC1	E221329	< 0.000050	< 0.010	< 0.010	< 0.25	0.177	0.281	393	2.15	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	2662
3/6/2017	GH_SC1	E221329	< 0.000050	< 0.010	< 0.010	< 0.25	0.163	0.189	369	1.98	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	2627
3/15/2017	GH_SC1	E221329														2744
3/21/2017	GH_SC1	E221329	< 0.000050	< 0.010	< 0.010	< 0.25	0.247	0.271	300	2.28	< 2.5	< 0.10	0.2	0.12	0.22	2130
3/29/2017	GH_SC1	E221329														2117
4/5/2017	GH_SC1	E221329	< 0.000050	< 0.010	< 0.010	< 0.25	0.298	0.288	257	1.53	< 2.5	< 0.10	0.32	0.15	0.37	2065
4/12/2017	GH_SC1	E221329														2089
4/20/2017	GH_SC1	E221329														1936
4/25/2017	GH_SC1	E221329														2254
5/2/2017	GH_SC1	E221329														
5/3/2017	GH_SC1	E221329	< 0.000050	< 0.010	< 0.010	< 0.25	0.628	0.627	268	2.46	< 2.5	< 0.10	0.22	0.14	0.25	1941
5/8/2017	GH_SC1	E221329	< 0.000050	< 0.010	< 0.010	< 0.25	0.6	0.677	241	4	< 2.5	< 0.10	0.28	0.14	0.37	1783
5/17/2017	GH_SC1	E221329														1537
5/17/2017	GH_SC1	E221329														
5/17/2017	GH_SC1	E221329														
5/18/2017	GH_SC1	E221329														
5/23/2017	GH_SC1	E221329														1671
5/31/2017	GH_SC1	E221329														1673
6/6/2017	GH_SC1	E221329	< 0.000050	< 0.010	< 0.010	< 0.25	0.614	0.653	215	3	< 2.5	< 0.10	0.12	0.12	0.16	1699
6/13/2017	GH_SC1	E221329														1752
6/19/2017	GH_SC1	E221329														1797
6/27/2017	GH_SC1	E221329														1932
7/5/2017	GH_SC1	E221329	< 0.000050	< 0.010	< 0.010	< 0.25	0.136	0.622	271	2.69	< 2.5	< 0.10	< 0.10	< 0.10	< 0.10	1997
7/10/2017	GH_SC1	E221329														2126
8/8/2017	GH_SC1	E221329	< 0.00010	< 0.020	< 0.020	< 1.0	< 0.010	0.19	352	2.45	< 2.0	< 0.20	< 0.20	< 0.20	< 0.20	2276
9/6/2017	GH_SC1	E221329	< 0.000050	< 0.010	< 0.010	< 0.10	< 0.0050	0.341	360	4.2	< 2.5	< 0.10	< 0.10	0.11	0.13	2583
9/20/2017	GH_SC1	E221329														
10/4/2017	GH_SC1	E221329	< 0.000050	< 0.010	< 0.010	< 0.25	0.563	0.71	390	2.46	< 2.5	< 0.10	< 0.10	0.11	0.13	2525
10/19/2017	GH_SC1	E221329	< 0.00010	< 0.020	< 0.020	< 0.25	< 0.010	0.169	389	2.23	< 2.5	< 0.20	< 0.20	0.24	0.28	2735
11/1/2017	GH_SC1	E221329	< 0.000050	< 0.020	< 0.010	< 0.25	0.012	0.327	394	1.74	< 2.5	< 0.20	< 0.30	< 0.20	0.25	2714
11/16/2017	GH_SC1	E221329														
12/5/2017	GH_SC1	E221329	< 0.00010	< 0.010	< 0.020	< 0.25	0.0711	0.569	420	2.27	< 2.5	< 0.10	< 0.20	0.19	0.21	2686
1/1/2017	GH_SC2	E105061														
2/1/2017	GH_SC2	E105061														
3/1/2017	GH_SC2	E105061														
4/1/2017	GH_SC2	E105061														
5/1/2017	GH_SC2	E105061														
6/1/2017	GH_SC2	E105061														
7/1/2017	GH_SC2	E105061														
8/1/2017	GH_SC2	E105061														
9/4/2017	GH_SC2	E105061														
10/2/2017	GH_SC2	E105061														
11/6/2017	GH_SC2	E105061														
12/4/2017	GH_SC2	E105061														
1/10/2017	GH_TC1	E102714	< 0.000050	0.02	0.02	< 0.25	0.014	0.0204	219	2.46	15.3	< 0.10	< 0.10	< 0.10	< 0.10	1254
2/15/2017	GH_TC1	E102714	< 0.000050	0.02	0.022	< 0.25	0.0616	0.0719	210	3.46	16.7	< 0.10	0.12	< 0.10	0.11	1231
3/6/2017	GH_TC1	E102714	< 0.000050	0.017	0.022	< 0.25	0.0372	0.0411	208	2.87	16.5	< 0.10	< 0.10	< 0.10	< 0.10	1257

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
3/16/2017	GH_TC1	E102714														1136
3/21/2017	GH_TC1	E102714														1007
3/27/2017	GH_TC1	E102714														936
4/4/2017	GH_TC1	E102714														764
4/10/2017	GH_TC1	E102714														690.8
4/20/2017	GH_TC1	E102714	< 0.000050	0.016	0.016	< 0.050	0.0249	0.0474	78.7	7.42	8.59	< 0.10	0.28	< 0.10	0.21	626.2
4/25/2017	GH_TC1	E102714														622.1
5/3/2017	GH_TC1	E102714	< 0.000050	0.016	0.018	< 0.25	0.017	0.0313	88.5	5.64	7.36	< 0.10	0.22	< 0.10	0.11	624.7
5/10/2017	GH_TC1	E102714														573.7
5/15/2017	GH_TC1	E102714														665
5/24/2017	GH_TC1	E102714														794
5/29/2017	GH_TC1	E102714														908
6/7/2017	GH_TC1	E102714	< 0.000050	0.023	0.026	< 0.25	0.0173	0.0231	155	3.72	9.56	< 0.10	0.16	< 0.10	< 0.10	1086
6/12/2017	GH_TC1	E102714														1124
6/19/2017	GH_TC1	E102714	< 0.000050	0.023	0.025	< 0.25	0.0169	0.0243	163	4.55	10.5	< 0.10	0.11	< 0.10	< 0.10	1145
6/27/2017	GH_TC1	E102714														1265
7/4/2017	GH_TC1	E102714														1344
7/10/2017	GH_TC1	E102714	< 0.000050	0.031	0.033	< 0.25	0.0139	0.0212	196	3.49	10.7	< 0.10	< 0.10	< 0.10	< 0.10	1422
8/2/2017	GH_TC1	E102714	< 0.000050	0.028	0.03	< 0.50	0.0116	0.0247	223	3.24	13.4	< 0.10	< 0.10	< 0.10	< 0.10	1633
9/13/2017	GH_TC1	E102714	< 0.000050	0.028	0.031	< 0.25	0.0136	0.023	255	4.03	12.9	< 0.10	0.14	< 0.10	< 0.10	1921
10/4/2017	GH_TC1	E102714	< 0.000050	0.022	0.023	< 0.50	0.0107	0.0163	242	2.68	16.2	< 0.10	< 0.10	< 0.10	< 0.10	1691
11/6/2017	GH_TC1	E102714	< 0.00025	0.022	< 0.050	< 0.25	0.016	< 0.025	237	2.9	15.2	< 0.10	< 0.50	< 0.10	< 0.50	1686
12/12/2017	GH_TC1	E102714	< 0.000050	0.019	0.019	< 0.25	0.022	0.0241	242	2.94	17	< 0.10	0.13	< 0.10	< 0.10	1636
1/10/2017	GH_TC2	E207436	< 0.000050	0.021	0.022	< 0.25	0.0138	0.0198	230	2.22	14.9	< 0.10	< 0.10	< 0.10	< 0.10	1281
2/9/2017	GH_TC2	E207436	< 0.000050	0.021	0.02	< 0.10	0.0511	0.0524	169	5.75	16	< 0.10	0.12	< 0.10	0.12	1278
2/15/2017	GH_TC2	E207436	< 0.000050	0.02	0.022	< 0.25	0.0667	0.0813	207	3.31	15.5	< 0.10	< 0.10	< 0.10	0.13	1244
3/6/2017	GH_TC2	E207436	< 0.000050	0.018	0.022	< 0.50	0.0382	0.0457	209	2.77	16.3	< 0.10	< 0.10	< 0.10	< 0.10	1261
3/16/2017	GH_TC2	E207436														1081
3/21/2017	GH_TC2	E207436														1009
3/28/2017	GH_TC2	E207436														889
4/4/2017	GH_TC2	E207436														758
4/10/2017	GH_TC2	E207436														688.1
4/20/2017	GH_TC2	E207436	< 0.000050	0.017	0.016	< 0.050	0.0234	0.0473	78.3	7.4	8.32	< 0.10	0.34	< 0.10	0.21	618.4
4/25/2017	GH_TC2	E207436														623.2
5/3/2017	GH_TC2	E207436	< 0.000050	0.016	0.017	< 0.25	0.0193	0.0302	86.4	5.79	7.39	< 0.10	0.27	< 0.10	0.11	625.5
5/10/2017	GH_TC2	E207436														589.9
5/15/2017	GH_TC2	E207436														666
5/24/2017	GH_TC2	E207436														794
5/29/2017	GH_TC2	E207436														915
6/7/2017	GH_TC2	E207436	< 0.000050	0.024	0.026	< 0.25	0.0142	0.0212	150	3.68	9.56	< 0.10	0.11	< 0.10	< 0.10	1033
6/12/2017	GH_TC2	E207436														1136
6/19/2017	GH_TC2	E207436	< 0.000050	0.023	0.025	< 0.25	0.0132	0.0195	161	4.44	9.1	< 0.10	< 0.10	< 0.10	< 0.10	1144
6/27/2017	GH_TC2	E207436														1138
7/4/2017	GH_TC2	E207436														1344
7/10/2017	GH_TC2	E207436	< 0.000050	0.03	0.031	< 0.25	< 0.0050	0.0092	194	4.12	10.4	< 0.10	< 0.10	< 0.10	< 0.10	1419
8/2/2017	GH_TC2	E207436	< 0.000050	0.028	0.029	< 0.50	0.0075	0.0107	219	3.78	13.7	< 0.10	< 0.10	< 0.10	< 0.10	1659
9/12/2017	GH_TC2	E207436	< 0.000050	0.029	0.032	< 0.25	0.0065	0.0073	276	4.02	13.4	< 0.10	< 0.10	< 0.10	< 0.10	1940

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
10/3/2017	GH_TC2	E207436	< 0.000050	0.025	0.023	< 0.25	< 0.0050	0.0094	263	2.94	13.8	< 0.10	< 0.10	< 0.10	< 0.10	1693
11/14/2017	GH_TC2	E207436	< 0.000050	0.023	0.024	0.29	0.0133	0.0191	263	2.75	15.8	< 0.10	0.12	< 0.10	< 0.10	1682
12/6/2017	GH_TC2	E207436	< 0.000050	0.022	0.02	< 0.50	0.0168	0.0193	241	2.82	16.9	< 0.10	< 0.10	< 0.10	< 0.10	1515
6/7/2017	GH_TPS	E287438	< 0.000050	0.016	0.018	< 0.050	0.528	0.487	60.8	2.24	15.5	< 0.10	< 0.10	0.87	1.1	532
6/19/2017	GH_TPS	E287438	< 0.00025	0.016	< 0.050	0.052	0.605	0.562	66.8	2.68	15.9	< 0.10	< 0.50	1.02	1.23	546
11/21/2017	GH_TPS	E287438	< 0.000050	0.014	0.012	0.179	0.715	0.723	123	1.6	25.4	< 0.10	< 0.10	2.78	3.13	
1/10/2017	GH_WADE	E287433														
2/14/2017	GH_WADE	E287433														
3/6/2017	GH_WADE	E287433														
3/16/2017	GH_WADE	E287433	< 0.000050	0.031	0.033	< 0.050	0.0272	0.132	50.1	5.35	0.59	< 0.10	0.66	< 0.10	0.55	342.8
3/22/2017	GH_WADE	E287433	< 0.000050	0.037	0.031	< 0.050	0.0268	0.037	53	4.95	0.61	< 0.10	0.21	< 0.10	0.14	344.2
3/27/2017	GH_WADE	E287433														339.4
3/28/2017	GH_WADE	E287433														
3/30/2017	GH_WADE	E287433														
4/4/2017	GH_WADE	E287433														294.9
4/4/2017	GH_WADE	E287433														
4/10/2017	GH_WADE	E287433														320.2
4/18/2017	GH_WADE	E287433	< 0.000050	0.035	0.037	< 0.050	0.02	0.0452	53.6	5.29	0.29	< 0.10	0.21	< 0.10	0.2	349.2
4/25/2017	GH_WADE	E287433														335.2
5/1/2017	GH_WADE	E287433	< 0.000050	0.036	0.031	< 0.050	0.0214	0.0519	52.4	6.06	0.27	< 0.10	0.23	< 0.10	0.17	323.8
5/8/2017	GH_WADE	E287433														307.5
5/15/2017	GH_WADE	E287433														342.7
5/24/2017	GH_WADE	E287433														368.8
5/29/2017	GH_WADE	E287433														383.1
6/5/2017	GH_WADE	E287433	< 0.000050	0.044	0.048	< 0.050	0.0198	0.0248	59.8	3.89	0.34	< 0.10	< 0.10	< 0.10	< 0.10	402.9
6/12/2017	GH_WADE	E287433														401.9
6/20/2017	GH_WADE	E287433														433.2
6/27/2017	GH_WADE	E287433														436.5
7/4/2017	GH_WADE	E287433														438.6
7/10/2017	GH_WADE	E287433	< 0.000050	0.065	0.064	< 0.050	0.0218	0.0216	60.1	3.4	< 0.50	< 0.10	< 0.10	< 0.10	< 0.10	443.5
8/2/2017	GH_WADE	E287433														
9/12/2017	GH_WADE	E287433														
10/3/2017	GH_WADE	E287433														
11/28/2017	GH_WADE	E287433	< 0.000050	0.051	0.052	< 0.050	0.0108	0.0141	68.7	3.71	0.6	< 0.10	< 0.10	< 0.10	< 0.10	502
12/6/2017	GH_WADE	E287433														
1/10/2017	GH_WC1	E257795														
2/15/2017	GH_WC1	E257795														
3/6/2017	GH_WC1	E257795														
3/16/2017	GH_WC1	E257795														
3/21/2017	GH_WC1	E257795														
3/27/2017	GH_WC1	E257795	< 0.000050	0.013	0.013	< 0.25	0.0333	0.041	71.1	4.75	1.41	< 0.10	0.3	0.39	0.47	567.1
4/4/2017	GH_WC1	E257795														588.6
4/10/2017	GH_WC1	E257795														1103
4/20/2017	GH_WC1	E257795	< 0.000050	0.015	0.015	< 0.25	0.26	0.232	153	3.5	3.6	< 0.10	< 0.10	1.21	1.1	1212
4/25/2017	GH_WC1	E257795														1107
5/1/2017	GH_WC1	E257795	< 0.000050	0.019	0.019	< 0.25	0.18	0.202	131	2.99	2.18	< 0.10	0.12	1	1.05	910
5/3/2017	GH_WC1	E257795														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
5/8/2017	GH_WC1	E257795														995
5/15/2017	GH_WC1	E257795														1292
5/24/2017	GH_WC1	E257795														1479
5/29/2017	GH_WC1	E257795														1544
6/5/2017	GH_WC1	E257795	< 0.000050	0.02	0.019	< 0.50	0.0172	0.0344	179	2.64	2.9	< 0.10	0.13	0.57	0.57	1395
6/12/2017	GH_WC1	E257795														1644
6/19/2017	GH_WC1	E257795														
6/27/2017	GH_WC1	E257795														
7/4/2017	GH_WC1	E257795														
7/10/2017	GH_WC1	E257795														
8/2/2017	GH_WC1	E257795														
9/11/2017	GH_WC1	E257795														
10/3/2017	GH_WC1	E257795														
11/6/2017	GH_WC1	E257795														
12/12/2017	GH_WC1	E257795	< 0.000050	0.015	0.016	< 0.50	< 0.030	0.185	220	1.33	4.7	< 0.10	< 0.10	1.18	1.55	1647
1/16/2017	GH_WILLOW_SP1	E305854														
2/14/2017	GH_WILLOW_SP1	E305854														
3/6/2017	GH_WILLOW_SP1	E305854														
3/16/2017	GH_WILLOW_SP1	E305854														
3/22/2017	GH_WILLOW_SP1	E305854														
3/27/2017	GH_WILLOW_SP1	E305854														
4/4/2017	GH_WILLOW_SP1	E305854														258.2
4/10/2017	GH_WILLOW_SP1	E305854														239.9
4/18/2017	GH_WILLOW_SP1	E305854	< 0.000050	0.012	0.012	< 0.050	0.0135	0.0165	45	5.61	0.15	< 0.10	0.62	< 0.10	< 0.10	275.2
4/25/2017	GH_WILLOW_SP1	E305854														257.2
5/3/2017	GH_WILLOW_SP1	E305854	< 0.000050	0.012	0.012	< 0.050	0.0136	0.0158	40.9	5.96	0.15	< 0.10	0.19	< 0.10	< 0.10	263.6
5/8/2017	GH_WILLOW_SP1	E305854														241.3
5/15/2017	GH_WILLOW_SP1	E305854														265.1
5/24/2017	GH_WILLOW_SP1	E305854														293.9
5/29/2017	GH_WILLOW_SP1	E305854														305.8
6/5/2017	GH_WILLOW_SP1	E305854	< 0.000050	0.01	0.012	< 0.050	0.012	0.0149	49.8	3.63	0.15	< 0.10	0.11	< 0.10	< 0.10	333
6/12/2017	GH_WILLOW_SP1	E305854														360.5
6/20/2017	GH_WILLOW_SP1	E305854														
6/27/2017	GH_WILLOW_SP1	E305854														
7/4/2017	GH_WILLOW_SP1	E305854														
7/10/2017	GH_WILLOW_SP1	E305854														
8/2/2017	GH_WILLOW_SP1	E305854														
9/12/2017	GH_WILLOW_SP1	E305854														
10/3/2017	GH_WILLOW_SP1	E305854														
11/6/2017	GH_WILLOW_SP1	E305854														
12/6/2017	GH_WILLOW_SP1	E305854														
1/10/2017	GH_WOLF_SP1	E305855														
2/14/2017	GH_WOLF_SP1	E305855														
3/6/2017	GH_WOLF_SP1	E305855														
3/16/2017	GH_WOLF_SP1	E305855														
3/22/2017	GH_WOLF_SP1	E305855														
3/27/2017	GH_WOLF_SP1	E305855														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
4/4/2017	GH_WOLF_SP1	E305855														
4/10/2017	GH_WOLF_SP1	E305855														
4/20/2017	GH_WOLF_SP1	E305855														
4/24/2017	GH_WOLF_SP1	E305855														
5/1/2017	GH_WOLF_SP1	E305855														
5/8/2017	GH_WOLF_SP1	E305855														
5/15/2017	GH_WOLF_SP1	E305855														
5/22/2017	GH_WOLF_SP1	E305855														
5/29/2017	GH_WOLF_SP1	E305855														
6/5/2017	GH_WOLF_SP1	E305855														
6/12/2017	GH_WOLF_SP1	E305855														
6/20/2017	GH_WOLF_SP1	E305855														
6/27/2017	GH_WOLF_SP1	E305855														
7/4/2017	GH_WOLF_SP1	E305855														
7/10/2017	GH_WOLF_SP1	E305855														
8/1/2017	GH_WOLF_SP1	E305855														
9/12/2017	GH_WOLF_SP1	E305855														
10/3/2017	GH_WOLF_SP1	E305855														
11/6/2017	GH_WOLF_SP1	E305855														
12/6/2017	GH_WOLF_SP1	E305855														
1/12/2017	LC_LC1	E216142														
2/14/2017	LC_LC1	E216142														
3/9/2017	LC_LC1	E216142														
3/14/2017	LC_LC1	E216142														
3/21/2017	LC_LC1	E216142														
3/29/2017	LC_LC1	E216142														
4/5/2017	LC_LC1	E216142														
4/11/2017	LC_LC1	E216142														
4/20/2017	LC_LC1	E216142														
4/25/2017	LC_LC1	E216142	< 0.000050	< 0.010	< 0.010	< 0.050	0.0079	0.0095	46.6	1.19	< 0.50	0.14	0.19	< 0.10	< 0.10	
5/1/2017	LC_LC1	E216142	< 0.000050	< 0.010	< 0.010	< 0.050	0.0069	0.0065	45.2	1.34	< 0.50	0.15	0.25	< 0.10	< 0.10	
5/5/2017	LC_LC1	E216142														
5/6/2017	LC_LC1	E216142														
5/9/2017	LC_LC1	E216142														
5/9/2017	LC_LC1	E216142														
5/16/2017	LC_LC1	E216142														
5/24/2017	LC_LC1	E216142														
5/30/2017	LC_LC1	E216142														
6/6/2017	LC_LC1	E216142														
6/7/2017	LC_LC1	E216142	< 0.000050	< 0.010	< 0.010	< 0.050	0.0095	0.016	35.5	1.01	< 0.50	0.13	0.24	< 0.10	< 0.10	
6/13/2017	LC_LC1	E216142														
6/20/2017	LC_LC1	E216142														
6/20/2017	LC_LC1	E216142														
6/26/2017	LC_LC1	E216142														
7/6/2017	LC_LC1	E216142	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.007	34.4	0.6	< 0.50	0.12	0.19	< 0.10	< 0.10	
7/10/2017	LC_LC1	E216142														
7/11/2017	LC_LC1	E216142														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
8/2/2017	LC_LC1	E216142	< 0.000050	< 0.010	< 0.010	< 0.050	0.005	0.0081	45.7	1.19	< 0.50	0.13	< 0.30	< 0.10	< 0.10	
8/2/2017	LC_LC1	E216142														
8/8/2017	LC_LC1	E216142														
8/15/2017	LC_LC1	E216142														
8/18/2017	LC_LC1	E216142														
8/18/2017	LC_LC1	E216142														
8/21/2017	LC_LC1	E216142														
8/24/2017	LC_LC1	E216142														
8/24/2017	LC_LC1	E216142														
8/27/2017	LC_LC1	E216142														
8/30/2017	LC_LC1	E216142														
9/2/2017	LC_LC1	E216142														
9/5/2017	LC_LC1	E216142	< 0.000050	< 0.010	< 0.010	< 0.050	0.0059	0.0076	49.4	0.65	< 0.50	0.18	0.24	< 0.10	< 0.10	
9/5/2017	LC_LC1	E216142														
9/8/2017	LC_LC1	E216142														
10/3/2017	LC_LC1	E216142	< 0.000050	< 0.010	< 0.010	< 0.050	0.0087	0.0112	53.5	0.77	< 0.50	0.16	< 0.30	< 0.10	< 0.10	
11/8/2017	LC_LC1	E216142	< 0.000050	< 0.010	< 0.010	< 0.050	0.0061	0.0104	58.8	< 0.50	< 0.50	0.17	0.27	< 0.10	< 0.10	
11/8/2017	LC_LC1	E216142														
11/30/2017	LC_LC1	E216142														
12/4/2017	LC_LC1	E216142	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0109	54.5	1.02	< 0.50	0.16	0.22	< 0.10	< 0.10	
12/4/2017	LC_LC1	E216142														
1/9/2017	LC_LC12	E223240														
2/15/2017	LC_LC12	E223240														
3/6/2017	LC_LC12	E223240														
3/14/2017	LC_LC12	E223240														
3/20/2017	LC_LC12	E223240														
3/27/2017	LC_LC12	E223240														
4/3/2017	LC_LC12	E223240														
4/10/2017	LC_LC12	E223240														
4/17/2017	LC_LC12	E223240														
4/24/2017	LC_LC12	E223240														
5/1/2017	LC_LC12	E223240														
5/9/2017	LC_LC12	E223240	< 0.000050	< 0.010	< 0.010	< 0.050	0.108	0.119	93.8	1.52	< 0.50	< 0.10	0.45	0.25	0.28	
5/16/2017	LC_LC12	E223240														
5/23/2017	LC_LC12	E223240														
5/30/2017	LC_LC12	E223240														
6/6/2017	LC_LC12	E223240	< 0.000050	< 0.010	< 0.010	< 0.050	0.102	0.0931	60.5	0.78	< 0.50	< 0.10	0.14	0.11	0.13	
6/13/2017	LC_LC12	E223240														
6/20/2017	LC_LC12	E223240														
6/26/2017	LC_LC12	E223240														
7/5/2017	LC_LC12	E223240	< 0.000050	< 0.010	< 0.010	< 0.050	0.0346	0.027	77.1	1.04	< 0.50	< 0.10	0.18	< 0.10	< 0.10	
7/11/2017	LC_LC12	E223240														
1/9/2017	LC_LC2	200335	< 0.000050	< 0.010	< 0.010	< 0.050	0.0062	0.01	56.7	< 0.50	0.24	0.19	0.19	< 0.10	< 0.10	
2/14/2017	LC_LC2	200335	< 0.000050	< 0.010	< 0.010	< 0.050	0.0088	0.0107	56.6	< 0.50	< 0.50	0.11	0.2	< 0.10	< 0.10	
3/6/2017	LC_LC2	200335	< 0.000050	< 0.010	< 0.010	< 0.050	0.0091	0.0121	56.8	< 0.50	0.25	0.2	0.2	< 0.10	< 0.10	
3/13/2017	LC_LC2	200335														
3/16/2017	LC_LC2	200335														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
3/17/2017	LC_LC2	200335	< 0.000050	< 0.010	< 0.010	< 0.050	0.0103	0.0098	54.5	< 0.50	< 0.50	0.17	0.23	< 0.10	< 0.10	
3/18/2017	LC_LC2	200335														
3/19/2017	LC_LC2	200335														
3/20/2017	LC_LC2	200335														
3/21/2017	LC_LC2	200335														
3/22/2017	LC_LC2	200335														
3/23/2017	LC_LC2	200335														
3/24/2017	LC_LC2	200335														
3/25/2017	LC_LC2	200335														
3/26/2017	LC_LC2	200335														
3/27/2017	LC_LC2	200335														
4/4/2017	LC_LC2	200335	< 0.000050	< 0.010	< 0.010	< 0.050	0.0088	0.0104	53.9	0.8	< 0.50	0.13	0.28	< 0.10	< 0.10	
4/4/2017	LC_LC2	200335														
4/10/2017	LC_LC2	200335														
4/18/2017	LC_LC2	200335														
4/25/2017	LC_LC2	200335														
5/1/2017	LC_LC2	200335	< 0.000050	< 0.010	< 0.010	< 0.050	0.0093	0.0117	50.9	0.92	< 0.50	0.17	0.23	< 0.10	< 0.10	
5/5/2017	LC_LC2	200335														
5/6/2017	LC_LC2	200335														
5/7/2017	LC_LC2	200335														
5/9/2017	LC_LC2	200335														
5/11/2017	LC_LC2	200335														
5/13/2017	LC_LC2	200335														
5/16/2017	LC_LC2	200335														
5/18/2017	LC_LC2	200335														
5/23/2017	LC_LC2	200335														
5/24/2017	LC_LC2	200335														
5/25/2017	LC_LC2	200335														
5/30/2017	LC_LC2	200335														
6/1/2017	LC_LC2	200335														
6/5/2017	LC_LC2	200335														
6/6/2017	LC_LC2	200335	< 0.000050	< 0.010	< 0.010	< 0.050	0.0063	0.0203	36.3	0.97	< 0.50	0.15	0.35	< 0.10	< 0.10	
6/13/2017	LC_LC2	200335														
6/20/2017	LC_LC2	200335														
6/26/2017	LC_LC2	200335														
7/5/2017	LC_LC2	200335	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0099	38.6	0.93	< 0.50	0.15	0.21	< 0.10	< 0.10	
7/6/2017	LC_LC2	200335														
7/10/2017	LC_LC2	200335														
7/11/2017	LC_LC2	200335														
8/2/2017	LC_LC2	200335	< 0.000050	< 0.010	< 0.010	< 0.050	0.0083	0.0093	50	0.97	< 0.50	0.18	< 0.30	< 0.10	< 0.10	
8/2/2017	LC_LC2	200335														
9/6/2017	LC_LC2	200335	< 0.000050	< 0.010	< 0.010	< 0.050	0.0074	0.0101	54.7	0.64	< 0.50	0.18	0.24	< 0.10	< 0.10	
10/3/2017	LC_LC2	200335	< 0.000050	< 0.010	< 0.010	< 0.050	0.0073	0.0085	57.8	1.01	< 0.50	0.14	< 0.30	< 0.10	< 0.10	
11/8/2017	LC_LC2	200335	< 0.000050	< 0.010	< 0.010	< 0.050	0.0061	0.0123	64.3	< 0.50	< 0.50	0.17	0.23	< 0.10	< 0.10	
11/8/2017	LC_LC2	200335														
12/4/2017	LC_LC2	200335	< 0.000050	< 0.010	< 0.010	< 0.050	0.0094	0.0062	58.2	< 0.50	< 0.50	< 0.10	0.22	< 0.10	< 0.10	
1/2/2017	LC_LC3	200337	< 0.000050	0.019	0.024	< 0.10	0.23	0.287	142	0.99	3.1	< 0.10	0.14	< 0.10	< 0.10	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
1/2/2017	LC_LC3	200337														
1/9/2017	LC_LC3	200337	< 0.000050	0.016	0.017	< 0.25	0.174	0.189	150	0.57	20.3	0.14	< 0.10	< 0.10	< 0.10	
1/16/2017	LC_LC3	200337	< 0.000050	0.017	0.023	< 0.25	0.153	0.2	151	< 0.50	21	< 0.10	0.11	< 0.10	< 0.10	
1/23/2017	LC_LC3	200337	< 0.000050	0.016	0.017	< 0.25	0.157	0.172	164	0.76	25.6	< 0.10	< 0.10	< 0.10	0.13	
1/31/2017	LC_LC3	200337	< 0.000050	0.015	0.017	< 0.25	0.157	0.175	160	0.86	23.6	0.11	0.12	< 0.10	0.11	
2/7/2017	LC_LC3	200337	< 0.000050	0.016	0.016	< 0.050	0.148	0.168	155	1.11	22.3	0.1	0.11	0.15	0.17	
2/14/2017	LC_LC3	200337	< 0.000050	0.02	0.02	< 0.25	0.162	0.157	151	< 0.50	25.3	< 0.10	0.12	0.12	0.14	
2/20/2017	LC_LC3	200337	< 0.000050	0.019	0.02	< 0.050	0.156	0.174	167	0.92	25	< 0.10	0.12	0.11	0.13	
2/24/2017	LC_LC3	200337	< 0.000050	0.018	0.02	< 0.050	0.159	0.173	158	0.94	24.1	< 0.10	0.11	< 0.10	0.12	
2/27/2017	LC_LC3	200337	< 0.000050	0.018	0.019	< 0.050	0.149	0.164	157	0.84	26.6	< 0.10	0.1	0.11	0.13	
3/1/2017	LC_LC3	200337														
3/6/2017	LC_LC3	200337	< 0.000050	0.018	0.016	< 0.25	0.148	0.155	161	0.62	25.7	< 0.10	0.1	0.12	0.14	
3/13/2017	LC_LC3	200337	< 0.000050	0.018	0.018	< 0.050	0.153	0.149	149	0.9	26.9	0.11	0.13	0.11	0.11	
3/16/2017	LC_LC3	200337														
3/16/2017	LC_LC3	200337														
3/17/2017	LC_LC3	200337	< 0.000050	0.017	0.018	< 0.050	0.225	0.279	139	0.76	7	< 0.10	0.59	< 0.10	0.38	
3/18/2017	LC_LC3	200337														
3/19/2017	LC_LC3	200337														
3/20/2017	LC_LC3	200337	< 0.000050	0.016	0.018	< 0.050	0.235	0.264	140	0.73	17.6	< 0.10	0.34	< 0.10	0.33	
3/21/2017	LC_LC3	200337														
3/22/2017	LC_LC3	200337														
3/23/2017	LC_LC3	200337														
3/24/2017	LC_LC3	200337														
3/25/2017	LC_LC3	200337														
3/26/2017	LC_LC3	200337														
3/27/2017	LC_LC3	200337	< 0.000050	0.019	0.022	< 0.25	0.201	0.22	157	1.31	19.2	< 0.10	0.2	0.12	0.21	
3/28/2017	LC_LC3	200337														
3/29/2017	LC_LC3	200337														
3/30/2017	LC_LC3	200337														
4/3/2017	LC_LC3	200337	< 0.000050	0.018	0.016	< 0.050	0.213	0.216	140	1.03	17.5	< 0.10	0.22	0.1	0.13	
4/4/2017	LC_LC3	200337														
4/10/2017	LC_LC3	200337	< 0.000050	0.018	0.017	< 0.25	0.249	0.256	149	1.82	12.8	< 0.10	0.15	< 0.10	0.14	
4/18/2017	LC_LC3	200337	< 0.000050	0.018	0.019	< 0.25	0.263	0.258	151	0.81	15.7	< 0.10	0.82	< 0.10	0.13	
4/25/2017	LC_LC3	200337	< 0.000050	0.018	0.019	< 0.25	0.312	0.324	140	0.99	11.7	< 0.10	0.13	0.11	0.16	
5/1/2017	LC_LC3	200337	< 0.000050	0.016	0.017	< 0.25	0.321	0.309	126	1.08	10.3	< 0.10	0.22	0.1	0.11	
5/4/2017	LC_LC3	200337														
5/7/2017	LC_LC3	200337														
5/9/2017	LC_LC3	200337	< 0.000050	0.012	0.012	< 0.050	0.4	0.402	85	1.46	3.58	< 0.10	0.15	0.2	0.25	
5/16/2017	LC_LC3	200337	< 0.000050	0.011	0.011	< 0.050	0.418	0.378	69.8	2.19	3.07	0.12	0.11	0.18	0.19	
5/18/2017	LC_LC3	200337														
5/23/2017	LC_LC3	200337	< 0.000050	0.012	0.012	< 0.050	0.486	0.481	83.5	1.4	3.95	< 0.10	0.14	0.15	0.17	
5/30/2017	LC_LC3	200337	< 0.000050	0.011	0.013	< 0.050	0.502	0.465	65.6	0.78	2.75	0.11	0.12	0.15	0.16	
6/6/2017	LC_LC3	200337														
6/7/2017	LC_LC3	200337	< 0.000050	0.011	0.011	< 0.050	0.639	0.53	73.3	1.04	2.89	< 0.10	0.15	0.17	0.18	
6/13/2017	LC_LC3	200337	< 0.000050	0.011	0.011	< 0.050	0.654	0.629	85.6	0.76	4.09	< 0.10	0.13	0.15	0.16	
6/19/2017	LC_LC3	200337	< 0.000050	0.011	0.011	< 0.050	0.649	0.583	84.3	0.93	4.46	0.1	0.13	0.13	0.13	
6/26/2017	LC_LC3	200337	< 0.000050	0.013	0.014	< 0.050	0.609	0.569	87.7	0.98	4.72	< 0.10	0.14	0.12	0.13	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
7/6/2017	LC_LC3	200337														
7/6/2017	LC_LC3	200337	< 0.000050	0.015	0.015	< 0.050	0.488	0.55	97.1	1.27	6.36	< 0.10	0.14	< 0.10	< 0.10	
7/11/2017	LC_LC3	200337														
7/11/2017	LC_LC3	200337	< 0.000050	0.015	0.014	< 0.050	0.578	0.544	103	1.51	7.16	0.1	0.16	< 0.10	0.1	
7/13/2017	LC_LC3	200337														
7/14/2017	LC_LC3	200337	< 0.000050	0.016	0.017	< 0.25	0.639	0.728	115	1.16	4.7	< 0.10	1.09	0.1	0.19	
7/14/2017	LC_LC3	200337														529
7/18/2017	LC_LC3	200337	< 0.000050	0.016	0.016	< 0.25	0.58	0.531	107	1.26	8	0.12	0.14	< 0.10	< 0.10	
7/25/2017	LC_LC3	200337														
7/25/2017	LC_LC3	200337	< 0.000050	0.017	0.017	< 0.050	0.486	0.482	119	1.82	10.5	< 0.10	0.14	< 0.10	< 0.10	
7/26/2017	LC_LC3	200337	< 0.000050	0.018	0.017		0.45	0.452	117	0.83		< 0.10	0.12	< 0.10	< 0.10	
8/2/2017	LC_LC3	200337														
8/2/2017	LC_LC3	200337	< 0.000050	0.017	0.017	< 0.10	0.422	0.439	134	1.11	10.3	< 0.10	< 0.20	< 0.10	< 0.10	
8/8/2017	LC_LC3	200337														
8/8/2017	LC_LC3	200337	< 0.000050	0.017	0.019	< 0.10	0.512	0.497	131	0.84	6.3	0.12	0.12	< 0.10	< 0.10	
8/12/2017	LC_LC3	200337	< 0.000050	0.014	0.014	< 0.25	0.394	0.404	118	0.68	10.2	< 0.10	0.13	< 0.10	< 0.10	
8/12/2017	LC_LC3	200337														716
8/15/2017	LC_LC3	200337														
8/15/2017	LC_LC3	200337	< 0.000050	0.016	0.018	< 0.25	0.421	0.436	135	1.8	8.5	< 0.10	0.19	< 0.10	< 0.10	
8/18/2017	LC_LC3	200337														
8/21/2017	LC_LC3	200337	< 0.000050	0.018	0.017	< 0.25	0.407	0.378	135	0.55	10.6	< 0.10	0.13	0.11	0.12	
8/24/2017	LC_LC3	200337														
8/24/2017	LC_LC3	200337														
8/25/2017	LC_LC3	200337														681
8/27/2017	LC_LC3	200337														
8/27/2017	LC_LC3	200337														
8/30/2017	LC_LC3	200337														
8/30/2017	LC_LC3	200337	< 0.000050	0.018	0.019	< 0.25	0.326	0.335	126	0.6	10.8	< 0.10	0.12	< 0.10	< 0.10	
9/2/2017	LC_LC3	200337														
9/2/2017	LC_LC3	200337														
9/5/2017	LC_LC3	200337														
9/5/2017	LC_LC3	200337	< 0.000050	0.018	0.018	< 0.050	0.319	0.354	131	1.16	13.5	< 0.10	0.13	< 0.10	< 0.10	
9/5/2017	LC_LC3	200337														
9/8/2017	LC_LC3	200337														
9/12/2017	LC_LC3	200337	< 0.000050	0.018	0.019	< 0.25	0.482	0.514	146	0.78	9.4	< 0.10	0.16	< 0.10	< 0.10	
9/20/2017	LC_LC3	200337														
9/20/2017	LC_LC3	200337	< 0.000050	0.017	0.018	0.25	0.306	0.316	129	0.57	12.8	< 0.10	0.11	< 0.10	< 0.10	
9/21/2017	LC_LC3	200337	< 0.000050	0.016	0.017	< 0.050	0.328	0.327	131	0.8	13.9	< 0.10	0.13	< 0.10	0.11	
9/25/2017	LC_LC3	200337														
9/25/2017	LC_LC3	200337	< 0.000050	0.016	0.016	< 0.050	0.288	0.32	120	0.69	13.7	< 0.10	< 0.10	< 0.10	< 0.10	
9/25/2017	LC_LC3	200337	< 0.000050	0.016	0.018	0.27	0.294	0.284	135	0.81	12.6	< 0.10	0.11	< 0.10	< 0.10	
10/2/2017	LC_LC3	200337	< 0.000050	0.017	0.018	< 0.25	0.271	0.301	131	0.91	11.2	< 0.10	< 0.30	< 0.10	< 0.10	
10/10/2017	LC_LC3	200337	< 0.000050	0.016	0.019	< 0.25	0.259	0.27	141	0.66	15	0.11	0.14	< 0.10	< 0.10	
10/10/2017	LC_LC3	200337														
10/17/2017	LC_LC3	200337	< 0.000050	0.015	0.016	< 0.25	0.408	0.409	140	0.67	4	< 0.10	0.17	< 0.10	< 0.10	
10/24/2017	LC_LC3	200337	< 0.000050	0.018	0.019	< 0.050	0.4	0.376	142	0.54	10.5	< 0.10	0.12	< 0.10	< 0.10	
10/24/2017	LC_LC3	200337														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
10/31/2017	LC_LC3	200337	< 0.000050	0.02	0.021	< 0.25	0.375	0.375	135	0.58	8.6	0.1	0.13	< 0.10	< 0.10	
10/31/2017	LC_LC3	200337														
11/6/2017	LC_LC3	200337	< 0.000050	0.018	0.018	< 0.050	0.325	0.332	148	0.74	9.65	< 0.10	0.23	< 0.10	< 0.10	
11/8/2017	LC_LC3	200337														
11/9/2017	LC_LC3	200337	< 0.000050	0.018	0.023	0.23	0.294	0.285	145	0.69	9.5	< 0.10	0.12	< 0.10	< 0.10	
11/14/2017	LC_LC3	200337	< 0.000050	0.019	0.02	< 0.25	0.306	0.313	139	0.57	9.4	< 0.10	0.15	< 0.10	< 0.10	
11/21/2017	LC_LC3	200337	< 0.000050	0.02	0.021	< 0.25	0.286	0.314	139	< 0.50	8.8	< 0.10	0.12	< 0.10	< 0.10	
11/28/2017	LC_LC3	200337	< 0.000050	0.021	0.023	< 0.050	0.335	0.361	153	< 0.50	11.3	< 0.10	0.24	< 0.10	< 0.10	
12/4/2017	LC_LC3	200337	< 0.000050	0.02	0.021	< 0.050	0.315	0.313	138	1.04	10.1	< 0.10	0.15	< 0.10	< 0.10	
12/12/2017	LC_LC3	200337	< 0.000050	0.022	0.023	< 0.050	0.267	0.296	158	< 0.50	10.1	< 0.10	0.11	< 0.10	< 0.10	
12/18/2017	LC_LC3	200337	< 0.000050	0.02	0.019	< 0.050	0.25	0.272	144	0.68	11.8	< 0.10	0.17	< 0.10	< 0.10	
12/27/2017	LC_LC3	200337	< 0.000050	0.02	0.02	< 0.050	0.248	0.245	151	0.61	11.5	< 0.10	0.24	< 0.10	< 0.10	
12/27/2017	LC_LC3	200337														
1/9/2017	LC_LC4	200044	< 0.000050	0.011	0.012	< 0.25	0.0213	0.0579	101	0.52	8.12	< 0.10	0.15	< 0.10	< 0.10	
2/14/2017	LC_LC4	200044	< 0.000050	0.012	0.011	< 0.050	0.0279	0.0591	92.1	< 0.50	9.63	< 0.10	0.14	< 0.10	< 0.10	
2/24/2017	LC_LC4	200044	< 0.000050	0.012	0.012	< 0.050	0.0388	0.0691	98	0.82	9.37	0.14	0.17	< 0.10	< 0.10	
2/27/2017	LC_LC4	200044	< 0.000050	0.013	0.013	< 0.050	0.0311	0.103	95.1	1.02	9.7	0.11	0.19	< 0.10	< 0.10	
3/6/2017	LC_LC4	200044	< 0.000050	0.011	0.011	< 0.25	0.0287	0.0671	102	0.5	9.54	0.16	0.18	< 0.10	< 0.10	
3/13/2017	LC_LC4	200044	< 0.000050	0.012	0.012	< 0.050	0.0284	0.0682	94.8	0.87	9.9	0.13	0.17	< 0.10	< 0.10	
3/15/2017	LC_LC4	200044														
3/16/2017	LC_LC4	200044														
3/17/2017	LC_LC4	200044	< 0.000050	0.012	0.011	< 0.050	0.0277	0.0965	90.2	0.56	7.18	0.22	0.39	< 0.10	0.16	
3/18/2017	LC_LC4	200044														
3/19/2017	LC_LC4	200044														
3/20/2017	LC_LC4	200044	< 0.000050	0.011	0.012	< 0.050	0.0221	0.0754	95.6	1.01	6.22	0.12	0.25	< 0.10	< 0.10	
3/21/2017	LC_LC4	200044														
3/22/2017	LC_LC4	200044														
3/23/2017	LC_LC4	200044														
3/24/2017	LC_LC4	200044														
3/25/2017	LC_LC4	200044														
3/26/2017	LC_LC4	200044														
3/27/2017	LC_LC4	200044	< 0.000050	0.013	0.014	< 0.050	0.0293	0.0674	101	1.41	9.05	< 0.10	0.2	< 0.10	< 0.10	
4/3/2017	LC_LC4	200044	< 0.000050	0.013	0.011	< 0.050	0.038	0.0659	96.4	1.23	8.59	< 0.10	0.41	< 0.10	< 0.10	
4/10/2017	LC_LC4	200044	< 0.000050	0.012	0.012	< 0.050	0.0287	0.089	98.4	2.09	8.28	0.13	0.18	< 0.10	< 0.10	
4/18/2017	LC_LC4	200044	< 0.000050	0.012	0.012	< 0.050	0.0424	0.0819	94.2	1.01	7.94	< 0.10	0.15	< 0.10	< 0.10	
4/24/2017	LC_LC4	200044	< 0.000050	0.012	0.012	< 0.050	0.0367	0.0998	95.1	1.54	5.91	0.11	0.18	< 0.10	< 0.10	
4/27/2017	LC_LC4	200044														
5/1/2017	LC_LC4	200044	< 0.000050	0.013	0.013	< 0.050	0.058	0.126	99.1	1.8	6.56	0.11	1.13	< 0.10	< 0.10	
5/5/2017	LC_LC4	200044														
5/6/2017	LC_LC4	200044														
5/7/2017	LC_LC4	200044														
5/8/2017	LC_LC4	200044														
5/8/2017	LC_LC4	200044	< 0.000050	< 0.010	< 0.010	< 0.050	0.0708	0.219	71.6	3.41	2.3	< 0.10	0.56	< 0.10	0.27	
5/10/2017	LC_LC4	200044														
5/11/2017	LC_LC4	200044														
5/13/2017	LC_LC4	200044														
5/14/2017	LC_LC4	200044														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
5/15/2017	LC_LC4	200044	< 0.000050	< 0.010	< 0.010	< 0.050	0.0786	0.175	63.8	3.03	1.87	0.12	1.16	< 0.10	0.23	
5/16/2017	LC_LC4	200044														
5/17/2017	LC_LC4	200044														
5/18/2017	LC_LC4	200044														
5/19/2017	LC_LC4	200044														
5/23/2017	LC_LC4	200044	< 0.000050	< 0.010	< 0.010	< 0.050	0.0671	0.203	58.3	2.39	1.56	< 0.10	0.51	< 0.10	0.17	
5/24/2017	LC_LC4	200044														
5/25/2017	LC_LC4	200044														
5/30/2017	LC_LC4	200044	< 0.000050	< 0.010	< 0.010	< 0.050	0.0653	0.242	51.4	1.9	1.18	0.12	1.99	< 0.10	0.24	
5/31/2017	LC_LC4	200044														
6/1/2017	LC_LC4	200044														
6/2/2017	LC_LC4	200044														
6/7/2017	LC_LC4	200044	< 0.000050	< 0.010	< 0.010	< 0.050	0.14	0.225	56.7	1.21	1.43	0.12	0.3	< 0.10	0.12	
6/13/2017	LC_LC4	200044	< 0.000050	< 0.010	< 0.010	< 0.050	0.142	0.163	56.3	1	1.85	0.14	0.24	< 0.10	0.12	
6/19/2017	LC_LC4	200044	< 0.000050	< 0.010	< 0.010	< 0.050	0.134	0.228	59	1.08	2.02	0.11	0.17	< 0.10	< 0.10	
6/26/2017	LC_LC4	200044	< 0.000050	< 0.010	< 0.010	< 0.050	0.0967	0.174	60.2	1.18	2.2	0.1	0.1	< 0.10	< 0.10	
7/5/2017	LC_LC4	200044	< 0.000050	0.01	0.01	< 0.050	0.0646	0.172	68.3	1.39	3.01	< 0.10	0.15	< 0.10	< 0.10	
7/11/2017	LC_LC4	200044	< 0.000050	< 0.010	< 0.010	< 0.050	0.0804	0.185	71.5	1.59	3.41	0.12	0.15	< 0.10	< 0.10	
7/18/2017	LC_LC4	200044	< 0.000050	0.011	0.011	< 0.050	0.0534	0.186	77.8	0.99	4.65	0.14	0.14	< 0.10	< 0.10	
7/25/2017	LC_LC4	200044	< 0.000050	0.012	0.012	< 0.050	0.0571	0.139	82	1.96	4.47	0.1	0.14	< 0.10	< 0.10	
8/2/2017	LC_LC4	200044	< 0.000050	0.012	0.012	< 0.050	0.0274	0.138	90.6	1.59	5.03	< 0.10	< 0.20	< 0.10	< 0.10	
8/8/2017	LC_LC4	200044	< 0.000050	0.012	0.013	< 0.050	0.0297	0.136	91.9	0.85	3	0.12	0.17	< 0.10	< 0.10	
8/15/2017	LC_LC4	200044	< 0.000050	0.012	0.013	< 0.050	0.0354	0.127	98.3	0.83	4.86	0.13	0.22	< 0.10	< 0.10	
8/18/2017	LC_LC4	200044														
8/21/2017	LC_LC4	200044	< 0.000050	0.013	0.012	< 0.050	0.0265	0.102	95.3	0.86	5.2	0.16	0.16	< 0.10	< 0.10	
8/24/2017	LC_LC4	200044														
8/27/2017	LC_LC4	200044														
8/30/2017	LC_LC4	200044	< 0.000050	0.012	0.014	< 0.25	0.0146	0.112	92.4	1.02	4.8	0.11	0.13	< 0.10	< 0.10	
9/2/2017	LC_LC4	200044														
9/5/2017	LC_LC4	200044														
9/5/2017	LC_LC4	200044	< 0.000050	0.013	0.013	< 0.050	0.0148	0.116	95.9	0.5	5.58	0.12	0.22	< 0.10	< 0.10	
9/8/2017	LC_LC4	200044														
9/12/2017	LC_LC4	200044	< 0.000050	0.013	0.014	< 0.050	0.0284	0.118	99.8	0.83	6.1	0.13	0.15	< 0.10	< 0.10	
9/20/2017	LC_LC4	200044	< 0.000050	0.012	0.013	< 0.050	0.0278	0.103	95.5	< 0.50	6.18	< 0.20	0.15	< 0.10	< 0.10	
9/25/2017	LC_LC4	200044	< 0.000050	0.012	0.014	0.068	0.017	0.0985	104	0.59	6.33	0.13	0.25	< 0.10	< 0.10	
10/2/2017	LC_LC4	200044	< 0.000050	0.012	0.013	< 0.050	0.0178	0.0885	97.6	1	6.3	0.12	< 0.30	< 0.10	< 0.10	
10/10/2017	LC_LC4	200044	< 0.000050	0.01	0.013	< 0.050	0.0216	0.0998	97.5	0.79	6.69	0.13	0.18	< 0.10	< 0.10	
10/17/2017	LC_LC4	200044	< 0.000050	0.011	0.011	< 0.050	0.0239	0.0843	95.5	2.63	5.14	< 0.10	0.18	< 0.10	< 0.10	
10/24/2017	LC_LC4	200044	< 0.000050	0.012	0.013	< 0.050	0.028	0.1	101	0.65	5.76	0.12	0.17	< 0.10	< 0.10	
10/31/2017	LC_LC4	200044	< 0.000050	0.013	0.014	< 0.050	0.0257	0.109	104	0.55	5.17	0.12	0.16	< 0.10	< 0.10	
11/6/2017	LC_LC4	200044	< 0.000050	0.013	0.012	< 0.050	0.0196	0.0939	107	0.64	4.46	0.1	0.17	< 0.10	< 0.10	
11/10/2017	LC_LC4	200044	< 0.00025	0.014	< 0.050	< 0.050	0.0251	0.125	103	1.03	5.17	0.12	< 0.50	< 0.10	< 0.50	
11/14/2017	LC_LC4	200044	< 0.000050	0.013	0.014	< 0.050	0.0235	0.105	103	0.53	5.04	0.13	0.27	< 0.10	< 0.10	
11/21/2017	LC_LC4	200044	< 0.000050	0.013	0.013	< 0.050	0.0272	0.121	103	< 0.50	5.13	0.14	0.21	< 0.10	< 0.10	
11/23/2017	LC_LC4	200044														
11/28/2017	LC_LC4	200044	< 0.000050	0.013	0.011	< 0.050	0.0235	0.0967	94.2	0.67	5.79	< 0.10	0.22	< 0.10	< 0.10	
12/4/2017	LC_LC4	200044	< 0.000050	0.013	0.014	< 0.050	0.0119	0.0865	103	1.12	5.88	0.12	0.25	< 0.10	< 0.10	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
12/12/2017	LC_LC4	200044	< 0.000050	0.013	0.015	< 0.050	0.0211	0.11	114	< 0.50	5.46	0.13	8.44	< 0.10	< 0.10	
12/18/2017	LC_LC4	200044	< 0.000050	0.013	0.013	< 0.050	0.0121	0.0986	107	0.71	5.75	< 0.10	0.14	< 0.10	< 0.10	
12/27/2017	LC_LC4	200044	< 0.000050	0.012	0.012	< 0.050	0.0225	0.0767	109	0.61	5.65	< 0.10	0.16	< 0.10	< 0.10	
1/2/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0148	0.0293	100	0.79	3.62	0.1	0.16	< 0.10	< 0.10	
1/9/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.25	0.009	0.0185	99.8	0.55	3.48	0.11	0.15	< 0.10	< 0.10	
1/16/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.25	0.0098	0.0413	102	0.57	3.46	0.11	0.25	< 0.10	< 0.10	
2/14/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0115	0.0336	101	< 0.50	3.6	< 0.10	0.2	< 0.10	< 0.10	
3/6/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.25	0.0148	0.0202	101	< 0.50	4.04	0.14	0.66	< 0.10	< 0.10	
3/13/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0139	0.025	96	0.73	3.97	0.12	0.17	< 0.10	< 0.10	
3/16/2017	LC_LC5	200028														
3/20/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.013	0.0446	92.2	0.98	4.09	< 0.10	0.29	< 0.10	< 0.10	
3/27/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0157	0.0258	96.4	1.14	4.29	< 0.10	0.31	< 0.10	< 0.10	
4/3/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0169	0.0267	97.9	1.27	4.37	< 0.10	0.73	< 0.10	< 0.10	
4/10/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0203	0.0294	95	2.37	4.17	0.1	0.16	< 0.10	< 0.10	
4/18/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0182	0.0254	90.6	1.38	2.66	< 0.10	0.15	< 0.10	< 0.10	
4/25/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0176	0.0471	86.1	1.85	2.65	< 0.10	0.23	< 0.10	0.11	
5/1/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0223	0.0376	93.2	1.81	3.12	< 0.10	0.17	< 0.10	< 0.10	
5/8/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0243	0.0898	64.5	3.45	1.58	< 0.10	0.66	< 0.10	0.27	
5/15/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0238	0.105	61.8	3.32	1.19	< 0.10	0.89	< 0.10	0.25	
5/24/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0144	0.599	91.2	2.42	0.83	< 0.10	3.09	< 0.10	1.81	
5/31/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.25	0.0198	0.225	60.1	1.99	< 2.5	< 0.10	1.56	< 0.10	0.79	
6/6/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0362	0.0905	61.3	1.29	0.85	< 0.10	0.39	< 0.10	0.17	
6/13/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.167	0.188	58.3	1.1	1.05	0.16	0.18	< 0.10	< 0.10	
6/19/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0536	0.0648	61.8	1.05	1.11	< 0.10	0.17	< 0.10	< 0.10	
6/26/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0488	0.0665	63.9	1.32	1.25	< 0.10	0.16	< 0.10	< 0.10	
7/6/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0466	0.0541	68.3	1.48	1.58	< 0.10	0.15	< 0.10	< 0.10	
7/10/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.039	0.0554	72	1.6	1.72	< 0.10	0.17	< 0.10	< 0.10	
7/18/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0307	0.0426	73.8	1.33	2.56	< 0.10	1.84	< 0.10	< 0.10	
7/25/2017	LC_LC5	200028	< 0.000050	< 0.010	0.011	< 0.050	0.034	0.0367	79.1	2.13	2.02	< 0.10	0.22	< 0.10	< 0.10	
8/2/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0285	0.045	86.2	2.12	2.25	< 0.10	< 0.30	< 0.10	< 0.10	
8/8/2017	LC_LC5	200028														
8/15/2017	LC_LC5	200028	< 0.000050	< 0.010	0.01	< 0.050	0.0234	0.0314	94.5	2.2	2.22	0.13	0.19	< 0.10	< 0.10	
8/18/2017	LC_LC5	200028														
8/21/2017	LC_LC5	200028														
8/24/2017	LC_LC5	200028														
8/27/2017	LC_LC5	200028														
8/30/2017	LC_LC5	200028														
9/2/2017	LC_LC5	200028														
9/5/2017	LC_LC5	200028														
9/5/2017	LC_LC5	200028	< 0.000050	0.01	0.011	< 0.050	0.0133	0.0296	90.3	0.56	2.61	0.12	0.14	< 0.10	< 0.10	
9/8/2017	LC_LC5	200028														
9/12/2017	LC_LC5	200028	< 0.000050	< 0.010	0.013	< 0.050	0.0168	0.115	102	1.02	2.71	< 0.10	0.14	< 0.10	< 0.10	
10/2/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0082	0.0252	93.4	1.02	2.9	< 0.10	< 0.30	< 0.10	< 0.10	
11/7/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0167	0.0343	106	0.73	3.44	< 0.10	0.2	< 0.10	< 0.10	
11/28/2017	LC_LC5	200028	< 0.000050	< 0.010	0.021	< 0.050	0.0165	0.324	128	0.6	3.05	< 0.10	0.73	< 0.10	0.11	
11/30/2017	LC_LC5	200028														
12/4/2017	LC_LC5	200028	< 0.000050	< 0.010	< 0.010	< 0.050	0.0212	0.0329	100	< 0.50	3.81	0.1	0.15	< 0.10	< 0.10	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
1/9/2017	LC_LC7	E216144														
2/14/2017	LC_LC7	E216144														
3/6/2017	LC_LC7	E216144														
3/13/2017	LC_LC7	E216144														
3/17/2017	LC_LC7	E216144														
3/18/2017	LC_LC7	E216144														
3/19/2017	LC_LC7	E216144														
3/20/2017	LC_LC7	E216144														
3/21/2017	LC_LC7	E216144	< 0.000050	0.039	0.042	< 0.050	0.126	0.227	57.8	0.61	< 0.50	< 0.10	0.55	1.74	2.91	
3/21/2017	LC_LC7	E216144														
3/22/2017	LC_LC7	E216144														
3/23/2017	LC_LC7	E216144														
3/25/2017	LC_LC7	E216144														
3/26/2017	LC_LC7	E216144														
3/27/2017	LC_LC7	E216144	< 0.000050	0.044	0.047	< 0.050	0.154	0.181	65.8	1.63	< 0.50	< 0.10	0.16	1.84	2.25	
3/28/2017	LC_LC7	E216144														
3/29/2017	LC_LC7	E216144														
3/30/2017	LC_LC7	E216144														
3/31/2017	LC_LC7	E216144														
4/4/2017	LC_LC7	E216144	< 0.000050	0.043	0.039	< 0.050	0.155	0.152	65.7	1.22	< 0.50	< 0.10	< 0.10	1.61	1.69	
4/11/2017	LC_LC7	E216144														
4/18/2017	LC_LC7	E216144														
4/25/2017	LC_LC7	E216144														
5/1/2017	LC_LC7	E216144	< 0.000050	0.04	0.041	< 0.050	0.105	0.175	64.1	1.31	< 0.50	< 0.10	< 0.10	1.44	1.58	
5/1/2017	LC_LC7	E216144														
5/5/2017	LC_LC7	E216144														
5/6/2017	LC_LC7	E216144	< 0.000050	0.017	0.018	< 0.050	0.084	0.24	43.7	2.65	< 0.50	< 0.10	0.72	0.72	1.56	
5/7/2017	LC_LC7	E216144														
5/8/2017	LC_LC7	E216144														
5/11/2017	LC_LC7	E216144														
5/16/2017	LC_LC7	E216144														
5/23/2017	LC_LC7	E216144														
5/30/2017	LC_LC7	E216144														
5/31/2017	LC_LC7	E216144														
6/6/2017	LC_LC7	E216144	< 0.000050	< 0.010	< 0.010	< 0.050	0.0467	0.0564	36.9	1.55	< 0.50	< 0.10	0.2	0.15	0.19	
6/13/2017	LC_LC7	E216144														
6/20/2017	LC_LC7	E216144														
6/26/2017	LC_LC7	E216144														
7/5/2017	LC_LC7	E216144	< 0.000050	< 0.010	< 0.010	< 0.050	0.0205	0.0221	36.1	1.38	< 0.50	0.1	0.23	< 0.10	< 0.10	
7/7/2017	LC_LC7	E216144														
7/11/2017	LC_LC7	E216144														
7/11/2017	LC_LC7	E216144														
7/13/2017	LC_LC7	E216144														
8/2/2017	LC_LC7	E216144	< 0.000050	< 0.010	< 0.010	< 0.050	0.0132	0.0234	43.5	1.67	< 0.50	0.18	< 0.30	< 0.10	< 0.10	
8/2/2017	LC_LC7	E216144														
8/8/2017	LC_LC7	E216144				< 0.050				1.04	< 0.50					
8/8/2017	LC_LC7	E216144	< 0.000050	< 0.010	< 0.010		0.0152	0.0213	43.1			0.14	0.21	< 0.10	< 0.10	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
9/6/2017	LC_LC7	E216144	< 0.000050	< 0.010	< 0.010	< 0.050	0.0116	0.0133	46.9	0.58	< 0.50	0.17	0.26	< 0.10	< 0.10	
9/6/2017	LC_LC7	E216144														
10/3/2017	LC_LC7	E216144	< 0.000050	< 0.010	< 0.010	< 0.050	0.0196	0.0225	48.9	0.91	< 0.50	0.15	0.35	< 0.10	< 0.10	
10/3/2017	LC_LC7	E216144														
11/8/2017	LC_LC7	E216144	< 0.000050	< 0.010	< 0.010	< 0.050	0.0336	0.0397	58.9	0.6	0.65	0.16	0.23	0.14	0.17	
12/4/2017	LC_LC7	E216144	< 0.000050	0.014	0.014	< 0.050	0.0602	0.0599	59.3	< 0.50	< 0.50	0.13	0.17	0.43	0.49	
12/21/2017	LC_LC7	E216144														
5/23/2017	LC_LC7DSTF	E304613														
6/6/2017	LC_LC7DSTF	E304613	< 0.000050	< 0.010	< 0.010	< 0.050	0.0379	0.0504	38.7	1.41	< 0.50	0.1	0.24	0.11	0.14	
7/6/2017	LC_LC7DSTF	E304613	< 0.000050	< 0.010	< 0.010	< 0.050	0.0179	0.0254	37.5	1.15	< 0.50	0.11	0.17	< 0.10	< 0.10	
8/2/2017	LC_LC7DSTF	E304613				< 0.050				0.56	< 0.50					
8/8/2017	LC_LC7DSTF	E304613				< 0.050				1.19	< 0.50					
8/8/2017	LC_LC7DSTF	E304613	< 0.000050	< 0.010	< 0.010		0.0125	0.0275	43.1			0.14	0.21	< 0.10	< 0.10	
1/9/2017	LC_LC8	E219411														
2/14/2017	LC_LC8	E219411														
3/6/2017	LC_LC8	E219411														
3/13/2017	LC_LC8	E219411														
3/21/2017	LC_LC8	E219411														
3/27/2017	LC_LC8	E219411														
4/3/2017	LC_LC8	E219411														
4/11/2017	LC_LC8	E219411														
4/18/2017	LC_LC8	E219411														
4/25/2017	LC_LC8	E219411														
5/1/2017	LC_LC8	E219411														
5/9/2017	LC_LC8	E219411														
5/16/2017	LC_LC8	E219411														
5/23/2017	LC_LC8	E219411														
5/30/2017	LC_LC8	E219411														
6/6/2017	LC_LC8	E219411														
6/13/2017	LC_LC8	E219411														
6/19/2017	LC_LC8	E219411														
6/26/2017	LC_LC8	E219411														
10/3/2017	LC_LC8	E219411														
11/8/2017	LC_LC8	E219411														
12/4/2017	LC_LC8	E219411														
1/9/2017	LC_LC9	E221268														
2/14/2017	LC_LC9	E221268														
3/13/2017	LC_LC9	E221268														
3/16/2017	LC_LC9	E221268														
3/17/2017	LC_LC9	E221268														
3/18/2017	LC_LC9	E221268														
3/19/2017	LC_LC9	E221268														
3/21/2017	LC_LC9	E221268	< 0.000050	0.022	0.024	0.06	0.139	0.177	54	3.61	17.5	< 0.10	0.46	0.81	1.24	
3/21/2017	LC_LC9	E221268														
3/22/2017	LC_LC9	E221268														
3/23/2017	LC_LC9	E221268														
3/24/2017	LC_LC9	E221268														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
3/25/2017	LC_LC9	E221268														
3/26/2017	LC_LC9	E221268														
3/27/2017	LC_LC9	E221268														
3/28/2017	LC_LC9	E221268														
3/29/2017	LC_LC9	E221268														
3/30/2017	LC_LC9	E221268														
3/31/2017	LC_LC9	E221268														
4/4/2017	LC_LC9	E221268	< 0.000050	0.022	0.02	< 0.050	0.115	0.113	71.2	1.14	11.4	< 0.10	< 0.10	0.91	0.98	
4/5/2017	LC_LC9	E221268														
4/11/2017	LC_LC9	E221268														
4/18/2017	LC_LC9	E221268														
4/25/2017	LC_LC9	E221268														
5/1/2017	LC_LC9	E221268														
5/9/2017	LC_LC9	E221268														
5/16/2017	LC_LC9	E221268														
5/23/2017	LC_LC9	E221268														
5/30/2017	LC_LC9	E221268														
6/6/2017	LC_LC9	E221268														
6/13/2017	LC_LC9	E221268														
6/19/2017	LC_LC9	E221268														
6/26/2017	LC_LC9	E221268														
10/3/2017	LC_LC9	E221268														
11/8/2017	LC_LC9	E221268														
12/4/2017	LC_LC9	E221268														
1/2/2017	LC_LCDSSLCC	E297110	< 0.000050	0.017	0.017	< 0.050	0.123	0.128	115	0.93	4.02	< 0.10	0.14	< 0.10	< 0.10	
1/5/2017	LC_LCDSSLCC	E297110														
1/9/2017	LC_LCDSSLCC	E297110	< 0.000050	0.013	0.013	< 0.25	0.107	0.108	117	0.57	10.2	0.11	0.12	< 0.10	< 0.10	
1/13/2017	LC_LCDSSLCC	E297110														
1/16/2017	LC_LCDSSLCC	E297110	< 0.000050	0.013	0.016	< 0.25	0.0921	0.0906	120	0.59	10.4	0.13	0.14	< 0.10	< 0.10	
1/18/2017	LC_LCDSSLCC	E297110														
1/23/2017	LC_LCDSSLCC	E297110	< 0.000050	0.012	0.013	< 0.25	0.0996	0.0991	127	0.59	12.7	0.11	0.14	< 0.10	< 0.10	
1/31/2017	LC_LCDSSLCC	E297110	< 0.000050	0.012	0.013	< 0.25	0.0968	0.103	126	0.79	12	0.13	0.15	< 0.10	< 0.10	
2/7/2017	LC_LCDSSLCC	E297110	< 0.000050	0.012	0.012	< 0.050	0.111	0.105	118	0.9	11.2	0.27	0.15	< 0.10	< 0.10	
2/14/2017	LC_LCDSSLCC	E297110	< 0.000050	0.014	0.014	< 0.25	0.098	0.105	122	< 0.50	12.2	< 0.10	0.14	< 0.10	< 0.10	
2/21/2017	LC_LCDSSLCC	E297110	< 0.000050	0.013	0.014	< 0.25	0.1	0.0941	125	< 0.50	13	0.12	0.21	< 0.10	< 0.10	
2/21/2017	LC_LCDSSLCC	E297110														
2/22/2017	LC_LCDSSLCC	E297110														
2/27/2017	LC_LCDSSLCC	E297110	< 0.000050	0.013	0.014	< 0.050	0.0938	0.0935	123	0.83	13.2	0.11	0.14	< 0.10	< 0.10	
3/6/2017	LC_LCDSSLCC	E297110	< 0.000050	0.012	0.012	< 0.25	0.0856	0.101	124	0.52	13	0.23	0.71	< 0.10	< 0.10	
3/9/2017	LC_LCDSSLCC	E297110														
3/13/2017	LC_LCDSSLCC	E297110	< 0.000050	0.014	0.015	< 0.050	0.0866	0.107	118	1.15	16	< 0.10	0.23	< 0.10	0.17	
3/15/2017	LC_LCDSSLCC	E297110														
3/20/2017	LC_LCDSSLCC	E297110	< 0.000050	0.012	0.013	< 0.050	0.113	0.116	109	0.73	8.84	0.12	0.19	< 0.10	0.11	
3/21/2017	LC_LCDSSLCC	E297110														
3/27/2017	LC_LCDSSLCC	E297110	< 0.000050	0.014	0.016	< 0.25	0.116	0.105	123	1.21	10.6	< 0.10	0.18	< 0.10	< 0.10	
4/3/2017	LC_LCDSSLCC	E297110	< 0.000050	0.014	0.013	< 0.050	0.116	0.112	118	0.95	11	< 0.10	0.13	< 0.10	< 0.10	
4/10/2017	LC_LCDSSLCC	E297110	< 0.000050	0.014	0.013	< 0.25	0.136	0.132	115	2.01	9.8	0.1	0.14	< 0.10	< 0.10	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
4/18/2017	LC_LCDSSLCC	E297110	< 0.000050	0.014	0.013	< 0.050	0.14	0.128	107	0.77	9.51	0.1	0.16	< 0.10	< 0.10	
4/24/2017	LC_LCDSSLCC	E297110														
4/25/2017	LC_LCDSSLCC	E297110	< 0.000050	0.014	0.014	< 0.050	0.145	0.173	108	1.18	8.03	< 0.10	0.16	< 0.10	< 0.10	
4/27/2017	LC_LCDSSLCC	E297110														
5/2/2017	LC_LCDSSLCC	E297110	< 0.000050	0.012	0.014	< 0.050	0.156	0.179	109	0.97	8.03	< 0.10	0.18	< 0.10	< 0.10	
5/5/2017	LC_LCDSSLCC	E297110														
5/9/2017	LC_LCDSSLCC	E297110	< 0.000050	< 0.010	< 0.010	< 0.050	0.212	0.225	70.5	2.54	2.63	< 0.10	0.25	< 0.10	0.15	
5/16/2017	LC_LCDSSLCC	E297110	< 0.000050	< 0.010	< 0.010	< 0.050	0.221	0.223	60.6	1.72	2.17	0.13	0.14	0.1	0.12	
5/17/2017	LC_LCDSSLCC	E297110														
5/23/2017	LC_LCDSSLCC	E297110	< 0.000050	< 0.010	< 0.010	< 0.050	0.179	0.193	56.8	2.09	1.9	< 0.10	0.32	< 0.10	0.1	
5/30/2017	LC_LCDSSLCC	E297110	< 0.000050	< 0.010	< 0.010	< 0.050	0.188	0.215	46.5	1.52	1.37	0.13	0.25	< 0.10	0.13	
6/7/2017	LC_LCDSSLCC	E297110	< 0.000050	< 0.010	< 0.010	< 0.050	0.301	0.301	61.3	1.31	1.75	< 0.10	0.17	< 0.10	0.11	
6/12/2017	LC_LCDSSLCC	E297110	< 0.000050	< 0.010	< 0.010	< 0.050	0.32	0.317	60.1	1.21	2.17	< 0.10	0.16	< 0.10	< 0.10	
6/13/2017	LC_LCDSSLCC	E297110														
6/19/2017	LC_LCDSSLCC	E297110	< 0.000050	< 0.010	< 0.010	< 0.050	0.316	0.309	64.9	1.19	2.5	0.12	0.14	< 0.10	< 0.10	
6/20/2017	LC_LCDSSLCC	E297110														
6/20/2017	LC_LCDSSLCC	E297110	< 0.000050	< 0.010	< 0.010	< 0.050	0.321	0.301	65.1	1.49	1.71	< 0.10	0.16	< 0.10	< 0.10	
6/26/2017	LC_LCDSSLCC	E297110	< 0.000050	< 0.010	< 0.010	< 0.050	0.266	0.274	66.8	1.4	2.7	0.12	0.13	< 0.10	< 0.10	
7/6/2017	LC_LCDSSLCC	E297110	< 0.000050	0.011	0.011	< 0.050	0.292	0.256	73.8	1.16	3.54	< 0.10	0.14	< 0.10	< 0.10	
7/11/2017	LC_LCDSSLCC	E297110														
7/11/2017	LC_LCDSSLCC	E297110	< 0.000050	0.011	0.011	< 0.050	0.267	0.251	80.2	1.28	4.01	< 0.10	0.15	< 0.10	< 0.10	
7/13/2017	LC_LCDSSLCC	E297110														
7/18/2017	LC_LCDSSLCC	E297110	< 0.000050	0.012	0.012	< 0.050	0.293	0.27	86.3	1.15	5.21	< 0.10	0.14	< 0.10	< 0.10	
7/21/2017	LC_LCDSSLCC	E297110														
7/25/2017	LC_LCDSSLCC	E297110														
7/25/2017	LC_LCDSSLCC	E297110	< 0.000050	0.013	0.013	< 0.050	0.25	0.204	91.9	1.75	5.5	< 0.10	0.17	< 0.10	< 0.10	
8/2/2017	LC_LCDSSLCC	E297110														
8/2/2017	LC_LCDSSLCC	E297110	< 0.000050	0.013	0.013	< 0.050	0.217	0.203	103	2.76	6.18	0.13	< 0.20	< 0.10	< 0.10	
8/8/2017	LC_LCDSSLCC	E297110														
8/8/2017	LC_LCDSSLCC	E297110	< 0.000050	0.013	0.015	< 0.050	0.289	0.272	104	0.85	2.99	< 0.10	0.15	< 0.10	< 0.10	
8/15/2017	LC_LCDSSLCC	E297110														
8/15/2017	LC_LCDSSLCC	E297110	< 0.000050	0.014	0.015	< 0.050	0.211	0.202	111	1.3	5.91	0.16	0.21	< 0.10	< 0.10	
8/18/2017	LC_LCDSSLCC	E297110														
8/21/2017	LC_LCDSSLCC	E297110	< 0.000050	0.014	0.013	< 0.050	0.188	0.188	108	1.14	6.22	< 0.10	0.17	< 0.10	< 0.10	
8/24/2017	LC_LCDSSLCC	E297110														
8/24/2017	LC_LCDSSLCC	E297110														
8/27/2017	LC_LCDSSLCC	E297110														
8/27/2017	LC_LCDSSLCC	E297110														
8/30/2017	LC_LCDSSLCC	E297110														
8/30/2017	LC_LCDSSLCC	E297110	< 0.000050	0.014	0.016	< 0.25	0.181	0.185	106	1.89	5.9	0.11	0.18	< 0.10	< 0.10	
9/2/2017	LC_LCDSSLCC	E297110														
9/5/2017	LC_LCDSSLCC	E297110														
9/5/2017	LC_LCDSSLCC	E297110	< 0.000050	0.015	0.016	< 0.050	0.17	0.184	108	0.71	6.86	0.1	0.11	< 0.10	< 0.10	
9/8/2017	LC_LCDSSLCC	E297110														
9/12/2017	LC_LCDSSLCC	E297110														
9/12/2017	LC_LCDSSLCC	E297110	< 0.000050	0.014	0.015	< 0.050	0.167	0.171	112	0.7	7.61	0.13	0.14	< 0.10	< 0.10	
9/13/2017	LC_LCDSSLCC	E297110														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
9/20/2017	LC_LCDSSLCC	E297110														
9/20/2017	LC_LCDSSLCC	E297110	< 0.000050	0.014	0.016	< 0.050	0.165	0.158	113	1.07	7.62	< 0.10	0.14	< 0.10	< 0.10	
9/25/2017	LC_LCDSSLCC	E297110	< 0.000050	0.014	0.015	0.095	0.148	0.15	112	0.76	7.7	0.13	0.17	< 0.10	< 0.10	
9/25/2017	LC_LCDSSLCC	E297110														
9/26/2017	LC_LCDSSLCC	E297110														
10/2/2017	LC_LCDSSLCC	E297110	< 0.000050	0.013	0.014	< 0.050	0.148	0.157	111	0.97	8.02	< 0.10	0.22	< 0.10	< 0.10	
10/3/2017	LC_LCDSSLCC	E297110														
10/10/2017	LC_LCDSSLCC	E297110	< 0.000050	0.012	0.014	0.067	0.136	0.154	112	0.77	8.44	0.11	0.17	< 0.10	< 0.10	
10/10/2017	LC_LCDSSLCC	E297110														
10/17/2017	LC_LCDSSLCC	E297110	< 0.000050	0.011	0.012	< 0.050	0.133	0.141	112	1.18	4.53	< 0.10	0.15	< 0.10	< 0.10	
10/18/2017	LC_LCDSSLCC	E297110														
10/24/2017	LC_LCDSSLCC	E297110	< 0.000050	0.013	0.014	< 0.050	0.19	0.183	116	0.8	6.66	0.1	0.27	< 0.10	< 0.10	
10/24/2017	LC_LCDSSLCC	E297110														
10/31/2017	LC_LCDSSLCC	E297110	< 0.000050	0.016	0.016	< 0.050	0.188	0.2	117	0.62	6.09	0.13	0.14	< 0.10	< 0.10	
11/6/2017	LC_LCDSSLCC	E297110	< 0.000050	0.013	0.013	< 0.050	0.171	0.166	124	0.69	5.37	0.12	0.22	< 0.10	< 0.10	
11/10/2017	LC_LCDSSLCC	E297110	< 0.00025	0.017	< 0.050	< 0.050	0.148	0.174	124	1.08	6.15	< 0.10	< 0.50	< 0.10	< 0.50	
11/14/2017	LC_LCDSSLCC	E297110	< 0.000050	0.015	0.016	< 0.050	0.169	0.164	122	0.53	6.25	< 0.10	0.17	< 0.10	< 0.10	
11/16/2017	LC_LCDSSLCC	E297110														
11/21/2017	LC_LCDSSLCC	E297110	< 0.000050	0.015	0.016	< 0.050	0.151	0.178	116	< 0.50	6.13	0.12	0.23	< 0.10	< 0.10	
11/28/2017	LC_LCDSSLCC	E297110														
11/28/2017	LC_LCDSSLCC	E297110	< 0.000050	0.015	0.016	< 0.050	0.15	0.169	119	0.51	6.79	0.12	0.25	< 0.10	< 0.10	
11/30/2017	LC_LCDSSLCC	E297110														
12/4/2017	LC_LCDSSLCC	E297110	< 0.000050	0.014	0.016	< 0.050	0.176	0.203	125	0.55	6.97	< 0.10	0.18	< 0.10	< 0.10	
12/12/2017	LC_LCDSSLCC	E297110	< 0.000050	0.016	0.016	< 0.050	0.143	0.169	131	0.6	6.56	0.11	0.13	< 0.10	< 0.10	
12/12/2017	LC_LCDSSLCC	E297110														
12/14/2017	LC_LCDSSLCC	E297110														
12/18/2017	LC_LCDSSLCC	E297110	< 0.000050	0.015	0.014	< 0.050	0.143	0.166	120	0.7	7.14	< 0.10	0.17	< 0.10	< 0.10	
12/18/2017	LC_LCDSSLCC	E297110														
12/27/2017	LC_LCDSSLCC	E297110														
12/27/2017	LC_LCDSSLCC	E297110	< 0.000050	0.014	0.015	< 0.050	0.15	0.147	127	0.59	6.92	< 0.10	0.19	< 0.10	< 0.10	
1/2/2017	LC_LCUSWLC	E293369	< 0.000050	0.024	0.027	< 0.050	0.251	0.295	127	0.92	3.46	< 0.10	0.11	< 0.10	< 0.10	
1/9/2017	LC_LCUSWLC	E293369	< 0.000050	0.018	0.018	< 0.25	0.29	0.264	128	< 0.50	4.44	0.14	0.15	< 0.10	< 0.10	
1/16/2017	LC_LCUSWLC	E293369	< 0.000050	0.02	0.024	< 0.25	0.231	0.279	127	0.54	4.08	< 0.10	0.14	< 0.10	< 0.10	
2/14/2017	LC_LCUSWLC	E293369	< 0.000050	0.016	0.016	< 0.25	0.278	0.273	126	< 0.50	3.8	< 0.10	0.14	< 0.10	< 0.10	
2/24/2017	LC_LCUSWLC	E293369	< 0.000050	0.017	0.018	< 0.050	0.28	0.286	133	0.67	5.39	0.12	0.13	< 0.10	< 0.10	
2/27/2017	LC_LCUSWLC	E293369	< 0.000050	0.019	0.024	< 0.050	0.271	0.284	122	1.18	4.89	0.1	0.13	< 0.10	< 0.10	
3/6/2017	LC_LCUSWLC	E293369	< 0.000050	0.017	0.015	< 0.25	0.261	0.269	133	< 0.50	4.85	< 0.10	0.16	< 0.10	< 0.10	
3/13/2017	LC_LCUSWLC	E293369	< 0.000050	0.017	0.017	< 0.050	0.28	0.274	132	0.72	4.77	< 0.10	0.14	< 0.10	< 0.10	
3/16/2017	LC_LCUSWLC	E293369														
3/18/2017	LC_LCUSWLC	E293369														
3/19/2017	LC_LCUSWLC	E293369														
3/20/2017	LC_LCUSWLC	E293369	< 0.000050	0.017	0.017	< 0.050	0.259	0.3	120	0.61	6.15	0.11	0.45	0.11	0.34	
3/22/2017	LC_LCUSWLC	E293369														
3/23/2017	LC_LCUSWLC	E293369														
3/24/2017	LC_LCUSWLC	E293369														
3/25/2017	LC_LCUSWLC	E293369														
3/26/2017	LC_LCUSWLC	E293369														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
3/27/2017	LC_LCUSWLC	E293369	< 0.000050	0.018	0.021	< 0.050	0.303	0.295	132	1.16	6	0.11	0.3	< 0.10	0.23	
3/28/2017	LC_LCUSWLC	E293369														
3/29/2017	LC_LCUSWLC	E293369														
3/30/2017	LC_LCUSWLC	E293369														
4/3/2017	LC_LCUSWLC	E293369	< 0.000050	0.019	0.017	< 0.25	0.326	0.274	130	0.93	5.5	< 0.10	0.17	< 0.10	0.12	
4/10/2017	LC_LCUSWLC	E293369	< 0.000050	0.018	0.016	< 0.25	0.313	0.273	116	1.53	5.8	< 0.10	0.14	< 0.10	0.13	
4/18/2017	LC_LCUSWLC	E293369	< 0.000050	0.019	0.017	< 0.25	0.332	0.287	121	0.7	5.6	< 0.10	0.17	0.1	0.12	
4/25/2017	LC_LCUSWLC	E293369	< 0.000050	0.017	0.018	< 0.25	0.317	0.317	120	1.36	5	< 0.10	0.15	0.11	0.16	
5/1/2017	LC_LCUSWLC	E293369	< 0.000050	0.016	0.017	< 0.050	0.331	0.316	117	0.86	5.91	0.12	0.15	0.12	0.14	
5/9/2017	LC_LCUSWLC	E293369	< 0.000050	0.011	0.011	< 0.050	0.35	0.343	76.2	1.71	2.18	< 0.10	10.5	0.19	0.24	
5/16/2017	LC_LCUSWLC	E293369	< 0.000050	< 0.010	0.01	< 0.050	0.342	0.311	60.5	1.29	1.67	< 0.10	0.13	0.18	0.16	
5/23/2017	LC_LCUSWLC	E293369	< 0.000050	0.01	0.011	< 0.050	0.411	0.392	70.1	1.11	2.36	< 0.10	0.14	0.15	0.15	
5/30/2017	LC_LCUSWLC	E293369	< 0.000050	< 0.010	< 0.010	< 0.050	0.364	0.364	61.1	0.76	1.54	0.13	0.15	0.14	0.17	
6/7/2017	LC_LCUSWLC	E293369	< 0.000050	< 0.010	< 0.010	< 0.050	0.432	0.42	63.8	0.83	1.86	< 0.10	0.15	0.17	0.16	
6/13/2017	LC_LCUSWLC	E293369	< 0.000050	< 0.010	< 0.010	< 0.050	0.525	0.482	70.4	0.69	2.5	< 0.10	0.15	0.15	0.15	
6/19/2017	LC_LCUSWLC	E293369	< 0.000050	0.01	< 0.010	< 0.050	0.524	0.492	70.8	0.83	2.42	< 0.10	0.13	0.13	0.13	
6/26/2017	LC_LCUSWLC	E293369	< 0.000050	0.012	0.012	< 0.050	0.543	0.51	73.7	1.05	2.39	< 0.10	0.14	0.14	0.11	
7/6/2017	LC_LCUSWLC	E293369	< 0.000050	0.014	0.013	< 0.050	0.487	0.473	81	1.14	2.73	< 0.10	0.14	0.1	0.1	
7/11/2017	LC_LCUSWLC	E293369	< 0.000050	0.013	0.013	< 0.050	0.519	0.494	87	0.73	3.04	< 0.10	0.16	0.11	0.12	
7/18/2017	LC_LCUSWLC	E293369	< 0.000050	0.015	0.015	< 0.050	0.521	0.474	90.4	1.15	3.26	0.11	0.29	< 0.10	< 0.10	
7/25/2017	LC_LCUSWLC	E293369	< 0.000050	0.017	0.017	< 0.050	0.488	0.492	100	1.47	3.54	< 0.10	0.15	< 0.10	< 0.10	
8/2/2017	LC_LCUSWLC	E293369	< 0.000050	0.016	0.017	< 0.050	0.461	0.465	112	1.36	3.79	< 0.10	< 0.20	< 0.10	< 0.10	
8/8/2017	LC_LCUSWLC	E293369	< 0.000050	0.017	0.019	< 0.050	0.492	0.463	110	0.58	3	0.11	0.15	< 0.10	< 0.10	
8/15/2017	LC_LCUSWLC	E293369	< 0.000050	0.019	0.022	< 0.050	3.21	3.39	302	1.5	2.84	< 0.10	0.22	< 0.10	< 0.10	
8/18/2017	LC_LCUSWLC	E293369														
8/21/2017	LC_LCUSWLC	E293369	< 0.000050	0.016	0.016	< 0.050	0.391	0.383	108	0.83	2.84	< 0.10	0.13	< 0.10	< 0.10	
8/24/2017	LC_LCUSWLC	E293369														
8/27/2017	LC_LCUSWLC	E293369														
8/30/2017	LC_LCUSWLC	E293369	< 0.000050	0.017	0.019	< 0.25	0.399	0.418	107	1.5	< 2.5	< 0.10	0.15	< 0.10	< 0.10	
9/2/2017	LC_LCUSWLC	E293369														
9/5/2017	LC_LCUSWLC	E293369														
9/5/2017	LC_LCUSWLC	E293369	< 0.000050	0.017	0.019	< 0.050	0.41	0.433	103	0.6	2.52	< 0.10	0.13	< 0.10	< 0.10	
9/8/2017	LC_LCUSWLC	E293369														
9/12/2017	LC_LCUSWLC	E293369	< 0.000050	0.017	0.017	< 0.10	0.428	0.415	104	0.78	< 2.5	0.11	< 0.20	< 0.10	< 0.10	
9/20/2017	LC_LCUSWLC	E293369	< 0.000050	0.017	0.019	< 0.050	0.361	0.361	109	0.86	3.29	< 0.10	0.16	< 0.10	< 0.10	
9/25/2017	LC_LCUSWLC	E293369	< 0.000050	0.016	0.018	0.077	0.366	0.363	112	0.77	3.24	< 0.10	0.12	< 0.10	< 0.10	
10/2/2017	LC_LCUSWLC	E293369	< 0.000050	0.016	0.017	< 0.050	0.33	0.35	106	0.92	2.99	0.1	0.22	< 0.10	< 0.10	
10/10/2017	LC_LCUSWLC	E293369	< 0.000050	0.017	0.019	0.057	0.346	0.364	117	0.74	3.63	0.13	0.2	< 0.10	< 0.10	
10/17/2017	LC_LCUSWLC	E293369	< 0.000050	0.015	0.016	< 0.050	0.374	0.357	120	< 0.50	4.29	< 0.10	0.14	< 0.10	< 0.10	
10/24/2017	LC_LCUSWLC	E293369	< 0.000050	0.019	0.019	< 0.050	0.402	0.371	116	0.56	5.38	0.11	0.14	< 0.10	< 0.10	
10/31/2017	LC_LCUSWLC	E293369	< 0.000050	0.022	0.022	< 0.25	0.357	0.339	117	0.65	4.9	0.1	0.15	< 0.10	< 0.10	
11/6/2017	LC_LCUSWLC	E293369	< 0.000050	0.018	0.019	< 0.050	0.329	0.336	136	0.61	5.1	0.12	0.22	< 0.10	< 0.10	
11/9/2017	LC_LCUSWLC	E293369	< 0.000050	0.019	0.027	0.05	0.303	0.283	121	0.75	3.89	< 0.10	0.16	< 0.10	< 0.10	
11/14/2017	LC_LCUSWLC	E293369	< 0.000050	0.02	0.022	< 0.050	0.287	0.288	120	0.52	3.84	< 0.10	0.21	< 0.10	< 0.10	
11/21/2017	LC_LCUSWLC	E293369	< 0.000050	0.022	0.022	< 0.050	0.295	0.311	128	0.63	4.11	< 0.10	0.13	< 0.10	< 0.10	
11/28/2017	LC_LCUSWLC	E293369	< 0.000050	0.021	0.014	< 0.050	0.328	0.0883	107	< 0.50	6.2	< 0.10	0.26	< 0.10	< 0.10	
12/4/2017	LC_LCUSWLC	E293369	< 0.000050	0.02	0.022	< 0.050	0.313	0.324	126	< 0.50	5.22	< 0.10	0.15	< 0.10	< 0.10	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
12/12/2017	LC_LCUSWLC	E293369	< 0.000050	0.022	0.022	< 0.050	0.286	0.296	139	0.64	5.1	< 0.10	0.12	< 0.10	< 0.10	
12/18/2017	LC_LCUSWLC	E293369	< 0.000050	0.021	0.021	< 0.050	0.276	0.307	129	0.67	5.17	< 0.10	0.27	< 0.10	< 0.10	
12/27/2017	LC_LCUSWLC	E293369	< 0.000050	0.02	0.021	< 0.050	0.281	0.31	137	0.52	4.55	< 0.10	0.44	< 0.10	< 0.10	
1/9/2017	LC_SLC	E282149														
1/9/2017	LC_SLC	E282149	< 0.000050	< 0.010	< 0.010	< 0.050	0.0128	0.0088	52.6	0.61	0.46	0.18	0.15	< 0.10	< 0.10	
2/14/2017	LC_SLC	E282149	< 0.000050	< 0.010	< 0.010	< 0.050	0.0116	0.0109	54.1	< 0.50	0.52	0.1	0.16	< 0.10	< 0.10	
2/14/2017	LC_SLC	E282149														
3/6/2017	LC_SLC	E282149	< 0.000050	< 0.010	< 0.010	< 0.050	0.0102	0.0122	54.7	< 0.50	0.61	0.14	0.17	< 0.10	< 0.10	
3/9/2017	LC_SLC	E282149														
4/3/2017	LC_SLC	E282149	< 0.000050	< 0.010	< 0.010	< 0.050	0.0107	0.0093	51.6	1.28	< 0.50	0.14	0.14	< 0.10	< 0.10	
4/3/2017	LC_SLC	E282149														
5/1/2017	LC_SLC	E282149	< 0.000050	< 0.010	< 0.010	< 0.050	0.0126	0.014	46.8	1.85	< 0.50	0.14	0.18	< 0.10	< 0.10	
5/6/2017	LC_SLC	E282149														
5/7/2017	LC_SLC	E282149														
5/17/2017	LC_SLC	E282149														
5/24/2017	LC_SLC	E282149														
6/7/2017	LC_SLC	E282149	< 0.000050	< 0.010	< 0.010	< 0.050	0.0158	0.0176	29.4	1.93	< 0.50	0.11	0.21	< 0.10	< 0.10	
6/22/2017	LC_SLC	E282149														
7/6/2017	LC_SLC	E282149	< 0.000050	< 0.010	< 0.010	< 0.050	0.0113	0.0126	34.1	1.34	< 0.50	< 0.10	0.16	< 0.10	< 0.10	
7/13/2017	LC_SLC	E282149														
8/2/2017	LC_SLC	E282149	< 0.000050	< 0.010	< 0.010	< 0.050	0.0083	0.0119	46.9	1.54	< 0.50	0.14	< 0.20	< 0.10	< 0.10	
8/8/2017	LC_SLC	E282149														
8/15/2017	LC_SLC	E282149														
8/18/2017	LC_SLC	E282149														
8/21/2017	LC_SLC	E282149														
8/24/2017	LC_SLC	E282149														
8/24/2017	LC_SLC	E282149														
8/27/2017	LC_SLC	E282149														
8/30/2017	LC_SLC	E282149														
9/2/2017	LC_SLC	E282149														
9/5/2017	LC_SLC	E282149														
9/5/2017	LC_SLC	E282149	< 0.000050	< 0.010	< 0.010	< 0.050	0.0094	0.0169	52.4	0.5	< 0.50	0.14	0.19	< 0.10	< 0.10	
9/5/2017	LC_SLC	E282149														
9/8/2017	LC_SLC	E282149														
9/29/2017	LC_SLC	E282149														
10/2/2017	LC_SLC	E282149	< 0.000050	< 0.010	< 0.010	< 0.050	0.0115	0.0116	52.3	0.64	< 0.50	0.14	0.25	< 0.10	< 0.10	
10/18/2017	LC_SLC	E282149														
11/8/2017	LC_SLC	E282149	< 0.000050	< 0.010	< 0.010	< 0.050	0.0195	0.0111	56.4	0.96	< 0.50	0.13	0.25	< 0.10	< 0.10	
11/8/2017	LC_SLC	E282149														
11/16/2017	LC_SLC	E282149														
12/4/2017	LC_SLC	E282149	< 0.000050	< 0.010	< 0.010	< 0.050	0.0096	0.013	52.7	0.73	< 0.50	< 0.10	0.18	< 0.10	< 0.10	
12/14/2017	LC_SLC	E282149														
1/9/2017	LC_WLC	E261958	< 0.000050	0.012	0.012	< 0.50	0.546	0.63	289	1.24	5.8	0.12	0.14	< 0.10	< 0.10	
2/14/2017	LC_WLC	E261958	< 0.000050	0.012	0.013	< 0.25	0.336	0.334	288	0.86	4.8	< 0.10	0.13	< 0.10	< 0.10	
3/6/2017	LC_WLC	E261958	< 0.000050	0.014	0.012	< 1.0	0.214	0.224	298	1.16	6.5	< 0.10	0.12	< 0.10	< 0.10	
3/13/2017	LC_WLC	E261958	< 0.000050	0.013	0.013	< 0.25	0.212	0.208	279	1.44	4.9	0.12	0.14	< 0.10	< 0.10	
3/18/2017	LC_WLC	E261958														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
3/19/2017	LC_WLC	E261958														
3/20/2017	LC_WLC	E261958	< 0.000050	0.012	0.014	< 0.25	0.181	0.211	299	1.27	4.8	< 0.10	0.16	< 0.10	< 0.10	
3/21/2017	LC_WLC	E261958														
3/25/2017	LC_WLC	E261958														
3/26/2017	LC_WLC	E261958														
3/27/2017	LC_WLC	E261958	< 0.000050	0.014	0.016	< 0.25	0.213	0.21	292	1.67	4.7	0.12	0.18	< 0.10	< 0.10	
4/3/2017	LC_WLC	E261958	< 0.000050	0.015	0.014	< 0.25	0.213	0.262	294	1.09	4.8	0.11	0.21	< 0.10	< 0.10	
4/10/2017	LC_WLC	E261958	< 0.000050	0.014	0.013	< 0.25	0.21	0.193	270	2.01	4.8	< 0.10	0.13	< 0.10	< 0.10	
4/18/2017	LC_WLC	E261958	< 0.000050	0.016	0.014	< 0.25	0.212	0.201	269	1.3	4.8	< 0.10	0.13	< 0.10	< 0.10	
4/25/2017	LC_WLC	E261958	< 0.000050	0.014	0.014	< 0.25	0.246	0.244	276	1.46	4.3	< 0.10	0.12	< 0.10	< 0.10	
4/26/2017	LC_WLC	E261958														
5/1/2017	LC_WLC	E261958	< 0.000050	0.014	0.015	< 0.25	0.283	0.281	267	1.32	4.3	0.11	0.44	< 0.10	< 0.10	
5/1/2017	LC_WLC	E261958														
5/9/2017	LC_WLC	E261958	< 0.000050	0.015	0.016	< 0.25	0.479	0.486	261	1.85	4.3	< 0.10	1.1	< 0.10	< 0.10	
5/16/2017	LC_WLC	E261958	< 0.000050	0.015	0.016	< 0.25	0.738	0.694	207	1.39	2.8	< 0.10	0.1	< 0.10	< 0.10	
5/23/2017	LC_WLC	E261958	< 0.000050	0.016	0.018	< 0.050	0.978	0.983	200	1.23	2.87	< 0.10	0.12	< 0.10	< 0.10	
5/30/2017	LC_WLC	E261958	< 0.000050	0.021	0.021	< 0.25	1.32	1.27	145	1.16	10.7	< 0.10	0.11	0.23	0.26	
6/6/2017	LC_WLC	E261958	< 0.000050	0.018	0.019	< 0.25	1.96	1.86	137	1.25	< 2.5	< 0.10	< 0.10	0.26	0.3	
6/13/2017	LC_WLC	E261958	< 0.000050	0.017	0.017	< 0.10	2.07	1.93	155	0.9	< 2.5	< 0.10	< 0.10	0.14	0.14	
6/19/2017	LC_WLC	E261958	< 0.000050	0.015	0.016	< 0.25	2.1	1.99	164	1.02	< 2.5	< 0.10	< 0.10	< 0.10	0.11	
6/26/2017	LC_WLC	E261958	< 0.000050	0.018	0.018	< 0.25	2.27	2.15	179	1.42	< 2.5	< 0.10	0.1	0.11	< 0.10	
7/6/2017	LC_WLC	E261958														
7/6/2017	LC_WLC	E261958	< 0.000050	0.019	0.02	< 0.25	2.58	2.47	196	1.48	2.7	< 0.10	0.1	< 0.10	< 0.10	
7/11/2017	LC_WLC	E261958														
7/11/2017	LC_WLC	E261958	< 0.000050	0.018	0.018	< 0.25	2.65	2.55	210	1.27	2.7	< 0.10	0.11	< 0.10	< 0.10	
7/18/2017	LC_WLC	E261958	< 0.000050	0.02	0.019	< 0.25	3.01	2.85	215	1.3	2.6	< 0.10	< 0.10	< 0.10	< 0.10	
7/25/2017	LC_WLC	E261958														
7/25/2017	LC_WLC	E261958	< 0.000050	0.02	0.02	< 0.25	2.95	2.8	230	1.63	2.8	< 0.10	< 0.10	< 0.10	< 0.10	
8/2/2017	LC_WLC	E261958	< 0.000050	0.019	0.019	< 0.10	2.8	2.89	258	1.85	3	< 0.10	< 0.20	< 0.10	< 0.10	
8/3/2017	LC_WLC	E261958														
8/8/2017	LC_WLC	E261958														
8/8/2017	LC_WLC	E261958	< 0.000050	0.019	0.021	< 0.10	3.21	2.87	255	1.22	3.7	< 0.10	0.1	< 0.10	< 0.10	
8/15/2017	LC_WLC	E261958														
8/15/2017	LC_WLC	E261958	< 0.000050	0.016	0.018	< 0.25	0.418	0.438	111	1.8	3.1	0.13	0.21	< 0.10	< 0.10	
8/21/2017	LC_WLC	E261958	< 0.000050	0.02	0.019	< 0.25	3.46	2.99	292	0.98	3.3	< 0.10	0.51	< 0.10	< 0.10	
8/30/2017	LC_WLC	E261958														
8/30/2017	LC_WLC	E261958	< 0.000050	0.02	0.02	< 0.25	2.74	2.58	281	1.07	3.2	< 0.10	< 0.10	< 0.10	< 0.10	
9/5/2017	LC_WLC	E261958														
9/5/2017	LC_WLC	E261958	< 0.00010	0.021	0.024	< 0.10	3.05	3.29	302	1.06	3.4	< 0.10	< 0.20	< 0.10	< 0.20	
9/5/2017	LC_WLC	E261958														
9/12/2017	LC_WLC	E261958	< 0.000050	0.021	0.021	< 0.25	3.02	3.01	295	1.28	3.5	< 0.10	< 0.40	< 0.10	< 0.10	
9/20/2017	LC_WLC	E261958														
9/20/2017	LC_WLC	E261958	< 0.000050	0.016	0.017	< 0.25	2.37	2.35	283	1.04	3.8	< 0.10	0.15	< 0.10	< 0.10	
9/25/2017	LC_WLC	E261958														
9/25/2017	LC_WLC	E261958	< 0.000050	0.017	0.017	0.3	1.99	1.82	296	1.17	3.6	< 0.10	0.11	< 0.10	< 0.10	
10/3/2017	LC_WLC	E261958	< 0.000050	0.016	0.017	< 0.25	< 0.0050	1.84	299	1.27	4	< 0.10	0.2	< 0.10	< 0.10	
10/10/2017	LC_WLC	E261958	< 0.000050	0.014	0.017	< 0.25	1.62	1.72	295	1.76	6	< 0.10	0.12	< 0.10	< 0.10	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
10/10/2017	LC_WLC	E261958														
10/17/2017	LC_WLC	E261958	< 0.000050	0.013	0.015	< 0.25	0.351	1.4	289	3.3	3.8	< 0.10	0.11	< 0.10	< 0.10	
10/24/2017	LC_WLC	E261958	< 0.00010	< 0.020	< 0.020	< 0.050	1.21	1.36	303	1.32	4.24	< 0.20	< 0.20	< 0.20	< 0.20	
10/31/2017	LC_WLC	E261958														
10/31/2017	LC_WLC	E261958	< 0.00010	< 0.020	< 0.020	< 0.25	0.863	1.17	297	1.46	4.5	< 0.20	< 0.20	< 0.20	< 0.20	
11/8/2017	LC_WLC	E261958	< 0.00010	0.013	< 0.020	< 0.25	0.868	0.586	321	1.29	3.9	< 0.10	< 0.20	< 0.10	< 0.20	
11/8/2017	LC_WLC	E261958														
11/14/2017	LC_WLC	E261958	< 0.000050	0.012	0.014	< 0.25	0.607	0.879	306	1.13	4.8	< 0.10	0.4	< 0.10	< 0.10	
11/21/2017	LC_WLC	E261958	< 0.000050	< 0.020	0.014	< 0.25	0.146	0.814	300	1.22	4.2	< 0.20	0.65	< 0.20	< 0.10	
11/28/2017	LC_WLC	E261958	< 0.000050	0.023	0.012	< 0.25	0.096	0.819	277	1.19	4.4	< 0.20	0.16	< 0.20	< 0.10	
11/28/2017	LC_WLC	E261958														
12/4/2017	LC_WLC	E261958	< 0.00010	0.015	< 0.020	< 0.25	0.698	0.79	302	1.3	4.3	0.12	0.21	< 0.10	< 0.20	
12/12/2017	LC_WLC	E261958	< 0.00010	< 0.020	< 0.020	< 0.10	0.609	0.621	324	1.5	4.4	< 0.20	< 0.20	< 0.20	< 0.20	
12/18/2017	LC_WLC	E261958	< 0.000050	0.013	0.013	< 0.050	0.543	0.583	308	1.48	5.05	< 0.10	0.14	< 0.10	< 0.10	
12/18/2017	LC_WLC	E261958														
12/27/2017	LC_WLC	E261958	< 0.00010	0.012	< 0.020	< 0.10	0.0483	0.414	302	1.3	4.7	< 0.10	< 0.20	< 0.10	< 0.20	
4/11/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	0.0257	0.0355	47.3	1.91	3.7	0.21	0.93	0.25	0.51	
4/11/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	0.0217	0.0317	48	1.73	3.72	0.24	0.78	0.24	0.47	
4/11/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	0.0053	0.0309	48.4	2.1	3.72	< 0.10	0.83	0.11	0.46	
4/17/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	0.0062	0.0389	48.9	1.76	3.31	< 0.10	1.03	0.1	0.57	
4/17/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	0.0058	0.0345	46.7	1.65	3.31	< 0.10	0.97	0.11	0.51	
4/17/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0342	48.6	1.75	3.33	< 0.10	0.88	0.11	0.5	
4/24/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	0.0069	0.0519	49.8	1.91	2.97	< 0.10	2.93	0.12	0.84	
4/24/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	0.0068	0.0432	49.7	1.75	3.1	< 0.10	1.91	0.11	0.71	
4/24/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	0.0076	0.0423	49.1	1.81	3.12	< 0.10	1.73	0.1	0.69	
5/2/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	0.0062	0.0466	44.5	2.42	2.74	< 0.10	1.74	< 0.10	0.78	
5/2/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0456	46.5	2.19	2.91	< 0.10	1.32	0.11	0.69	
5/9/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0626	45.2	2.98	1.3	< 0.10	2.49	0.12	1.45	
5/9/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	0.0052	0.0694	46.4	2.85	1.31	3.22	4.68	0.12	1.51	
5/9/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0751	45.4	2.96	1.31	< 0.10	2.73	0.12	1.53	
5/16/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0277	38.4	2.4	1.17	< 0.10	1.23	< 0.10	0.63	
5/16/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0251	36.8	2.58	1.11	< 0.10	1.26	< 0.10	0.63	
5/16/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0161	36.6	2.37	1.14	< 0.10	1.09	< 0.10	0.58	
5/23/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0169	38.7	1.88	1.51	< 0.10	0.42	< 0.10	0.21	
5/23/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.018	38.1	1.97	1.49	< 0.10	0.52	< 0.10	0.27	
5/23/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.014	37.9	1.9	1.52	0.3	0.41	< 0.10	0.16	
5/30/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0389	35.9	1.82	1.05	< 0.10	1.46	< 0.10	0.51	
5/30/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0348	34.1	1.9	1.07	0.12	1.1	< 0.10	0.47	
5/30/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0209	31.4	2.03	1.09	0.1	0.77	< 0.10	0.32	
6/6/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0346	36.5	1.8	0.79	< 0.10	1.6	< 0.10	0.73	
6/6/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0306	35.5	1.29	0.8	< 0.10	1.71	< 0.10	0.75	
6/6/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0056	29.6	1.52	1.14	< 0.10	0.19	< 0.10	< 0.10	
6/13/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0247	32.1	1.36	0.79	0.35	1.14	< 0.10	0.55	
6/13/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0056	30	1.79	1.03	< 0.10	0.21	< 0.10	< 0.10	
6/13/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0266	34.6	1.35	0.76	< 0.10	1.62	< 0.10	0.75	
6/20/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0175	32.8	1.2	0.96	< 0.10	0.75	< 0.10	0.38	
6/20/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0104	29.9	1.15	1.01	< 0.10	0.41	< 0.10	0.22	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
6/20/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0054	28.8	1.57	1.01	< 0.10	0.17	< 0.10	< 0.10	
6/27/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.011	32.3	1.67	1.01	0.11	0.41	< 0.10	0.21	
6/27/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0066	31.7	1.29	1.12	< 0.10	0.36	< 0.10	0.15	
6/27/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	29	1.79	1.02	< 0.10	0.15	< 0.10	< 0.10	
7/4/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0108	32.7	1.74	0.97	< 0.10	0.35	< 0.10	0.17	
7/4/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0063	29.6	0.92	1.22	< 0.10	0.21	< 0.10	0.11	
7/4/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	30.2	1.63	1.07	< 0.10	< 0.40	< 0.10	< 0.10	
7/11/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0069	31.3	1.6	1.02	< 0.10	0.29	< 0.10	< 0.10	
7/11/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	29	1.06	1.28	< 0.10	0.12	< 0.10	< 0.10	
7/11/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	29.3	1.8	1.09	< 0.10	0.12	< 0.10	< 0.10	
8/8/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0061	30.8	1.16	1.35	< 0.10	0.11	< 0.10	< 0.10	
8/8/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0073	32.1	1.76	1.04	< 0.10	0.24	< 0.10	< 0.10	
8/8/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	32.5	1.45	1.4	< 0.10	0.1	< 0.10	< 0.10	
9/18/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0056	31.1	1.28	1.09	< 0.10	0.15	< 0.10	< 0.10	
9/18/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	34.2	1.14	2.14	< 0.10	< 0.10	< 0.10	< 0.10	
9/18/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	33.5	1.12	2.07	< 0.10	< 0.10	< 0.10	< 0.10	
10/3/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	36.2	0.92	3.4	< 0.10	< 0.10	< 0.10	< 0.10	
10/3/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	31.5	1.14	2.04	< 0.10	0.11	< 0.10	< 0.10	
10/3/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	32.5	1.14	2.03	< 0.10	< 0.10	< 0.10	< 0.10	
11/8/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	38.4	1.22	2.3	< 0.10	< 0.30	< 0.10	< 0.10	
11/8/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	37.4	1.09	2.21	< 0.10	< 0.30	< 0.10	< 0.10	
11/8/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	36.5	1.35	2.2	< 0.10	< 0.30	< 0.10	< 0.10	
12/5/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0086	37.1	1.3	2.99	< 0.10	0.31	< 0.10	< 0.10	
12/5/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	35.7	1.11	2.35	< 0.10	0.12	< 0.10	< 0.10	
12/5/2017	RG_BORDER	E300094	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	35.1	1.3	2.24	< 0.10	0.12	< 0.10	< 0.10	
4/4/2017	RG_DSELK	E300230	< 0.000050	< 0.010	0.012	< 0.050	< 0.0050	0.117	63.1	1.84	4.08	< 0.10	2.44	0.14	1.12	
4/11/2017	RG_DSELK	E300230	0.000056	< 0.010	0.012	< 0.050	0.0063	0.164	69	1.85	3.68	< 0.10	4.14	< 0.10	2.15	
4/17/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	0.0076	0.23	89.4	1.7	3.71	< 0.10	1.35	< 0.10	1.93	
4/24/2017	RG_DSELK	E300230	0.000182	< 0.010	0.011	< 0.050	< 0.0050	0.431	109	1.75	2.97	< 0.10	11.9	0.12	6.29	
5/2/2017	RG_DSELK	E300230	0.000059	< 0.010	< 0.010	< 0.050	< 0.0050	0.13	66.7	2.16	3.08	0.1	4	< 0.10	2.11	
5/9/2017	RG_DSELK	E300230	0.00011	< 0.010	< 0.010	< 0.050	< 0.0050	0.221	84	2.43	1.45	< 0.10	6.74	< 0.10	4.03	
5/16/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0382	46	2.04	1.5	< 0.10	1.72	< 0.10	0.93	
5/23/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0465	45.2	2.01	1.37	< 0.10	1.49	< 0.10	0.88	
5/30/2017	RG_DSELK	E300230	0.000052	< 0.010	< 0.010	< 0.050	0.0055	0.154	51.2	1.84	0.81	< 0.10	3.74	< 0.10	1.76	
6/6/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	0.0059	0.0635	39.4	1.18	0.72	0.11	1.67	< 0.10	0.63	
6/6/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0318	39.2	1.55	0.84	< 0.10	1.03	< 0.10	0.6	
6/6/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0315	37.7	1.14	0.85	< 0.10	1.63	< 0.10	0.69	
6/13/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0197	37.5	1.22	0.95	< 0.10	1.49	< 0.10	0.86	
6/13/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0218	36.6	1.11	0.93	< 0.10	1.38	< 0.10	0.78	
6/13/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	0.0054	0.0363	38.5	1.09	0.79	< 0.10	1.15	< 0.10	0.49	
6/20/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0142	33.5	1.06	1.05	< 0.10	0.64	< 0.10	0.31	
6/20/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0129	33.3	1.12	1.04	< 0.10	0.48	< 0.10	0.26	
6/20/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0089	29.5	1.14	1.08	< 0.10	0.28	< 0.10	0.17	
6/27/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	32	1.57	1.05	< 0.10	0.13	< 0.10	< 0.10	
6/27/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0123	33.9	1.07	1.24	< 0.10	0.38	< 0.10	0.2	
6/27/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0088	34.1	1.2	1.2	< 0.10	0.17	< 0.10	< 0.10	
7/4/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0058	30.5	1	1.34	< 0.10	< 0.20	< 0.10	0.11	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
7/4/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0059	32.3	1.14	1.15	< 0.10	< 0.10	< 0.10	< 0.10	
7/4/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	29.6	1.67	1.05	< 0.10	< 0.20	< 0.10	< 0.10	
7/11/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.008	29.2	0.81	1.34	< 0.10	0.15	< 0.10	< 0.10	
7/11/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0067	35.2	1.02	1.18	< 0.10	0.21	< 0.10	< 0.10	
7/11/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	27.5	1.51	1.11	< 0.10	0.11	< 0.10	< 0.10	
8/8/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	35.2	1.12	2.02	< 0.10	< 0.10	< 0.10	< 0.10	
8/8/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.01	33.4	1.35	1.28	< 0.10	0.22	< 0.10	< 0.10	
9/18/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	37.2	1.01	3.16	< 0.10	< 0.10	< 0.10	< 0.10	
9/18/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	34.5	0.97	2.44	< 0.10	< 0.10	< 0.10	< 0.10	
9/18/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	34.3	0.96	2.43	< 0.10	< 0.10	< 0.10	< 0.10	
10/3/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0072	39.5	0.94	3.14	< 0.10	0.14	< 0.10	< 0.10	
10/3/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	33	1.16	2.28	< 0.10	0.11	< 0.10	< 0.10	
10/3/2017	RG_DSELK	E300230	0.000498	< 0.010	< 0.010	< 0.050	< 0.0050	0.048	33.2	1.22	2.27	< 0.10	0.26	< 0.10	0.14	
11/8/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	42.2	1.29	3.19	< 0.10	< 0.40	< 0.10	< 0.10	
11/8/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	42.4	1.26	3.09	< 0.10	< 0.30	< 0.10	< 0.10	
11/8/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	38.4	1.14	2.53	0.2	< 0.30	< 0.10	< 0.10	
12/5/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0116	41.4	1.29	3.32	0.11	0.2	< 0.10	< 0.10	
12/5/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0083	38.2	1.42	3.75	< 0.10	0.19	< 0.10	< 0.10	
12/5/2017	RG_DSELK	E300230	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0053	37.7	1.5	2.82	< 0.10	0.14	< 0.10	< 0.10	
1/3/2017	RG_ELKORES	E294312	< 0.000050	0.011	0.01	< 0.050	0.0118	0.044	72	1.31	3.36	0.24	0.62	< 0.10	0.12	
2/8/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	0.011	< 0.050	0.026	0.0469	73.4	1.34	3.82	0.24	0.82	< 0.10	0.13	
3/7/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0209	0.0585	64.3	1.01	3.81	0.29	1.46	< 0.10	0.17	
3/14/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0187	0.0471	31.3	1.46	3.71	0.1	1.34	< 0.10	0.31	
3/21/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	0.01	< 0.050	0.012	0.0573	50	2.95	3.35	0.16	1	< 0.10	0.32	
3/28/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.011	0.0242	55.8	1.7	4.24	0.18	0.41	< 0.10	< 0.10	
4/4/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	0.014	< 0.050	0.0135	0.0295	56.6	1.76	3.83	0.11	0.48	< 0.10	< 0.10	
4/11/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0127	0.0267	53.8	1.63	3.35	0.15	0.42	< 0.10	< 0.10	
4/18/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0106	0.0277	57.4	1.51	3.22	0.18	0.46	< 0.10	< 0.10	
4/25/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0127	0.0623	56.4	2.19	2.21	0.19	0.88	< 0.10	0.26	
5/1/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0154	0.0361	56.7	2.11	2.44	0.18	0.47	< 0.10	0.11	
5/9/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0174	0.118	51.6	2.66	1.43	0.15	1.56	< 0.10	0.49	
5/16/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.016	0.102	49.1	2.15	1.38	0.19	1.16	< 0.10	0.33	
5/23/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.134	0.15	43.2	2.58	0.88	0.33	2.04	0.36	0.66	
5/30/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0159	0.368	55.1	2.21	0.73	0.19	4.28	< 0.10	1.56	
6/6/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0105	0.164	48	1.9	0.75	0.25	2.55	< 0.10	0.74	
6/13/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0115	0.0891	48	1.49	0.97	0.18	1.41	< 0.10	0.37	
6/20/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0111	0.0526	46.6	1.37	1	0.18	0.83	< 0.10	0.21	
6/27/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.008	< 0.035	47.6	1.05	1.11	0.18	0.51	< 0.10	0.1	
7/4/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0126	0.0265	46.9	0.84	1.21	0.13	0.94	< 0.10	< 0.10	
7/11/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0062	0.0378	49.9	0.86	1.49	0.21	1.04	< 0.10	0.5	
8/1/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0091	0.0215	56.6	0.85	2.06	0.22	0.43	< 0.10	< 0.10	
9/19/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0096	63.8	1.21	2.75	0.25	0.28	< 0.10	< 0.10	
10/3/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0059	0.0105	63.7	0.92	3.11	0.17	0.3	< 0.10	< 0.10	448.5
11/8/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0071	0.0163	69.6	0.88	3.34	0.18	0.35	< 0.10	< 0.10	484.5
12/5/2017	RG_ELKORES	E294312	< 0.000050	< 0.010	< 0.010	< 0.050	0.0079	0.0185	61.3	1.12	3.08	0.14	0.24	< 0.10	< 0.10	
4/4/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0367	50.2	1.64	4.19	< 0.10	1.02	0.12	0.52	
4/4/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0443	50.7	1.69	4.16	< 0.10	1.02	0.11	0.54	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
4/11/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	0.01	< 0.050	0.0072	0.0695	52	1.86	3.64	< 0.10	1.74	< 0.10	0.89	
4/17/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0563	55.1	1.58	3.68	< 0.10	1.74	0.11	0.88	
4/24/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	0.0061	0.0596	55	1.93	3.14	< 0.10	1.52	0.17	0.94	
5/2/2017	RG_GRASMERE	E300092	0.000172	< 0.010	0.01	< 0.050	0.0051	0.401	114	2.16	3.07	< 0.10	10.7	< 0.10	5.82	
5/9/2017	RG_GRASMERE	E300092	0.000196	< 0.010	< 0.010	< 0.050	< 0.0050	0.16	71.7	2.46	1.44	< 0.10	5.53	0.1	3.25	
5/16/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0217	37.8	2.29	1.42	< 0.10	0.94	< 0.10	0.44	
5/23/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0239	38.5	1.97	1.42	< 0.10	0.52	< 0.10	0.33	
5/30/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0398	40	1.89	0.98	< 0.10	1.81	< 0.10	0.98	
6/6/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0395	38	1.24	0.79	< 0.10	1.05	< 0.10	0.51	
6/6/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0292	37.8	1.2	0.86	< 0.10	1.93	< 0.10	0.73	
6/6/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0181	35.2	1.21	0.9	< 0.10	0.95	< 0.10	0.51	
6/13/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0228	36.9	1.27	0.84	< 0.10	1.68	< 0.10	0.99	
6/13/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0244	36.1	1.2	0.85	< 0.10	1.43	< 0.10	0.81	
6/13/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.018	33.3	1.34	0.89	< 0.10	0.82	< 0.10	0.41	
6/20/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0158	34.4	0.99	1.01	< 0.10	0.6	< 0.10	0.31	
6/20/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0085	31	1.12	1.07	< 0.10	0.42	< 0.10	0.21	
6/20/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	28.9	1.54	1.04	< 0.10	0.14	< 0.10	< 0.10	
6/27/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0096	37.2	1.11	1.11	< 0.10	0.32	< 0.10	0.14	
6/27/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0058	34.2	1.45	1.12	< 0.10	0.19	< 0.10	< 0.10	
6/27/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	32.3	1.72	1.02	< 0.10	0.11	< 0.10	< 0.10	
7/4/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0076	31.4	0.92	1.24	< 0.10	< 0.20	< 0.10	0.11	
7/4/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	29.6	1.34	1.15	< 0.10	< 0.20	< 0.10	< 0.10	
7/4/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	29.5	1.64	1.03	< 0.10	< 0.20	< 0.10	< 0.10	
7/11/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.01	30.1	0.99	1.2	< 0.10	0.19	< 0.10	< 0.10	
7/11/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	27.9	0.86	1.42	< 0.10	0.12	< 0.10	< 0.10	
7/11/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	28.8	1.67	1.11	< 0.10	< 0.10	< 0.10	< 0.10	
8/8/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	34.3	1.23	1.82	< 0.10	0.14	< 0.10	< 0.10	
8/8/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	32.6	1.49	1.61	< 0.10	< 0.10	< 0.10	< 0.10	
9/18/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	36.7	1.02	2.8	< 0.10	< 0.10	< 0.10	< 0.10	
9/18/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	34.4	1.17	2.36	< 0.10	< 0.10	< 0.10	< 0.10	
9/18/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	34.2	1.26	2.33	< 0.10	< 0.10	< 0.10	< 0.10	
10/3/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	35.5	1	2.65	< 0.10	0.12	< 0.10	< 0.10	
10/3/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	32.8	1.12	2.21	< 0.10	0.1	< 0.10	< 0.10	
10/3/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	32.6	1.03	2.21	< 0.10	< 0.10	< 0.10	< 0.10	
11/8/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	39.5	1.25	2.94	< 0.10	< 0.20	< 0.10	< 0.10	
11/8/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	0.01	< 0.050	< 0.0050	< 0.0050	41.4	1.28	2.63	< 0.10	< 0.30	< 0.10	< 0.10	
11/8/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	36	1.25	2.47	< 0.10	< 0.30	< 0.10	< 0.10	
12/5/2017	RG_GRASMERE	E300092	< 0.000050	0.011	0.01	< 0.050	< 0.0050	0.0061	39.4	1.41	4.37	< 0.10	0.19	< 0.10	< 0.10	
12/5/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0062	38.3	1.64	3.17	< 0.10	0.18	< 0.10	< 0.10	
12/5/2017	RG_GRASMERE	E300092	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	35.6	1.43	2.51	< 0.10	0.11	< 0.10	< 0.10	
4/24/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.027	49.8	2.02	3.64	< 0.10	1.84	< 0.10	0.96	
5/2/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0136	43.2	2.24	3.66	< 0.10	0.73	< 0.10	0.39	
5/9/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.043	50.2	2.38	1.57	0.31	2.64	< 0.10	1.57	
5/16/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0182	40.3	2.16	1.61	< 0.10	1.16	< 0.10	0.56	
5/23/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0552	54	1.9	1.38	< 0.10	2.82	< 0.10	1.56	
5/30/2017	RG_KERRRD	E300095	0.000054	< 0.010	< 0.010	< 0.050	< 0.0050	0.0553	55.1	1.82	0.95	< 0.10	3.47	< 0.10	2	
6/6/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0258	41.7	1.34	0.94	< 0.10	1.94	< 0.10	1	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
6/6/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0249	40.9	1.38	0.94	< 0.10	1.87	< 0.10	1	
6/13/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0144	36.9	1.09	1.1	< 0.10	1.2	< 0.10	0.71	
6/13/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0138	37.3	1.09	1.12	< 0.10	2.61	< 0.10	0.71	
6/20/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0094	29.9	1.11	1.22	< 0.10	0.52	< 0.10	0.28	
6/20/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0086	29.9	1.09	1.23	< 0.10	0.56	< 0.10	0.29	
6/20/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0092	30.6	0.99	1.22	< 0.10	0.53	< 0.10	0.27	
6/27/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0061	32	1.16	1.48	< 0.10	0.27	< 0.10	0.13	
6/27/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	32.1	1.02	1.47	< 0.10	0.26	< 0.10	0.14	
6/27/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0056	31.8	1.15	1.45	< 0.10	0.27	< 0.10	0.14	
7/4/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	28.6	1.03	1.42	< 0.10	< 0.20	< 0.10	< 0.10	
7/4/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0075	29.1	1.07	1.45	< 0.10	< 0.20	< 0.10	< 0.10	
7/4/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0059	28.7	1.44	1.34	< 0.10	< 0.20	< 0.10	< 0.10	
7/11/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	27.8	0.88	1.49	< 0.10	0.19	< 0.10	< 0.10	
7/11/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	27.7	0.94	1.49	< 0.10	0.19	< 0.10	< 0.10	
7/11/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	28.9	1.54	1.22	< 0.10	0.11	< 0.10	< 0.10	
8/8/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	34.1	1.07	2.35	< 0.10	0.16	< 0.10	< 0.10	
8/8/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	35	1.1	2.88	< 0.10	< 0.10	< 0.10	< 0.10	
8/8/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	32.3	1.19	2.12	< 0.10	0.12	< 0.10	< 0.10	
9/18/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	36.6	1.45	4.06	< 0.10	< 0.10	< 0.10	< 0.10	
9/18/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	34.2	1.05	2.96	< 0.10	< 0.10	< 0.10	< 0.10	
9/18/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	34.5	1.1	2.93	< 0.10	< 0.10	< 0.10	< 0.10	
10/3/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0055	39.4	1.12	4.8	< 0.10	0.16	< 0.10	< 0.10	
10/3/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	34.8	1.16	2.61	< 0.10	0.12	< 0.10	< 0.10	
10/3/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	34.7	1.18	2.59	< 0.10	0.12	< 0.10	< 0.10	
11/8/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	0.01	< 0.050	< 0.0050	< 0.0050	40.7	1.36	4.35	< 0.10	< 0.30	< 0.10	< 0.10	
11/8/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	37.2	1.29	4.31	< 0.10	< 0.40	< 0.10	< 0.10	
11/8/2017	RG_KERRRD	E300095	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	39.2	1.24	4.3	< 0.10	< 0.30	< 0.10	< 0.10	
12/5/2017	RG_KERRRD	E300095	< 0.000050	0.011	0.012	< 0.050	< 0.0050	0.0128	38.2	1.71	4.76	< 0.10	0.58	< 0.10	< 0.10	
12/5/2017	RG_KERRRD	E300095	< 0.000050	0.011	0.011	< 0.050	0.0075	0.0109	34	1.56	4.43	< 0.10	0.16	< 0.10	< 0.10	
12/5/2017	RG_KERRRD	E300095	< 0.000050	0.01	0.011	< 0.050	< 0.0050	0.0104	35.8	1.71	4.43	< 0.10	0.19	< 0.10	< 0.10	
4/4/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0326	49.7	1.51	4.1	< 0.10	0.75	0.12	0.42	
4/4/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0292	47.4	1.74	4.07	< 0.10	0.62	0.12	0.35	
4/11/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	0.0062	0.0505	49.1	1.92	3.67	< 0.10	0.84	0.11	0.57	
4/17/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0477	52.1	1.64	3.68	< 0.10	0.97	< 0.10	0.63	
4/24/2017	RG_USGOLD	E300093	0.000069	< 0.010	< 0.010	< 0.050	0.0052	0.159	66.1	1.75	3	< 0.10	5.02	0.12	2.51	
5/2/2017	RG_USGOLD	E300093	0.000053	< 0.010	< 0.010	< 0.050	0.0057	0.103	62.8	1.46	2.41	< 0.10	3.66	< 0.10	1.87	
5/9/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.069	48.7	2.49	1.44	< 0.10	2.49	0.12	1.39	
5/16/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0259	40.1	2.18	1.42	< 0.10	1.08	< 0.10	0.55	
5/23/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0381	39.4	1.96	1.33	< 0.10	0.79	< 0.10	0.47	
5/30/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0618	39.2	1.89	0.92	0.13	1.86	< 0.10	0.87	
5/30/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	0.006	0.0662	38.7	1.87	0.86	0.11	1.82	< 0.10	0.78	
5/30/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	0.0075	0.0611	35.7	1.77	0.85	0.12	1.45	< 0.10	0.6	
6/6/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.051	39.1	1.31	0.71	0.11	1.49	< 0.10	0.6	
6/6/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0207	36.2	1.29	0.9	< 0.10	1.44	< 0.10	0.69	
6/6/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0176	31.7	1.43	0.95	< 0.10	0.77	< 0.10	0.29	
6/13/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0265	37.2	1.38	0.81	< 0.10	1.78	< 0.10	1.09	
6/13/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0227	34.6	1.44	0.83	< 0.10	1.18	< 0.10	0.62	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
6/13/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0091	29.6	1.67	0.98	< 0.10	0.17	< 0.10	0.11	
6/20/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.015	34.4	0.75	0.97	< 0.10	0.68	< 0.10	0.32	
6/20/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0067	28.5	1.08	1.04	< 0.10	0.29	< 0.10	0.15	
6/20/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0056	29.2	1.47	1.03	< 0.10	0.13	< 0.10	< 0.10	
6/27/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0125	38	1.38	1.05	< 0.10	0.38	< 0.10	0.16	
6/27/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0061	33.9	1.01	1.23	< 0.10	0.2	< 0.10	0.1	
6/27/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	31.7	1.65	1.01	< 0.10	0.11	< 0.10	< 0.10	
7/4/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0062	30.8	0.85	1.2	< 0.10	< 0.40	< 0.10	0.13	
7/4/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.006	29.9	0.99	1.18	< 0.10	< 0.20	< 0.10	< 0.10	
7/4/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	30.5	1.77	1.04	< 0.10	< 0.20	< 0.10	< 0.10	
7/11/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.006	31.6	1.15	1	< 0.10	0.17	< 0.10	< 0.10	
7/11/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	28.7	0.96	1.37	< 0.10	0.15	< 0.10	< 0.10	
7/11/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	29	1.5	1.09	< 0.10	0.17	< 0.10	< 0.10	
8/8/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0067	31.7	1.32	1.08	< 0.10	0.14	< 0.10	< 0.10	
8/8/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0054	39.4	0.99	2.07	0.11	0.17	< 0.10	< 0.10	
8/8/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	31.9	1.55	1.54	< 0.10	0.14	< 0.10	< 0.10	
9/18/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0064	33	1.04	1.77	< 0.10	< 0.10	< 0.10	< 0.10	
9/18/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	31.5	1.08	2.31	< 0.10	< 0.10	< 0.10	< 0.10	
9/18/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	33.2	1.09	2.22	0.11	< 0.10	< 0.10	< 0.10	
10/3/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0068	37.4	0.91	3.76	< 0.10	0.13	< 0.10	< 0.10	
10/3/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	32.6	1.24	2.22	< 0.10	< 0.10	< 0.10	< 0.10	
10/3/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	33.5	1.16	2.21	< 0.10	< 0.10	< 0.10	< 0.10	
11/8/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0057	37.7	1.34	2.67	< 0.10	< 0.30	< 0.10	< 0.10	
11/8/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	37.9	1.34	2.42	< 0.10	< 0.30	< 0.10	< 0.10	
11/8/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.007	36.7	1.72	2.38	< 0.10	< 0.30	< 0.10	< 0.10	
12/5/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0076	38.8	1.49	3.56	< 0.10	0.19	< 0.10	< 0.10	
12/5/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	0.0055	36.3	1.32	2.51	< 0.10	0.12	< 0.10	< 0.10	
12/5/2017	RG_USGOLD	E300093	< 0.000050	< 0.010	< 0.010	< 0.050	< 0.0050	< 0.0050	35.5	1.34	2.45	< 0.10	0.12	< 0.10	< 0.10	
1/1/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.018		0.0197	0.0059	213			< 0.10	< 0.10	0.31	0.32	
1/2/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.018		0.0072	0.0086	213			< 0.10	3.05	0.3	0.3	
1/3/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.021		0.0188	0.0067	233	1.24		< 0.10	0.13	0.3	0.32	
1/4/2017	WL_BFWB_OUT_SP21	E291569														
1/5/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.02		0.02	0.0202	238			< 0.10	0.15	0.25	0.26	
1/6/2017	WL_BFWB_OUT_SP21	E291569														
1/7/2017	WL_BFWB_OUT_SP21	E291569														
1/8/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.018		0.0072	0.0055	242			< 0.10	< 0.10	0.21	0.28	
1/9/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.017	< 0.25	< 0.0050	< 0.0050	235	1.52	67.9	< 0.10	< 0.10	0.17	0.22	
1/10/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.016	0.018		0.0083	0.0055	227			< 0.10	< 0.10	0.23	0.24	
1/11/2017	WL_BFWB_OUT_SP21	E291569														
1/12/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.015	0.017		0.01	0.0063	236			< 0.10	< 0.10	0.26	0.27	
1/12/2017	WL_BFWB_OUT_SP21	E291569														
1/13/2017	WL_BFWB_OUT_SP21	E291569														
1/14/2017	WL_BFWB_OUT_SP21	E291569														
1/15/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.016	0.017		0.0059	0.0067	225			< 0.10	0.31	0.25	0.27	
1/16/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.02		0.0068	0.0083	238	1.45		< 0.10	< 0.10	0.26	0.29	
1/17/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.019		0.0094	0.0068	231			< 0.10	< 0.10	0.28	0.3	
1/18/2017	WL_BFWB_OUT_SP21	E291569														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
1/19/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.018		0.0092	0.006	225			< 0.10	< 0.10	0.26	0.27	
1/20/2017	WL_BFWB_OUT_SP21	E291569														
1/21/2017	WL_BFWB_OUT_SP21	E291569														
1/22/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.02		0.0163	0.0057	243			< 0.10	< 0.10	0.25	0.29	
1/23/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.019		0.0091	0.0069	243	1.19		< 0.10	< 0.10	0.25	0.28	
1/24/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.018		< 0.0050	0.005	240			< 0.10	< 0.10	0.27	0.3	
1/25/2017	WL_BFWB_OUT_SP21	E291569														
1/26/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.015	0.015		0.0059	0.0071	206			< 0.10	< 0.10	0.26	0.26	
1/27/2017	WL_BFWB_OUT_SP21	E291569														
1/28/2017	WL_BFWB_OUT_SP21	E291569														
1/29/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.017		< 0.0050	< 0.0050	226			< 0.10	< 0.10	0.28	0.29	
1/30/2017	WL_BFWB_OUT_SP21	E291569	< 0.00025	< 0.050	< 0.050		< 0.025	< 0.025	226			< 0.50	< 0.50	< 0.50	< 0.50	
1/31/2017	WL_BFWB_OUT_SP21	E291569	< 0.00025	< 0.050	< 0.050		< 0.025	< 0.025	219	1.54		< 0.50	< 0.50	< 0.50	< 0.50	1102
1/31/2017	WL_BFWB_OUT_SP21	E291569														
2/1/2017	WL_BFWB_OUT_SP21	E291569														1068
2/1/2017	WL_BFWB_OUT_SP21	E291569														
2/2/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.017		0.0072	0.0064	224			< 0.10	< 0.10	0.31	0.33	1054
2/2/2017	WL_BFWB_OUT_SP21	E291569														
2/3/2017	WL_BFWB_OUT_SP21	E291569														1041
2/3/2017	WL_BFWB_OUT_SP21	E291569														
2/4/2017	WL_BFWB_OUT_SP21	E291569														1039
2/4/2017	WL_BFWB_OUT_SP21	E291569														
2/5/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.015	0.015		< 0.0050	0.0053	207			< 0.10	< 0.10	0.36	0.34	1069
2/6/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.016	0.016		0.006	0.0074	216			< 0.10	< 0.10	0.43	0.49	1036
2/6/2017	WL_BFWB_OUT_SP21	E291569														
2/7/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.015	0.017	< 0.25	0.0055	0.0078	230	2.16	68.9	< 0.10	< 0.10	0.5	0.51	1068
2/8/2017	WL_BFWB_OUT_SP21	E291569														1079
2/8/2017	WL_BFWB_OUT_SP21	E291569														
2/9/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.016	0.017		< 0.0050	0.0095	221			< 0.10	< 0.10	0.4	0.44	1089
2/10/2017	WL_BFWB_OUT_SP21	E291569														1066
2/10/2017	WL_BFWB_OUT_SP21	E291569														
2/11/2017	WL_BFWB_OUT_SP21	E291569														1142
2/11/2017	WL_BFWB_OUT_SP21	E291569														
2/12/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.025	0.025		0.0086	0.006	229			< 0.10	< 0.10	0.38	0.41	1129
2/12/2017	WL_BFWB_OUT_SP21	E291569														
2/13/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.028	0.029		0.0052	0.0071	234			< 0.10	0.36	0.35	0.39	1126
2/13/2017	WL_BFWB_OUT_SP21	E291569														
2/14/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.031	0.032		0.0117	0.0079	226	1.12		< 0.10	< 0.10	0.32	0.34	1126
2/14/2017	WL_BFWB_OUT_SP21	E291569														
2/15/2017	WL_BFWB_OUT_SP21	E291569														1011
2/16/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.027	0.028		0.0153	0.0113	217			< 0.10	< 0.10	0.33	0.35	1261
2/16/2017	WL_BFWB_OUT_SP21	E291569														
2/17/2017	WL_BFWB_OUT_SP21	E291569														1262
2/17/2017	WL_BFWB_OUT_SP21	E291569														
2/18/2017	WL_BFWB_OUT_SP21	E291569														1244
2/18/2017	WL_BFWB_OUT_SP21	E291569														
2/19/2017	WL_BFWB_OUT_SP21	E291569														1233

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
2/19/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.026		0.0125	0.0136	228			< 0.10	0.22	0.32	0.42	
2/19/2017	WL_BFWB_OUT_SP21	E291569														
2/20/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.024		0.0081	0.0094	219			< 0.10	< 0.10	0.34	0.32	1272
2/20/2017	WL_BFWB_OUT_SP21	E291569														
2/21/2017	WL_BFWB_OUT_SP21	E291569														
2/21/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.024	0.026		0.0056	0.007	220	2.14		< 0.10	< 0.10	0.29	0.31	1144
2/21/2017	WL_BFWB_OUT_SP21	E291569														
2/22/2017	WL_BFWB_OUT_SP21	E291569														1132
2/22/2017	WL_BFWB_OUT_SP21	E291569														
2/23/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.024	0.026		< 0.0050	0.0081	220			< 0.10	< 0.10	0.3	0.31	1126
2/23/2017	WL_BFWB_OUT_SP21	E291569														5.6
2/24/2017	WL_BFWB_OUT_SP21	E291569														1028
2/24/2017	WL_BFWB_OUT_SP21	E291569														
2/25/2017	WL_BFWB_OUT_SP21	E291569														1026
2/25/2017	WL_BFWB_OUT_SP21	E291569														
2/26/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.025		0.0062	0.0056	211			< 0.10	< 0.10	0.34	0.35	929
2/26/2017	WL_BFWB_OUT_SP21	E291569														
2/27/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022		< 0.0050	0.0072	207	1.63		< 0.10	< 0.10	0.29	0.37	900
2/27/2017	WL_BFWB_OUT_SP21	E291569														
2/28/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.021		0.0106	< 0.0050	205			< 0.10	< 0.10	0.3	0.33	919
2/28/2017	WL_BFWB_OUT_SP21	E291569														
3/1/2017	WL_BFWB_OUT_SP21	E291569														930
3/2/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.021		0.0088	0.0057	222			< 0.10	< 0.10	0.35	0.36	942
3/2/2017	WL_BFWB_OUT_SP21	E291569														
3/3/2017	WL_BFWB_OUT_SP21	E291569														955
3/3/2017	WL_BFWB_OUT_SP21	E291569														
3/4/2017	WL_BFWB_OUT_SP21	E291569														980
3/4/2017	WL_BFWB_OUT_SP21	E291569														
3/5/2017	WL_BFWB_OUT_SP21	E291569														1066
3/5/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.024		0.0073	0.0111	242			< 0.10	0.16	0.41	0.48	
3/5/2017	WL_BFWB_OUT_SP21	E291569														
3/6/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.02	< 0.25	0.0103	0.0061	219	< 0.50	68.5	< 0.10	0.1	0.38	0.42	1045
3/6/2017	WL_BFWB_OUT_SP21	E291569														
3/7/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.018		0.008	0.007	214			< 0.10	< 0.10	0.35	0.37	10259
3/7/2017	WL_BFWB_OUT_SP21	E291569														
3/8/2017	WL_BFWB_OUT_SP21	E291569														
3/8/2017	WL_BFWB_OUT_SP21	E291569														1056
3/8/2017	WL_BFWB_OUT_SP21	E291569														
3/9/2017	WL_BFWB_OUT_SP21	E291569														1030
3/9/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.02		0.0056	0.0054	217			< 0.10	< 0.10	0.27	0.29	
3/9/2017	WL_BFWB_OUT_SP21	E291569														
3/10/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.02		0.0075	< 0.0050	206			< 0.10	< 0.10	0.29	0.29	1015
3/10/2017	WL_BFWB_OUT_SP21	E291569														
3/11/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.018		0.007	0.0053	217			< 0.10	< 0.10	0.27	0.27	1098
3/11/2017	WL_BFWB_OUT_SP21	E291569														
3/12/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.019		0.006	< 0.0050	210			< 0.10	< 0.10	0.26	0.26	1149
3/12/2017	WL_BFWB_OUT_SP21	E291569														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
3/12/2017	WL_BFWB_OUT_SP21	E291569														
3/13/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.016	0.018		0.0055	< 0.0050	196	1.51		< 0.10	< 0.10	0.32	0.26	1162
3/13/2017	WL_BFWB_OUT_SP21	E291569														
3/14/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.02		< 0.0050	< 0.0050	217			< 0.10	< 0.10	0.22	0.23	1171
3/14/2017	WL_BFWB_OUT_SP21	E291569														
3/15/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.021		0.0148	< 0.0050	220			< 0.10	< 0.10	0.24	0.23	1173
3/15/2017	WL_BFWB_OUT_SP21	E291569														
3/16/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.021		0.0168	0.0093	217			< 0.10	< 0.10	0.22	0.26	1141
3/16/2017	WL_BFWB_OUT_SP21	E291569														
3/20/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.022		0.0054	0.0076	210			< 0.10	< 0.10	0.21	0.18	1076
3/20/2017	WL_BFWB_OUT_SP21	E291569														
3/21/2017	WL_BFWB_OUT_SP21	E291569														
3/21/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.032		< 0.0050	0.01	257	1.1		< 0.10	< 0.10	0.13	0.18	1245
3/21/2017	WL_BFWB_OUT_SP21	E291569														
3/22/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.026		0.0157	0.0084	264			< 0.10	< 0.10	< 0.10	0.1	1352
3/22/2017	WL_BFWB_OUT_SP21	E291569														
3/23/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.025	0.024		< 0.0050	0.0058	258			< 0.10	< 0.10	< 0.10	0.12	1388
3/23/2017	WL_BFWB_OUT_SP21	E291569														
3/24/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.024		0.0088	0.0073	263			< 0.10	< 0.10	0.11	0.12	1382
3/24/2017	WL_BFWB_OUT_SP21	E291569														
3/25/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.02		0.0074	0.0066	259			< 0.10	< 0.10	< 0.10	< 0.10	1365
3/25/2017	WL_BFWB_OUT_SP21	E291569														
3/26/2017	WL_BFWB_OUT_SP21	E291569														
3/26/2017	WL_BFWB_OUT_SP21	E291569														
3/27/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.018		0.005	0.0059	238	2.21		< 0.10	< 0.10	0.32	0.28	1275
3/27/2017	WL_BFWB_OUT_SP21	E291569														
3/28/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.022		0.0075	0.0075	219			< 0.10	< 0.10	0.38	0.32	1261
3/28/2017	WL_BFWB_OUT_SP21	E291569														
3/29/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.022		0.005	< 0.0050	211			< 0.10	< 0.10	0.33	0.32	1220
3/29/2017	WL_BFWB_OUT_SP21	E291569														
3/30/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.021		0.0066	0.0202	217			< 0.10	0.12	0.39	0.47	1211
3/31/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.019		0.0083	0.0086	227			< 0.10	< 0.10	0.48	0.35	1232
3/31/2017	WL_BFWB_OUT_SP21	E291569														
4/1/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.019		0.0075	< 0.0050	227			< 0.10	< 0.10	0.27	0.25	1249
4/1/2017	WL_BFWB_OUT_SP21	E291569														
4/2/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.02		0.0083	< 0.0050	222			< 0.10	< 0.10	0.25	0.22	1213
4/2/2017	WL_BFWB_OUT_SP21	E291569														
4/2/2017	WL_BFWB_OUT_SP21	E291569														
4/3/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.02	< 0.25	< 0.0050	< 0.0050	233	1.96	69.5	< 0.10	< 0.10	0.2	0.21	1201
4/3/2017	WL_BFWB_OUT_SP21	E291569														
4/4/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.021		< 0.0050	< 0.0050	221			< 0.10	< 0.10	0.28	0.2	1200
4/4/2017	WL_BFWB_OUT_SP21	E291569														
4/5/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.016	0.018		< 0.0050	< 0.0050	230			< 0.10	< 0.10	0.19	0.19	1224
4/5/2017	WL_BFWB_OUT_SP21	E291569														
4/6/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.016	0.02		< 0.0050	< 0.0050	220			< 0.10	< 0.10	0.19	0.2	1252
4/6/2017	WL_BFWB_OUT_SP21	E291569														
4/7/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.021		0.006	0.0058	256			< 0.10	< 0.10	0.21	0.24	1236

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
4/7/2017	WL_BFWB_OUT_SP21	E291569														
4/8/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.02		0.0153	0.0053	245			< 0.10	< 0.10	0.21	0.23	1304
4/8/2017	WL_BFWB_OUT_SP21	E291569														1304
4/9/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.021		0.0059	0.005	249			< 0.10	< 0.10	0.38	0.22	1261
4/9/2017	WL_BFWB_OUT_SP21	E291569														
4/10/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.024		0.0066	0.0064	254	2.26		< 0.10	< 0.10	0.21	0.21	1261
4/10/2017	WL_BFWB_OUT_SP21	E291569														
4/11/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.015	0.018		< 0.0050	< 0.0050	222			< 0.10	< 0.10	0.17	0.2	1055
4/11/2017	WL_BFWB_OUT_SP21	E291569														
4/12/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.016	0.02		0.0135	0.0053	231			< 0.10	< 0.10	0.16	0.19	1056
4/12/2017	WL_BFWB_OUT_SP21	E291569														
4/13/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.019		< 0.0050	0.0052	216			< 0.10	< 0.10	0.21	0.23	1224
4/13/2017	WL_BFWB_OUT_SP21	E291569														
4/14/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.018		< 0.0050	0.0053	221			< 0.10	< 0.10	0.21	0.2	12.33
4/14/2017	WL_BFWB_OUT_SP21	E291569														
4/15/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.019		< 0.0050	< 0.0050	239			< 0.10	< 0.10	0.16	0.18	1230
4/15/2017	WL_BFWB_OUT_SP21	E291569														
4/16/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.017		0.0078	< 0.0050	221			< 0.10	< 0.10	0.15	0.17	1210
4/16/2017	WL_BFWB_OUT_SP21	E291569														
4/17/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.018		0.0055	< 0.0050	220	1.66		< 0.10	< 0.10	0.15	0.16	1247
4/17/2017	WL_BFWB_OUT_SP21	E291569														
4/18/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.015	0.017		< 0.0050	< 0.0050	224			< 0.10	< 0.10	0.16	0.15	1184
4/18/2017	WL_BFWB_OUT_SP21	E291569														
4/19/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.014	0.016		< 0.0050	< 0.0050	218			< 0.10	< 0.10	0.13	0.14	1272
4/19/2017	WL_BFWB_OUT_SP21	E291569														
4/20/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.017		0.0088	< 0.0050	230			< 0.10	< 0.10	0.12	0.14	1264
4/20/2017	WL_BFWB_OUT_SP21	E291569														
4/21/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.018		0.0109	0.0053	245			< 0.10	< 0.10	0.12	0.13	1271
4/21/2017	WL_BFWB_OUT_SP21	E291569														
4/22/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.016	0.022		< 0.0050	< 0.0050	223			< 0.10	< 0.10	0.13	0.11	1263
4/22/2017	WL_BFWB_OUT_SP21	E291569														
4/23/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.016	0.021		< 0.0050	< 0.0050	224			0.12	< 0.10	0.13	0.11	1278
4/23/2017	WL_BFWB_OUT_SP21	E291569														
4/24/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.016	0.022		< 0.0050	< 0.0050	223	1.44		< 0.10	< 0.10	0.12	0.14	1279
4/24/2017	WL_BFWB_OUT_SP21	E291569														
4/25/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.015	0.017		< 0.0050	< 0.0050	230			< 0.10	< 0.10	0.12	0.12	1089
4/25/2017	WL_BFWB_OUT_SP21	E291569														
4/26/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.015	0.017		0.0067	< 0.0050	229			< 0.10	< 0.10	0.13	0.12	1253
4/27/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.015	0.016		< 0.0050	< 0.0050	237			< 0.10	< 0.10	0.11	0.11	1265
4/27/2017	WL_BFWB_OUT_SP21	E291569														
4/28/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.014	0.016		< 0.0050	< 0.0050	234			< 0.10	< 0.10	< 0.10	0.11	1236
4/28/2017	WL_BFWB_OUT_SP21	E291569														
4/29/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.015	0.015		0.0077	< 0.0050	224			< 0.10	< 0.10	0.12	0.11	1272
4/29/2017	WL_BFWB_OUT_SP21	E291569														
4/30/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.015	0.016		< 0.0050	< 0.0050	214			< 0.10	< 0.10	< 0.10	< 0.10	1260
4/30/2017	WL_BFWB_OUT_SP21	E291569														
5/1/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.015	0.016	< 0.25	0.0053	< 0.0050	214	1.43	69.6	< 0.10	< 0.10	< 0.10	< 0.10	1228

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
5/1/2017	WL_BFWB_OUT_SP21	E291569														
5/2/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.017		< 0.0050	< 0.0050	230			< 0.10	< 0.10	0.12	0.11	
5/2/2017	WL_BFWB_OUT_SP21	E291569														1246
5/2/2017	WL_BFWB_OUT_SP21	E291569														
5/3/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.017		0.01	< 0.0050	239			0.18	< 0.10	0.17	0.19	1235
5/3/2017	WL_BFWB_OUT_SP21	E291569														
5/4/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.017		0.365	< 0.0050	237			< 0.10	< 0.10	< 0.10	0.13	1260
5/4/2017	WL_BFWB_OUT_SP21	E291569														
5/5/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.013	0.017		< 0.0050	< 0.0050	240			< 0.10	< 0.10	0.1	0.15	
5/5/2017	WL_BFWB_OUT_SP21	E291569														1299
5/5/2017	WL_BFWB_OUT_SP21	E291569														
5/6/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.018		< 0.0050	< 0.0050	233			< 0.10	0.34	< 0.10	0.11	1317
5/6/2017	WL_BFWB_OUT_SP21	E291569														
5/7/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.016		< 0.0050	< 0.0050	246			< 0.10	< 0.10	0.13	0.16	1306
5/7/2017	WL_BFWB_OUT_SP21	E291569														
5/8/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.016	0.016		0.0055	< 0.0050	247	1.46		< 0.10	< 0.10	0.14	0.14	1286
5/8/2017	WL_BFWB_OUT_SP21	E291569														
5/9/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.016	0.014		< 0.0050	< 0.0050	206			< 0.10	< 0.10	< 0.10	0.12	1381
5/9/2017	WL_BFWB_OUT_SP21	E291569														
5/10/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.016		< 0.0050	0.0074	226			< 0.10	< 0.10	< 0.10	0.12	1358
5/10/2017	WL_BFWB_OUT_SP21	E291569														
5/11/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.016	0.016		0.0079	0.0056	229			< 0.10	< 0.10	0.11	0.11	1362
5/11/2017	WL_BFWB_OUT_SP21	E291569														
5/12/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.017		0.0112	< 0.0050	232			< 0.10	< 0.10	< 0.10	0.11	1373
5/12/2017	WL_BFWB_OUT_SP21	E291569														
5/13/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.016	0.016		0.0112	< 0.0050	260			< 0.10	< 0.10	0.11	0.1	1391
5/13/2017	WL_BFWB_OUT_SP21	E291569														
5/14/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.016	0.016		< 0.0050	< 0.0050	257			< 0.10	< 0.10	< 0.10	0.12	1394
5/14/2017	WL_BFWB_OUT_SP21	E291569														
5/15/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050		0.015			0.006	238				0.38		< 0.10	
5/15/2017	WL_BFWB_OUT_SP21	E291569								1.65						1381
5/15/2017	WL_BFWB_OUT_SP21	E291569														
5/16/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.016		0.0077	< 0.0050	221			< 0.10	< 0.10	0.1	0.11	1330
5/16/2017	WL_BFWB_OUT_SP21	E291569														
5/17/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.016		< 0.0050	< 0.0050	208			< 0.10	< 0.10	0.12	< 0.10	1254
5/17/2017	WL_BFWB_OUT_SP21	E291569														
5/18/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.018		< 0.0050	< 0.0050	237			< 0.10	< 0.10	< 0.10	0.1	1250
5/18/2017	WL_BFWB_OUT_SP21	E291569														
5/19/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.018		0.0168	< 0.0050	240			0.46	< 0.10	0.12	0.11	1277
5/19/2017	WL_BFWB_OUT_SP21	E291569														
5/20/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050		0.018			< 0.0050	225				0.71		0.1	1304
5/20/2017	WL_BFWB_OUT_SP21	E291569														
5/21/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.018		0.0059	< 0.0050	222			< 0.10	0.11	0.13	0.11	1311
5/21/2017	WL_BFWB_OUT_SP21	E291569														
5/22/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.017		< 0.0050	< 0.0050	235	1.57		< 0.10	0.14	0.13	0.12	1322
5/22/2017	WL_BFWB_OUT_SP21	E291569														
5/23/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.018		0.0064	< 0.0050	217			1.97	< 0.10	0.1	0.1	1319

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
5/23/2017	WL_BFWB_OUT_SP21	E291569														
5/24/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.019		< 0.0050	< 0.0050	218			< 0.10	< 0.10	< 0.10	< 0.10	1088
5/24/2017	WL_BFWB_OUT_SP21	E291569														
5/25/2017	WL_BFWB_OUT_SP21	E291569		0.019			< 0.0050					< 0.10		0.1		
5/25/2017	WL_BFWB_OUT_SP21	E291569														1088
5/25/2017	WL_BFWB_OUT_SP21	E291569														
5/26/2017	WL_BFWB_OUT_SP21	E291569														933
5/26/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		0.041	< 0.0050	187			< 0.10	< 0.10	0.12	0.12	
5/26/2017	WL_BFWB_OUT_SP21	E291569														
5/27/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022		0.0108	0.0055	189			< 0.10	< 0.10	0.13	0.15	922
5/27/2017	WL_BFWB_OUT_SP21	E291569														
5/28/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022		0.0097	0.0067	187			< 0.10	< 0.10	0.14	0.15	1104
5/28/2017	WL_BFWB_OUT_SP21	E291569														
5/29/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022		0.0109	< 0.0050	198	1.35		< 0.10	< 0.10	0.13	0.15	1110
5/29/2017	WL_BFWB_OUT_SP21	E291569														
5/30/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.022		0.0065	< 0.0050	169			< 0.10	< 0.10	0.13	0.17	1080
5/30/2017	WL_BFWB_OUT_SP21	E291569														
5/31/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.021		< 0.0050	0.0056	159			0.17	0.19	0.18	0.23	
5/31/2017	WL_BFWB_OUT_SP21	E291569														1029
5/31/2017	WL_BFWB_OUT_SP21	E291569														
6/1/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.025	0.022		0.0056	0.0083	161			< 0.10	< 0.10	0.25	0.29	913
6/1/2017	WL_BFWB_OUT_SP21	E291569														
6/2/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.022		0.0063	0.0065	156			0.13	< 0.10	0.27	0.3	1037
6/2/2017	WL_BFWB_OUT_SP21	E291569														
6/3/2017	WL_BFWB_OUT_SP21	E291569														965
6/3/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.023		< 0.0050	< 0.0050	148			< 0.10	< 0.10	0.17	0.17	
6/4/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022		< 0.0050	< 0.0050	144			< 0.10	< 0.10	0.14	0.18	936
6/4/2017	WL_BFWB_OUT_SP21	E291569														
6/5/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022	< 0.25	< 0.0050	< 0.0050	141	1.39	63.2	< 0.10	< 0.10	0.13	0.14	911
6/5/2017	WL_BFWB_OUT_SP21	E291569														
6/6/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.024		0.0055	< 0.0050	146			< 0.10	< 0.10	0.11	0.13	903
6/6/2017	WL_BFWB_OUT_SP21	E291569														
6/7/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.023		< 0.0050	< 0.0050	143			< 0.10	< 0.10	0.13	0.13	897
6/7/2017	WL_BFWB_OUT_SP21	E291569														
6/8/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.024		< 0.0050	< 0.0050	146			< 0.10	< 0.10	< 0.10	0.11	927
6/8/2017	WL_BFWB_OUT_SP21	E291569														
6/9/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.022		< 0.0050	0.005	146			< 0.10	< 0.10	0.1	0.16	916
6/9/2017	WL_BFWB_OUT_SP21	E291569														
6/10/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.021		< 0.0050	0.0051	139			< 0.10	< 0.10	< 0.10	0.1	916
6/10/2017	WL_BFWB_OUT_SP21	E291569														
6/11/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021		< 0.0050	< 0.0050	139			< 0.10	< 0.10	0.12	0.14	919
6/11/2017	WL_BFWB_OUT_SP21	E291569														
6/12/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.02	< 0.25	< 0.0050	< 0.0050	148	1.69	71	< 0.10	< 0.10	0.14	0.14	952
6/12/2017	WL_BFWB_OUT_SP21	E291569														
6/12/2017	WL_BFWB_OUT_SP21	E291569														
6/13/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.02		< 0.0050	< 0.0050	145			< 0.10	< 0.10	0.13	0.15	979
6/13/2017	WL_BFWB_OUT_SP21	E291569														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
6/14/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.02		< 0.0050	< 0.0050	147			< 0.10	< 0.10	0.13	0.15	979
6/14/2017	WL_BFWB_OUT_SP21	E291569														
6/15/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		< 0.0050	< 0.0050	166			< 0.10	< 0.10	0.15	0.17	817
6/15/2017	WL_BFWB_OUT_SP21	E291569														
6/16/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.021		< 0.0050	0.0053	179			< 0.10	< 0.10	0.16	0.16	912
6/16/2017	WL_BFWB_OUT_SP21	E291569														
6/17/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.019		< 0.0050	< 0.0050	165			< 0.10	< 0.10	0.16	0.18	923
6/17/2017	WL_BFWB_OUT_SP21	E291569														
6/18/2017	WL_BFWB_OUT_SP21	E291569		0.018			< 0.0050					< 0.10		0.16		937
6/18/2017	WL_BFWB_OUT_SP21	E291569														
6/19/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.019		0.0096	< 0.0050	167	1.46		< 0.10	< 0.10	0.14	0.15	958
6/19/2017	WL_BFWB_OUT_SP21	E291569														
6/20/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.025		0.0068	0.0096	180			< 0.10	< 0.10	0.13	0.16	978
6/22/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.031	0.029		0.0125	< 0.0050	185			< 0.10	< 0.10	0.15	0.15	993
6/22/2017	WL_BFWB_OUT_SP21	E291569														
6/23/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.028	0.028		0.0078	0.0054	190			< 0.10	< 0.10	0.17	0.19	1026
6/23/2017	WL_BFWB_OUT_SP21	E291569														
6/24/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.026	< 0.030		< 0.0050	0.0061	191			< 0.10	< 0.10	0.2	0.22	1040
6/24/2017	WL_BFWB_OUT_SP21	E291569														
6/25/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.023		< 0.0050	0.0057	194			< 0.10	< 0.10	0.22	0.26	1056
6/25/2017	WL_BFWB_OUT_SP21	E291569														
6/26/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	< 0.030		< 0.0050	< 0.0050	195	1.67		< 0.10	< 0.10	0.39	0.49	1073
6/27/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.02		0.0117	0.0073	183			< 0.10	< 0.10	0.29	0.34	1098
6/28/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.022		0.0071	< 0.010	196			< 0.10	< 0.10	0.21	0.23	1095
6/29/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.019		0.0052	0.0066	209			< 0.10	< 0.10	0.12	0.14	
6/29/2017	WL_BFWB_OUT_SP21	E291569														1095
6/30/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.02		< 0.0050	< 0.0050	212			< 0.10	< 0.10	0.12	0.12	1111
7/1/2017	WL_BFWB_OUT_SP21	E291569	0.000095	0.024	0.021		0.008	0.0051	222			< 0.10	< 0.10	0.12	0.15	1145
7/2/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.021		< 0.0050	< 0.0050	226			< 0.10	< 0.10	< 0.10	< 0.10	1148
7/3/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.021		0.0091	0.0058	229	1.76		< 0.10	< 0.10	< 0.10	< 0.10	
7/3/2017	WL_BFWB_OUT_SP21	E291569														1165
7/4/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.02		< 0.0050	0.0066	207			< 0.10	< 0.10	< 0.10	< 0.10	1162
7/5/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.021		0.014	0.0166	206			< 0.10	< 0.10	< 0.10	< 0.10	1166
7/6/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		0.0055	0.0051	214			< 0.10	< 0.10	< 0.10	< 0.10	1177
7/7/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		0.0087	0.006	210			< 0.10	< 0.10	< 0.10	< 0.10	1186
7/8/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		0.0069	0.0065	214			< 0.10	1.11	< 0.10	< 0.10	1189
7/9/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		0.009	0.006	220			< 0.10	< 0.10	< 0.10	< 0.10	1191
7/10/2017	WL_BFWB_OUT_SP21	E291569														
7/10/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.023	< 0.25	0.0089	0.0057	217	1.64	70	< 0.10	0.21	< 0.10	< 0.10	1196
7/11/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.021		0.0154	0.0059	243			< 0.10	< 0.10	< 0.10	< 0.10	1195
7/12/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.021		0.0696	< 0.0050	231			< 0.10	< 0.10	< 0.10	< 0.10	
7/12/2017	WL_BFWB_OUT_SP21	E291569														1194
7/13/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.019		0.0079	< 0.0050	232			< 0.10	< 0.10	< 0.10	< 0.10	1204
7/14/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.018	< 0.050	0.005	< 0.0050	234	1.75	68.5	< 0.10	< 0.10	0.1	0.11	
7/14/2017	WL_BFWB_OUT_SP21	E291569														1203
7/14/2017	WL_BFWB_OUT_SP21	E291569														
7/15/2017	WL_BFWB_OUT_SP21	E291569														1234

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
7/16/2017	WL_BFWB_OUT_SP21	E291569														1333
7/16/2017	WL_BFWB_OUT_SP21	E291569														
7/17/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022		0.0078	0.0059	222	1.96		< 0.10	< 0.10	0.14	0.17	1348
7/18/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.022		0.0051	< 0.0050	231			< 0.10	< 0.10	0.15	0.18	1318
7/19/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.021		0.0185	< 0.0050	237			< 0.10	< 0.10	0.13	0.15	1451
7/20/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.021		0.0169	0.0058	234			< 0.10	< 0.10	< 0.10	0.12	
7/20/2017	WL_BFWB_OUT_SP21	E291569														1438
7/21/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.019		0.0186	< 0.0050	234			< 0.10	< 0.10	0.11	0.1	1260
7/22/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.019		0.0071	< 0.0050	224			< 0.10	< 0.10	< 0.10	< 0.10	1264
7/22/2017	WL_BFWB_OUT_SP21	E291569														1264
7/23/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.02		0.0128	< 0.0050	232			< 0.10	< 0.10	< 0.10	< 0.10	1462
7/24/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		< 0.0050	0.0052	240	1.46		< 0.10	< 0.10	< 0.10	< 0.10	1460
7/25/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.02		0.0101	< 0.0050	253			< 0.10	< 0.10	< 0.10	< 0.10	1179
7/26/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.062		0.0055	< 0.0050	263			< 0.10	< 0.10	< 0.10	< 0.10	1185
7/27/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022		< 0.0050	0.0057	245			< 0.10	0.13	< 0.10	< 0.10	1455
7/28/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.022		0.0053	< 0.0050	252			< 0.10	0.1	< 0.10	< 0.10	1314
7/29/2017	WL_BFWB_OUT_SP21	E291569	< 0.00020	0.02	0.02		0.0077	0.0054	235			< 0.10	0.14	< 0.10	< 0.10	1317
7/30/2017	WL_BFWB_OUT_SP21	E291569	< 0.00060	0.02	0.02		0.0134	0.0068	241			0.12	0.12	< 0.10	< 0.10	1324
7/31/2017	WL_BFWB_OUT_SP21	E291569	0.000864	0.021	0.021	< 0.25	< 0.0050	0.0063	242	1.62	73.1	< 0.10	< 0.10	< 0.10	< 0.10	1329
8/1/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.02		0.0073	< 0.0050	272			< 0.10	< 0.10	< 0.10	0.11	1529
8/2/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.02		< 0.0050	< 0.0050	270			< 0.10	< 0.10	0.12	0.13	1339
8/3/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.02		< 0.0050	0.0054	257			< 0.10	< 0.10	0.14	0.15	1309
8/4/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.02		< 0.0050	0.0059	263			0.24	< 0.10	0.16	0.19	1539
8/5/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.021		< 0.0050	< 0.0050	255			< 0.10	< 0.10	0.16	0.16	1531
8/6/2017	WL_BFWB_OUT_SP21	E291569		0.021			0.0054					< 0.10		0.16		1539
8/7/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.022		< 0.0050	0.0052	281			< 0.10	0.11	0.14	0.17	1577
8/8/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.021	< 0.25	0.0064	0.0076	251	1.45	67	< 0.10	< 0.10	0.14	0.14	1620
8/9/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022		0.0087	0.0084	262			< 0.10	< 0.10	0.16	0.16	
8/9/2017	WL_BFWB_OUT_SP21	E291569														1680
8/10/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.022		0.0058	0.0067	255			< 0.10	< 0.10	0.18	0.19	1670
8/11/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.025	0.02		0.0086	0.0069	254			< 0.10	< 0.10	0.21	0.2	
8/11/2017	WL_BFWB_OUT_SP21	E291569														1597
8/12/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.019	< 0.25	0.0065	0.0092	280	1.29	69.8	< 0.10	< 0.10	0.18	0.17	1593
8/13/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.019		< 0.0050	0.0065	276			< 0.10	< 0.10	0.17	0.17	
8/13/2017	WL_BFWB_OUT_SP21	E291569														1603
8/14/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.02	< 0.25	< 0.0050	0.0058	279	1.81	68.7	< 0.10	< 0.10	0.19	0.19	
8/15/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021		< 0.0050	< 0.0050	271			0.17	< 0.10	0.19	0.2	1528
8/16/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.025	0.02		< 0.0050	< 0.0050	252			0.18	< 0.10	0.19	0.19	1559
8/17/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.021		< 0.0050	0.0052	245			< 0.10	< 0.10	0.2	0.23	1580
8/18/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050		0.021			0.0076	249			< 0.10			0.22	1573
8/19/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022		0.006	0.0054	276			< 0.10	< 0.10	0.21	0.25	1576
8/20/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.022		< 0.0050	0.0054	276			< 0.10	< 0.10	0.25	0.3	1555
8/21/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022	< 0.25	0.0061	< 0.0050	283	1.59	69.9	< 0.10	< 0.10	0.49	0.52	1552
8/22/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.02		< 0.0050	0.0051	266			< 0.10	< 0.10	0.42	0.44	1552
8/23/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.022		< 0.0050	0.0056	252			< 0.10	< 0.10	0.27	0.32	1571
8/24/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022		< 0.0050	0.0071	247			< 0.10	< 0.10	0.22	0.22	1596
8/25/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.02		< 0.0050	0.0054	280			< 0.10	< 0.10	0.18	0.18	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
8/25/2017	WL_BFWB_OUT_SP21	E291569														1553
8/26/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.021		< 0.0050	< 0.0050	251			< 0.10	< 0.10	0.16	0.16	
8/26/2017	WL_BFWB_OUT_SP21	E291569														1537
8/27/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022		< 0.0050	< 0.0050	256			< 0.10	< 0.10	0.14	0.16	1280
8/28/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022	< 0.25	< 0.0050	< 0.0050	250	1.33	69.7	< 0.10	< 0.10	0.15	0.16	1282
8/29/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.021		< 0.0050	< 0.0050	238			< 0.10	< 0.10	0.15	0.15	1273
8/30/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.021		< 0.0050	< 0.0050	238			< 0.10	0.37	0.14	0.18	1503
8/31/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.024		< 0.0050	< 0.0050	282			< 0.10	< 0.10	0.16	0.14	1305
9/1/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.025	0.021		< 0.0050	< 0.0050	253			< 0.10	< 0.10	0.15	0.15	1295
9/2/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021		< 0.0050	< 0.0050	252			< 0.10	< 0.10	0.13	0.14	1300
9/3/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.022		< 0.0050	< 0.0050	250			< 0.10	< 0.10	0.15	0.16	1310
9/4/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021		< 0.0050	< 0.0050	255			< 0.10	< 0.10	0.15	0.15	1307
9/5/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.021	< 0.10	< 0.0050	< 0.0050	252	1.06	69	< 0.10	0.17	0.16	0.17	1294
9/6/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.023		< 0.0050	0.0054	250			< 0.10	< 0.10	0.16	0.16	1289
9/7/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.021		< 0.0050	< 0.0050	248			< 0.10	< 0.10	0.15	0.17	1232
9/8/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.024	0.046		< 0.0050	0.0057	252			< 0.10	0.13	0.16	0.17	1465
9/9/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.02		< 0.0050	< 0.0050	249			< 0.10	< 0.10	0.18	0.18	1458
9/10/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.021		< 0.0050	< 0.0050	250			< 0.10	< 0.10	0.18	0.17	1467
9/11/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021		< 0.0050	0.0054	253			< 0.10	< 0.10	0.17	0.17	1453
9/12/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.021	< 0.10	< 0.0050	0.0058	251	0.85	71.7	< 0.10	< 0.10	0.18	0.18	1454
9/13/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.021		< 0.0050	< 0.0050	268			< 0.10	< 0.10	0.15	0.16	1497
9/14/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.022		0.0052	0.0067	266			< 0.10	< 0.10	0.16	0.17	1502
9/15/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.025	0.02		< 0.0050	0.006	251			< 0.10	< 0.10	0.17	0.18	1471
9/16/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.023		< 0.0050	< 0.0050	248			< 0.20	< 0.10	0.19	0.19	1409
9/17/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.022		0.0058	< 0.0050	277			< 0.20	< 0.30	0.22	0.22	1411
9/18/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.02	0.27	0.0053	0.0057	275	1.03	73	< 0.30	< 0.30	0.23	0.24	1419
9/19/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.02		0.0051	< 0.0050	235			< 0.10	< 0.10	0.31	0.31	1401
9/20/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.019		0.0059	< 0.0050	234			< 0.10	1.08	0.37	0.35	1402
9/21/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.02	< 0.10	< 0.0050	< 0.0050	247	1.13	73.8	< 0.10	< 0.10	0.45	0.45	
9/21/2017	WL_BFWB_OUT_SP21	E291569														1236
9/22/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.021		< 0.0050	< 0.0050	248			< 0.10	< 0.10	0.36	0.36	1384
9/23/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.018		< 0.0050	0.0063	232			< 0.10	< 0.10	0.31	0.39	1397
9/24/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.019		< 0.0050	< 0.0050	250			< 0.10	0.11	0.26	0.28	
9/24/2017	WL_BFWB_OUT_SP21	E291569														1419
9/25/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.019	< 0.25	< 0.0050	0.0051	247	1.05	72.6	< 0.10	< 0.10	0.24	0.25	1394
9/26/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.02		< 0.0050	< 0.0050	237			< 0.10	< 0.10	0.24	0.26	
9/26/2017	WL_BFWB_OUT_SP21	E291569														1379
9/27/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.018		< 0.0050	< 0.0050	256			< 0.10	< 0.10	0.23	0.23	1523
9/28/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.019		< 0.0050	0.0056	257			< 0.20	0.14	0.22	0.22	
9/28/2017	WL_BFWB_OUT_SP21	E291569														1397
9/29/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050		0.019			< 0.0050	259				0.15		0.22	
9/29/2017	WL_BFWB_OUT_SP21	E291569		0.019			< 0.0050					< 0.20		0.25		1403
9/30/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		< 0.0050	< 0.0050	243			< 0.10	< 0.10	0.23	0.22	
9/30/2017	WL_BFWB_OUT_SP21	E291569														1430
10/1/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.02		< 0.0050	< 0.0050	241			< 0.10	< 0.10	0.23	0.27	1472
10/2/2017	WL_BFWB_OUT_SP21	E291569														
10/2/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.021	< 0.25	0.0072	0.0053	240	1.38	73.3	< 0.10	< 0.10	0.29	0.27	1380

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
10/3/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		0.0061	0.0073	259			< 0.10	< 0.10	0.25	0.27	1320
10/4/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.02		< 0.0050	0.0054	258			< 0.10	< 0.10	0.22	0.23	1328
10/5/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050		0.02			0.0071	238				< 0.10		0.22	
10/5/2017	WL_BFWB_OUT_SP21	E291569		0.019			< 0.0050					< 0.10		0.22		1337
10/6/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.02		0.0054	0.0064	237			< 0.10	< 0.10	0.19	0.2	
10/6/2017	WL_BFWB_OUT_SP21	E291569														1355
10/7/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.018		0.007	< 0.0050	249			0.39	0.16	0.2	0.22	
10/7/2017	WL_BFWB_OUT_SP21	E291569														1355
10/8/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.018		0.0062	< 0.0050	249			< 0.10	< 0.10	0.21	0.21	1175
10/9/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.019		0.0052	< 0.0050	250			< 0.10	< 0.10	0.21	0.21	
10/9/2017	WL_BFWB_OUT_SP21	E291569														1170
10/10/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.02	0.61	< 0.0050	< 0.0050	247	1.15	72.1	< 0.10	< 0.10	0.21	0.22	1184
10/11/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.018		< 0.0050	0.0061	252			< 0.10	< 0.10	0.21	0.23	1194
10/12/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.018		< 0.0050	< 0.0050	245			< 0.10	< 0.10	0.24	0.23	1187
10/13/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.019		< 0.0050	0.006	243			< 0.10	< 0.10	0.24	0.24	1174
10/14/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.019		< 0.0050	< 0.0050	254			< 0.10	< 0.10	0.29	0.29	1297
10/15/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.019		0.0054	0.006	255			< 0.10	< 0.10	0.31	0.34	1322
10/16/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.017	0.019	0.4	< 0.0050	< 0.0050	256	1.07	77.5	< 0.10	< 0.10	0.27	0.3	1326
10/17/2017	WL_BFWB_OUT_SP21	E291569														1330
10/18/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.017		< 0.0050	< 0.0050	253			< 0.10	0.11	0.22	0.22	1281
10/19/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.017		< 0.0050	0.0065	206			< 0.10	< 0.10	0.15	0.17	1204
10/20/2017	WL_BFWB_OUT_SP21	E291569	0.00005	0.02	0.019		< 0.0050	< 0.0050	184			< 0.10	< 0.10	0.11	0.13	1088
10/21/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.02		< 0.0050	< 0.0050	194			< 0.10	< 0.10	< 0.10	0.1	
10/21/2017	WL_BFWB_OUT_SP21	E291569														989
10/22/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.019		< 0.0050	< 0.0050	161			< 0.10	< 0.10	< 0.10	< 0.10	916
10/23/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.021	< 0.25	< 0.0050	< 0.0050	166	0.73	38.6	< 0.10	< 0.10	< 0.10	< 0.10	870
10/24/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.019		< 0.0050	< 0.0050	148			0.13	0.14	< 0.10	< 0.10	851
10/25/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.019		< 0.0050	< 0.0050	141			< 0.10	< 0.10	< 0.10	< 0.10	841
10/26/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.024	0.02		< 0.0050	< 0.0050	133			< 0.10	< 0.10	< 0.10	< 0.10	835
10/27/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.02		< 0.0050	< 0.0050	144			< 0.10	< 0.10	< 0.10	< 0.10	819
10/28/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		< 0.0050	< 0.0050	147			< 0.10	< 0.10	< 0.10	< 0.10	
10/28/2017	WL_BFWB_OUT_SP21	E291569														798
10/29/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.02		< 0.0050	< 0.0050	147			< 0.10	< 0.10	< 0.10	< 0.10	802
10/30/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.021	< 0.25	< 0.0050	< 0.0050	150	1.1	76	< 0.10	< 0.10	< 0.10	< 0.10	779
10/31/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.022		< 0.0050	< 0.0050	141			< 0.10	< 0.10	< 0.10	< 0.10	759
11/1/2017	WL_BFWB_OUT_SP21	E291569	< 0.00025	0.02	< 0.050		< 0.0050	< 0.025	140			< 0.10	< 0.50	< 0.10	< 0.50	753
11/2/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.022		< 0.0050	< 0.0050	134			< 0.10	< 0.10	< 0.10	< 0.10	775
11/3/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050		0.022			< 0.0050	134				< 0.10		< 0.10	
11/3/2017	WL_BFWB_OUT_SP21	E291569		0.021			< 0.0050					< 0.10		< 0.10		746
11/4/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.022		< 0.0050	< 0.0050	148			< 0.10	< 0.10	< 0.10	< 0.10	736
11/5/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.021		< 0.0050	< 0.0050	143			< 0.10	< 0.10	< 0.10	< 0.10	
11/5/2017	WL_BFWB_OUT_SP21	E291569														750
11/6/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021	< 0.25	< 0.0050	< 0.0050	146	0.7	75.8	< 0.10	< 0.10	< 0.10	< 0.10	745
11/7/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022		< 0.0050	< 0.0050	145			< 0.10	< 0.10	< 0.10	< 0.10	734
11/8/2017	WL_BFWB_OUT_SP21	E291569														752
11/8/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.022		< 0.0050	< 0.0050	148			< 0.10	< 0.10	< 0.10	< 0.10	
11/9/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		< 0.0050	< 0.0050	142			< 0.10	< 0.10	< 0.10	< 0.10	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
11/9/2017	WL_BFWB_OUT_SP21	E291569														774
11/10/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.021		< 0.0050	< 0.0050	145			< 0.10	< 0.10	< 0.10	< 0.10	
11/10/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.181	0.144		0.0107	0.0108	137			0.32	0.42	< 0.10	< 0.10	
11/10/2017	WL_BFWB_OUT_SP21	E291569														841
11/11/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.023		< 0.0050	< 0.0050	159			< 0.10	< 0.10	< 0.10	< 0.10	
11/11/2017	WL_BFWB_OUT_SP21	E291569														842
11/12/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021		< 0.0050	< 0.0050	154			< 0.10	0.18	< 0.10	< 0.10	
11/12/2017	WL_BFWB_OUT_SP21	E291569														859
11/13/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.02		< 0.0050	< 0.0050	132			< 0.10	< 0.10	< 0.10	< 0.10	
11/13/2017	WL_BFWB_OUT_SP21	E291569														859
11/14/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.019	< 0.25	< 0.0050	< 0.0050	132	0.93	83	< 0.10	< 0.10	< 0.10	< 0.10	850
11/15/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.021		< 0.0050	< 0.0050	134			< 0.10	0.14	< 0.10	< 0.10	854
11/16/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021		0.0064	< 0.0050	131			< 0.10	0.12	< 0.10	< 0.10	
11/16/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.126	0.117		< 0.0050	0.0078	140			0.21	0.24	0.17	< 0.10	771
11/17/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		< 0.0050	< 0.0050	132			< 0.10	< 0.10	< 0.10	< 0.10	
11/17/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.214	0.175		0.0122	0.0128	135			0.38	0.3	< 0.10	< 0.10	796
11/18/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021		< 0.0050	< 0.0050	152			< 0.10	< 0.10	< 0.10	< 0.10	
11/18/2017	WL_BFWB_OUT_SP21	E291569														676
11/19/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		< 0.0050	< 0.0050	148			< 0.10	< 0.10	< 0.10	< 0.10	754
11/20/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.021	< 0.25	< 0.0050	< 0.0050	148	0.81	75.9	< 0.10	< 0.10	< 0.10	< 0.10	882
11/21/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021		< 0.0050	< 0.0050	136			< 0.10	< 0.10	< 0.10	< 0.10	648
11/22/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		< 0.0050	< 0.0050	135			< 0.10	< 0.10	< 0.10	< 0.10	663
11/23/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.023		< 0.0050	< 0.0050	162			< 0.10	< 0.10	< 0.10	< 0.10	
11/23/2017	WL_BFWB_OUT_SP21	E291569														757
11/24/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022		< 0.0050	< 0.0050	165			< 0.10	< 0.10	< 0.10	< 0.10	
11/24/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.17	0.14		0.0129	0.0101	142			0.38	0.27	< 0.10	< 0.10	736
11/25/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.021		< 0.0050	< 0.0050	153			< 0.10	0.1	< 0.10	< 0.10	745
11/26/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021		< 0.0050	< 0.0050	153			< 0.10	< 0.10	< 0.10	< 0.10	758
11/27/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021		< 0.0050	< 0.0050	152			< 0.10	< 0.10	< 0.10	< 0.10	749
11/28/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.146	0.138		0.0122	0.0163	153			0.29	0.29	< 0.10	< 0.10	
11/28/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.023	< 0.25	< 0.0050	< 0.0050	153	0.79	87.7	< 0.10	< 0.10	< 0.10	< 0.10	765
11/29/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.026		< 0.0050	< 0.0050	143			< 0.10	< 0.10	< 0.10	< 0.10	749
11/30/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.023		< 0.0050	< 0.0050	147			< 0.10	< 0.10	< 0.10	< 0.10	
11/30/2017	WL_BFWB_OUT_SP21	E291569	< 0.00010	0.137	0.131		0.0056	0.01	145			0.34	0.24	< 0.10	< 0.20	734
12/1/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.022		< 0.0050	< 0.0050	147			< 0.10	< 0.10	< 0.10	< 0.10	723
12/2/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.022		< 0.0050	< 0.0050	156			< 0.10	< 0.10	< 0.10	< 0.10	720
12/3/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.021		< 0.0050	< 0.0050	148			< 0.10	< 0.10	< 0.10	< 0.10	713
12/4/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.021	< 0.25	< 0.0050	< 0.0050	154	0.56	80.3	< 0.10	< 0.10	< 0.10	< 0.10	768
12/5/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021		< 0.0050	< 0.0050	147			< 0.10	< 0.10	< 0.10	< 0.10	754
12/6/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.022		< 0.0050	< 0.0050	149			< 0.10	< 0.10	< 0.10	< 0.10	
12/6/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.228	0.274		< 0.0050	< 0.0050	154			0.23	0.28	< 0.10	< 0.10	
12/6/2017	WL_BFWB_OUT_SP21	E291569														764
12/7/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.018		< 0.0050	< 0.0050	131			< 0.10	< 0.10	< 0.10	< 0.10	
12/7/2017	WL_BFWB_OUT_SP21	E291569														757
12/8/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.018	0.02		< 0.0050	< 0.0050	142			< 0.10	< 0.10	< 0.10	< 0.10	775
12/9/2017	WL_BFWB_OUT_SP21	E291569		0.022			< 0.0050					< 0.10		0.11		749
12/10/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.02		< 0.0050	< 0.0050	151			< 0.10	0.11	0.11	0.11	748

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
12/11/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021	< 0.050	< 0.0050	< 0.0050	153	0.95	77.2	< 0.10	< 0.10	< 0.10	< 0.10	767
12/12/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.022		< 0.0050	< 0.0050	147			5.31	< 0.10	< 0.10	< 0.10	741
12/13/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.022		< 0.0050	< 0.0050	146			< 0.10	< 0.10	< 0.10	< 0.10	741
12/14/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		< 0.0050	< 0.0050	144			< 0.10	< 0.10	< 0.10	< 0.10	752
12/15/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		< 0.0050	< 0.0050	145			< 0.10	< 0.10	< 0.10	< 0.10	759
12/16/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021		< 0.0050	< 0.0050	148			< 0.10	< 0.10	< 0.10	< 0.10	695
12/17/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021		< 0.0050	< 0.0050	150			1.07	< 0.10	< 0.10	< 0.10	682
12/18/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.021	< 0.050	< 0.0050	< 0.0050	151	0.86	74.4	< 0.10	< 0.10	< 0.10	< 0.10	694
12/19/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.022		< 0.0050	< 0.0050	152			< 0.10	< 0.15	< 0.10	< 0.10	693
12/20/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.022	0.021		< 0.0050	0.0052	148			< 0.10	< 0.15	< 0.10	0.26	
12/20/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.122	0.155		< 0.0050	0.0078	160			0.38	0.58	< 0.10	0.25	685
12/21/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.029	0.022		< 0.0050	< 0.020	154			< 0.10	< 0.10	< 0.10	< 0.10	679
12/22/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.024	0.023		< 0.0050	< 0.030	158			< 0.10	< 0.10	< 0.10	< 0.10	678
12/23/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.023	0.014		< 0.0050	0.464	309			< 0.10	0.14	< 0.10	< 0.10	683
12/23/2017	WL_BFWB_OUT_SP21	E291569														683
12/24/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.022		< 0.0050	0.0072	153			< 0.10	< 0.10	< 0.10	< 0.10	701
12/25/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		< 0.0050	< 0.0050	150			< 0.10	< 0.10	< 0.10	< 0.10	724
12/26/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.021	0.02		< 0.0050	0.0063	147			< 0.10	< 0.10	< 0.10	< 0.10	717
12/27/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.021	< 0.050	< 0.0050	< 0.0050	165	0.74	74.2	< 0.10	< 0.10	< 0.10	< 0.10	713
12/28/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.02		< 0.0050	< 0.0050	155			< 0.10	< 0.10	< 0.10	< 0.10	731
12/29/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.019		< 0.0050	< 0.0050	147			< 0.10	< 0.10	< 0.10	< 0.10	715
12/30/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.019	0.019		< 0.0050	< 0.0050	151			< 0.10	< 0.10	< 0.10	< 0.10	704
12/31/2017	WL_BFWB_OUT_SP21	E291569	< 0.000050	0.02	0.02		< 0.010	0.0083	132			0.19	< 0.10	< 0.10	< 0.10	707
1/1/2017	WL_LCI_SP02	E293370	< 0.000050	0.024	0.025		0.306	0.346	127			< 0.10	0.11	< 0.10	< 0.10	
1/2/2017	WL_LCI_SP02	E293370	< 0.000050	0.023	0.024		0.317	0.327	124			0.12	0.12	< 0.10	< 0.10	
1/3/2017	WL_LCI_SP02	E293370	< 0.000050	0.024	0.025		0.298	0.33	128			< 0.10	0.22	< 0.10	< 0.10	
1/4/2017	WL_LCI_SP02	E293370														
1/5/2017	WL_LCI_SP02	E293370	< 0.000050	0.022	0.027		0.275	0.294	138			< 0.10	0.13	< 0.10	< 0.10	
1/6/2017	WL_LCI_SP02	E293370														
1/7/2017	WL_LCI_SP02	E293370														
1/8/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.02		0.271	0.291	134			0.11	0.17	< 0.10	< 0.10	
1/9/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.02	< 0.050	0.263	0.291	136	0.91	3.94	0.12	0.18	< 0.10	< 0.10	
1/10/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.02		0.297	0.29	128			0.12	0.15	< 0.10	< 0.10	
1/11/2017	WL_LCI_SP02	E293370														
1/12/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.024		0.258	0.322	133			0.12	0.17	< 0.10	< 0.10	
1/13/2017	WL_LCI_SP02	E293370														
1/14/2017	WL_LCI_SP02	E293370														
1/15/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.023		0.254	0.288	142			0.1	0.2	< 0.10	< 0.10	
1/16/2017	WL_LCI_SP02	E293370	< 0.000050	0.023	0.023		0.256	0.287	123			< 0.10	0.15	< 0.10	< 0.10	
1/17/2017	WL_LCI_SP02	E293370	< 0.000050	0.022	0.023		0.302	0.29	125			0.11	0.11	< 0.10	< 0.10	
1/18/2017	WL_LCI_SP02	E293370	< 0.000050	0.023	0.024	< 0.25	0.292	0.299	130	1.34	3.4	0.11	0.11	< 0.10	< 0.10	
1/19/2017	WL_LCI_SP02	E293370	< 0.000050	0.023	0.024		0.275	0.307	132			0.11	0.15	< 0.10	< 0.10	
1/20/2017	WL_LCI_SP02	E293370														
1/21/2017	WL_LCI_SP02	E293370														
1/22/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.02		0.259	0.274	130			0.14	0.17	< 0.10	< 0.10	
1/23/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.02		0.242	0.295	141			0.14	0.19	< 0.10	< 0.10	
1/24/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.02		0.219	0.278	140			0.13	0.19	< 0.10	< 0.10	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
1/25/2017	WL_LCI_SP02	E293370														
1/26/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.016		0.269	0.244	123			0.14	0.15	< 0.10	< 0.10	
1/27/2017	WL_LCI_SP02	E293370														
1/28/2017	WL_LCI_SP02	E293370														
1/29/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.247	0.265	139			0.13	0.14	< 0.10	< 0.10	529
1/30/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.018		0.246	0.265	131			0.13	0.15	< 0.10	< 0.10	
1/31/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.018		0.25	0.272	135			0.13	0.14	< 0.10	< 0.10	606
2/1/2017	WL_LCI_SP02	E293370														532
2/1/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.018	< 0.25	0.279	0.251	142	1.23	3.8	0.14	0.15	< 0.10	< 0.10	
2/2/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.018		0.257	0.264	134			0.14	0.19	< 0.10	< 0.10	581
2/3/2017	WL_LCI_SP02	E293370														591
2/4/2017	WL_LCI_SP02	E293370														630
2/5/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.017		0.26	0.264	127			0.12	0.15	< 0.10	< 0.10	635
2/6/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.017		0.236	0.258	128			0.12	0.12	< 0.10	< 0.10	622
2/7/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.016	< 0.25	0.283	0.25	124	0.86	3.6	0.14	0.13	< 0.10	< 0.10	621
2/8/2017	WL_LCI_SP02	E293370														622
2/8/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.017	< 0.050	0.266	0.257	131	1.4	4.01	0.13	0.13	< 0.10	< 0.10	
2/9/2017	WL_LCI_SP02	E293370														685
2/10/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.017		0.244	0.251	134			0.13	0.16	< 0.10	< 0.10	654
2/11/2017	WL_LCI_SP02	E293370														647
2/12/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.018		0.229	0.26	141			< 0.10	0.16	< 0.10	< 0.10	1273
2/13/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.018		0.236	0.259	142			< 0.10	0.16	< 0.10	< 0.10	642
2/14/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.017		0.233	0.266	133			0.14	0.15	< 0.10	< 0.10	633
2/15/2017	WL_LCI_SP02	E293370														587
2/16/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.017		0.238	0.273	131			0.13	0.18	< 0.10	< 0.10	694
2/17/2017	WL_LCI_SP02	E293370														694
2/18/2017	WL_LCI_SP02	E293370														683
2/19/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.017		0.238	0.276	139			0.14	0.2	< 0.10	< 0.10	713
2/20/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.271	0.245	147			0.16	0.26	< 0.10	< 0.10	729
2/21/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.018		0.237	0.273	147			0.12	0.16	< 0.10	< 0.10	632
2/22/2017	WL_LCI_SP02	E293370														628
2/22/2017	WL_LCI_SP02	E293370														
2/23/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.018		0.258	0.281	134			0.13	0.15	< 0.10	< 0.10	635
2/24/2017	WL_LCI_SP02	E293370														565
2/25/2017	WL_LCI_SP02	E293370														496.9
2/26/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.018		0.252	0.275	127			< 0.10	0.15	< 0.10	< 0.10	625
2/27/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.017		0.257	0.292	133			0.12	0.14	< 0.10	< 0.10	623
2/28/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.016		0.222	0.257	130			0.1	0.14	< 0.10	< 0.10	572
3/1/2017	WL_LCI_SP02	E293370														586
3/2/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.017		0.242	0.255	138			0.11	0.26	< 0.10	< 0.10	
3/3/2017	WL_LCI_SP02	E293370														596
3/4/2017	WL_LCI_SP02	E293370														1311
3/5/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.02		0.239	0.287	151			0.1	0.19	< 0.10	< 0.10	586
3/6/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.016	< 0.25	0.188	0.284	134	< 0.50	4.1	0.1	0.2	< 0.10	< 0.10	572
3/7/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.016		0.252	0.25	136			0.14	0.16	< 0.10	< 0.10	566
3/8/2017	WL_LCI_SP02	E293370														575
3/9/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.017		0.197	0.239	130			0.11	0.14	< 0.10	< 0.10	572

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
3/10/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.015		0.206	0.231	123			0.13	0.15	< 0.10	< 0.10	567
3/11/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.015		0.219	0.235	121			0.13	0.17	< 0.10	< 0.10	626
3/12/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.016		0.213	0.263	134			0.1	0.14	< 0.10	< 0.10	625
3/13/2017	WL_LCI_SP02	E293370	< 0.000050	0.014	0.016		0.217	0.243	123			0.13	0.15	< 0.10	< 0.10	636
3/14/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.017		0.231	0.242	130			< 0.10	0.12	< 0.10	< 0.10	628
3/15/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.016		0.237	0.233	139			0.12	0.1	< 0.10	< 0.10	1324
3/16/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.017		0.236	0.299	120			0.11	0.51	0.14	0.51	589
3/20/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.017		0.26	0.289	125			< 0.10	0.18	0.14	0.13	
3/21/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.018		0.256	0.348	142			0.12	0.55	0.14	0.41	
3/22/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.018		0.254	0.32	147			< 0.10	0.28	0.12	0.2	648
3/23/2017	WL_LCI_SP02	E293370	0.000058	0.016	0.017		0.263	0.304	143			0.11	0.4	0.16	0.21	669
3/24/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.018		0.284	0.307	142			0.11	0.43	0.12	0.22	656
3/25/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.016		0.288	0.315	142			0.11	0.43	< 0.10	0.19	660
3/26/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.016		0.298	0.311	140			< 0.10	0.34	0.17	0.24	659
3/27/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.016		0.261	0.292	142			< 0.10	0.29	0.31	0.18	676
3/28/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.02		0.276	0.297	147			0.1	0.27	0.18	0.18	673
3/29/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.02		0.259	0.311	143			0.11	0.24	0.14	0.16	682
3/30/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.02		0.276	0.31	150			< 0.10	0.17	0.11	0.13	688
3/31/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.018		0.283	0.372	161			< 0.10	0.42	0.14	0.41	736
4/1/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.018		0.251	0.328	143			< 0.10	0.19	0.1	0.14	680
4/2/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.018		0.271	0.343	143			0.11	0.22	0.12	0.14	680
4/3/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.019	< 0.25	0.309	0.321	149	0.97	5.7	< 0.10	0.25	< 0.10	0.12	685
4/4/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.019		0.322	0.342	142			< 0.10	0.13	< 0.10	0.12	691
4/5/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.017		0.315	0.318	147			< 0.10	0.15	< 0.10	0.12	692
4/6/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.021		0.301	0.349	160			< 0.10	0.19	< 0.10	0.13	710
4/7/2017	WL_LCI_SP02	E293370														702
4/7/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.02		0.349	0.357	160			< 0.10	0.19	< 0.10	0.14	
4/8/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.019		0.279	0.354	164			0.12	0.28	0.1	0.14	756
4/9/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.317	0.372	160			0.11	0.24	< 0.10	0.16	725
4/10/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.022		0.295	0.329	157			0.12	0.15	< 0.10	0.13	591
4/12/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.017		0.293	0.358	153			0.11	0.19	0.11	0.14	618
4/13/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.016		0.323	0.359	145			0.11	0.16	< 0.10	0.12	714
4/14/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.017		0.318	0.324	137			0.12	0.17	< 0.10	0.1	703
4/15/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.017		0.351	0.364	149			0.1	0.16	< 0.10	0.12	714
4/16/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.018		0.322	0.344	153			< 0.10	0.17	< 0.10	0.11	700
4/17/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.018		0.338	0.362	155			< 0.10	0.17	< 0.10	0.11	698
4/18/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.018		0.308	0.354	150			< 0.10	0.15	< 0.10	0.11	712
4/19/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.016		0.312	0.368	142			0.11	0.15	< 0.10	0.11	735
4/20/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.017		0.315	0.33	141			0.13	0.2	0.11	0.14	688
4/21/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.017		0.321	0.342	139			0.14	0.18	0.11	0.14	711
4/22/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.017		0.318	0.376	149			< 0.10	0.36	0.1	0.28	602
4/23/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.018		0.323	0.372	145			0.14	0.17	0.12	0.14	706
4/24/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.019		0.364	0.385	152			0.12	0.18	0.12	0.15	708
4/25/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.017		0.361	0.387	147			< 0.10	0.18	0.12	0.15	600
4/26/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.017		0.305	0.394	142			< 0.10	0.17	0.14	0.15	685
4/27/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.017		0.366	0.39	144			< 0.10	0.15	0.12	0.15	683
4/28/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.017		0.331	0.385	136			0.11	0.14	0.12	0.13	681

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
4/29/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.018		0.379	0.407	138			< 0.10	0.16	0.12	0.14	672
4/30/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.018		0.404	0.39	140			< 0.10	0.12	0.12	0.13	676
5/1/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.017	< 0.050	0.342	0.39	136	0.71	6.21	< 0.10	0.14	0.12	0.12	676
5/2/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.018		0.346	0.358	147			0.14	0.13	0.12	0.12	679
5/3/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.018		0.362	0.361	142			0.15	0.13	0.11	0.12	665
5/4/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.018		0.399	0.384	148			0.14	0.16	0.11	0.12	675
5/5/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.018		0.312	0.261	128			0.13	0.12	0.11	0.1	671
5/6/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.017		0.446	0.478	139			0.15	0.39	0.22	0.32	684
5/7/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.015		0.476	0.49	118			0.23	0.22	0.27	0.4	581
5/8/2017	WL_LCI_SP02	E293370	< 0.000050	0.014	0.014		0.456	0.486	97.6			0.13	0.38	0.27	0.34	498.5
5/9/2017	WL_LCI_SP02	E293370	< 0.000050	0.013	0.019		0.338	0.48	92.8			0.12	0.19	0.2	0.25	461
5/10/2017	WL_LCI_SP02	E293370	< 0.000050	0.013	0.018		0.379	0.518	98.9			0.13	0.21	0.2	0.23	474.2
5/11/2017	WL_LCI_SP02	E293370	< 0.000050	0.014	0.015		0.474	0.538	105			0.13	0.11	0.21	0.2	504
5/12/2017	WL_LCI_SP02	E293370	< 0.000050	0.014	0.015		0.47	0.568	95.3			0.24	0.15	0.19	0.21	563
5/13/2017	WL_LCI_SP02	E293370	< 0.000050	0.014	0.015		0.519	0.522	109			0.13	0.14	0.17	0.19	666
5/14/2017	WL_LCI_SP02	E293370	< 0.000050	0.014	0.015		0.547	0.55	105			0.13	0.16	0.15	0.17	670
5/15/2017	WL_LCI_SP02	E293370														657
5/16/2017	WL_LCI_SP02	E293370	< 0.000050	0.014	0.014		0.496	0.502	82.5			0.15	0.19	0.21	0.22	663
5/17/2017	WL_LCI_SP02	E293370	< 0.000050	0.012	0.014		0.436	0.532	88.8			0.21	0.19	0.18	0.21	398.4
5/18/2017	WL_LCI_SP02	E293370	< 0.000050	0.013	0.013		0.549	0.544	91.1			0.15	0.92	0.19	0.19	429
5/19/2017	WL_LCI_SP02	E293370	< 0.000050	0.013	0.014		0.456	0.591	93.1			0.19	0.17	0.19	0.19	466.9
5/20/2017	WL_LCI_SP02	E293370														490.5
5/21/2017	WL_LCI_SP02	E293370	< 0.000050	0.014	0.015		0.574	0.571	108			0.2	0.12	0.18	0.18	508
5/22/2017	WL_LCI_SP02	E293370	< 0.000050	0.014	0.015		0.545	0.675	115			0.2	0.24	0.2	0.2	5.04
5/23/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.014		0.478	0.601	103			0.21	2.37	0.19	0.23	463.7
5/24/2017	WL_LCI_SP02	E293370	< 0.000050	0.014	0.013		0.573	0.55	88.8			0.14	0.18	0.2	0.23	352
5/25/2017	WL_LCI_SP02	E293370	< 0.000050	0.013	0.013		0.49	0.529	79.2			0.13	0.16	0.21	0.23	337
5/26/2017	WL_LCI_SP02	E293370	< 0.000050	0.012	0.013		0.464	0.544	80.6			0.13	0.24	0.2	0.21	880
5/27/2017	WL_LCI_SP02	E293370	< 0.000050	0.013	0.012		0.563	0.495	77.5			0.15	0.15	0.2	0.19	347
5/28/2017	WL_LCI_SP02	E293370	< 0.000050	0.013	0.013		0.598	0.601	84.1			0.14	0.21	0.19	0.19	44.7
5/29/2017	WL_LCI_SP02	E293370	< 0.000050	0.013	0.014		0.576	0.605	88.7			0.16	0.16	0.17	0.19	403
5/30/2017	WL_LCI_SP02	E293370	< 0.000050	0.013	0.012		0.602	0.504	72.8			0.18	0.14	0.19	0.19	399.8
5/31/2017	WL_LCI_SP02	E293370	< 0.000050	0.013	0.014		0.579	0.624	80			0.22	0.17	0.2	0.22	397.5
6/1/2017	WL_LCI_SP02	E293370	< 0.000050	0.013	0.014		0.56	0.715	85.9			0.17	0.38	0.22	0.27	377.1
6/2/2017	WL_LCI_SP02	E293370	< 0.000050	0.013	0.013		0.673	0.655	80.8			< 0.70	0.17	0.22	0.24	420.3
6/3/2017	WL_LCI_SP02	E293370	< 0.000050	0.013	0.024		0.665	< 0.0050	149			0.14	< 0.10	0.23	0.19	403
6/4/2017	WL_LCI_SP02	E293370	< 0.000050	0.012	0.013		0.688	0.712	84.9			0.13	0.15	0.19	0.21	369.4
6/5/2017	WL_LCI_SP02	E293370				< 0.050				1.2	2.41					
6/5/2017	WL_LCI_SP02	E293370	< 0.000050	0.012	0.013		0.635	0.713	85.3			0.13	0.19	0.2	0.19	403
6/6/2017	WL_LCI_SP02	E293370	< 0.000050	0.012	0.014		0.764	0.66	81.8			0.18	0.17	0.19	0.19	439
6/7/2017	WL_LCI_SP02	E293370	< 0.000050	0.013	0.013		0.794	0.766	86.5			0.14	0.16	0.19	0.19	436
6/8/2017	WL_LCI_SP02	E293370	< 0.000050	0.01	0.015		0.632	0.743	88.1			0.12	0.14	0.16	0.18	438
6/9/2017	WL_LCI_SP02	E293370	< 0.000050	0.011	0.013		0.707	0.8	87			0.12	0.16	0.17	0.18	436.7
6/10/2017	WL_LCI_SP02	E293370	< 0.000050	0.012	0.012		0.698	0.654	76.5			0.13	0.16	0.16	0.16	420
6/11/2017	WL_LCI_SP02	E293370	< 0.000050	0.012	0.012		0.653	0.675	76			0.17	0.17	0.15	0.15	420.8
6/12/2017	WL_LCI_SP02	E293370	< 0.000050	0.011	0.011	< 0.050	0.677	0.671	81.7	0.76	2.66	0.14	0.15	0.16	0.15	450.1
6/13/2017	WL_LCI_SP02	E293370	< 0.000050	0.014	0.014		0.81	0.838	104			0.14	< 0.20	0.16	0.17	490.5

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
6/13/2017	WL_LCI_SP02	E293370														
6/14/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.015		0.779	0.847	108			0.14	0.15	0.16	0.17	1070
6/14/2017	WL_LCI_SP02	E293370														
6/15/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.014		0.728	0.749	96.2			0.13	0.75	0.15	0.15	402.2
6/15/2017	WL_LCI_SP02	E293370														
6/16/2017	WL_LCI_SP02	E293370	< 0.000050	0.013	0.013		0.582	0.656	85.6			0.12	0.12	0.13	0.14	400.4
6/16/2017	WL_LCI_SP02	E293370														
6/17/2017	WL_LCI_SP02	E293370	< 0.000050	0.012	0.012		0.599	0.718	85.3			0.15	0.19	0.14	0.14	468
6/17/2017	WL_LCI_SP02	E293370														
6/18/2017	WL_LCI_SP02	E293370	< 0.000050	0.013	0.013		0.644	0.74	93.5			0.14	0.15	0.13	0.14	433.5
6/18/2017	WL_LCI_SP02	E293370														
6/19/2017	WL_LCI_SP02	E293370	< 0.000050	0.014	0.014		0.735	0.766	95.9			0.14	0.14	0.15	0.14	405.7
6/19/2017	WL_LCI_SP02	E293370														
6/20/2017	WL_LCI_SP02	E293370														
6/21/2017	WL_LCI_SP02	E293370														
6/22/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.015		0.913	0.93	110			0.12	0.12	0.13	0.13	453.3
6/22/2017	WL_LCI_SP02	E293370														
6/23/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.015		0.838	0.818	107			0.1	0.13	0.12	0.13	768
6/23/2017	WL_LCI_SP02	E293370														
6/24/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.017		0.862	0.88	114			0.12	0.16	0.12	0.13	469
6/24/2017	WL_LCI_SP02	E293370														
6/25/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.016		0.895	0.859	115			0.13	0.13	0.13	0.12	511
6/25/2017	WL_LCI_SP02	E293370														
6/26/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.017		0.815	0.889	117			0.12	0.13	0.13	0.13	504
6/27/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.014		0.717	0.747	106			0.15	0.16	0.13	0.12	487
6/28/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.013		0.788	0.724	102			0.13	0.14	0.13	0.12	395.5
6/29/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.014		0.729	0.692	103			0.23	0.16	0.12	0.11	432.2
6/30/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.015		0.756	0.762	110			0.12	0.15	0.1	0.11	482
7/1/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.018		0.756	0.772	117			0.13	0.16	0.13	0.13	498
7/2/2017	WL_LCI_SP02	E293370	< 0.000050	0.014	0.016		0.646	0.736	112			0.11	0.18	0.12	0.14	515
7/3/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.015		0.664	0.687	104			0.15	0.13	0.12	0.13	515
7/4/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.017		0.726	0.73	110			0.15	0.13	0.13	0.13	490
7/5/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.017		0.727	0.724	111			0.13	0.15	0.12	0.23	515
7/6/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.016		0.722	0.739	109			< 0.10	0.15	0.11	0.12	515
7/7/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.016		0.725	0.736	109			< 0.10	0.15	0.11	0.12	518
7/8/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.016		0.712	0.651	121			0.1	2.47	0.13	0.12	531
7/9/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.016		0.574	0.718	122			0.31	0.9	0.12	0.19	528
7/10/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.017	< 0.050	0.589	0.695	129	1.1	3.94	0.11	2.22	0.11	0.12	539
7/11/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.017		0.629	0.691	114			0.21	0.17	0.1	0.11	545
7/12/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.016		0.685	0.683	109			0.17	0.2	0.11	0.12	529
7/13/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.016		0.632	0.624	121			0.13	0.17	0.11	0.1	538
7/14/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.016	< 0.050	0.613	0.647	123	1.25	3.5	0.19	0.23	0.1	0.11	537
7/14/2017	WL_LCI_SP02	E293370														
7/15/2017	WL_LCI_SP02	E293370														582
7/16/2017	WL_LCI_SP02	E293370														607
7/17/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.016		0.661	0.67	125			0.11	0.11	< 0.10	< 0.10	563
7/18/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.016		0.689	0.73	121			0.12	0.13	0.11	0.11	562

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
7/19/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.019		0.617	0.646	124			0.14	0.16	0.1	0.11	625
7/20/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.017		0.611	0.693	121			0.16	0.16	< 0.10	< 0.10	615
7/21/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.016		0.585	0.616	121			1.79	0.14	< 0.10	< 0.10	548
7/22/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.017		0.566	0.607	115			0.16	0.23	< 0.10	< 0.10	545
7/23/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.017		0.583	0.618	117			0.16	0.15	< 0.10	< 0.10	647
7/24/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.017		0.559	0.564	117			0.16	0.16	< 0.10	< 0.10	629
7/25/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.018		0.6	0.603	129			0.16	< 0.20	< 0.10	< 0.10	507
7/26/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.018		0.607	0.605	126			0.13	< 0.20	< 0.10	0.1	513
7/27/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.02		0.581	0.656	124			0.17	0.15	< 0.10	0.11	625
7/28/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.02		0.575	0.63	120			0.17	0.16	< 0.10	< 0.10	567
7/29/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.018		0.566	0.569	135			0.13	0.16	< 0.10	< 0.10	570
7/30/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.017		0.573	0.604	135			0.18	0.21	< 0.10	< 0.10	580
7/31/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.548	0.585	136			0.15	0.17	< 0.10	< 0.10	571
8/1/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.018		0.552	0.503	121			0.14	0.17	< 0.10	< 0.10	647
8/2/2017	WL_LCI_SP02	E293370	0.000101	0.019	0.018		0.506	0.518	122			0.15	0.17	< 0.10	< 0.10	580
8/3/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.015		0.49	0.474	119			0.17	0.13	< 0.10	< 0.10	563
8/4/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.016		0.53	0.511	124			0.17	0.13	< 0.10	< 0.10	657
8/5/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.017		0.486	0.467	119			0.11	0.13	< 0.10	< 0.10	616
8/6/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.017		0.505	0.498	123			0.14	0.17	< 0.10	< 0.10	635
8/7/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.473	0.525	127			0.14	0.16	< 0.10	< 0.10	642
8/8/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.018		0.573	0.603	129			0.15	0.15	< 0.10	< 0.10	669
8/9/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.017		0.812	0.773	135			< 0.10	0.12	< 0.10	< 0.10	723
8/11/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.018		0.535	0.55	119			< 0.10	< 0.10	< 0.10	< 0.10	644
8/12/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.016		0.48	0.485	119			0.16	0.16	< 0.10	< 0.10	634
8/13/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.017		0.51	0.534	121			0.14	0.41	< 0.10	< 0.10	
8/13/2017	WL_LCI_SP02	E293370														652
8/14/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.016	< 0.25	0.473	0.489	120	0.97	3	0.11	0.14	< 0.10	< 0.10	
8/15/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.492	0.5	118			0.23	0.21	< 0.10	< 0.10	641
8/16/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.49	0.5	118			0.21	0.18	< 0.10	< 0.10	639
8/17/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.514	0.497	108			4.46	0.14	< 0.10	< 0.10	645
8/18/2017	WL_LCI_SP02	E293370														655
8/19/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.464	0.468	120			0.14	0.12	< 0.10	< 0.10	654
8/20/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.486	0.48	119			0.13	0.13	< 0.10	< 0.10	646
8/21/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.449	0.438	121			1	0.12	< 0.10	< 0.10	669
8/22/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.479	0.509	118			< 0.10	< 0.10	< 0.10	< 0.10	644
8/23/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.491	0.466	110			0.2	0.13	< 0.10	< 0.10	656
8/24/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.018		0.495	0.509	114			0.11	0.11	< 0.10	< 0.10	666
8/25/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.02		0.469	0.481	121			0.13	0.16	< 0.10	< 0.10	638
8/26/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.02		0.486	0.495	113			0.12	0.13	< 0.10	< 0.10	641
8/27/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.485	0.487	111			0.14	0.12	< 0.10	< 0.10	526
8/28/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.471	0.478	111			0.15	0.16	< 0.10	< 0.10	529
8/29/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.459	0.483	109			0.13	0.13	< 0.10	< 0.10	532
8/30/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.018		0.464	0.471	112			0.13	0.13	< 0.10	< 0.10	626
8/31/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.476	0.452	114			0.16	0.13	< 0.10	< 0.10	543
9/1/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.455	0.483	114			0.13	0.13	< 0.10	< 0.10	542
9/2/2017	WL_LCI_SP02	E293370														
9/2/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.457	0.46	111			0.11	0.14	< 0.10	< 0.10	547

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
9/3/2017	WL_LCI_SP02	E293370														
9/3/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.458	0.458	116			0.11	0.13	< 0.10	< 0.10	551
9/4/2017	WL_LCI_SP02	E293370														
9/4/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.468	0.464	114			0.11	0.16	< 0.10	< 0.10	553
9/5/2017	WL_LCI_SP02	E293370														
9/5/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.449	0.429	113			0.12	0.14	< 0.10	< 0.10	546
9/6/2017	WL_LCI_SP02	E293370														
9/6/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.02		0.454	0.457	111			0.14	0.14	< 0.10	< 0.10	
9/7/2017	WL_LCI_SP02	E293370														
9/7/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.018		0.422	0.432	111			0.1	0.11	< 0.10	< 0.10	551
9/7/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.017		0.515	0.491	117			0.13	0.12	< 0.10	< 0.10	653
9/8/2017	WL_LCI_SP02	E293370														
9/8/2017	WL_LCI_SP02	E293370	< 0.000050	0.033	0.019		0.466	0.469	111			0.15	0.14	< 0.10	< 0.10	623
9/9/2017	WL_LCI_SP02	E293370														
9/9/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.449	0.434	118			0.11	0.18	< 0.10	< 0.10	625
9/10/2017	WL_LCI_SP02	E293370														
9/10/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.02		0.468	0.438	122			0.13	0.13	< 0.10	< 0.10	626
9/11/2017	WL_LCI_SP02	E293370														
9/11/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.46	0.463	120			0.13	0.14	< 0.10	< 0.10	627
9/12/2017	WL_LCI_SP02	E293370														
9/12/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019	0.19	0.471	0.441	127	0.55	3	0.13	0.12	< 0.10	< 0.10	660
9/13/2017	WL_LCI_SP02	E293370														
9/13/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.018		0.487	0.499	129			0.12	0.15	< 0.10	< 0.10	653
9/14/2017	WL_LCI_SP02	E293370														
9/14/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.018		0.477	0.489	135			0.11	0.13	< 0.10	< 0.10	694
9/15/2017	WL_LCI_SP02	E293370														
9/15/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.02		0.432	0.437	122			0.12	0.13	< 0.10	< 0.10	630
9/16/2017	WL_LCI_SP02	E293370														
9/16/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.02		0.44	0.444	121			< 0.40	0.33	< 0.10	< 0.10	623
9/17/2017	WL_LCI_SP02	E293370														
9/17/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.46	0.436	120			< 0.30	0.33	< 0.10	< 0.10	638
9/18/2017	WL_LCI_SP02	E293370														
9/18/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.452	0.438	121			< 0.40	0.32	< 0.10	< 0.10	651
9/18/2017	WL_LCI_SP02	E293370														
9/19/2017	WL_LCI_SP02	E293370														
9/19/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.017		0.383	0.415	115			0.12	0.12	< 0.10	< 0.10	639
9/20/2017	WL_LCI_SP02	E293370														
9/20/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.425	0.444	121			0.13	0.13	< 0.10	< 0.10	632
9/20/2017	WL_LCI_SP02	E293370														
9/21/2017	WL_LCI_SP02	E293370														
9/21/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.018		0.409	0.405	120			0.4	0.16	< 0.10	< 0.10	557
9/21/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.018	< 0.050	0.422	0.441	114	0.61	3.46	< 0.10	0.13	< 0.10	< 0.10	
9/22/2017	WL_LCI_SP02	E293370														
9/22/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.018		0.39	0.394	119			0.14	0.18	< 0.10	< 0.10	626
9/23/2017	WL_LCI_SP02	E293370														
9/23/2017	WL_LCI_SP02	E293370	< 0.000050	0.015	0.016		0.342	0.365	109			0.18	< 0.10	< 0.10	< 0.10	618
9/24/2017	WL_LCI_SP02	E293370														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
9/24/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.353	0.392	123			0.15	0.13	< 0.10	< 0.10	612
9/25/2017	WL_LCI_SP02	E293370														
9/25/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.019		0.409	0.408	121			0.14	0.12	< 0.10	< 0.10	622
9/26/2017	WL_LCI_SP02	E293370														
9/26/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.018		0.385	0.415	123			0.13	0.12	< 0.10	< 0.10	627
9/27/2017	WL_LCI_SP02	E293370														
9/27/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.018		0.397	0.397	124			0.11	0.12	< 0.10	< 0.10	619
9/28/2017	WL_LCI_SP02	E293370														
9/28/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.018		0.397	0.39	122			< 0.30	< 0.30	< 0.10	< 0.10	618
9/29/2017	WL_LCI_SP02	E293370														
9/29/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.018		0.402	0.4	122			< 0.40	< 0.30	< 0.10	< 0.10	616
9/30/2017	WL_LCI_SP02	E293370														
9/30/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.018		0.382	0.43	123			0.12	< 0.10	< 0.10	< 0.10	628
10/1/2017	WL_LCI_SP02	E293370														
10/1/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.017		0.427	0.409	118			0.12	0.21	< 0.10	< 0.10	616
10/2/2017	WL_LCI_SP02	E293370														
10/2/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.018	< 0.050	0.399	0.387	121	< 0.50	3.27	< 0.10	< 0.10	< 0.10	< 0.10	617
10/2/2017	WL_LCI_SP02	E293370														
10/3/2017	WL_LCI_SP02	E293370														
10/3/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.382	0.396	117			0.1	0.1	< 0.10	< 0.10	616
10/4/2017	WL_LCI_SP02	E293370														
10/4/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.402	0.397	120			0.1	0.11	< 0.10	< 0.10	623
10/5/2017	WL_LCI_SP02	E293370														
10/5/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.389	0.391	120			0.11	< 0.10	< 0.10	< 0.10	623
10/6/2017	WL_LCI_SP02	E293370														
10/6/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.382	0.396	115			0.14	0.12	< 0.10	< 0.10	610
10/7/2017	WL_LCI_SP02	E293370														
10/7/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.017		0.407	0.386	117			0.14	0.12	< 0.10	< 0.10	610
10/8/2017	WL_LCI_SP02	E293370														
10/8/2017	WL_LCI_SP02	E293370	< 0.000050	0.022	0.017		0.396	0.377	116			0.14	0.12	< 0.10	< 0.10	561
10/9/2017	WL_LCI_SP02	E293370														
10/9/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.02		0.416	0.392	130			0.14	2.59	< 0.10	< 0.10	560
10/10/2017	WL_LCI_SP02	E293370														
10/10/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.023		0.358	0.392	124			0.1	< 0.20	< 0.10	< 0.10	572
10/11/2017	WL_LCI_SP02	E293370														
10/11/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.018		0.381	0.397	128			0.16	0.12	< 0.10	< 0.10	591
10/12/2017	WL_LCI_SP02	E293370														
10/12/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.018		0.345	0.383	124			0.13	0.12	< 0.10	< 0.10	577
10/13/2017	WL_LCI_SP02	E293370														
10/13/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.372	0.376	128			0.11	0.12	< 0.10	< 0.10	575
10/14/2017	WL_LCI_SP02	E293370														
10/14/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.02		0.346	0.362	128			0.14	0.13	< 0.10	< 0.10	652
10/15/2017	WL_LCI_SP02	E293370														
10/15/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.019		0.344	0.372	126			0.15	0.12	< 0.10	< 0.10	655
10/16/2017	WL_LCI_SP02	E293370														
10/16/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.019		0.347	0.375	127			0.12	0.14	< 0.10	< 0.10	646
10/17/2017	WL_LCI_SP02	E293370														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
10/17/2017	WL_LCI_SP02	E293370	< 0.000050	0.016	0.016		0.45	0.469	143			0.12	0.15	< 0.10	< 0.10	897
10/18/2017	WL_LCI_SP02	E293370														
10/18/2017	WL_LCI_SP02	E293370	< 0.000050	0.017	0.017		0.495	0.512	148			0.13	0.12	< 0.10	< 0.10	794
10/19/2017	WL_LCI_SP02	E293370														
10/19/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.018		0.496	0.497	148			0.13	0.15	< 0.10	< 0.10	834
10/20/2017	WL_LCI_SP02	E293370														
10/20/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.019		0.498	0.498	144			0.13	0.15	< 0.10	< 0.10	750
10/21/2017	WL_LCI_SP02	E293370														
10/21/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.02		0.452	0.507	143			< 0.20	0.54	< 0.10	0.3	751
10/22/2017	WL_LCI_SP02	E293370														
10/22/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.02		0.462	0.492	146			< 0.20	0.19	< 0.10	< 0.10	753
10/23/2017	WL_LCI_SP02	E293370														
10/23/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.493	0.478	145			< 0.20	0.16	< 0.10	< 0.10	754
10/24/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.425	0.456	141			0.15	0.14	< 0.10	< 0.10	786
10/25/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.404	0.414	151			0.11	0.24	< 0.10	< 0.10	805
10/26/2017	WL_LCI_SP02	E293370	< 0.000050	0.024	0.024		0.508	0.501	153			< 0.10	0.24	< 0.10	< 0.10	751
10/27/2017	WL_LCI_SP02	E293370	< 0.000050	0.024	0.024		0.473	0.485	144			< 0.10	0.21	< 0.10	< 0.10	751
10/28/2017	WL_LCI_SP02	E293370														775
10/29/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.02		0.451	0.47	141			0.12	0.11	< 0.10	< 0.10	746
10/30/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.02		0.451	0.457	142			0.13	0.11	< 0.10	< 0.10	737
10/31/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.422	0.449	132			0.11	< 0.10	< 0.10	< 0.10	735
11/1/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.019		0.442	0.441	145			0.12	0.2	< 0.10	< 0.10	741
11/2/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.022		0.409	0.454	140			0.15	0.14	< 0.10	< 0.10	744
11/3/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.022		0.393	0.428	133			0.14	0.16	< 0.10	< 0.10	729
11/4/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.021		0.401	0.395	145			0.19	0.17	< 0.10	< 0.10	733
11/5/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.021		0.377	0.367	148			0.11	0.15	< 0.10	< 0.10	736
11/6/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.02	< 0.25	0.384	0.37	148	0.59	4.5	0.14	0.16	< 0.10	< 0.10	740
11/7/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.02		0.419	0.404	153			0.12	0.13	< 0.10	< 0.10	750
11/8/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.02		0.338	0.356	147			0.1	0.13	< 0.10	< 0.10	706
11/9/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.356	0.336	146			0.15	0.13	< 0.10	< 0.10	738
11/10/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.386	0.358	142			0.11	0.12	< 0.10	< 0.10	741
11/11/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.019		0.363	0.369	138			0.12	0.12	< 0.10	< 0.10	733
11/12/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.019		0.334	0.351	137			0.15	0.13	< 0.10	< 0.10	695
11/13/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.02		0.393	0.4	136			0.12	0.13	< 0.10	< 0.10	730
11/14/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.02		0.383	0.395	153			0.16	0.17	< 0.10	< 0.10	733
11/15/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.019		0.385	0.389	142			0.12	0.17	< 0.10	< 0.10	723
11/16/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.357	0.391	140			0.13	0.14	< 0.10	< 0.10	771
11/17/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.02		0.365	0.374	136			0.11	0.13	< 0.10	< 0.10	725
11/18/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.021		0.375	0.368	158			0.16	0.12	< 0.10	< 0.10	681
11/19/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.023		0.362	0.31	164			0.13	0.15	< 0.10	< 0.10	737
11/20/2017	WL_LCI_SP02	E293370	< 0.000050	0.022	0.021		0.36	0.368	147			0.13	0.11	< 0.10	< 0.10	852
11/21/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.021		0.385	0.379	139			< 0.20	0.12	< 0.10	< 0.10	624
11/22/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.021		0.321	0.387	139			0.13	0.11	< 0.10	< 0.10	622
11/23/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.019		0.389	0.372	154			< 0.20	0.17	< 0.10	< 0.10	759
11/24/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.019		0.391	0.392	150			< 0.20	0.16	< 0.10	< 0.10	754
11/25/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.02		0.393	0.417	151			0.19	0.15	< 0.10	< 0.10	766
11/26/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.02		0.363	0.409	143			< 2.0	0.16	< 0.10	< 0.10	720

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
11/27/2017	WL_LCI_SP02	E293370	< 0.000050	0.022	0.021		0.366	0.424	140			0.19	0.16	< 0.10	0.16	716
11/28/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.021		0.35	0.336	149			0.11	0.15	< 0.10	< 0.10	712
11/29/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.021		0.409	0.411	143			0.12	0.17	< 0.10	< 0.10	700
11/30/2017	WL_LCI_SP02	E293370	< 0.000050	0.022	0.022		0.383	0.411	143			0.11	0.14	< 0.10	< 0.10	704
12/1/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.02		0.393	0.404	142			0.19	0.15	< 0.10	< 0.10	710
12/2/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.326	0.379	156			0.1	0.14	< 0.10	< 0.10	718
12/3/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.02		0.333	0.391	157			0.14	0.13	< 0.10	< 0.10	720
12/4/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.02	< 0.25	0.336	0.378	147	0.59	5.5	0.13	0.14	< 0.10	< 0.10	756
12/5/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.415	0.398	156			0.13	0.16	< 0.10	< 0.10	799
12/6/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.02		0.383	0.377	147			0.11	0.13	< 0.10	< 0.10	786
12/7/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.019		0.381	0.359	131			0.12	0.1	< 0.10	< 0.10	758
12/8/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.018		0.359	0.386	130			0.13	0.14	< 0.10	< 0.10	754
12/9/2017	WL_LCI_SP02	E293370	< 0.000050	0.023	0.02		0.401	0.359	151			< 0.10	0.17	< 0.10	< 0.10	763
12/10/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.021		0.378	0.36	153			< 0.10	0.12	< 0.10	< 0.10	760
12/11/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.02		0.374	0.353	152			< 0.20	0.11	< 0.10	< 0.10	767
12/12/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.021		0.345	0.333	148			0.12	0.11	< 0.10	< 0.10	759
12/13/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.021		0.34	0.334	159			0.12	0.13	< 0.10	< 0.10	788
12/14/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.02		0.365	0.352	148			0.11	0.12	< 0.10	< 0.10	762
12/15/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.021		0.343	0.306	152			0.14	< 0.10	< 0.10	< 0.10	768
12/16/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.021		0.351	0.36	148			0.1	< 0.10	< 0.10	< 0.10	733
12/17/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.021		0.346	0.342	152			< 0.10	< 0.10	< 0.10	< 0.10	735
12/18/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.02		0.358	0.345	162			< 0.10	< 0.10	< 0.10	< 0.10	731
12/19/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.024		0.352	0.382	160			0.15	0.17	< 0.10	< 0.10	586
12/20/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.023		0.352	0.356	154			0.22	0.34	< 0.10	< 0.10	701
12/21/2017	WL_LCI_SP02	E293370	< 0.000050	0.027	0.025		0.402	0.34	175			0.12	0.14	< 0.10	< 0.10	699
12/22/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.019		0.339	0.313	164			0.11	0.16	< 0.10	< 0.10	738
12/23/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.018		0.307	0.307	157			0.14	0.23	< 0.10	< 0.10	644
12/24/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.017		0.305	0.323	159			0.24	2.22	< 0.10	< 0.10	744
12/25/2017	WL_LCI_SP02	E293370	< 0.000050	0.021	0.018		0.3	0.323	153			0.21	0.15	< 0.10	< 0.10	725
12/26/2017	WL_LCI_SP02	E293370	< 0.000050	0.02	0.02		0.306	0.3	150			0.14	0.13	< 0.10	< 0.10	694
12/27/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.291	0.291	151			< 0.20	0.11	< 0.10	< 0.10	693
12/28/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.018		0.321	0.307	157			0.71	0.13	< 0.10	< 0.10	710
12/29/2017	WL_LCI_SP02	E293370	< 0.000050	0.019	0.019		0.279	0.305	152			0.13	0.14	< 0.10	< 0.10	705
12/30/2017	WL_LCI_SP02	E293370	< 0.000050	0.018	0.018		0.297	0.313	160			0.16	0.15	< 0.10	< 0.10	712
12/31/2017	WL_LCI_SP02	E293370														
12/31/2017	WL_LCI_SP02	E293370	< 0.000050	0.027	0.018		0.283	0.276	138			0.23	0.12	< 0.10	< 0.10	686
1/1/2017	WL_WLCI_SP01	E293371	< 0.000050	0.011	0.012		0.628	0.664	261			0.12	0.11	< 0.10	< 0.10	
1/3/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.011		0.604	0.618	262			0.11	0.16	< 0.10	< 0.10	
1/4/2017	WL_WLCI_SP01	E293371														
1/5/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.013		0.549	0.578	300			< 0.10	0.14	< 0.10	< 0.10	
1/6/2017	WL_WLCI_SP01	E293371														
1/7/2017	WL_WLCI_SP01	E293371														
1/8/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.012		0.54	0.606	301			0.13	0.14	< 0.10	< 0.10	
1/9/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.013	< 0.25	0.538	0.586	301	1.44	4.5	< 0.10	0.13	< 0.10	< 0.10	
1/10/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.013		0.536	0.563	279			0.12	0.17	< 0.10	< 0.10	
1/11/2017	WL_WLCI_SP01	E293371														
1/12/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.012		0.475	0.524	277			0.12	0.12	< 0.10	< 0.10	

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
1/13/2017	WL_WLCI_SP01	E293371														
1/14/2017	WL_WLCI_SP01	E293371														
1/15/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.012		0.47	0.512	288			0.14	0.17	< 0.10	< 0.10	
1/16/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.482	0.547	292			0.1	0.17	< 0.10	< 0.10	
1/17/2017	WL_WLCI_SP01	E293371	< 0.000050	0.011	0.012		0.608	0.697	296			0.11	0.43	< 0.10	< 0.10	
1/18/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.012	< 0.25	0.523	0.532	289	2.62	4.7	0.16	0.18	< 0.10	< 0.10	
1/19/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.483	0.548	291			0.14	0.19	< 0.10	< 0.10	
1/20/2017	WL_WLCI_SP01	E293371														
1/21/2017	WL_WLCI_SP01	E293371														
1/22/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.014		0.449	0.527	328			0.15	0.17	< 0.10	< 0.10	
1/23/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.016		0.4	0.548	356			0.15	0.16	< 0.10	< 0.10	
1/24/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.344	0.542	326			0.12	0.14	< 0.10	< 0.10	
1/25/2017	WL_WLCI_SP01	E293371														
1/26/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.012		0.391	0.474	292			0.11	0.18	< 0.10	< 0.10	
1/27/2017	WL_WLCI_SP01	E293371														
1/28/2017	WL_WLCI_SP01	E293371														
1/29/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.419	0.465	311			0.12	0.14	< 0.10	< 0.10	1199
1/30/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.396	0.439	297			0.12	0.14	< 0.10	< 0.10	
1/31/2017	WL_WLCI_SP01	E293371	< 0.00025	< 0.050	< 0.050		0.422	0.461	301			< 0.50	< 0.50	< 0.50	< 0.50	1385
2/1/2017	WL_WLCI_SP01	E293371	< 0.000050	0.011	0.012		0.588	0.668	283			< 0.10	0.13	< 0.10	< 0.10	1209
2/1/2017	WL_WLCI_SP01	E293371	< 0.00025	< 0.050	< 0.050	< 0.25	0.38	0.401	309	1.91	5	< 0.50	< 0.50	< 0.50	< 0.50	
2/2/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.014		0.37	0.405	294			< 0.10	0.16	< 0.10	< 0.10	1337
2/3/2017	WL_WLCI_SP01	E293371														1344
2/4/2017	WL_WLCI_SP01	E293371														1442
2/5/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.365	0.352	286			0.12	0.15	< 0.10	< 0.10	1444
2/6/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.312	0.377	298			0.11	0.13	< 0.10	< 0.10	1431
2/7/2017	WL_WLCI_SP01	E293371	< 0.000050	< 0.010	0.013	< 0.25	0.368	2.71	305	1.4	5.2	0.12	0.32	< 0.10	< 0.10	1441
2/8/2017	WL_WLCI_SP01	E293371														1431
2/8/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.012	< 0.25	0.321	0.296	259	2.03	4.8	0.11	0.15	< 0.10	< 0.10	
2/9/2017	WL_WLCI_SP01	E293371														1550
2/10/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.014		0.328	0.335	296			< 0.10	0.14	< 0.10	< 0.10	1451
2/11/2017	WL_WLCI_SP01	E293371														1474
2/12/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.305	0.328	322			< 0.10	0.14	< 0.10	< 0.10	2955
2/13/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.29	0.32	329			< 0.10	0.13	< 0.10	< 0.10	1479
2/14/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.25	0.278	298			< 0.10	0.12	< 0.10	< 0.10	1463
2/15/2017	WL_WLCI_SP01	E293371														1340
2/16/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.287	0.324	305			0.12	0.16	< 0.10	< 0.10	1605
2/17/2017	WL_WLCI_SP01	E293371														1575
2/18/2017	WL_WLCI_SP01	E293371														1560
2/19/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.262	0.312	330			< 0.10	0.13	< 0.10	< 0.10	1618
2/20/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.252	0.273	320			0.14	0.18	< 0.10	< 0.10	1610
2/21/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.014		0.276	0.267	306			0.1	0.21	< 0.10	< 0.10	1408
2/22/2017	WL_WLCI_SP01	E293371														1406
2/22/2017	WL_WLCI_SP01	E293371														
2/23/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.227	0.254	295			0.14	0.13	< 0.10	< 0.10	1406
2/24/2017	WL_WLCI_SP01	E293371														1253
2/25/2017	WL_WLCI_SP01	E293371														1122

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
2/26/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.223	0.225	266			< 0.10	0.15	< 0.10	< 0.10	1387
2/27/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.229	0.229	279			0.1	0.2	< 0.10	< 0.10	1386
2/28/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.013		0.187	0.208	280			0.11	0.13	< 0.10	< 0.10	1276
3/1/2017	WL_WLCI_SP01	E293371														1284
3/2/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.191	0.196	292			0.12	0.17	< 0.10	< 0.10	
3/3/2017	WL_WLCI_SP01	E293371														1326
3/4/2017	WL_WLCI_SP01	E293371														586
3/5/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.015		0.183	0.233	322			< 0.10	0.13	< 0.10	< 0.10	1292
3/6/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.012	< 0.25	0.188	0.232	285	1.25	5.5	0.12	0.2	< 0.10	< 0.10	1304
3/7/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.013		0.183	0.198	304			0.13	0.13	< 0.10	< 0.10	1303
3/8/2017	WL_WLCI_SP01	E293371														1318
3/9/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.014		0.148	0.172	308			0.1	0.13	< 0.10	< 0.10	1290
3/10/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.013		0.143	0.161	284			0.12	0.17	< 0.10	< 0.10	1282
3/11/2017	WL_WLCI_SP01	E293371	< 0.000050	0.011	0.013		0.138	0.17	274			< 0.10	0.15	< 0.10	< 0.10	1421
3/12/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.012		0.139	0.181	291			0.11	0.12	< 0.10	< 0.10	1421
3/13/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.166	0.198	291			< 0.10	0.1	< 0.10	< 0.10	1419
3/14/2017	WL_WLCI_SP01	E293371	< 0.00010	< 0.020	< 0.020		0.157	0.169	312			< 0.20	< 0.20	< 0.20	< 0.20	1420
3/15/2017	WL_WLCI_SP01	E293371	< 0.000050	0.011	0.013		0.152	0.171	282			0.12	0.38	< 0.10	0.13	636
3/16/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.014		0.144	0.191	233			< 0.10	1.27	< 0.10	0.52	1180
3/20/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.015		0.173	0.211	318			0.15	0.44	< 0.10	0.21	1412
3/21/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.187	0.219	324			0.12	0.15	< 0.10	< 0.10	1455
3/22/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.209	0.233	309			0.14	0.14	< 0.10	< 0.10	1384
3/23/2017	WL_WLCI_SP01	E293371	< 0.000050	0.01	0.014		0.213	0.227	317			0.11	0.2	< 0.10	< 0.10	1482
3/24/2017	WL_WLCI_SP01	E293371	< 0.00010	< 0.020	< 0.020		0.212	0.228	317			< 0.20	< 0.20	< 0.20	< 0.20	1266
3/25/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.219	0.21	316			0.11	0.13	< 0.10	< 0.10	1500
3/26/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.012		0.212	0.209	311			0.1	0.12	0.13	< 0.10	1492
3/27/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.013		0.192	0.209	314			0.11	0.11	0.22	< 0.10	1484
3/28/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.016		0.181	0.207	313			< 0.10	0.13	0.16	< 0.10	1485
3/29/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.016		0.181	0.213	315			< 0.10	0.13	< 0.10	< 0.10	1490
3/30/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.014		0.197	0.148	268			< 0.10	0.14	< 0.10	< 0.10	1490
3/31/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.194	0.221	321			0.11	0.26	0.19	< 0.10	1492
4/1/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.015		0.171	0.207	312			0.11	0.11	< 0.10	< 0.10	1486
4/2/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.015		0.172	0.21	314			0.11	0.12	< 0.10	< 0.10	1492
4/3/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014	< 0.25	0.197	0.202	319	1.67	5.2	< 0.10	0.12	< 0.10	< 0.10	1498
4/4/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.015		0.197	0.213	306			< 0.10	0.1	< 0.10	< 0.10	1503
4/5/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.013		0.168	0.191	318			0.11	0.12	< 0.10	< 0.10	1503
4/6/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.017		0.189	0.215	342			0.11	0.17	< 0.10	< 0.10	1518
4/7/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.016		0.208	0.228	352			< 0.10	0.14	< 0.10	< 0.10	1508
4/8/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.015		0.197	0.215	348			0.14	0.31	< 0.10	< 0.10	1584
4/9/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.015		0.191	0.213	352			0.14	0.14	< 0.10	< 0.10	1576
4/10/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.017		0.181	0.181	337			< 0.10	0.13	< 0.10	< 0.10	1289
4/11/2017	WL_WLCI_SP01	E293371	< 0.000050	0.011	0.013		0.169	0.197	312			< 0.10	0.13	< 0.10	< 0.10	1292
4/12/2017	WL_WLCI_SP01	E293371	< 0.000050	0.011	0.013		0.171	0.186	310			0.11	0.14	< 0.10	< 0.10	1292
4/13/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.183	0.182	327			0.47	0.12	< 0.10	< 0.10	1523
4/14/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.014		0.168	0.188	304			< 0.10	0.12	< 0.10	< 0.10	1494
4/15/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.171	0.211	334			0.12	2.3	< 0.10	< 0.10	1489
4/16/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.014		0.161	0.183	272			< 0.10	0.13	< 0.10	< 0.10	1499

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
4/17/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.016		0.185	0.187	299			< 0.10	0.17	< 0.10	< 0.10	1394
4/18/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.162	0.182	312			< 0.10	0.12	< 0.10	< 0.10	1512
4/19/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.013		0.187	0.207	298			< 0.10	0.14	< 0.10	< 0.10	1513
4/20/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.014		0.177	0.187	303			0.15	0.14	< 0.10	< 0.10	1488
4/21/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.015		0.187	0.185	323			0.13	0.13	< 0.10	< 0.10	1494
4/22/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.153	0.213	317			0.1	0.16	< 0.10	< 0.10	1496
4/23/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.176	0.221	316			0.16	0.15	< 0.10	< 0.10	1480
4/24/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.191	0.208	304			0.13	0.19	< 0.10	< 0.10	1464
4/25/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.214	0.227	303			0.1	0.14	< 0.10	< 0.10	1253
4/26/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.015		0.185	0.241	315			< 0.10	0.13	< 0.10	< 0.10	1445
4/27/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.204	0.237	302			< 0.10	0.15	< 0.10	< 0.10	1445
4/28/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.014		0.188	0.241	295			< 0.10	0.14	< 0.10	< 0.10	1427
4/29/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.217	0.237	301			< 0.10	0.13	< 0.10	< 0.10	1412
4/30/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.015		0.238	0.253	297			< 0.10	0.13	< 0.10	< 0.10	1260
5/1/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.015	< 0.25	0.24	0.269	296	1.23	4.7	< 0.10	0.15	< 0.10	< 0.10	1402
5/2/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.016		0.254	0.247	313			0.14	0.12	< 0.10	< 0.10	1418
5/3/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.015		0.269	0.255	305			0.13	0.13	< 0.10	< 0.10	1414
5/4/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.015		0.296	0.281	309			0.17	0.16	< 0.10	< 0.10	1427
5/5/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.015		0.284	0.272	263			0.13	5.59	< 0.10	< 0.10	1374
5/6/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.013		0.358	0.395	226			0.13	0.14	< 0.10	< 0.10	1334
5/7/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.016		0.441	0.442	281			0.15	0.18	< 0.10	< 0.10	1343
5/8/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.016		0.463	0.471	286			0.12	0.14	< 0.10	< 0.10	1341
5/9/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.021		0.367	0.483	288			0.15	< 0.10	< 0.10	< 0.10	1311
5/10/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.02		0.411	0.506	278			0.13	0.12	< 0.10	< 0.10	1282
5/11/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.015		0.526	0.609	224			0.13	0.13	< 0.10	< 0.10	1263
5/12/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.019		0.584	0.645	269			0.15	0.14	< 0.10	< 0.10	1246
5/13/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.017		0.669	0.681	275			0.14	0.14	< 0.10	< 0.10	1219
5/14/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.017		0.795	0.777	276			0.12	0.23	0.11	0.11	1238
5/15/2017	WL_WLCI_SP01	E293371	< 0.000050		0.015			0.655	216				0.15		< 0.10	1128
5/16/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.018		0.728	0.754	227			0.17	0.14	< 0.10	< 0.10	1093
5/17/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.018		0.677	0.786	234			0.15	0.15	< 0.10	< 0.10	1123
5/18/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.017		0.778	0.795	224			0.15	0.39	< 0.10	< 0.10	1122
5/19/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.017		0.672	0.82	228			0.15	0.14	< 0.10	< 0.10	1141
5/20/2017	WL_WLCI_SP01	E293371														1130
5/21/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.017		0.844	0.853	223			0.14	0.18	< 0.10	< 0.10	1131
5/22/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.017		0.93	0.792	225			0.27	0.16	< 0.10	< 0.10	1141
5/23/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.018		0.877	0.984	231			0.39	0.42	0.13	0.11	1097
5/24/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.02		1.06	1.02	204			0.13	0.15	0.14	0.15	850
5/25/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.021		1.02	1.05	172			0.11	0.2	0.23	0.26	760
5/26/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.02		1.12	1.16	179			0.11	0.13	0.21	0.21	222
5/27/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.021		1.31	1.36	201			0.11	0.13	0.21	0.22	817
5/28/2017	WL_WLCI_SP01	E293371	< 0.000050	0.022	0.022		1.22	1.34	189			0.12	0.12	0.16	0.17	919
5/29/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.022		1.31	1.32	179			0.11	0.11	0.16	0.17	847
5/30/2017	WL_WLCI_SP01	E293371	< 0.000050	0.022	0.021		1.25	1.34	161			< 0.10	0.14	0.24	0.26	774
5/31/2017	WL_WLCI_SP01	E293371	< 0.000050	0.023	0.023		1.38	1.43	146			0.12	0.13	0.4	0.43	757
6/1/2017	WL_WLCI_SP01	E293371	< 0.000050	0.023	0.024		1.74	1.78	157			0.12	0.13	0.73	0.81	638.2
6/2/2017	WL_WLCI_SP01	E293371	< 0.000050	0.024	0.023		1.8	1.79	151			< 0.10	< 0.10	0.65	0.65	765

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
6/3/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.022		1.76	1.78	142			< 0.10	< 0.10	0.49	0.51	743
6/4/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.022		1.71	1.75	145			< 0.10	< 0.10	0.4	0.38	742
6/5/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.02	< 0.25	1.77	1.79	143	1.4	< 2.5	< 0.10	< 0.10	0.33	0.32	769
6/6/2017	WL_WLCI_SP01	E293371	< 0.000050	0.022	0.021		1.72	1.91	150			< 0.10	< 0.10	0.27	0.29	
6/6/2017	WL_WLCI_SP01	E293371														744
6/7/2017	WL_WLCI_SP01	E293371	< 0.000050	0.022	0.021		2.09	2.04	155			< 0.10	0.16	0.27	0.3	742
6/8/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.027		1.76	1.73	145			< 0.10	< 0.10	0.21	0.21	742
6/9/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.022		1.9	1.69	150			0.11	< 0.10	0.22	0.19	745
6/10/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.019		1.99	2.01	150			< 0.10	< 0.10	0.21	0.22	747
6/11/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.017		1.91	1.87	149			0.11	< 0.10	0.18	0.18	777
6/12/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.017	< 0.25	1.92	1.93	154	1.22	< 2.5	0.12	0.13	0.16	0.16	818
6/13/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.019		1.65	1.85	172			0.1	< 0.10	0.13	0.15	835
6/13/2017	WL_WLCI_SP01	E293371														
6/14/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.019		2.01	1.97	171			< 0.10	< 0.10	0.14	0.13	1052
6/14/2017	WL_WLCI_SP01	E293371														
6/15/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.019		2.04	1.89	170			< 0.10	< 0.10	0.14	0.14	702
6/15/2017	WL_WLCI_SP01	E293371														
6/16/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.018		1.93	1.9	168			< 0.10	< 0.10	0.13	0.13	761
6/16/2017	WL_WLCI_SP01	E293371														
6/17/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.017		1.8	2.03	176			0.51	0.1	0.13	0.12	789
6/17/2017	WL_WLCI_SP01	E293371														
6/18/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.017		1.77	1.98	175			0.13	< 0.10	0.12	0.12	803
6/18/2017	WL_WLCI_SP01	E293371														
6/19/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.019		2.03	2.02	185			< 0.10	< 0.10	0.11	0.11	815
6/19/2017	WL_WLCI_SP01	E293371														
6/20/2017	WL_WLCI_SP01	E293371														
6/21/2017	WL_WLCI_SP01	E293371														
6/22/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.02		2.29	2.33	198			< 0.10	< 0.10	0.1	< 0.10	850
6/22/2017	WL_WLCI_SP01	E293371														
6/23/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.018		2.21	2.2	200			0.1	< 0.10	< 0.10	< 0.10	861
6/23/2017	WL_WLCI_SP01	E293371														
6/24/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.019		2.1	2.1	196			0.1	0.1	< 0.10	< 0.10	874
6/24/2017	WL_WLCI_SP01	E293371														
6/25/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.019		2.14	2.18	201			< 0.10	0.11	< 0.10	< 0.10	933
6/25/2017	WL_WLCI_SP01	E293371														
6/26/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.019		1.83	2.08	202			< 0.10	0.11	< 0.10	< 0.10	901
6/27/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.019		2.18	2.14	208			< 0.10	0.1	< 0.10	< 0.10	932
6/28/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.018		2.27	2.18	205			0.12	< 0.10	< 0.10	< 0.10	920
6/29/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.019		2.29	2.47	215			0.12	< 0.10	< 0.10	0.1	932
6/30/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.019		2.28	2.32	221			< 0.10	0.11	< 0.10	< 0.10	930
7/1/2017	WL_WLCI_SP01	E293371	< 0.000050	0.022	0.018		2.43	2.02	196			0.16	< 0.10	0.1	< 0.10	932
7/2/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.021		2.3	2.47	222			< 0.10	0.11	< 0.10	< 0.10	946
7/3/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.019		2.4	2.3	211			< 0.10	0.11	< 0.10	< 0.10	952
7/4/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.022		2.08	2.47	223			0.14	0.11	< 0.10	0.1	959
7/5/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.022		2.51	2.55	228			0.11	< 0.10	< 0.10	< 0.10	969
7/6/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.019		2.44	2.44	216			< 0.10	0.1	< 0.10	< 0.10	971
7/7/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.019		2.4	2.47	217			< 0.10	0.1	< 0.10	< 0.10	988

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
7/8/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.019		2.37	2.19	240			< 0.10	0.17	< 0.10	< 0.10	990
7/9/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.019		2.04	2.41	244			< 0.10	0.46	< 0.10	< 0.10	985
7/10/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.02	< 0.25	2.2	2.28	245	1.39	2.9	< 0.10	0.21	< 0.10	< 0.10	1004
7/11/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.02		2.48	2.51	233			0.17	0.13	< 0.10	< 0.10	1023
7/12/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.02		2.47	2.71	229			0.14	0.13	< 0.10	< 0.10	1007
7/13/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.018		2.52	2.57	236			0.12	0.36	< 0.10	< 0.10	1016
7/14/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.017	< 0.050	2.44	2.34	241	1.6	3.1	0.15	1.5	< 0.10	< 0.10	1022
7/14/2017	WL_WLCI_SP01	E293371														
7/15/2017	WL_WLCI_SP01	E293371														1000
7/16/2017	WL_WLCI_SP01	E293371														1011
7/17/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.023		2.67	2.5	242			< 0.10	< 0.10	< 0.10	< 0.10	1061
7/18/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.019		2.99	2.97	243			< 0.10	< 0.10	0.1	< 0.10	1069
7/19/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.021		2.71	2.84	249			0.12	0.16	< 0.10	0.1	1176
7/20/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.02		2.61	2.78	242			0.14	0.12	< 0.10	< 0.10	1184
7/21/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.019		2.49	2.72	246			0.12	0.11	< 0.10	< 0.10	1051
7/22/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.019		2.75	2.86	243			0.14	0.12	< 0.10	< 0.10	1086
7/23/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.019		2.56	2.82	237			0.14	0.12	< 0.10	< 0.10	1240
7/24/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.019		2.56	2.71	245			0.11	0.12	< 0.10	< 0.10	12.02
7/25/2017	WL_WLCI_SP01	E293371	< 0.000050	0.022	0.021		3.01	2.79	265			0.11	< 0.10	< 0.10	< 0.10	988
7/26/2017	WL_WLCI_SP01	E293371	< 0.000050	0.022	0.019		2.98	2.8	251			0.1	< 0.10	< 0.10	< 0.10	1003
7/27/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.021		2.88	3.08	255			< 0.10	0.12	< 0.10	< 0.10	1192
7/28/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.022		2.76	3.01	259			< 0.10	0.14	< 0.10	< 0.10	1106
7/29/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.02		2.77	2.77	287			0.16	0.13	< 0.10	< 0.10	1096
7/30/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.02		2.71	2.77	288			0.11	< 0.10	< 0.10	< 0.10	1091
7/31/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.02		2.67	2.73	283			< 0.10	0.12	< 0.10	< 0.10	1100
8/1/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.018		2.6	2.69	277			< 0.10	< 0.20	< 0.10	< 0.10	1180
8/2/2017	WL_WLCI_SP01	E293371	< 0.000050	0.022	0.021		2.6	2.96	261			< 0.10	< 0.10	< 0.10	< 0.10	1120
8/3/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.018		2.82	2.82	261			0.16	0.13	< 0.10	< 0.10	1140
8/4/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.017		2.77	2.64	256			0.1	0.12	< 0.10	< 0.10	1309
8/5/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.02		2.77	2.87	283			< 0.10	< 0.10	< 0.10	< 0.10	1331
8/6/2017	WL_WLCI_SP01	E293371		0.02			3.11					0.1		< 0.10		1340
8/7/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.021		2.84	3.01	287			< 0.10	0.14	< 0.10	< 0.10	1343
8/8/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.02		2.88	2.92	270			< 0.10	0.11	< 0.10	< 0.10	1373
8/9/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.019		2.94	2.9	263			0.52	< 0.10	< 0.10	< 0.10	1316
8/11/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.02		3.17	3.09	267			< 0.10	< 0.10	< 0.10	< 0.10	1333
8/12/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.018		3	2.99	286			< 0.10	0.11	< 0.10	< 0.10	1358
8/12/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.018	< 0.25	2.95	3.07	267	1.24	3.3	< 0.10	0.11	< 0.10	< 0.10	
8/13/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.017		2.87	2.9	284			0.11	< 0.10	< 0.10	< 0.10	
8/13/2017	WL_WLCI_SP01	E293371														1346
8/14/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.018	< 0.25	3.08	3.09	293	1.91	3.2	< 0.10	< 0.10	< 0.10	< 0.10	
8/15/2017	WL_WLCI_SP01	E293371	< 0.000050	0.022	0.022		3.16	3.25	292			0.23	0.28	< 0.10	< 0.10	1354
8/16/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.021		3.27	3.2	292			0.29	0.22	< 0.10	< 0.10	1370
8/17/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.02		3.06	3.06	259			< 0.10	< 0.10	< 0.10	< 0.10	1391
8/18/2017	WL_WLCI_SP01	E293371														1376
8/19/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.021		2.86	2.68	293			0.11	< 0.10	< 0.10	< 0.10	1399
8/20/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.021		2.89	3.1	299			< 0.10	< 0.10	< 0.10	< 0.10	1385
8/21/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.022		2.94	2.99	302			< 0.10	< 0.10	< 0.10	< 0.10	1389

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
8/22/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.019		3.26	3.17	283			< 0.10	< 0.10	< 0.10	< 0.10	1395
8/23/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.02		3.14	2.84	268			< 0.10	0.12	< 0.10	< 0.10	1432
8/24/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.021		2.81	2.81	274			< 0.10	< 0.10	< 0.10	< 0.10	1391
8/25/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.023		2.94	2.95	304			0.11	0.11	< 0.10	< 0.10	1398
8/26/2017	WL_WLCI_SP01	E293371	< 0.000050	0.022	0.022		3.22	3.25	279			0.1	0.1	< 0.10	< 0.10	1403
8/27/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.021		3.11	3.15	275			< 0.10	< 0.10	< 0.10	< 0.10	1169
8/28/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.02		3.02	2.88	268			0.12	0.11	< 0.10	< 0.10	1165
8/29/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.02		2.88	2.88	273			< 0.10	0.1	< 0.10	< 0.10	1175
8/30/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.019		2.77	2.85	285			< 0.10	0.1	< 0.10	< 0.10	1389
8/31/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.019		2.69	2.66	287			0.15	0.11	< 0.10	< 0.10	1211
9/1/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.021		2.82	2.84	290			0.14	< 0.10	< 0.10	< 0.10	1218
9/2/2017	WL_WLCI_SP01	E293371														
9/2/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.021		2.74	2.86	280			< 0.10	< 0.10	< 0.10	< 0.10	1224
9/3/2017	WL_WLCI_SP01	E293371														
9/3/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.02		2.7	2.71	284			< 0.10	< 0.10	< 0.10	< 0.10	1224
9/4/2017	WL_WLCI_SP01	E293371														
9/4/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.021		2.77	2.75	288			0.1	< 0.10	< 0.10	< 0.10	1238
9/5/2017	WL_WLCI_SP01	E293371														
9/5/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.022		2.93	3.01	293			< 0.10	< 0.10	< 0.10	< 0.10	1232
9/6/2017	WL_WLCI_SP01	E293371														
9/6/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.022		3	3.04	284			< 0.10	0.11	< 0.10	< 0.10	
9/7/2017	WL_WLCI_SP01	E293371														
9/7/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.019		3.11	2.86	271			< 0.10	< 0.10	< 0.10	< 0.10	1308
9/8/2017	WL_WLCI_SP01	E293371														
9/8/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.02		2.83	2.82	286			< 0.10	< 0.10	< 0.10	< 0.10	1414
9/9/2017	WL_WLCI_SP01	E293371														
9/9/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.021		2.73	2.72	314			< 0.10	0.11	< 0.10	< 0.10	1415
9/10/2017	WL_WLCI_SP01	E293371														
9/10/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.021		2.78	2.79	310			< 0.10	0.11	< 0.10	< 0.10	1426
9/11/2017	WL_WLCI_SP01	E293371														
9/11/2017	WL_WLCI_SP01	E293371	< 0.000050	0.022	0.022		3.08	3.05	313			0.12	< 0.10	< 0.10	< 0.10	1440
9/12/2017	WL_WLCI_SP01	E293371														
9/12/2017	WL_WLCI_SP01	E293371	< 0.000050	0.022	0.021	0.17	2.99	2.92	312	1.02	3.5	< 0.10	< 0.10	< 0.10	< 0.10	1429
9/13/2017	WL_WLCI_SP01	E293371														
9/13/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.022		3.05	3.19	319			< 0.10	0.1	< 0.10	< 0.10	1501
9/14/2017	WL_WLCI_SP01	E293371														
9/14/2017	WL_WLCI_SP01	E293371	< 0.000050	0.022	0.022		3.26	3.3	319			< 0.10	< 0.10	< 0.10	< 0.10	1437
9/15/2017	WL_WLCI_SP01	E293371														
9/15/2017	WL_WLCI_SP01	E293371	< 0.000050	0.023	0.023		3.19	3.27	307			< 0.10	< 0.10	< 0.10	< 0.10	1427
9/16/2017	WL_WLCI_SP01	E293371														
9/16/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.022		3.05	3.02	312			< 0.30	0.3	< 0.10	< 0.10	1487
9/17/2017	WL_WLCI_SP01	E293371														
9/17/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.019		2.76	2.69	304			< 0.30	0.3	< 0.10	< 0.10	1416
9/18/2017	WL_WLCI_SP01	E293371														
9/18/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.019		2.79	2.62	309			< 0.30	0.31	< 0.10	< 0.10	1433
9/19/2017	WL_WLCI_SP01	E293371														
9/19/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.019		2.73	2.67	302			0.12	0.11	< 0.10	< 0.10	1462

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
9/20/2017	WL_WLCI_SP01	E293371														
9/20/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.019		2.6	2.45	288			0.13	0.1	< 0.10	< 0.10	1432
9/21/2017	WL_WLCI_SP01	E293371														
9/21/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.017		2.21	2.3	297			0.13	0.13	< 0.10	< 0.10	1271
9/22/2017	WL_WLCI_SP01	E293371														
9/22/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.017		2	2.4	299			0.13	0.15	< 0.10	< 0.10	1419
9/23/2017	WL_WLCI_SP01	E293371														
9/23/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.016		1.65	1.82	294			0.18	< 0.10	< 0.10	< 0.10	1450
9/24/2017	WL_WLCI_SP01	E293371														
9/24/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.017		1.89	1.97	307			0.11	0.11	< 0.10	< 0.10	1419
9/25/2017	WL_WLCI_SP01	E293371														
9/25/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.018		1.87	1.89	304			0.12	0.13	< 0.10	< 0.10	1439
9/26/2017	WL_WLCI_SP01	E293371														
9/26/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.017		2.04	1.98	310			0.13	0.11	< 0.10	< 0.10	1456
9/27/2017	WL_WLCI_SP01	E293371														
9/27/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.018		2.12	2.11	310			0.12	0.15	< 0.10	< 0.10	1523
9/28/2017	WL_WLCI_SP01	E293371														
9/28/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.019		1.98	2.01	314			< 0.30	< 0.30	< 0.10	< 0.10	1450
9/29/2017	WL_WLCI_SP01	E293371														
9/29/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.019		2.09	2.11	315			< 0.30	< 0.30	< 0.10	< 0.10	1454
9/30/2017	WL_WLCI_SP01	E293371														
9/30/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.019		2.22	2.3	307			< 0.10	< 0.10	< 0.10	< 0.10	1469
10/1/2017	WL_WLCI_SP01	E293371														
10/1/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.019		2.47	2.51	303			0.11	0.19	< 0.10	< 0.10	1472
10/2/2017	WL_WLCI_SP01	E293371														
10/2/2017	WL_WLCI_SP01	E293371	< 0.000050	0.019	0.019	< 0.25	2.3	2.36	309	1.18	3.8	< 0.10	< 0.10	< 0.10	< 0.10	1464
10/3/2017	WL_WLCI_SP01	E293371														
10/3/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.019		1.98	2.01	306			< 0.10	0.11	< 0.10	< 0.10	1448
10/4/2017	WL_WLCI_SP01	E293371														
10/4/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.017		1.85	1.83	309			0.17	< 0.10	< 0.10	< 0.10	1460
10/5/2017	WL_WLCI_SP01	E293371														
10/5/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.018		1.82	1.84	301			0.13	0.11	< 0.10	< 0.10	1460
10/6/2017	WL_WLCI_SP01	E293371														
10/6/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.018		1.87	1.81	297			< 0.10	0.11	< 0.10	< 0.10	1440
10/7/2017	WL_WLCI_SP01	E293371														
10/7/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.016		1.83	1.83	296			0.27	0.13	< 0.10	< 0.10	1440
10/8/2017	WL_WLCI_SP01	E293371														
10/8/2017	WL_WLCI_SP01	E293371	< 0.000050	0.021	0.015		1.79	1.73	292			0.14	0.11	< 0.10	< 0.10	1309
10/9/2017	WL_WLCI_SP01	E293371														
10/9/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.018		1.66	1.67	317			0.16	0.15	< 0.10	< 0.10	1286
10/10/2017	WL_WLCI_SP01	E293371														
10/10/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.022		1.62	1.69	295			0.1	< 0.20	< 0.10	< 0.10	1302
10/11/2017	WL_WLCI_SP01	E293371														
10/11/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.016		1.74	1.64	308			0.13	0.11	< 0.10	< 0.10	1309
10/12/2017	WL_WLCI_SP01	E293371														
10/12/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.016		1.45	1.54	293			< 0.10	0.12	< 0.10	< 0.10	1304
10/13/2017	WL_WLCI_SP01	E293371														

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
10/13/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.017		1.42	1.41	317			0.12	0.12	< 0.10	< 0.10	1300
10/14/2017	WL_WLCI_SP01	E293371														
10/14/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.018		1.37	1.4	289			0.13	0.11	< 0.10	< 0.10	1449
10/15/2017	WL_WLCI_SP01	E293371														
10/15/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.017		1.34	1.36	287			0.12	0.12	< 0.10	< 0.10	1463
10/16/2017	WL_WLCI_SP01	E293371														
10/16/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.016		1.35	1.43	285			0.12	< 0.10	< 0.10	< 0.10	1456
10/17/2017	WL_WLCI_SP01	E293371														
10/17/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.017		1.42	1.44	290			0.11	0.12	< 0.10	< 0.10	1437
10/18/2017	WL_WLCI_SP01	E293371														
10/18/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.018		1.37	1.42	292			0.18	0.13	< 0.10	< 0.10	1426
10/19/2017	WL_WLCI_SP01	E293371														
10/19/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.017		1.36	1.33	297			0.12	0.12	< 0.10	< 0.10	1431
10/20/2017	WL_WLCI_SP01	E293371														
10/20/2017	WL_WLCI_SP01	E293371	< 0.000050	0.018	0.017		1.42	1.38	298			0.18	0.14	< 0.10	< 0.10	1429
10/21/2017	WL_WLCI_SP01	E293371														
10/21/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.016		1.29	1.37	303			< 0.20	0.15	< 0.10	< 0.10	
10/21/2017	WL_WLCI_SP01	E293371														1430
10/22/2017	WL_WLCI_SP01	E293371														
10/22/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.016		1.29	1.23	304			< 0.20	0.17	< 0.10	< 0.10	1432
10/23/2017	WL_WLCI_SP01	E293371														
10/23/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.015		1.37	1.34	285			< 0.20	0.12	< 0.10	< 0.10	1433
10/24/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.014		1.05	0.963	254			0.12	0.11	< 0.10	< 0.10	1426
10/25/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.015		1.12	1.09	270			0.15	0.14	< 0.10	< 0.10	1430
10/26/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.02		1.32	1.3	318			< 0.10	0.25	< 0.10	< 0.10	1449
10/27/2017	WL_WLCI_SP01	E293371	< 0.000050	0.02	0.02		1.24	1.24	318			< 0.10	0.22	< 0.10	< 0.10	
10/27/2017	WL_WLCI_SP01	E293371														1449
10/28/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.017		1.24	1.17	314			0.12	0.13	< 0.10	< 0.10	1438
10/29/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.015		1.21	1.31	291			0.13	0.19	< 0.10	< 0.10	1442
10/30/2017	WL_WLCI_SP01	E293371	< 0.000050	0.017	0.016		1.25	1.24	297			0.13	0.14	< 0.10	< 0.10	1466
10/31/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.015		1.17	1.25	282			0.12	0.12	< 0.10	< 0.10	1425
11/1/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.015		1.15	1.11	284			0.12	0.11	< 0.10	< 0.10	1430
11/2/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.017		1.05	1.13	291			0.16	0.16	< 0.10	< 0.10	1421
11/3/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.016		1.01	1.04	285			0.15	0.15	< 0.10	< 0.10	1414
11/4/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.015		0.865	0.896	308			0.15	0.16	< 0.10	< 0.10	1410
11/5/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.015		0.918	0.859	303			0.19	0.17	< 0.10	< 0.10	1410
11/6/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.014	< 0.25	0.849	0.855	305	1.19	4.1	0.17	0.19	< 0.10	< 0.10	1401
11/7/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.015		0.864	0.875	315			0.13	0.16	< 0.10	< 0.10	1398
11/8/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.013		0.84	0.949	285			< 0.10	0.12	< 0.10	< 0.10	1423
11/9/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.769	0.869	292			0.12	0.14	< 0.10	< 0.10	1410
11/10/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.812	0.937	295			0.11	0.15	< 0.10	< 0.10	1418
11/11/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.839	0.771	292			0.16	0.15	< 0.10	< 0.10	1414
11/12/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.014		0.846	0.877	292			0.14	0.12	< 0.10	< 0.10	1426
11/13/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.014		0.929	0.92	284			0.13	0.19	< 0.10	< 0.10	1426
11/14/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.013		0.891	0.914	329			0.17	1.4	< 0.10	< 0.10	1431
11/15/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.014		0.883	0.905	309			0.14	0.14	< 0.10	< 0.10	1430
11/16/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.772	0.832	267			0.13	0.12	< 0.10	< 0.10	1434

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
11/17/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.013		0.767	0.821	268			0.14	0.13	< 0.10	< 0.10	
11/17/2017	WL_WLCI_SP01	E293371														1433
11/18/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.014		0.814	0.811	317			0.13	0.12	< 0.10	< 0.10	1251
11/19/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.015		0.833	0.809	326			0.13	0.16	< 0.10	< 0.10	1408
11/20/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.015		0.835	0.801	327			0.15	0.14	< 0.10	< 0.10	1678
11/21/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.013		0.8	0.787	279			< 0.30	0.13	< 0.10	< 0.10	1220
11/22/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.013		0.796	0.816	276			0.12	0.14	< 0.10	< 0.10	1224
11/23/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.014		0.8	0.731	278			< 0.20	0.15	< 0.10	< 0.10	1375
11/24/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.014		0.8	0.764	290			< 0.20	0.14	< 0.10	< 0.10	1358
11/25/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.015		0.859	0.82	289			0.14	0.13	< 0.10	< 0.10	1370
11/26/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.014		0.864	0.829	278			0.14	0.14	< 0.10	< 0.10	1384
11/27/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.015		0.817	0.899	293			0.14	0.18	< 0.10	< 0.10	1377
11/28/2017	WL_WLCI_SP01	E293371	< 0.000050	0.016	0.014		0.771	0.808	307			0.17	0.15	< 0.10	< 0.10	1377
11/29/2017	WL_WLCI_SP01	E293371	< 0.000050	0.015	0.015		0.765	0.812	317			0.14	0.12	< 0.10	< 0.10	1362
11/30/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.016		0.806	0.817	308			0.15	0.14	< 0.10	< 0.10	1374
12/1/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.015		0.801	0.819	302			0.12	0.15	< 0.10	< 0.10	1373
12/2/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.703	0.743	305			0.26	0.13	< 0.10	< 0.10	1375
12/3/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.014		0.674	0.76	315			0.13	0.14	< 0.10	< 0.10	1372
12/4/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014	< 0.25	0.675	0.724	310	1.21	4.5	0.15	0.17	< 0.10	< 0.10	1505
12/5/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.014		0.738	0.733	305			0.15	0.14	< 0.10	< 0.10	1486
12/6/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.014		0.727	0.728	307			0.14	0.14	< 0.10	< 0.10	
12/6/2017	WL_WLCI_SP01	E293371														1493
12/7/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.736	0.678	278			0.15	0.13	< 0.10	< 0.10	1495
12/8/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.012		0.688	0.683	265			0.15	0.18	< 0.10	< 0.10	1490
12/9/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.014		0.677	0.675	327			< 0.20	0.13	< 0.10	< 0.10	1489
12/10/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.014		0.676	0.62	317			< 0.20	0.15	< 0.10	< 0.10	1494
12/11/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.623	0.637	320			0.12	0.15	< 0.10	< 0.10	1488
12/12/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.013		0.615	0.572	303			0.16	0.17	< 0.10	< 0.10	1492
12/13/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.014		0.628	0.577	318			0.15	0.15	< 0.10	< 0.10	1495
12/13/2017	WL_WLCI_SP01	E293371	< 0.00010	0.114	0.134		0.662	0.649	310			0.35	0.33	< 0.10	< 0.20	
12/14/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.013		0.628	0.585	311			0.12	0.16	< 0.10	< 0.10	1498
12/15/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.013		0.578	0.568	321			0.17	0.14	< 0.10	< 0.10	1503
12/16/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.553	0.574	310			0.11	< 0.10	< 0.10	< 0.10	1357
12/17/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.013		0.572	0.546	302			0.1	< 0.10	< 0.10	< 0.10	1356
12/18/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.54	0.574	313			< 0.10	0.11	< 0.10	< 0.10	1365
12/19/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.568	0.625	308			0.19	0.19	< 0.10	< 0.10	1361
12/20/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.014		0.511	0.566	308			0.17	0.21	< 0.10	< 0.10	1358
12/21/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.014		0.483	0.5	322			0.19	0.23	< 0.10	< 0.10	1350
12/22/2017	WL_WLCI_SP01	E293371	< 0.000050	0.014	0.014		0.533	0.474	320			0.16	0.15	< 0.10	< 0.10	1345
12/22/2017	WL_WLCI_SP01	E293371	< 0.000050	0.175	0.169		0.512	0.515	291			0.36	0.42	< 0.10	< 0.10	
12/23/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.485	0.508	288			< 0.10	0.17	< 0.10	< 0.10	1339
12/23/2017	WL_WLCI_SP01	E293371	< 0.000050		0.012			0.381	283				0.26		< 0.10	
12/24/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.434	0.454	300			0.11	0.2	< 0.10	< 0.10	1336
12/25/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.431	0.426	295			0.14	0.16	< 0.10	< 0.10	1336
12/26/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.417	0.41	286			0.17	0.17	< 0.10	< 0.10	1335
12/27/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.012		0.402	0.422	294			0.13	0.12	< 0.10	< 0.10	1340

Analyte			BISMUTH	BORON	BORON	BROMIDE	CADMIUM	CADMIUM	CALCIUM	CARBON, DISSOLVED ORGANIC	CHLORIDE	CHROMIUM	CHROMIUM	COBALT	COBALT	CONDUCTIVITY, FIELD
Fraction Result Unit			T mg/l	D mg/l	T mg/l	D mg/l	D mg/l	T mg/l	T mg/l	D mg/l	D mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N us/cm
Sample Date	Location	EMS Number														
12/28/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.013		0.405	0.455	317			0.16	0.18	< 0.10	< 0.10	1340
12/29/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.012		0.403	0.401	301			0.15	0.16	< 0.10	< 0.10	1335
12/30/2017	WL_WLCI_SP01	E293371	< 0.000050	0.012	0.012		0.387	0.391	298			0.15	0.18	< 0.10	< 0.10	
12/30/2017	WL_WLCI_SP01	E293371														1332
12/31/2017	WL_WLCI_SP01	E293371	< 0.000050	0.013	0.013		0.363	0.376	278			0.15	0.12	< 0.10	< 0.10	1327

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
1/5/2017	CM_CC1	200209			< 0.20	< 0.50			15.01	0.17	1040
1/17/2017	CM_CC1	200209		1740	< 0.50	< 0.50			10.57	0.22	1040
1/24/2017	CM_CC1	200209			0.32	< 0.50			15.27	0.19	974
1/29/2017	CM_CC1	200209							15.3		
1/30/2017	CM_CC1	200209			< 0.20	< 0.50			17.62	0.18	940
1/31/2017	CM_CC1	200209			< 1.0	< 2.5				0.19	1040
2/1/2017	CM_CC1	200209	1431	1710	< 1.0	< 2.5			11.73	0.18	1030
2/7/2017	CM_CC1	200209			< 0.20	< 0.50			14.26	0.17	1060
2/21/2017	CM_CC1	200209			< 0.20	< 0.50			16.55	0.16	953
3/1/2017	CM_CC1	200209		1610	< 0.20	< 0.50			11.72	0.15	904
3/7/2017	CM_CC1	200209			< 0.20	< 0.50			13.8	0.19	1060
3/22/2017	CM_CC1	200209							17.23		
3/22/2017	CM_CC1	200209		1420	< 0.20	0.59				0.19	888
3/29/2017	CM_CC1	200209		1450	< 0.20	0.79			17.1	0.21	878
4/4/2017	CM_CC1	200209							9.53		
4/5/2017	CM_CC1	200209		1390	0.29	0.73			10.09	0.17	868
4/12/2017	CM_CC1	200209		1370	< 0.20	< 0.50			9.53	0.17	795
4/19/2017	CM_CC1	200209		1420	0.44	< 0.50			9.62	0.17	812
4/26/2017	CM_CC1	200209		1290	< 0.20	< 0.50			10.07	0.11	713
5/2/2017	CM_CC1	200209		1390	< 0.20	< 0.50			15.43	0.16	744
5/9/2017	CM_CC1	200209		1170	0.23	0.55			11.96	0.14	689
5/16/2017	CM_CC1	200209		1180	1.04	< 0.50			10.05	0.11	638
5/17/2017	CM_CC1	200209									
5/17/2017	CM_CC1	200209									
5/18/2017	CM_CC1	200209									
5/23/2017	CM_CC1	200209		1040	0.25	< 0.50			10.37	0.11	575
5/30/2017	CM_CC1	200209		1010	0.23	< 0.50			10.71	0.15	572
6/6/2017	CM_CC1	200209		1110	0.39	0.78			10.33	0.17	588
6/14/2017	CM_CC1	200209		1270	0.21	< 0.50			9.38	0.13	693
6/21/2017	CM_CC1	200209		1330	< 0.20	< 0.50			10.2	0.21	818
6/28/2017	CM_CC1	200209		1450	< 0.20	< 0.50			9.11	0.19	826
7/5/2017	CM_CC1	200209		1570	< 0.20	< 0.50			11.49	0.14	881
7/12/2017	CM_CC1	200209		1610	< 0.20	< 0.50			9.51	0.2	926
7/19/2017	CM_CC1	200209		1610	< 0.20	< 0.50			10.6	0.13	868
7/25/2017	CM_CC1	200209		1630	< 0.20	< 0.50			9.39	0.12	914
8/1/2017	CM_CC1	200209		1490	< 0.50	< 0.50			11.39	0.15	943
8/8/2017	CM_CC1	200209		1540	< 0.50	< 0.50			12.25	0.15	1000
8/15/2017	CM_CC1	200209		1600	< 0.50	< 0.50				0.14	1020
8/15/2017	CM_CC1	200209							10.97		
8/22/2017	CM_CC1	200209		1590	< 0.50	< 0.50			10.68	0.12	1000
8/29/2017	CM_CC1	200209		1560	< 0.50	< 0.50			10.03	0.12	963
9/5/2017	CM_CC1	200209		1690	< 0.50	< 0.50			12.2	0.14	989
9/12/2017	CM_CC1	200209		1590	< 0.50	< 0.50			10.18	0.15	988
9/19/2017	CM_CC1	200209		1500	< 0.50	< 0.50			14.08	0.13	944
10/4/2017	CM_CC1	200209		1490	< 0.50	< 0.50			13.02	0.12	1030
11/7/2017	CM_CC1	200209		1650	< 0.50	0.57			13.61	0.16	996
12/6/2017	CM_CC1	200209		1640	< 0.50	< 0.50			12.52	0.17	1020

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
1/17/2017	CM_CCPD	E206438		1750	< 0.50	< 0.50			9.36	< 0.20	1070
2/1/2017	CM_CCPD	E206438	1503	1780	< 1.0	< 2.5			9.04	0.16	1170
3/1/2017	CM_CCPD	E206438		1830	< 0.20	< 0.50			9.51	0.15	1110
4/5/2017	CM_CCPD	E206438		1580	0.26	0.96			13.81	0.14	1080
4/12/2017	CM_CCPD	E206438							8.67		
4/19/2017	CM_CCPD	E206438									
4/19/2017	CM_CCPD	E206438							9.44		
4/26/2017	CM_CCPD	E206438							9.66		
5/2/2017	CM_CCPD	E206438		1700	0.81	0.52			10.15	0.15	973
5/6/2017	CM_CCPD	E206438									
5/9/2017	CM_CCPD	E206438							10.3		
5/16/2017	CM_CCPD	E206438							12.12		
5/17/2017	CM_CCPD	E206438									
5/17/2017	CM_CCPD	E206438									
5/18/2017	CM_CCPD	E206438									
5/23/2017	CM_CCPD	E206438							11.3		
5/30/2017	CM_CCPD	E206438		1210	0.24	0.63			17.5	0.13	703
6/6/2017	CM_CCPD	E206438		1210	0.88	0.87			10.8	0.15	642
6/14/2017	CM_CCPD	E206438		1320	0.39	0.54			8.82	< 0.10	757
6/21/2017	CM_CCPD	E206438		1490	0.4	0.55			13.8	0.17	958
6/28/2017	CM_CCPD	E206438		1660	0.35	0.51			11.26	0.14	1020
7/5/2017	CM_CCPD	E206438		1810	0.42	< 0.50			11.26	< 0.10	1070
7/12/2017	CM_CCPD	E206438		1880	< 0.20	< 0.50			10.05	0.14	1160
7/19/2017	CM_CCPD	E206438		1880	< 0.20	< 0.50			12.24	0.11	1090
7/25/2017	CM_CCPD	E206438		1940	< 0.20	0.72			12.41	< 0.10	1190
8/1/2017	CM_CCPD	E206438		1870	< 0.50	< 0.50			11.72	0.11	1240
8/22/2017	CM_CCPD	E206438		1920	< 0.50	< 0.50			11.33	< 0.10	1380
9/12/2017	CM_CCPD	E206438		1860	< 0.50	0.51			11.49	< 0.10	1290
9/19/2017	CM_CCPD	E206438		1880	< 0.50	< 0.50			11.13	0.13	1270
10/3/2017	CM_CCPD	E206438		1680	< 0.50	< 0.50			11.83	< 0.10	1280
10/10/2017	CM_CCPD	E206438		1750	< 0.50	< 0.50			12.41	< 0.10	1300
10/11/2017	CM_CCPD	E206438									
10/24/2017	CM_CCPD	E206438		1860	< 0.50	< 0.50			12.54	0.12	1200
11/7/2017	CM_CCPD	E206438		1990	< 0.50	0.61			12.14	0.13	1290
11/22/2017	CM_CCPD	E206438		1890	< 0.50	< 0.50			11.33	0.15	1330
11/28/2017	CM_CCPD	E206438		1760	1.21	1.55			10.03	0.21	1160
12/6/2017	CM_CCPD	E206438		1950	< 0.50	0.66			10.34	0.19	1070
12/12/2017	CM_CCPD	E206438		1970	< 0.50	< 0.50			11.17	0.2	1100
12/19/2017	CM_CCPD	E206438		1940	0.56	< 1.0			11.27	0.173	1120
12/27/2017	CM_CCPD	E206438		1860	< 0.50	0.54			9.63	0.15	1120
1/18/2017	CM_MC1	E258175		283	0.51	< 0.50			10.41	0.073	151
2/1/2017	CM_MC1	E258175	228.1	277	< 0.20	< 0.50			10.53	0.069	148
3/1/2017	CM_MC1	E258175		276	< 0.20	< 0.50			10.93	0.06	129
4/5/2017	CM_MC1	E258175		262	< 0.20	0.77			72.1	0.051	143
4/12/2017	CM_MC1	E258175		258	< 0.20	< 0.50			10.33	0.055	133
4/19/2017	CM_MC1	E258175		267	0.23	< 0.50			10.68	0.05	136
4/26/2017	CM_MC1	E258175		268	< 0.20	0.6			11.16	0.051	133

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
5/2/2017	CM_MC1	E258175		267	< 0.20	< 0.50			17.39	0.052	134
5/9/2017	CM_MC1	E258175		217	0.35	1.21			11.14	0.044	112
5/16/2017	CM_MC1	E258175		225	0.27	< 0.50			11.14	0.043	114
5/23/2017	CM_MC1	E258175		183	0.32	2.01			11.76	0.032	93.5
5/30/2017	CM_MC1	E258175		165	0.63	1.25			11.39	0.04	79
6/6/2017	CM_MC1	E258175		165	0.28	1.11			12.7	0.035	78.6
6/14/2017	CM_MC1	E258175		167	0.24	0.78			10.29	< 0.10	84.2
6/21/2017	CM_MC1	E258175		191	< 0.20	< 0.50			11.1	0.027	99.6
6/28/2017	CM_MC1	E258175		215	< 0.20	< 0.50			10.41	0.063	107
7/4/2017	CM_MC1	E258175		234	< 0.20	< 0.50				0.051	119
7/4/2017	CM_MC1	E258175							12.45		
7/12/2017	CM_MC1	E258175		256	< 0.20	< 0.50			10.24	0.074	129
7/19/2017	CM_MC1	E258175		267	< 0.20	< 0.50			12.91	0.047	129
7/25/2017	CM_MC1	E258175		265	< 0.20	< 0.50			10.64	0.054	138
8/1/2017	CM_MC1	E258175		268	< 0.50	< 0.50			14.75	0.055	147
8/8/2017	CM_MC1	E258175		266	< 0.50	< 0.50			13.64	0.058	150
8/15/2017	CM_MC1	E258175		275	< 0.50	< 0.50			12.57	0.052	148
8/22/2017	CM_MC1	E258175		275	< 0.50	< 0.50			12.54	0.047	148
8/29/2017	CM_MC1	E258175		283	< 0.50	< 0.50			10.62	0.054	155
9/12/2017	CM_MC1	E258175		288	< 0.50	< 0.50			10.55	0.053	155
9/19/2017	CM_MC1	E258175		289	< 0.50	0.5			12.2	0.06	147
9/26/2017	CM_MC1	E258175		284	< 0.50	< 0.50			13.11	0.054	152
10/2/2017	CM_MC1	E258175		280	< 0.50	< 0.50			13.78	0.055	144
10/10/2017	CM_MC1	E258175		275	< 0.50	< 0.50			14.32	0.059	155
10/17/2017	CM_MC1	E258175		265	< 0.50	< 0.50			11.71	0.048	137
10/24/2017	CM_MC1	E258175		270	< 0.50	< 0.50			13.28	0.045	136
10/31/2017	CM_MC1	E258175		287	< 0.50	< 0.50			12.46	0.26	147
11/7/2017	CM_MC1	E258175		284	< 0.50	< 0.50			13.86	0.061	146
12/6/2017	CM_MC1	E258175		279	< 0.50	< 0.50			12.46	< 0.10	141
1/5/2017	CM_MC2	E258937			< 0.20	< 0.50			17.3	0.122	629
1/12/2017	CM_MC2	E258937			< 0.20	< 0.50			16.5	0.119	549
1/17/2017	CM_MC2	E258937		1110	< 0.50	< 0.50			11.17	0.14	609
1/24/2017	CM_MC2	E258937			< 0.20	< 0.50			15.27	0.14	561
1/29/2017	CM_MC2	E258937							14.48		
1/30/2017	CM_MC2	E258937		967	< 0.20	< 0.50			17.5	0.123	584
1/31/2017	CM_MC2	E258937			< 0.20	< 0.50				0.14	688
2/1/2017	CM_MC2	E258937	907	1090	< 0.20	< 0.50			11.82	0.12	625
2/7/2017	CM_MC2	E258937			< 0.20	< 0.50			15.69	0.12	605
2/21/2017	CM_MC2	E258937			< 0.20	< 0.50			16.5	0.131	529
2/28/2017	CM_MC2	E258937		999	< 0.50	< 0.50			14.62	0.13	539
3/1/2017	CM_MC2	E258937		961	< 0.20	< 0.50			12.18	0.119	514
3/7/2017	CM_MC2	E258937		1030	< 0.50	< 0.50			1372	0.13	567
3/14/2017	CM_MC2	E258937		1020	< 0.50	< 0.50			17.15	0.14	577
3/21/2017	CM_MC2	E258937		641	< 0.50	< 0.50			18.75	0.116	310
3/22/2017	CM_MC2	E258937							17.12		
3/29/2017	CM_MC2	E258937							16.58		
4/5/2017	CM_MC2	E258937		899	< 0.20	< 0.50			10.61	0.121	513

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
4/12/2017	CM_MC2	E258937							9.88		
4/12/2017	CM_MC2	E258937		817	< 0.20	< 0.50			9.88	0.116	432
4/19/2017	CM_MC2	E258937		851	0.25	< 0.50			10.23	0.119	452
4/24/2017	CM_MC2	E258937		756	< 0.20	0.68			16.62	0.104	383
5/2/2017	CM_MC2	E258937		783	< 0.20	< 0.50			11.8	0.118	394
5/9/2017	CM_MC2	E258937		604	0.25	0.87			13.86	0.093	298
5/16/2017	CM_MC2	E258937		639	0.22	0.68			12.32	0.094	318
5/23/2017	CM_MC2	E258937		478	0.23	1.37			10.03	0.08	243
5/30/2017	CM_MC2	E258937		429	< 0.20	1.48			14.87	0.085	195
6/6/2017	CM_MC2	E258937		437	0.24	1.31			10.36	0.075	205
6/13/2017	CM_MC2	E258937		482	< 0.20	< 0.50			12.5	0.091	254
6/14/2017	CM_MC2	E258937		442	< 0.20	0.85			10.08	0.064	206
6/21/2017	CM_MC2	E258937		470	< 0.20	< 0.50				0.063	230
6/28/2017	CM_MC2	E258937		511	< 0.20	0.52			10.29	0.094	244
7/4/2017	CM_MC2	E258937		583	< 0.20	< 0.50			10.54	0.082	289
7/12/2017	CM_MC2	E258937		750	< 0.20	< 0.50			10.64	0.115	384
7/19/2017	CM_MC2	E258937		831	< 0.20	< 0.50			11.62	0.094	421
7/25/2017	CM_MC2	E258937		840	< 0.20	< 0.50			11.29	0.107	426
8/1/2017	CM_MC2	E258937		819	< 0.50	< 0.50			11.95	0.113	473
8/8/2017	CM_MC2	E258937		913	< 0.50	0.62			13.15	0.111	534
8/15/2017	CM_MC2	E258937		920	< 0.50	< 0.50			11.8	0.095	513
8/22/2017	CM_MC2	E258937		974	< 0.50	< 0.50			11.5	< 0.10	562
8/29/2017	CM_MC2	E258937		1010	< 0.50	< 0.50			10.28	< 0.10	588
9/12/2017	CM_MC2	E258937		1030	< 0.50	< 0.50			11.16	< 0.10	577
9/19/2017	CM_MC2	E258937		889	< 0.50	< 0.50			11.98	< 0.020	503
9/26/2017	CM_MC2	E258937		859	< 0.50	< 0.50			12.38	0.088	488
10/2/2017	CM_MC2	E258937		912	< 0.50	< 0.50			19.2	0.101	523
10/2/2017	CM_MC2	E258937		952	< 0.50	< 0.50			13.69	0.098	540
10/3/2017	CM_MC2	E258937		952	< 0.50	< 0.50			14.02	< 0.10	561
10/5/2017	CM_MC2	E258937		923	< 0.50	< 0.50			11.76	0.065	571
10/6/2017	CM_MC2	E258937		993	< 0.50	< 0.50			13.44	0.048	575
10/10/2017	CM_MC2	E258937		954	< 0.50	< 0.50			13.24	0.102	555
10/11/2017	CM_MC2	E258937		953	< 0.50	< 0.50			14.09	< 0.10	551
10/12/2017	CM_MC2	E258937		974	< 0.50	< 0.50			13.65	0.084	549
10/16/2017	CM_MC2	E258937		982	< 0.50	< 0.50			12.68	0.108	562
10/17/2017	CM_MC2	E258937		902	< 0.50	< 0.50			12.94	0.088	516
10/19/2017	CM_MC2	E258937		800	< 0.50	2.96			13.69	< 0.10	463
10/20/2017	CM_MC2	E258937		691	< 0.50	< 0.50			13.39	0.091	410
10/23/2017	CM_MC2	E258937		756	< 0.50	< 0.50			13.92	0.088	451
10/24/2017	CM_MC2	E258937		790	< 0.50	< 0.50			13.26	0.064	494
10/26/2017	CM_MC2	E258937		861	< 0.50	< 0.50			13.74	0.084	469
10/30/2017	CM_MC2	E258937		995	< 0.50	< 0.50			13.1	0.077	537
10/31/2017	CM_MC2	E258937		995	< 0.50	< 0.50			14.15	< 0.10	555
11/7/2017	CM_MC2	E258937		982	< 0.50	< 0.50			14.31	0.105	539
11/9/2017	CM_MC2	E258937		978	< 0.50	< 0.50			13.22	0.094	557
11/14/2017	CM_MC2	E258937		964	< 1.0	< 2.5			13.94	0.089	498
11/21/2017	CM_MC2	E258937		1010	< 0.50	< 0.50			12.9	0.098	579

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
11/28/2017	CM_MC2	E258937		815	< 0.50	< 0.50			12.12	0.108	460
12/6/2017	CM_MC2	E258937		1120	< 0.50	< 0.50			13.34	0.123	616
12/12/2017	CM_MC2	E258937		1090	< 0.50	< 0.50			15.77	0.12	570
12/19/2017	CM_MC2	E258937		987	< 0.50	< 0.50			14.46	0.114	528
12/27/2017	CM_MC2	E258937		1040	< 0.50	< 0.50			14.69	0.096	588
4/12/2017	CM_PC2	E298733							9.4		
4/19/2017	CM_PC2	E298733		417	< 0.20	< 0.50			8.81	0.153	210
4/26/2017	CM_PC2	E298733							10.18		
5/2/2017	CM_PC2	E298733			0.22	< 0.50			11.01		184
5/9/2017	CM_PC2	E298733							11.6		
5/16/2017	CM_PC2	E298733							16.5		
5/23/2017	CM_PC2	E298733							13.3		
5/30/2017	CM_PC2	E298733							15.68		
6/6/2017	CM_PC2	E298733			0.4	0.53			11.5		117
6/14/2017	CM_PC2	E298733							10.06		
6/21/2017	CM_PC2	E298733							16		
6/28/2017	CM_PC2	E298733							17.77		
7/5/2017	CM_PC2	E298733		285	< 0.20	< 0.50			13.44	0.129	139
7/12/2017	CM_PC2	E298733									
7/19/2017	CM_PC2	E298733									
7/25/2017	CM_PC2	E298733									
8/1/2017	CM_PC2	E298733									
8/8/2017	CM_PC2	E298733									
8/15/2017	CM_PC2	E298733									
8/22/2017	CM_PC2	E298733									
8/29/2017	CM_PC2	E298733									
9/5/2017	CM_PC2	E298733									
9/12/2017	CM_PC2	E298733									
9/19/2017	CM_PC2	E298733									
9/26/2017	CM_PC2	E298733									
10/3/2017	CM_PC2	E298733									
10/10/2017	CM_PC2	E298733									
10/17/2017	CM_PC2	E298733									
10/24/2017	CM_PC2	E298733									
10/31/2017	CM_PC2	E298733									
11/7/2017	CM_PC2	E298733									
11/14/2017	CM_PC2	E298733									
11/21/2017	CM_PC2	E298733									
11/24/2017	CM_PC2	E298733		393	0.59	0.69			11.7	0.121	219
11/28/2017	CM_PC2	E298733									
12/6/2017	CM_PC2	E298733									
12/12/2017	CM_PC2	E298733									
12/19/2017	CM_PC2	E298733									
12/27/2017	CM_PC2	E298733									
1/17/2017	CM_SOW	E298734		1540	< 0.50	1.04			8.4	< 0.20	867
2/1/2017	CM_SOW	E298734	1280	1480	< 1.0	< 2.5			8.53	0.17	819
3/1/2017	CM_SOW	E298734		1350	0.28	0.61			5.89	0.13	748

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
4/5/2017	CM_SOW	E298734		1040	0.28	1.25			7.12	0.12	598
5/2/2017	CM_SOW	E298734		1860	0.26	0.88			8.8	0.18	1060
6/6/2017	CM_SOW	E298734		1550	0.55	1.12			8.41	0.17	816
7/4/2017	CM_SOW	E298734		1610	0.48	0.71			7.44	0.13	863
8/1/2017	CM_SOW	E298734		1440	< 0.50	0.51			8.28	0.12	831
9/12/2017	CM_SOW	E298734		1390	< 0.50	< 0.50			9.62	< 0.10	772
10/4/2017	CM_SOW	E298734		1180	< 0.50	0.82			10.14	0.12	682
11/7/2017	CM_SOW	E298734		1050	0.51	20			7.33	0.18	479
12/5/2017	CM_SOW	E298734		567	< 0.50	51.9			6.95	0.227	266
1/5/2017	CM_SPD	E102488			0.22	< 0.50			17.8	0.22	1300
1/17/2017	CM_SPD	E102488		2180	< 0.50	< 1.0			10.75	< 0.40	1280
1/24/2017	CM_SPD	E102488			< 0.20	< 0.50			15.5	0.24	1340
1/29/2017	CM_SPD	E102488							16.78		
1/30/2017	CM_SPD	E102488			< 0.20	< 0.50			16.1	0.24	1170
1/31/2017	CM_SPD	E102488			< 1.0	< 2.5				0.25	1210
2/1/2017	CM_SPD	E102488	1790	2130	< 1.0	< 2.5			11.43	0.24	1190
2/7/2017	CM_SPD	E102488			0.53	< 0.50			22.3	0.22	1340
2/21/2017	CM_SPD	E102488			< 0.20	< 0.50			16.25	0.21	1050
3/1/2017	CM_SPD	E102488		1960	< 0.20	< 0.50			11.82	0.21	1030
3/7/2017	CM_SPD	E102488			< 0.20	< 0.50			17.5	0.21	1170
3/29/2017	CM_SPD	E102488							19.24		
3/29/2017	CM_SPD	E102488								0.24	
4/5/2017	CM_SPD	E102488		1550	0.24	1.08			15.26	0.22	880
4/10/2017	CM_SPD	E102488									
4/12/2017	CM_SPD	E102488							8.99	0.23	
4/19/2017	CM_SPD	E102488							8.57	0.19	
4/26/2017	CM_SPD	E102488							926	0.18	
4/27/2017	CM_SPD	E102488									
4/28/2017	CM_SPD	E102488									
4/28/2017	CM_SPD	E102488									
5/2/2017	CM_SPD	E102488		1510	< 0.20	< 0.50			11.18	0.17	843
5/5/2017	CM_SPD	E102488									
5/5/2017	CM_SPD	E102488									
5/6/2017	CM_SPD	E102488									
5/6/2017	CM_SPD	E102488									
5/6/2017	CM_SPD	E102488									
5/6/2017	CM_SPD	E102488									
5/7/2017	CM_SPD	E102488									
5/9/2017	CM_SPD	E102488							12.86	0.16	
5/16/2017	CM_SPD	E102488							11.81	0.16	
5/17/2017	CM_SPD	E102488									
5/17/2017	CM_SPD	E102488									
5/18/2017	CM_SPD	E102488									
5/23/2017	CM_SPD	E102488							12.76	0.16	
5/30/2017	CM_SPD	E102488							9.16	0.22	
6/6/2017	CM_SPD	E102488		1580	0.23	0.79			11.36	0.24	831
6/14/2017	CM_SPD	E102488							8.05	0.24	

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
6/21/2017	CM_SPD	E102488							12.55	0.19	
6/28/2017	CM_SPD	E102488							8.39	0.28	
7/4/2017	CM_SPD	E102488		1780	< 0.20	< 0.50			8.78	0.22	956
7/12/2017	CM_SPD	E102488							8.52	0.3	
7/19/2017	CM_SPD	E102488							10.16	0.22	
7/25/2017	CM_SPD	E102488							11.92	0.22	
8/1/2017	CM_SPD	E102488		1750	< 0.50	0.85			9.74	0.24	997
8/8/2017	CM_SPD	E102488							11.6	0.24	
8/15/2017	CM_SPD	E102488							10.51	0.22	
8/22/2017	CM_SPD	E102488		1820	< 0.50	< 0.50			7.23	0.18	1090
8/29/2017	CM_SPD	E102488							8.18	0.17	
9/5/2017	CM_SPD	E102488							9.68	0.22	
9/12/2017	CM_SPD	E102488		1800	< 0.50	< 0.50			8.44	0.17	1090
9/19/2017	CM_SPD	E102488							12.1	0.23	
10/3/2017	CM_SPD	E102488		1640	< 0.50	< 0.50			11.52	0.14	1070
10/19/2017	CM_SPD	E102488									
10/19/2017	CM_SPD	E102488									
10/20/2017	CM_SPD	E102488									
10/23/2017	CM_SPD	E102488									
11/7/2017	CM_SPD	E102488		1970	< 0.50	0.65			13.37	0.2	1230
11/22/2017	CM_SPD	E102488		1940	< 0.50	< 0.50			12.87	0.2	1210
12/6/2017	CM_SPD	E102488		1710	< 0.50	< 0.50			12.2	0.19	1010
1/10/2017	EV_AQ1	E210369					0				
2/8/2017	EV_AQ1	E210369					0				
3/7/2017	EV_AQ1	E210369					0				
3/15/2017	EV_AQ1	E210369		271	0.64	0.81	161.36		10.68	0.089	106
3/15/2017	EV_AQ1	E210369									
3/16/2017	EV_AQ1	E210369					561.23				
3/17/2017	EV_AQ1	E210369									
3/18/2017	EV_AQ1	E210369									
3/19/2017	EV_AQ1	E210369									
3/19/2017	EV_AQ1	E210369									
3/20/2017	EV_AQ1	E210369					802.41				
3/21/2017	EV_AQ1	E210369									
3/22/2017	EV_AQ1	E210369		589	0.57	2.07	1004.83		11.19	0.205	292
3/23/2017	EV_AQ1	E210369									
3/24/2017	EV_AQ1	E210369									
3/28/2017	EV_AQ1	E210369									
4/4/2017	EV_AQ1	E210369		647	0.57	1.26	1219.23		10.35	0.211	340
4/12/2017	EV_AQ1	E210369					1512				
4/20/2017	EV_AQ1	E210369					959.39				
4/26/2017	EV_AQ1	E210369					959.82				
5/3/2017	EV_AQ1	E210369		686	< 0.50	0.55	1344.38		11.27	0.202	335
5/10/2017	EV_AQ1	E210369					1027.6				
5/17/2017	EV_AQ1	E210369					1999.04				
5/24/2017	EV_AQ1	E210369					1192.75				
5/31/2017	EV_AQ1	E210369					945.48				

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
6/5/2017	EV_AQ1	E210369		627	< 0.50	0.55	754.76		8.87	0.201	324
6/14/2017	EV_AQ1	E210369					993.6				
6/21/2017	EV_AQ1	E210369					414.07				
6/28/2017	EV_AQ1	E210369					343.96				
7/5/2017	EV_AQ1	E210369					584.55				
7/11/2017	EV_AQ1	E210369					723.17				
8/2/2017	EV_AQ1	E210369					209.9				
9/12/2017	EV_AQ1	E210369					50.36				
10/3/2017	EV_AQ1	E210369					61.1				
11/15/2017	EV_AQ1	E210369					20.03				
12/6/2017	EV_AQ1	E210369					123.83				
1/10/2017	EV_AQ6	E302170		653	< 0.50	< 0.50	20.62		12.83	0.213	362
2/8/2017	EV_AQ6	E302170					0				
2/16/2017	EV_AQ6	E302170		514	< 0.20	1.63			11.5	0.173	271
2/23/2017	EV_AQ6	E302170					0				
3/8/2017	EV_AQ6	E302170		653	< 0.50	< 0.50	161.73		13.73	0.2	327
3/15/2017	EV_AQ6	E302170									
3/15/2017	EV_AQ6	E302170									
3/16/2017	EV_AQ6	E302170					2935.66				
3/17/2017	EV_AQ6	E302170					1255.22				
3/18/2017	EV_AQ6	E302170					2262.6				
3/18/2017	EV_AQ6	E302170									
3/19/2017	EV_AQ6	E302170					3781.21				
3/20/2017	EV_AQ6	E302170					1482.84				
3/21/2017	EV_AQ6	E302170					1866.24				
3/22/2017	EV_AQ6	E302170					1955.23				
3/23/2017	EV_AQ6	E302170									
3/24/2017	EV_AQ6	E302170					2361.7				
3/28/2017	EV_AQ6	E302170					1835.48				
3/31/2017	EV_AQ6	E302170									
4/4/2017	EV_AQ6	E302170		618	0.6	1.05			11.29	0.211	316
4/12/2017	EV_AQ6	E302170					2515.95				
4/20/2017	EV_AQ6	E302170					2473.66				
4/26/2017	EV_AQ6	E302170					2144.13				
5/2/2017	EV_AQ6	E302170					2473.66				
5/3/2017	EV_AQ6	E302170		665	< 0.50	0.55	2774.61		11.19	0.201	324
5/7/2017	EV_AQ6	E302170					2996.52				
5/10/2017	EV_AQ6	E302170					2064.23				
5/17/2017	EV_AQ6	E302170					3086.86				
5/18/2017	EV_AQ6	E302170					2473.66				
5/24/2017	EV_AQ6	E302170					1534.22				
5/31/2017	EV_AQ6	E302170					1123.63				
6/5/2017	EV_AQ6	E302170		636	< 0.50	< 0.50	965.52		9.52	0.18	346
6/14/2017	EV_AQ6	E302170					965.52				
6/21/2017	EV_AQ6	E302170					904.56				
6/28/2017	EV_AQ6	E302170					1059.43				
7/5/2017	EV_AQ6	E302170					758.07				

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
7/11/2017	EV_AQ6	E302170		723	0.65	1.88	1123.63		8.26	0.141	334
8/2/2017	EV_AQ6	E302170			< 0.50	< 0.50	443.97		8.77		291
8/2/2017	EV_AQ6	E302170		535						0.176	
8/10/2017	EV_AQ6	E302170					352.32		8.88		
9/12/2017	EV_AQ6	E302170		472	< 0.50	< 0.50	210.03		8.64	0.163	274
10/3/2017	EV_AQ6	E302170		479	< 0.50	< 0.50	156.97		10.67	0.152	296
11/15/2017	EV_AQ6	E302170		619	< 0.50	< 0.50	228.84		11.69	0.183	310
11/23/2017	EV_AQ6	E302170					2558.47				
11/23/2017	EV_AQ6	E302170									
11/24/2017	EV_AQ6	E302170					996.5				
12/6/2017	EV_AQ6	E302170		791	< 0.50	< 0.50	198.07		12.55	0.169	395
1/10/2017	EV_BC1	E102685					0				
2/7/2017	EV_BC1	E102685					0				
3/7/2017	EV_BC1	E102685					0				
3/16/2017	EV_BC1	E102685					0				
3/17/2017	EV_BC1	E102685					0				
3/18/2017	EV_BC1	E102685					0				
3/18/2017	EV_BC1	E102685									
3/20/2017	EV_BC1	E102685		1440	0.5	0.78	642.82		11.62	0.25	802
3/29/2017	EV_BC1	E102685		1860	0.3	0.84	64.71		10.21	0.19	1060
4/5/2017	EV_BC1	E102685		2000	0.5	0.64	64.71		10.36	0.28	1330
4/7/2017	EV_BC1	E102685					654.37				
4/12/2017	EV_BC1	E102685					68.94				
4/20/2017	EV_BC1	E102685					251.51				
4/26/2017	EV_BC1	E102685					0				
5/2/2017	EV_BC1	E102685		2660	< 0.50	1.1	225.94		10.72	< 0.40	1700
5/10/2017	EV_BC1	E102685					94.92				
5/18/2017	EV_BC1	E102685					1184.64				
5/24/2017	EV_BC1	E102685					1263.34				
5/31/2017	EV_BC1	E102685									
6/2/2017	EV_BC1	E102685					3381.91				
6/6/2017	EV_BC1	E102685		1670	< 0.50	< 0.50	3018.82		9.72	0.4	1020
6/14/2017	EV_BC1	E102685					2890.94				
6/21/2017	EV_BC1	E102685					2857.03				
6/28/2017	EV_BC1	E102685					3032.12				
7/5/2017	EV_BC1	E102685					3101.72				
7/12/2017	EV_BC1	E102685		1750	< 0.20	< 0.50	3110.18		9.26	0.26	972
8/3/2017	EV_BC1	E102685			< 0.50	< 0.50	3352.1		9.25		1230
8/3/2017	EV_BC1	E102685		1690						0.25	
8/9/2017	EV_BC1	E102685							9.77		
9/12/2017	EV_BC1	E102685					0				
10/2/2017	EV_BC1	E102685					0				
10/4/2017	EV_BC1	E102685		1500	< 0.50	0.51	760.05		10.41	0.21	966
11/10/2017	EV_BC1	E102685					184.63				
11/15/2017	EV_BC1	E102685		2020	< 0.50	< 0.50	670.81		10.84	0.29	1230
11/23/2017	EV_BC1	E102685					614				
12/6/2017	EV_BC1	E102685		1780	< 0.50	< 0.50	1062.72		12.19	0.33	1030

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
1/9/2017	EV_BLM2	E298592		410	< 0.50	< 0.50	650.14		12.37	0.173	209
2/23/2017	EV_BLM2	E298592		403	0.39	0.67	711.16		12.27	0.16	216
3/6/2017	EV_BLM2	E298592		386	< 0.50	0.56	964.07		11.79	0.175	232
3/15/2017	EV_BLM2	E298592									
3/22/2017	EV_BLM2	E298592									
3/28/2017	EV_BLM2	E298592									
4/3/2017	EV_BLM2	E298592		336	0.55	1.24	2394.42		11.32	0.142	185
4/11/2017	EV_BLM2	E298592									
4/19/2017	EV_BLM2	E298592									
4/20/2017	EV_BLM2	E298592									
4/21/2017	EV_BLM2	E298592									
4/22/2017	EV_BLM2	E298592									
4/23/2017	EV_BLM2	E298592									
4/25/2017	EV_BLM2	E298592									
5/2/2017	EV_BLM2	E298592		341	0.56	4.87	4982.62		11.53	0.148	178
5/9/2017	EV_BLM2	E298592									
5/16/2017	EV_BLM2	E298592									
5/23/2017	EV_BLM2	E298592									
5/24/2017	EV_BLM2	E298592									
5/30/2017	EV_BLM2	E298592									
6/5/2017	EV_BLM2	E298592		315	< 0.50	1.28	7959.38		10.27	0.138	168
6/13/2017	EV_BLM2	E298592									
6/20/2017	EV_BLM2	E298592									
6/27/2017	EV_BLM2	E298592									
7/4/2017	EV_BLM2	E298592									
7/10/2017	EV_BLM2	E298592		384	< 0.20	< 0.50	1678.84		9.58	0.111	196
8/1/2017	EV_BLM2	E298592		403	< 0.50	< 0.50	1678.15		9.9	0.163	217
8/10/2017	EV_BLM2	E298592							10.02		
8/15/2017	EV_BLM2	E298592									
9/11/2017	EV_BLM2	E298592		410	< 0.50	< 0.50	775.87		10.24	0.133	206
10/2/2017	EV_BLM2	E298592		396	< 0.50	< 0.50	966.38		11.17	0.129	216
11/14/2017	EV_BLM2	E298592		398	< 1.0	< 2.5	646.66		11.98	0.159	202
12/1/2017	EV_BLM2	E298592		388	< 0.50	0.71	847.32		12.31	0.145	206
1/9/2017	EV_DC1	E298590		1710	< 0.50	< 0.50	15792.08		11.61	< 0.20	1100
2/21/2017	EV_DC1	E298590		1700	< 0.50	< 0.50	6729.02		11.58	< 0.20	1180
3/6/2017	EV_DC1	E298590		1620	< 0.50	< 0.50	4272.93		11.5	< 0.20	1150
3/15/2017	EV_DC1	E298590					29613.37				
3/21/2017	EV_DC1	E298590					7550.76				
3/28/2017	EV_DC1	E298590					4962.71				
4/3/2017	EV_DC1	E298590		1280	< 0.50	< 0.50	8410.05		11.08	0.12	804
4/11/2017	EV_DC1	E298590					12207.82				
4/19/2017	EV_DC1	E298590					21840.13				
4/25/2017	EV_DC1	E298590					36181.86				
5/1/2017	EV_DC1	E298590		1210	< 0.50	< 0.50	37771.87		11.33	0.13	719
5/9/2017	EV_DC1	E298590					69498.47				
5/16/2017	EV_DC1	E298590					68138.42				
5/23/2017	EV_DC1	E298590					56389.46				

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
5/30/2017	EV_DC1	E298590					39389.2				
6/5/2017	EV_DC1	E298590		1330	< 0.50	< 0.50	26298.08		9.75	0.13	837
6/13/2017	EV_DC1	E298590					23583.42				
6/20/2017	EV_DC1	E298590					17327.76				
6/27/2017	EV_DC1	E298590					12894.95				
7/4/2017	EV_DC1	E298590					9003.38				
7/10/2017	EV_DC1	E298590		1590	< 0.20	< 0.50	10879.26		9.05	< 0.10	983
8/1/2017	EV_DC1	E298590		1670	< 0.50	< 0.50	7212.67		9.26	< 0.20	1110
9/11/2017	EV_DC1	E298590		1750	< 0.50	< 0.50	5201.76		9.01	< 0.10	1060
10/2/2017	EV_DC1	E298590					3836.348				
10/4/2017	EV_DC1	E298590		1600	< 0.50	< 0.50	3418.845		11.24	< 0.10	1170
10/6/2017	EV_DC1	E298590					3418.845				
11/14/2017	EV_DC1	E298590		1790	< 1.0	< 2.5	2285.45		11.51	< 0.10	1150
12/1/2017	EV_DC1	E298590		1640	< 0.50	< 0.50	5445.308		11.39	0.11	1130
1/18/2017	EV_EC1	200097		1660	< 0.50	< 0.50	12389.11		10.96	< 0.20	1130
2/23/2017	EV_EC1	200097		1700	< 0.20	< 0.50	11090.94		11.38	0.1	1090
3/8/2017	EV_EC1	200097		1720	< 0.50	< 0.50	11090.94		11.5	< 0.20	1040
3/16/2017	EV_EC1	200097					11596.48				
3/19/2017	EV_EC1	200097					11342.82				
3/29/2017	EV_EC1	200097					12368.03				
4/4/2017	EV_EC1	200097		1720	< 0.50	< 0.50	14363.9		10.88	< 0.20	1110
4/12/2017	EV_EC1	200097					17890.5				
4/19/2017	EV_EC1	200097					19520.37				
4/26/2017	EV_EC1	200097					20574.82				
5/3/2017	EV_EC1	200097		1570	< 0.50	< 0.50	22645.94		10.92	< 0.20	960
5/10/2017	EV_EC1	200097					26603.51				
5/17/2017	EV_EC1	200097					32549.11				
5/24/2017	EV_EC1	200097					33142.41				
5/31/2017	EV_EC1	200097					34047.72				
6/7/2017	EV_EC1	200097					31674.82		10.37		
6/14/2017	EV_EC1	200097		1490	< 0.50	< 0.50	28374.19		10.45	< 0.20	1070
6/21/2017	EV_EC1	200097					25414.11				
6/28/2017	EV_EC1	200097					24956.85				
7/5/2017	EV_EC1	200097					19211.48				
7/11/2017	EV_EC1	200097		1560	< 0.20	< 0.50	21374.2		10.06	< 0.10	952
8/2/2017	EV_EC1	200097			< 0.50	< 0.50	19038.4		9.76		972
8/2/2017	EV_EC1	200097		1470						0.11	
9/12/2017	EV_EC1	200097		1490	< 0.50	< 0.50	16026.52		9.94	< 0.10	1000
10/3/2017	EV_EC1	200097		1370	< 0.50	< 0.50	15049.73		11.41	< 0.10	1040
11/15/2017	EV_EC1	200097		1620	< 0.50	< 0.50	12498.13		11.18	0.12	1000
12/6/2017	EV_EC1	200097		1750	< 0.50	< 0.50	14092.4		11.97	< 0.10	1090
1/10/2017	EV_ER1	200393		503	< 0.50	< 0.50			12.66	0.205	279
2/7/2017	EV_ER1	200393		520	< 0.50	< 0.50			13.18	0.211	272
2/20/2017	EV_ER1	200393		491	< 0.20	< 0.50			12.52	0.191	279
3/7/2017	EV_ER1	200393		511	< 0.50	< 0.50			11.68	0.208	271
3/16/2017	EV_ER1	200393		457	< 0.20	0.52			11.61	0.161	235
3/19/2017	EV_ER1	200393									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
3/20/2017	EV_ER1	200393		422	0.2	< 0.50			12.25	0.146	215
3/29/2017	EV_ER1	200393		472	< 0.20	< 0.50			11.43	0.167	237
4/5/2017	EV_ER1	200393		482	< 0.50	< 0.50				0.186	276
4/12/2017	EV_ER1	200393		465	< 0.20	< 0.50			12.17	0.159	244
4/20/2017	EV_ER1	200393		461	< 0.20	0.54			11.21	0.135	225
4/26/2017	EV_ER1	200393		415	< 0.50	0.57			11.88	0.161	226
5/2/2017	EV_ER1	200393		469	< 0.50	< 0.50			11.4	0.156	243
5/10/2017	EV_ER1	200393		339	< 0.50	1.18			10.92	0.135	182
5/17/2017	EV_ER1	200393		339	< 0.50	1.18			11.2	0.143	190
5/24/2017	EV_ER1	200393		236	0.52	9.46			10.8	0.117	128
5/30/2017	EV_ER1	200393		259	< 0.50	4.41			10.63	0.118	125
6/6/2017	EV_ER1	200393		266	< 0.50	1.37			10.86	0.133	141
6/13/2017	EV_ER1	200393		303	< 0.50	0.83			10.33	0.15	166
6/21/2017	EV_ER1	200393		306	< 0.50	< 0.50			10.18	0.149	161
6/28/2017	EV_ER1	200393		324	< 0.50	< 0.50			10.22	0.168	179
7/5/2017	EV_ER1	200393		355	< 0.50	< 0.50			9.98	0.174	215
7/12/2017	EV_ER1	200393		389	< 0.20	< 0.50			10.06	0.127	195
8/3/2017	EV_ER1	200393			< 0.50	< 0.50			9.41		236
8/3/2017	EV_ER1	200393		401						0.164	
9/12/2017	EV_ER1	200393		374	< 0.50	< 0.50			9.54	0.17	237
10/3/2017	EV_ER1	200393		457	< 0.50	< 0.50			11.63	0.158	269
11/15/2017	EV_ER1	200393		504	< 0.50	< 0.50			11.98	0.174	242
12/6/2017	EV_ER1	200393		500	< 0.50	< 0.50			13.02	0.148	244
1/10/2017	EV_ER2	200111		474	< 0.50	< 0.50			12.68	0.219	262
2/7/2017	EV_ER2	200111		492	< 0.50	< 0.50			11.38	0.228	258
3/6/2017	EV_ER2	200111		443	< 0.50	< 0.50			11.56	0.21	262
3/16/2017	EV_ER2	200111		442						0.166	
3/17/2017	EV_ER2	200111									
3/18/2017	EV_ER2	200111									
3/19/2017	EV_ER2	200111									
3/20/2017	EV_ER2	200111									
3/21/2017	EV_ER2	200111									
3/28/2017	EV_ER2	200111									
4/3/2017	EV_ER2	200111		485	< 0.50	< 0.50			11.4	0.197	254
4/11/2017	EV_ER2	200111									
4/20/2017	EV_ER2	200111									
4/25/2017	EV_ER2	200111									
5/4/2017	EV_ER2	200111		502	< 0.20	< 0.50			10.89	0.156	251
5/9/2017	EV_ER2	200111									
5/16/2017	EV_ER2	200111									
5/23/2017	EV_ER2	200111									
5/31/2017	EV_ER2	200111									
6/5/2017	EV_ER2	200111		337	< 0.50	1.88			10	0.167	180
6/13/2017	EV_ER2	200111									
6/20/2017	EV_ER2	200111									
6/27/2017	EV_ER2	200111									
7/4/2017	EV_ER2	200111									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
7/10/2017	EV_ER2	200111		346	< 0.20	< 0.50			9.38	0.139	180
8/1/2017	EV_ER2	200111		392	< 0.50	< 0.50			9.78	0.199	208
8/9/2017	EV_ER2	200111							9.99		
9/11/2017	EV_ER2	200111		415	< 0.50	< 0.50			9.82	0.176	209
10/2/2017	EV_ER2	200111		408	< 0.50	< 0.50			10.78	0.175	246
11/14/2017	EV_ER2	200111		470	< 1.0	< 2.5			11.38	0.179	255
12/7/2017	EV_ER2	200111		494	< 0.50	< 0.50			12.13	0.171	251
1/10/2017	EV_ER4	200027		506	< 0.50	< 0.50			14.19	0.199	277
2/21/2017	EV_ER4	200027		495	< 0.50	< 0.50			11.67	0.196	275
3/6/2017	EV_ER4	200027		465	< 0.50	< 0.50			12.16	0.193	284
3/15/2017	EV_ER4	200027		515	< 0.50	< 0.50			11.42	0.197	273
3/19/2017	EV_ER4	200027									
3/20/2017	EV_ER4	200027		478	< 0.20	< 0.50			12.23	0.182	244
3/28/2017	EV_ER4	200027		552	< 0.50	< 0.50			11.47	0.19	272
4/3/2017	EV_ER4	200027		509	< 0.50	< 0.50			10.49	0.181	272
4/11/2017	EV_ER4	200027		510	< 0.50	< 0.50			11.26	0.183	285
4/19/2017	EV_ER4	200027		537	< 0.50	< 0.50			10.79	0.185	273
4/24/2017	EV_ER4	200027		519	< 0.20	< 0.50			11.35	0.152	268
5/1/2017	EV_ER4	200027		523	< 0.50	< 0.50			11.29	0.182	276
5/9/2017	EV_ER4	200027		413	< 0.50	1.02			10.81	0.169	239
5/16/2017	EV_ER4	200027		419	< 0.50	0.76			11.01	0.177	211
5/23/2017	EV_ER4	200027		379	< 0.50	1.12			10.52	0.154	200
5/30/2017	EV_ER4	200027		341	< 0.50	2.83			10.44	0.164	181
6/6/2017	EV_ER4	200027		329	< 0.50	1.34			10.64	0.166	181
6/13/2017	EV_ER4	200027		348	< 0.50	0.92			10.21	0.176	192
6/20/2017	EV_ER4	200027		350	< 0.50	< 0.50			9.92	0.171	187
6/21/2017	EV_ER4	200027									
6/27/2017	EV_ER4	200027		337	< 0.50	< 0.50			9.77	0.179	197
7/4/2017	EV_ER4	200027		364	< 0.50	< 0.50			9.94	0.179	184
7/10/2017	EV_ER4	200027		367	< 0.20	< 0.50			9.36	0.134	182
7/25/2017	EV_ER4	200027		387	< 0.50	< 0.50			9.73	0.191	245
8/1/2017	EV_ER4	200027		404	< 0.50	< 0.50			9.66	0.192	213
8/15/2017	EV_ER4	200027									
9/11/2017	EV_ER4	200027		426	< 0.50	< 0.50			10.01	0.163	209
10/2/2017	EV_ER4	200027		428	< 0.50	< 0.50			10.17	0.162	256
11/14/2017	EV_ER4	200027		496	< 1.0	< 2.5			11.26	0.159	262
12/7/2017	EV_ER4	200027		524	< 0.50	< 0.50			11.76	0.154	260
1/9/2017	EV_FC1	E298591					0				
2/19/2017	EV_FC1	E298591					0				
3/6/2017	EV_FC1	E298591					0				
3/16/2017	EV_FC1	E298591		445	0.81	7.34	895.42		12.19	0.148	236
3/21/2017	EV_FC1	E298591									
3/28/2017	EV_FC1	E298591									
4/3/2017	EV_FC1	E298591		432	0.68	2.27	820.8		11.15	0.176	240
4/11/2017	EV_FC1	E298591									
4/19/2017	EV_FC1	E298591									
4/20/2017	EV_FC1	E298591									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
4/21/2017	EV_FC1	E298591									
4/25/2017	EV_FC1	E298591									
5/2/2017	EV_FC1	E298591		367	0.88	1.35	1150.89		11.2	0.178	196
5/9/2017	EV_FC1	E298591									
5/16/2017	EV_FC1	E298591									
5/23/2017	EV_FC1	E298591									
5/30/2017	EV_FC1	E298591									
6/5/2017	EV_FC1	E298591		468	0.57	0.78	149.26		9.82	0.19	250
6/13/2017	EV_FC1	E298591									
6/20/2017	EV_FC1	E298591									
6/27/2017	EV_FC1	E298591									
7/4/2017	EV_FC1	E298591									
7/10/2017	EV_FC1	E298591		617	0.39	0.51	25.32		9.01	0.136	326
8/1/2017	EV_FC1	E298591		644	0.58	0.71	1.68		9.06	0.16	370
8/15/2017	EV_FC1	E298591									
9/11/2017	EV_FC1	E298591		680	0.56	0.65	1.45		9.81	0.113	358
10/2/2017	EV_FC1	E298591		659	0.65	1	5.28		10.9	0.109	380
11/14/2017	EV_FC1	E298591		613	< 1.0	< 2.5	16.26		12	0.133	323
12/1/2017	EV_FC1	E298591		552	0.55	0.65	67.96		11.95	0.141	306
1/19/2017	EV_GC2	E208043		1050	0.27	0.7	2311.23		11.73	0.161	581
1/31/2017	EV_GC2	E208043		1040	< 0.50	0.57	2204.18		12.95	0.14	597
2/8/2017	EV_GC2	E208043		1020	< 0.50	0.69	2255.18		12.78	0.18	608
2/16/2017	EV_GC2	E208043									
2/16/2017	EV_GC2	E208043		877	< 0.20	1.04	4696.88		10.75	0.182	471
2/17/2017	EV_GC2	E208043					3974.79				
2/17/2017	EV_GC2	E208043					3470.49				
3/6/2017	EV_GC2	E208043		900	< 0.50	0.55	2558.59		11.03	0.18	570
3/15/2017	EV_GC2	E208043					11321.85				
3/15/2017	EV_GC2	E208043									
3/16/2017	EV_GC2	E208043									
3/17/2017	EV_GC2	E208043					6014.74				
3/18/2017	EV_GC2	E208043					7311.51				
3/18/2017	EV_GC2	E208043									
3/19/2017	EV_GC2	E208043					8856.22				
3/20/2017	EV_GC2	E208043					6269.31				
3/28/2017	EV_GC2	E208043					5880.93				
4/5/2017	EV_GC2	E208043		765	0.59	0.86	5880.93		10.99	0.18	406
4/11/2017	EV_GC2	E208043					6140.47				
4/20/2017	EV_GC2	E208043					8531.69				
4/24/2017	EV_GC2	E208043					8293.49				
5/2/2017	EV_GC2	E208043		938	< 0.50	0.99	10134.98		10.98	0.16	510
5/3/2017	EV_GC2	E208043					9847.55				
5/4/2017	EV_GC2	E208043		904	0.42	1.07	9953.68		10.7	0.132	480
5/7/2017	EV_GC2	E208043									
5/11/2017	EV_GC2	E208043					11603.75				
5/18/2017	EV_GC2	E208043					13315.53				
5/23/2017	EV_GC2	E208043					10514.32				

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
5/30/2017	EV_GC2	E208043					11801.91		9.51		
5/30/2017	EV_GC2	E208043		1120	< 0.50	0.89				0.17	597
6/6/2017	EV_GC2	E208043		1040	< 0.50	0.56	10584.7		9.98	0.19	623
6/13/2017	EV_GC2	E208043					8453.09				
6/20/2017	EV_GC2	E208043					7124.01				
6/27/2017	EV_GC2	E208043					5752.1				
7/4/2017	EV_GC2	E208043					4744.6				
7/12/2017	EV_GC2	E208043		1050	< 0.20	< 0.50	4013.1		9.06	0.128	561
7/24/2017	EV_GC2	E208043					3855.53				
8/3/2017	EV_GC2	E208043			< 0.50	< 0.50	3472.08		8.95		585
8/3/2017	EV_GC2	E208043		1010						0.1	
8/9/2017	EV_GC2	E208043					3472.08		9.15		
9/1/2017	EV_GC2	E208043					889.92				
9/11/2017	EV_GC2	E208043		1230	< 0.50	< 0.50	1573.93		9.17	0.11	533
9/26/2017	EV_GC2	E208043					1868.86				
9/27/2017	EV_GC2	E208043					1868.86				
9/28/2017	EV_GC2	E208043					1868.86				
10/3/2017	EV_GC2	E208043		897	< 0.50	< 0.50	1868.86		10.64	0.115	577
10/13/2017	EV_GC2	E208043		974	< 0.50	< 0.50	1963.7		11.09	0.134	518
10/16/2017	EV_GC2	E208043					1868.86				
10/24/2017	EV_GC2	E208043					2196.68		11.29		
10/30/2017	EV_GC2	E208043					1821.37				
10/30/2017	EV_GC2	E208043		962	< 0.50	< 0.50	1722.95		11.73	0.16	474
11/14/2017	EV_GC2	E208043		981	< 1.0	< 2.5	1974.68		11.85	0.152	510
11/23/2017	EV_GC2	E208043					16598.65				
11/23/2017	EV_GC2	E208043									
11/24/2017	EV_GC2	E208043					4575.35				
12/6/2017	EV_GC2	E208043		1050	< 0.50	0.74	2474.93		12.59	0.134	550
1/1/2017	EV_GH1	E296310					6259.73				
1/2/2017	EV_GH1	E296310					6240.54				
1/9/2017	EV_GH1	E296310					5347.46				
1/16/2017	EV_GH1	E296310					6001.5				
1/23/2017	EV_GH1	E296310					6152.93				
1/30/2017	EV_GH1	E296310					6038.35				
2/6/2017	EV_GH1	E296310					4748.3				
2/13/2017	EV_GH1	E296310					5536.98				
2/20/2017	EV_GH1	E296310					5745.26				
2/27/2017	EV_GH1	E296310					5055.08				
3/6/2017	EV_GH1	E296310					6001.08				
3/13/2017	EV_GH1	E296310					5875.87				
3/20/2017	EV_GH1	E296310					5681.46				
3/27/2017	EV_GH1	E296310					6288.31				
4/1/2017	EV_GH1	E296310					5755.03				
4/3/2017	EV_GH1	E296310					5927.7				
4/9/2017	EV_GH1	E296310		480	1.79	36.4			9.73	0.206	267
4/10/2017	EV_GH1	E296310					6357.22				
4/17/2017	EV_GH1	E296310					6185.35				

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
4/24/2017	EV_GH1	E296310					6214.17				
5/1/2017	EV_GH1	E296310					6241.18				
5/8/2017	EV_GH1	E296310					5593.45				
5/15/2017	EV_GH1	E296310					6161.36				
5/22/2017	EV_GH1	E296310					5933.28				
5/29/2017	EV_GH1	E296310					6253.52				
6/5/2017	EV_GH1	E296310					5893.3				
6/12/2017	EV_GH1	E296310					4427.31				
6/19/2017	EV_GH1	E296310					6203.62				
6/26/2017	EV_GH1	E296310					5849.42				
7/1/2017	EV_GH1	E296310					6220.33				
7/3/2017	EV_GH1	E296310					5292.12				
7/10/2017	EV_GH1	E296310					6093.1				
7/17/2017	EV_GH1	E296310					2294.49				
7/24/2017	EV_GH1	E296310					3739.69				
7/31/2017	EV_GH1	E296310					6263.47				
8/7/2017	EV_GH1	E296310					5660.76				
8/14/2017	EV_GH1	E296310					5810.52				
8/21/2017	EV_GH1	E296310					6195.41				
8/28/2017	EV_GH1	E296310					6097.88				
9/4/2017	EV_GH1	E296310					4864.35				
9/11/2017	EV_GH1	E296310					11.95				
9/18/2017	EV_GH1	E296310					4464.51				
9/25/2017	EV_GH1	E296310					5596.32				
10/1/2017	EV_GH1	E296310					3348.33				
10/2/2017	EV_GH1	E296310					6040.65				
10/3/2017	EV_GH1	E296310		500	1.06	2140		4.57	0.621	261	
10/9/2017	EV_GH1	E296310					5238.71				
10/16/2017	EV_GH1	E296310					5942.41				
10/23/2017	EV_GH1	E296310					5507.99				
10/30/2017	EV_GH1	E296310					4941.68				
11/6/2017	EV_GH1	E296310					4898.53				
11/13/2017	EV_GH1	E296310					5098.85				
11/20/2017	EV_GH1	E296310					6106.99				
11/27/2017	EV_GH1	E296310					6136.97				
12/4/2017	EV_GH1	E296310					5717.01				
12/11/2017	EV_GH1	E296310					5135.57				
12/18/2017	EV_GH1	E296310					5728.26				
12/25/2017	EV_GH1	E296310					5330.46				
1/10/2017	EV_GT1	E206231		1690	< 0.50	< 0.50	8913.84	12.26	0.41	1090	
1/31/2017	EV_GT1	E206231					8913.84	12.07			
2/7/2017	EV_GT1	E206231		1670	< 0.50	< 0.50	8207.45	12.4	0.37	1000	
2/17/2017	EV_GT1	E206231					8913.84				
3/7/2017	EV_GT1	E206231		1680	< 0.50	< 0.50	7245.72	12.01	0.36	946	
3/16/2017	EV_GT1	E206231					24078.31				
3/17/2017	EV_GT1	E206231					4074.11				
3/18/2017	EV_GT1	E206231					3031.31				

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
3/18/2017	EV_GT1	E206231					12634.06				
3/19/2017	EV_GT1	E206231					7568.6				
3/19/2017	EV_GT1	E206231									
3/20/2017	EV_GT1	E206231					5170.29				
3/29/2017	EV_GT1	E206231		1670	0.33	1.01	2933.84		10.12	0.16	1070
4/5/2017	EV_GT1	E206231		1720	< 0.50	0.58	3130.69		10.64	0.29	1110
4/12/2017	EV_GT1	E206231					2933.84				
4/20/2017	EV_GT1	E206231					2474.85				
4/26/2017	EV_GT1	E206231					1492.7				
5/2/2017	EV_GT1	E206231		1740	< 0.50	0.59	3843.12		12.56	0.24	1060
5/10/2017	EV_GT1	E206231					3767.92				
5/17/2017	EV_GT1	E206231					13738.69				
5/24/2017	EV_GT1	E206231					7914.76				
5/31/2017	EV_GT1	E206231					14898.34				
6/6/2017	EV_GT1	E206231		1720	< 0.50	< 0.50	16735.58		10.36	0.41	1070
6/14/2017	EV_GT1	E206231					17116.57				
6/21/2017	EV_GT1	E206231					17116.57				
6/28/2017	EV_GT1	E206231					17373				
7/5/2017	EV_GT1	E206231					15863.98				
7/12/2017	EV_GT1	E206231		1760	< 0.20	< 0.50	15863.98		9.95	0.27	1040
8/3/2017	EV_GT1	E206231			< 0.50	< 0.50	8513.45		10.61		1160
8/3/2017	EV_GT1	E206231		1700						0.25	
9/12/2017	EV_GT1	E206231		1340	< 0.50	< 0.50	12634.06		9.89	0.25	1140
10/2/2017	EV_GT1	E206231		1750	< 0.50	0.55	1492.7		10.39	0.26	1250
10/3/2017	EV_GT1	E206231					8996.23				
10/4/2017	EV_GT1	E206231					806.21				
10/26/2017	EV_GT1	E206231					11791.88				
10/27/2017	EV_GT1	E206231					806.21				
11/2/2017	EV_GT1	E206231					4232.62				
11/3/2017	EV_GT1	E206231					6000.26				
11/6/2017	EV_GT1	E206231					6000.26				
11/7/2017	EV_GT1	E206231					2140.87				
11/8/2017	EV_GT1	E206231					164.41				
11/9/2017	EV_GT1	E206231					87.71				
11/10/2017	EV_GT1	E206231					432.38				
11/15/2017	EV_GT1	E206231		1830	< 0.50	0.62	6162.47		10.72	0.3	1060
11/16/2017	EV_GT1	E206231					4137.0048				
11/23/2017	EV_GT1	E206231					20041.47				
12/6/2017	EV_GT1	E206231		1780	< 0.50	< 0.50	11587.33		11.6	0.33	1040
1/9/2017	EV_HC1	E102682		706	< 0.50	< 0.50	26063.32		12.24	0.2	390
2/21/2017	EV_HC1	E102682		704	< 0.50	< 0.50	15517.84		11.37	0.223	411
3/6/2017	EV_HC1	E102682		662	< 0.50	< 0.50	15862.8		11.76	0.2	425
3/15/2017	EV_HC1	E102682		728	< 0.50	< 0.50	23085.61		12.34	0.2	426
3/21/2017	EV_HC1	E102682		720	< 0.50	< 0.50	21861.32		11.42	0.202	415
3/24/2017	EV_HC1	E102682		668	< 0.20	< 0.50	23085.61		11.72	0.188	383
3/28/2017	EV_HC1	E102682		702	< 0.50	< 0.50	24341.07		11.24	0.212	367
4/3/2017	EV_HC1	E102682		644	< 0.50	< 0.50	32039.16		10.98	0.18	371

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
4/11/2017	EV_HC1	E102682		635	< 0.50	< 0.50	29672.53		11.24	0.17	395
4/19/2017	EV_HC1	E102682		677	< 0.50	< 0.50	53992.82		10.92	0.18	375
4/24/2017	EV_HC1	E102682		630	0.2	0.55	83445.93		11.39	0.144	335
5/2/2017	EV_HC1	E102682		720	< 0.50	< 0.50	88802.98		11.09	0.17	416
5/9/2017	EV_HC1	E102682		479	< 0.50	0.8	221946.76		10.84	0.157	286
5/16/2017	EV_HC1	E102682		529	< 0.50	0.74	224336.84		10.95	0.169	288
5/23/2017	EV_HC1	E102682		431	< 0.50	1.3	292013.99		11.03	0.152	254
5/30/2017	EV_HC1	E102682		412	< 0.50	0.74	243888		10.7	0.157	233
6/6/2017	EV_HC1	E102682		439	< 0.50	< 0.50	166112.47		10.64	0.175	241
6/13/2017	EV_HC1	E102682		471	< 0.50	< 0.50	104964.65		10.17	0.187	275
6/20/2017	EV_HC1	E102682		506	< 0.50	< 0.50	84960.59		10.33	0.183	302
6/27/2017	EV_HC1	E102682		506	< 0.50	< 0.50	62265.75		9.79	0.198	306
7/4/2017	EV_HC1	E102682		583	< 0.50	< 0.50	45136.31		10.08	0.199	306
7/10/2017	EV_HC1	E102682		593	< 0.20	< 0.50	42349.6		9.87	0.144	316
7/25/2017	EV_HC1	E102682		610	< 0.50	< 0.50	40717.52		9.97	0.21	416
8/1/2017	EV_HC1	E102682		634	< 0.50	< 0.50	37026.37		10	0.2	364
8/10/2017	EV_HC1	E102682					30278.36				
9/11/2017	EV_HC1	E102682		666	< 0.50	< 0.50	23085.61		9.67	0.175	348
10/2/2017	EV_HC1	E102682		660	< 0.50	< 0.50	23085.61		10.29	0.166	388
10/10/2017	EV_HC1	E102682		695	< 0.50	< 0.50	21062.49		11.02	0.299	376
10/17/2017	EV_HC1	E102682		704	< 0.50	< 0.50	21062.49		10.98	0.241	391
10/24/2017	EV_HC1	E102682		691	< 0.50	< 0.50	23085.61		11.04	0.217	443
10/31/2017	EV_HC1	E102682					23085.61		11.93		
10/31/2017	EV_HC1	E102682		738	< 0.50	< 0.50				0.2	396
11/14/2017	EV_HC1	E102682		715	< 1.0	< 2.5	24341.07		11.28	0.154	394
12/1/2017	EV_HC1	E102682		712	< 0.50	< 0.50	32522.67		11.89	0.178	420
1/19/2017	EV_LC1	E258135		930	< 0.20	0.84	189.22		9.21	0.28	523
2/20/2017	EV_LC1	E258135		766	0.3	0.62	288.88		9.11	0.28	474
3/7/2017	EV_LC1	E258135		906	< 0.50	0.91	187.92		11.21	0.26	474
3/15/2017	EV_LC1	E258135					909.19				
3/16/2017	EV_LC1	E258135					0				
3/17/2017	EV_LC1	E258135					0				
3/20/2017	EV_LC1	E258135					360.55				
3/28/2017	EV_LC1	E258135		1090	0.59	0.93	239.95		9.2	0.27	622
4/5/2017	EV_LC1	E258135		978	0.53	0.82	440.12		9.28	0.29	636
4/11/2017	EV_LC1	E258135					423.79				
4/19/2017	EV_LC1	E258135					414.55				
4/24/2017	EV_LC1	E258135					387.24				
5/2/2017	EV_LC1	E258135		1070	< 0.50	0.61	327.72		9.47	0.25	594
5/7/2017	EV_LC1	E258135					0				
5/11/2017	EV_LC1	E258135					331.95				
5/18/2017	EV_LC1	E258135					288.79				
5/23/2017	EV_LC1	E258135					199.07				
5/30/2017	EV_LC1	E258135					171.07				
6/6/2017	EV_LC1	E258135		1000	< 0.50	0.51	281.75		8.85	0.26	615
6/13/2017	EV_LC1	E258135					356.4				
6/20/2017	EV_LC1	E258135					208.22				

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
6/27/2017	EV_LC1	E258135					211.64				
7/4/2017	EV_LC1	E258135					538.7				
7/12/2017	EV_LC1	E258135		1090	0.31	0.53	109.05		6.36	0.188	618
8/3/2017	EV_LC1	E258135			< 0.50	< 0.50	92.22		7.34		634
8/3/2017	EV_LC1	E258135		1040						0.16	
8/9/2017	EV_LC1	E258135							7.15		
9/11/2017	EV_LC1	E258135		1060	< 0.50	< 0.50	65.23		8.41	0.17	596
10/2/2017	EV_LC1	E258135		939	< 0.50	< 0.50	94.07		9.78	0.22	373
11/14/2017	EV_LC1	E258135		911	< 1.0	< 2.5	101.33		9.03	0.24	547
12/6/2017	EV_LC1	E258135		960	< 0.50	< 0.50	108.27		11.78	0.236	580
1/10/2017	EV_MC2	E300091		620	< 0.50	< 0.50			12.12	0.153	354
1/31/2017	EV_MC2	E300091							12.02		
2/7/2017	EV_MC2	E300091		663	< 0.50	< 0.50			13.14	0.14	344
2/21/2017	EV_MC2	E300091		615	< 0.50	< 0.50			11.35	0.151	334
3/7/2017	EV_MC2	E300091		693	< 0.50	< 0.50			11.37	0.14	355
3/16/2017	EV_MC2	E300091		558	0.25	0.89	436498.05		11.48	0.101	290
3/17/2017	EV_MC2	E300091					434097.41				
3/18/2017	EV_MC2	E300091									
3/19/2017	EV_MC2	E300091									
3/20/2017	EV_MC2	E300091		437	0.29	0.62	905825.29		11.77	0.11	221
3/22/2017	EV_MC2	E300091					798251.22				
3/23/2017	EV_MC2	E300091					630699.53				
3/24/2017	EV_MC2	E300091					592455.38				
3/29/2017	EV_MC2	E300091		516	< 0.20	< 0.50	470943.21		10.54	0.134	254
4/5/2017	EV_MC2	E300091		523	< 0.50	< 0.50	536389.81		11.02	0.139	283
4/12/2017	EV_MC2	E300091		475	0.23	< 0.50	781108.77		11.49	0.116	248
4/20/2017	EV_MC2	E300091		457	0.27	0.51	1145878.15		10.99	0.107	217
4/24/2017	EV_MC2	E300091		402	0.31	0.74	1649882.47		11.06	0.099	199
5/2/2017	EV_MC2	E300091		452	< 0.50	0.56	1519872.95		11.24	0.121	227
5/9/2017	EV_MC2	E300091		309	< 0.50	1.36	4051705.51		11.19	0.11	170
5/16/2017	EV_MC2	E300091		339	< 0.50	0.73	3961100.72		11.25	0.119	178
5/23/2017	EV_MC2	E300091		241	< 0.50	2.74	6979872.77		11.34	0.1	112
5/30/2017	EV_MC2	E300091		238	< 0.50	2.96	7364971.22		10.36	0.099	119
6/6/2017	EV_MC2	E300091		258	< 0.50	0.97	5561242.18		10.84	0.109	132
6/14/2017	EV_MC2	E300091		287	< 0.50	1	4720650.38		10.57	0.112	157
6/21/2017	EV_MC2	E300091		319	< 0.50	< 0.50	2892548.51		10.27	0.121	171
6/28/2017	EV_MC2	E300091		399	< 0.50	< 0.50	1649882.47		10.21	0.141	217
7/5/2017	EV_MC2	E300091		444	< 0.50	< 0.50	1062102.85		9.92	0.15	255
7/12/2017	EV_MC2	E300091		519	< 0.20	< 0.50	812125.8		9.95	0.114	258
7/25/2017	EV_MC2	E300091		531	< 0.50	< 0.50	422212.81		9.55	0.164	350
8/3/2017	EV_MC2	E300091			< 0.50	< 0.50	387735.9		8.98		327
8/3/2017	EV_MC2	E300091		600						0.131	
9/12/2017	EV_MC2	E300091		622	< 0.50	< 0.50	207037.58		8.97	0.137	386
10/2/2017	EV_MC2	E300091		565	< 0.50	< 0.50	230896.33		10.12	0.119	262
10/10/2017	EV_MC2	E300091		552	< 0.50	< 0.50	216394.4		10.86	0.154	303
10/16/2017	EV_MC2	E300091					160131.6				
10/17/2017	EV_MC2	E300091		756	< 0.50	< 0.50	193463.67		9.89	0.15	431

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Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
10/24/2017	EV_MC2	E300091		511	< 0.50	< 0.50	344471.85		11.45	0.147	297
10/31/2017	EV_MC2	E300091					249390.86		11.38		
10/31/2017	EV_MC2	E300091		555	< 0.50	< 0.50				0.144	276
11/15/2017	EV_MC2	E300091		691	< 0.50	< 0.50	208579.88		10.1	0.125	362
12/6/2017	EV_MC2	E300091		605	< 0.50	< 0.50	636710.64		12.87	0.105	300
1/10/2017	EV_MC2A	E310168		504	< 0.50	< 0.50			13.1	0.144	279
1/31/2017	EV_MC2A	E310168							12.68		
2/7/2017	EV_MC2A	E310168		534	< 0.50	< 0.50			12.49	0.144	279
3/7/2017	EV_MC2A	E310168		536	< 0.50	< 0.50			11.85	0.149	270
3/16/2017	EV_MC2A	E310168									
3/17/2017	EV_MC2A	E310168									
3/18/2017	EV_MC2A	E310168									
3/19/2017	EV_MC2A	E310168									
3/20/2017	EV_MC2A	E310168									
3/29/2017	EV_MC2A	E310168		435	< 0.20	< 0.50			11.27	0.124	214
4/5/2017	EV_MC2A	E310168		451	< 0.50	< 0.50			11.39	0.137	236
5/2/2017	EV_MC2A	E310168		388	< 0.50	0.54			11.26	0.12	194
6/6/2017	EV_MC2A	E310168		219	< 0.50	1.24			10.55	0.105	112
7/12/2017	EV_MC2A	E310168		397	< 0.20	< 0.50			10.19	0.106	199
8/3/2017	EV_MC2A	E310168			< 0.50	< 0.50			10.02		273
8/3/2017	EV_MC2A	E310168		455						0.131	
9/12/2017	EV_MC2A	E310168		471	< 0.50	< 0.50			9.48	0.131	283
10/2/2017	EV_MC2A	E310168		486	< 0.50	< 0.50			11.17	0.117	273
11/15/2017	EV_MC2A	E310168							11.93		
11/15/2017	EV_MC2A	E310168		509	< 0.50	< 0.50				0.121	250
12/6/2017	EV_MC2A	E310168		447	< 0.50	< 0.50			12.58	0.115	207
1/20/2017	EV_MC3	200203		397	< 0.20	< 0.50			12.05	0.119	206
2/7/2017	EV_MC3	200203		416	< 0.50	< 0.50			13.85	0.142	214
3/7/2017	EV_MC3	200203		410	< 0.50	< 0.50			11.77	0.147	209
3/16/2017	EV_MC3	200203		362	0.27	2.52			12.08	0.088	201
3/19/2017	EV_MC3	200203									
3/20/2017	EV_MC3	200203		313	0.38	1.08			12.22	0.093	149
3/29/2017	EV_MC3	200203		371	< 0.20	< 0.50			11.29	0.112	188
4/4/2017	EV_MC3	200203		391	< 0.50	1			11.35	0.128	199
4/12/2017	EV_MC3	200203		356	0.25	< 0.50			11.63	0.106	178
4/20/2017	EV_MC3	200203		346	0.28	0.71			11.52	0.1	162
4/26/2017	EV_MC3	200203		295	< 0.50	0.86			11.65	0.116	153
5/3/2017	EV_MC3	200203		314	< 0.50	0.52			11.36	0.114	152
5/10/2017	EV_MC3	200203		234	< 0.50	1.2			11.21	0.097	124
5/17/2017	EV_MC3	200203		240	0.51	1.93			11.56	0.101	133
5/24/2017	EV_MC3	200203		165	0.61	10			11.09	0.082	88.7
5/30/2017	EV_MC3	200203		178	< 0.50	2.8			10.13	0.086	83.9
6/6/2017	EV_MC3	200203		175	< 0.50	1.32			11.13	0.095	87.1
6/13/2017	EV_MC3	200203		202	< 0.50	0.53			10.67	0.103	114
6/21/2017	EV_MC3	200203		209	< 0.50	< 0.50			10.59	0.104	102
6/28/2017	EV_MC3	200203		240	< 0.50	0.86			10.15	0.122	126
7/5/2017	EV_MC3	200203		280	< 0.50	< 0.50			10.26	0.133	161

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Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
7/11/2017	EV_MC3	200203		323	< 0.20	< 0.50			9.9	0.096	158
8/2/2017	EV_MC3	200203			< 0.50	< 0.50			9.4		190
8/2/2017	EV_MC3	200203		346						0.128	
9/12/2017	EV_MC3	200203		376	< 0.50	< 0.50			9.3	0.129	204
10/2/2017	EV_MC3	200203		366	< 0.50	< 0.50			11.27	0.123	166
11/15/2017	EV_MC3	200203		377	< 0.50	< 0.50			11.85	0.13	189
12/6/2017	EV_MC3	200203		349	< 0.50	< 0.50			12.67	0.104	171
1/18/2017	EV_MG1	E208057		1360	< 0.50	< 0.50	31.3		11.34	0.17	884
2/23/2017	EV_MG1	E208057		1300	0.3	< 0.50	49.25		11.38	0.13	806
3/8/2017	EV_MG1	E208057		1230	< 0.50	< 0.50	117.52		12.11	0.16	694
3/16/2017	EV_MG1	E208057					828.31				
3/19/2017	EV_MG1	E208057					1755.18				
3/29/2017	EV_MG1	E208057					3915.1				
4/4/2017	EV_MG1	E208057		853	0.51	0.72	5170.17		11.18	0.18	496
4/12/2017	EV_MG1	E208057					4310.3				
4/19/2017	EV_MG1	E208057					3915.1				
4/26/2017	EV_MG1	E208057					5170.17				
5/2/2017	EV_MG1	E208057					4990.67				
5/3/2017	EV_MG1	E208057		953	0.58	0.72	5170.17		11.22	0.18	544
5/10/2017	EV_MG1	E208057					7744.7				
5/17/2017	EV_MG1	E208057					6799.24				
5/24/2017	EV_MG1	E208057					4728.51				
5/31/2017	EV_MG1	E208057					4031.27				
6/7/2017	EV_MG1	E208057					2324.44		10.23		
6/14/2017	EV_MG1	E208057		869	0.61	0.72	1755.18		10.03	0.21	593
6/21/2017	EV_MG1	E208057					1259.45				
6/28/2017	EV_MG1	E208057					1004.72				
7/5/2017	EV_MG1	E208057					671.92				
7/11/2017	EV_MG1	E208057		1110	0.2	< 0.50	558.29		8.59	0.12	646
8/2/2017	EV_MG1	E208057			< 0.50	< 0.50	183.67		7.73		758
8/2/2017	EV_MG1	E208057		1150						0.13	
8/10/2017	EV_MG1	E208057					154.57		9.7		
9/12/2017	EV_MG1	E208057		1250	< 0.50	< 0.50	33.56		9.69	< 0.10	784
10/3/2017	EV_MG1	E208057		1120	< 0.50	< 0.50	84.59		11.93	< 0.10	821
10/17/2017	EV_MG1	E208057					84.59				
10/18/2017	EV_MG1	E208057					84.59				
11/15/2017	EV_MG1	E208057		1440	< 0.50	< 0.50	92.49		11.2	0.13	881
11/23/2017	EV_MG1	E208057					396.18				
12/6/2017	EV_MG1	E208057		1370	< 0.50	< 0.50	500.54		13.04	0.14	802
1/10/2017	EV_OC1	E102679		709	< 0.50	< 0.50	28.38		13.07	0.4	390
2/8/2017	EV_OC1	E102679		697	< 0.50	< 0.50	24.97		10.04	0.66	393
2/20/2017	EV_OC1	E102679		546	0.22	1.76	478.66		10.6	0.278	277
2/21/2017	EV_OC1	E102679									
3/6/2017	EV_OC1	E102679		658	< 0.50	< 0.50	335.92		10.24	0.3	328
3/14/2017	EV_OC1	E102679					1482.28				
3/15/2017	EV_OC1	E102679					7388.06				
3/15/2017	EV_OC1	E102679									

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Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
3/16/2017	EV_OC1	E102679					7976.71				
3/17/2017	EV_OC1	E102679		487	0.46	4.53	4774.25		10.76	0.205	213
3/18/2017	EV_OC1	E102679					5663.74				
3/19/2017	EV_OC1	E102679					4731.26				
3/20/2017	EV_OC1	E102679					2028.67				
3/21/2017	EV_OC1	E102679					2650.32				
3/22/2017	EV_OC1	E102679					1614.6				
3/28/2017	EV_OC1	E102679					2856.38				
4/3/2017	EV_OC1	E102679		648	< 0.50	0.91	3223.8		9.36	0.23	333
4/11/2017	EV_OC1	E102679					2755.64				
4/20/2017	EV_OC1	E102679					1545.87				
4/25/2017	EV_OC1	E102679					2544.52				
5/4/2017	EV_OC1	E102679		712	0.44	0.66	2106.17		8.63	0.288	336
5/7/2017	EV_OC1	E102679					3553.2				
5/9/2017	EV_OC1	E102679					2805.36				
5/16/2017	EV_OC1	E102679					3630.31				
5/23/2017	EV_OC1	E102679					1961.37				
5/31/2017	EV_OC1	E102679					1595.07				
6/5/2017	EV_OC1	E102679		700	< 0.50	< 0.50	1301.18		8.14	0.29	361
6/13/2017	EV_OC1	E102679					1225.37				
6/20/2017	EV_OC1	E102679					876.23				
6/27/2017	EV_OC1	E102679					698.59				
7/4/2017	EV_OC1	E102679					610.42				
7/10/2017	EV_OC1	E102679		640	< 0.20	< 0.50	379.47		6.87	0.27	322
8/1/2017	EV_OC1	E102679		594	< 0.50	< 0.50	289.44		7.49	0.359	318
9/11/2017	EV_OC1	E102679		565	< 0.50	< 0.50	221.27		8.25	0.33	286
10/2/2017	EV_OC1	E102679		494	< 0.50	< 0.50	177.12		9.53	0.292	313
11/14/2017	EV_OC1	E102679		675	< 1.0	< 2.5	224.21		10.54	0.347	366
12/7/2017	EV_OC1	E102679		806	< 0.50	< 0.50	226.8		10.97	0.28	388
1/9/2017	EV_SM1	E102681		544	< 0.50	< 0.50	156.38		12.55	0.16	281
2/23/2017	EV_SM1	E102681		535	0.21	< 0.50	10.71		11.1	0.145	283
3/6/2017	EV_SM1	E102681		523	< 0.50	< 0.50	0.07		11.82	0.168	290
3/15/2017	EV_SM1	E102681					1055.49				
3/19/2017	EV_SM1	E102681									
3/20/2017	EV_SM1	E102681					982.15				
3/21/2017	EV_SM1	E102681					289.22				
3/22/2017	EV_SM1	E102681									
3/23/2017	EV_SM1	E102681									
3/28/2017	EV_SM1	E102681									
3/29/2017	EV_SM1	E102681					1235.57				
4/3/2017	EV_SM1	E102681		478	< 0.50	0.87	2155.22		10.87	0.149	251
4/11/2017	EV_SM1	E102681					2506.45				
4/19/2017	EV_SM1	E102681					3219.91				
4/25/2017	EV_SM1	E102681					4916.15				
5/2/2017	EV_SM1	E102681		544	< 0.50	1.63	5661.13		10.58	0.163	278
5/7/2017	EV_SM1	E102681					11835.49				
5/8/2017	EV_SM1	E102681					12573.52				

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
5/9/2017	EV_SM1	E102681					11400.62				
5/10/2017	EV_SM1	E102681					11114.06				
5/11/2017	EV_SM1	E102681					10830.21				
5/12/2017	EV_SM1	E102681					12129				
5/13/2017	EV_SM1	E102681					12129				
5/14/2017	EV_SM1	E102681					12129				
5/15/2017	EV_SM1	E102681					12129				
5/16/2017	EV_SM1	E102681					11114.06				
5/17/2017	EV_SM1	E102681					10830.21				
5/18/2017	EV_SM1	E102681					9995.25				
5/19/2017	EV_SM1	E102681					8661				
5/20/2017	EV_SM1	E102681									
5/23/2017	EV_SM1	E102681					9722.54				
5/24/2017	EV_SM1	E102681					10409.6				
5/25/2017	EV_SM1	E102681					8402				
5/26/2017	EV_SM1	E102681					9053.33				
5/27/2017	EV_SM1	E102681					8402				
5/28/2017	EV_SM1	E102681					8402				
5/29/2017	EV_SM1	E102681					8402				
5/30/2017	EV_SM1	E102681					7770.46				
6/5/2017	EV_SM1	E102681		434	< 0.50	1.37	6334.27		9.44	0.15	233
6/13/2017	EV_SM1	E102681					4711.62				
6/20/2017	EV_SM1	E102681					3657.16				
6/27/2017	EV_SM1	E102681					2506.45				
7/4/2017	EV_SM1	E102681					1961.67				
7/10/2017	EV_SM1	E102681		500	< 0.20	< 0.50	1470.32		8.23	0.116	248
8/1/2017	EV_SM1	E102681		494	< 0.50	< 0.50	863.91		8.3	0.039	255
9/11/2017	EV_SM1	E102681		498	< 0.50	< 0.50	257.69		8.95	0.127	239
10/2/2017	EV_SM1	E102681		494	< 0.50	< 0.50	426.86		9.79	0.125	261
10/4/2017	EV_SM1	E102681					373.17				
10/6/2017	EV_SM1	E102681					289.22				
10/10/2017	EV_SM1	E102681					212.72				
11/14/2017	EV_SM1	E102681		548	< 1.0	< 2.5	463.97		11.66	0.118	272
11/23/2017	EV_SM1	E102681					2656.33				
12/1/2017	EV_SM1	E102681		527	< 0.50	< 0.50	728.85		11.86	0.129	271
1/18/2017	EV_SP1	E296311		1570	< 0.50	< 0.50	251.42		10.74	0.58	1030
2/23/2017	EV_SP1	E296311		1610	< 0.20	< 0.50	412.21		10.29	0.42	1050
3/8/2017	EV_SP1	E296311		1680	< 0.50	0.54	209.22		11.38	0.4	998
3/16/2017	EV_SP1	E296311					680.62				
3/19/2017	EV_SP1	E296311					615.6				
3/29/2017	EV_SP1	E296311					2127.04				
4/4/2017	EV_SP1	E296311		1450	< 0.50	< 0.50	2310.12		10.39	0.44	935
4/12/2017	EV_SP1	E296311					2576.23				
4/19/2017	EV_SP1	E296311					2090.79				
4/26/2017	EV_SP1	E296311					1826.41				
5/3/2017	EV_SP1	E296311		1620	< 0.50	< 0.50	1602.46		10.82	0.42	1010
5/10/2017	EV_SP1	E296311					1661.99				

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
5/17/2017	EV_SP1	E296311					2014.29				
5/24/2017	EV_SP1	E296311					1679.75				
5/31/2017	EV_SP1	E296311					1702.43				
6/7/2017	EV_SP1	E296311					1204.2	10.07			
6/14/2017	EV_SP1	E296311		1520	< 0.50	0.53	1045.53	9.65	0.52	1000	
6/21/2017	EV_SP1	E296311					868.75				
6/28/2017	EV_SP1	E296311					1172.32				
7/5/2017	EV_SP1	E296311					742.52				
7/11/2017	EV_SP1	E296311		1690	< 0.20	< 0.50	663.38	9.09	0.3	1070	
8/2/2017	EV_SP1	E296311			< 0.50	< 0.50	370.87	9.44		1130	
8/2/2017	EV_SP1	E296311		1680					0.39		
9/12/2017	EV_SP1	E296311		1740	< 0.50	< 0.50	369.66	10.25	0.29	1240	
10/3/2017	EV_SP1	E296311		1570	< 0.50	< 0.50	210	11.57	0.32	1300	
10/3/2017	EV_SP1	E296311									
10/17/2017	EV_SP1	E296311		1600	< 0.50	< 0.50	210	10.96	0.33	1250	
11/15/2017	EV_SP1	E296311		1880	< 0.50	< 0.50	707.18	11.36	0.44	1240	
12/6/2017	EV_SP1	E296311		1910	1.15	< 0.50	762.13	11.43	0.42	1180	
1/10/2017	EV_SPR2	E298594		766	< 0.50	< 0.50	1511.41	8.01	0.16	415	
2/8/2017	EV_SPR2	E298594		738	< 0.50	< 0.50	1298.53	10.47	0.16	407	
2/23/2017	EV_SPR2	E298594		792	< 0.20	< 0.50	641.79	11.09	0.148	412	
3/7/2017	EV_SPR2	E298594		817	< 0.50	< 0.50	671.12	11.52	0.15	416	
3/15/2017	EV_SPR2	E298594					1511.41				
3/22/2017	EV_SPR2	E298594					2948.5				
3/28/2017	EV_SPR2	E298594		799	< 0.50	0.55	2500.76	9.46	0.17	381	
4/4/2017	EV_SPR2	E298594		756	< 0.50	< 0.50	2375.87	9.55	0.18	400	
5/3/2017	EV_SPR2	E298594		791	< 0.50	< 0.50	2220.2	9.93	0.18	393	
6/5/2017	EV_SPR2	E298594		730	< 0.50	< 0.50	2003.15	7.69	0.18	384	
7/11/2017	EV_SPR2	E298594		711	< 0.20	< 0.50	1359.19	6.31	0.136	356	
8/2/2017	EV_SPR2	E298594			< 0.50	< 0.50	789.03	7.24		390	
8/2/2017	EV_SPR2	E298594		712					0.146		
9/12/2017	EV_SPR2	E298594		692	< 0.50	< 0.50	211.75	7.55	0.155	381	
10/3/2017	EV_SPR2	E298594		664	< 0.50	< 0.50	438.43	8.28	0.149	422	
11/15/2017	EV_SPR2	E298594		764	< 0.50	< 0.50	438.43	8.07	0.171	370	
12/6/2017	EV_SPR2	E298594		796	< 0.50	< 0.50	818.65	9.61	0.159	381	
1/18/2017	EV_TC1	E298593					0				
2/23/2017	EV_TC1	E298593					0				
3/8/2017	EV_TC1	E298593					0				
3/16/2017	EV_TC1	E298593		444	0.38	3.32	60.76	11.42	0.101	240	
3/19/2017	EV_TC1	E298593					682.81				
3/29/2017	EV_TC1	E298593									
4/4/2017	EV_TC1	E298593		421	0.6	0.67	881.65	11.42	0.135	232	
4/12/2017	EV_TC1	E298593									
4/19/2017	EV_TC1	E298593									
4/26/2017	EV_TC1	E298593									
5/3/2017	EV_TC1	E298593		381	0.61	0.69	3903.29	11.56	0.12	199	
5/10/2017	EV_TC1	E298593									
5/17/2017	EV_TC1	E298593									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
5/24/2017	EV_TC1	E298593									
5/31/2017	EV_TC1	E298593									
6/7/2017	EV_TC1	E298593					315.36		10.07		
6/14/2017	EV_TC1	E298593		422	< 0.50	0.56	257.9		10.16	0.131	267
6/21/2017	EV_TC1	E298593									
6/28/2017	EV_TC1	E298593					0				
7/5/2017	EV_TC1	E298593					0				
7/11/2017	EV_TC1	E298593					0				
8/2/2017	EV_TC1	E298593					0				
9/12/2017	EV_TC1	E298593					0				
10/3/2017	EV_TC1	E298593					0				
11/15/2017	EV_TC1	E298593					0				
12/6/2017	EV_TC1	E298593					0				
1/31/2017	FR_3PIT	E217403					0				
2/28/2017	FR_3PIT	E217403					0				
3/7/2017	FR_3PIT	E217403					0				
3/16/2017	FR_3PIT	E217403					0				
3/23/2017	FR_3PIT	E217403					0				
3/31/2017	FR_3PIT	E217403					0				
4/3/2017	FR_3PIT	E217403					0				
4/10/2017	FR_3PIT	E217403					0				
4/18/2017	FR_3PIT	E217403					0				
4/24/2017	FR_3PIT	E217403					0				
5/1/2017	FR_3PIT	E217403					0				
5/8/2017	FR_3PIT	E217403					0				
5/15/2017	FR_3PIT	E217403					0				
5/23/2017	FR_3PIT	E217403					0				
5/29/2017	FR_3PIT	E217403					0				
6/6/2017	FR_3PIT	E217403					0				
6/16/2017	FR_3PIT	E217403					0				
6/22/2017	FR_3PIT	E217403					0				
6/29/2017	FR_3PIT	E217403					0				
7/3/2017	FR_3PIT	E217403					0				
7/10/2017	FR_3PIT	E217403					0				
8/7/2017	FR_3PIT	E217403					0				
9/4/2017	FR_3PIT	E217403					0				
10/2/2017	FR_3PIT	E217403					0				
11/6/2017	FR_3PIT	E217403					0				
12/4/2017	FR_3PIT	E217403					0				
1/23/2017	FR_CC1	E102481		1540	0.29	< 0.50			13.14	0.16	879
2/2/2017	FR_CC1	E102481		1550	0.2	< 0.50			10.33	0.16	924
3/9/2017	FR_CC1	E102481		1610	0.3	< 0.50			9.17	0.187	986
3/14/2017	FR_CC1	E102481		1580	0.29	0.56			8.92	0.18	882
3/23/2017	FR_CC1	E102481							9.29		
3/28/2017	FR_CC1	E102481							9.51		
4/3/2017	FR_CC1	E102481		1770	0.24	0.57			10.16	0.16	1030
4/11/2017	FR_CC1	E102481							10.47		

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
4/20/2017	FR_CC1	E102481							10.27		
4/26/2017	FR_CC1	E102481							10.39		
5/1/2017	FR_CC1	E102481		1940	< 0.20	< 0.50			10.38	0.17	1050
5/3/2017	FR_CC1	E102481									
5/6/2017	FR_CC1	E102481									
5/10/2017	FR_CC1	E102481							9.73		
5/15/2017	FR_CC1	E102481							9.77		
5/23/2017	FR_CC1	E102481							9.78		
5/29/2017	FR_CC1	E102481							10.09		
6/5/2017	FR_CC1	E102481		1480	0.37	0.83			9.22	0.22	766
6/15/2017	FR_CC1	E102481							8.59		
6/20/2017	FR_CC1	E102481							9.23		
6/27/2017	FR_CC1	E102481							8.7		
7/3/2017	FR_CC1	E102481		1540	0.23	< 0.50			8.52	0.16	840
7/10/2017	FR_CC1	E102481							8.02		
8/8/2017	FR_CC1	E102481		1480	< 0.50	1.83			8.15	0.21	885
9/5/2017	FR_CC1	E102481		1210	< 0.50	< 0.50			8.48	0.15	623
10/11/2017	FR_CC1	E102481		978	< 0.50	< 0.50			10.49	0.14	593
11/20/2017	FR_CC1	E102481		1350	< 0.50	< 0.50			9.98	0.2	880
12/6/2017	FR_CC1	E102481		1460	< 0.50	< 0.50			10.51	0.16	790
1/30/2017	FR_EC1	E102480									
2/28/2017	FR_EC1	E102480									
3/8/2017	FR_EC1	E102480									
3/16/2017	FR_EC1	E102480									
3/22/2017	FR_EC1	E102480		1180	0.45	1.13			9.85	0.19	715
3/23/2017	FR_EC1	E102480									
3/27/2017	FR_EC1	E102480							9.52		
4/3/2017	FR_EC1	E102480		1050	0.5	0.93			10.49	0.15	642
4/10/2017	FR_EC1	E102480							10.03		
4/19/2017	FR_EC1	E102480							9.32		
4/26/2017	FR_EC1	E102480							10.23		
5/1/2017	FR_EC1	E102480		2220	0.24	< 0.50			8.6	0.12	1330
5/3/2017	FR_EC1	E102480									
5/6/2017	FR_EC1	E102480									
5/10/2017	FR_EC1	E102480							9.04		
5/15/2017	FR_EC1	E102480							9.12		
5/23/2017	FR_EC1	E102480							8.71		
5/29/2017	FR_EC1	E102480							10.06		
6/5/2017	FR_EC1	E102480		2490	0.24	0.59			8.91	0.11	1600
6/13/2017	FR_EC1	E102480							8.34		
6/19/2017	FR_EC1	E102480							8.18		
6/26/2017	FR_EC1	E102480							8.46		
7/3/2017	FR_EC1	E102480		2780	< 0.20	< 0.50			8.75	< 0.10	1820
7/10/2017	FR_EC1	E102480							7.47		
8/7/2017	FR_EC1	E102480									
9/25/2017	FR_EC1	E102480									
10/31/2017	FR_EC1	E102480									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
11/28/2017	FR_EC1	E102480		2690	< 0.50	< 0.50			11.47	< 0.10	2320
12/31/2017	FR_EC1	E102480									
8/31/2017	FR_EC1H	E310047		2780	< 0.50	< 1.0			7.91	< 0.10	2150
9/25/2017	FR_EC1H	E310047		3080	< 0.50	< 0.50			10.47	< 0.10	2170
10/30/2017	FR_EC1H	E310047		3060	< 0.50	< 1.0			10.09	< 0.10	1840
11/23/2017	FR_EC1H	E310047		2860	< 0.50	< 1.0			9.15	< 0.10	2370
12/11/2017	FR_EC1H	E310047		3200	< 0.50	0.54			8.65	< 0.10	2120
1/17/2017	FR_FR1	200251									
2/28/2017	FR_FR1	200251									
3/8/2017	FR_FR1	200251									
3/14/2017	FR_FR1	200251									
3/22/2017	FR_FR1	200251									
3/27/2017	FR_FR1	200251		555	< 0.20	< 0.50			11.44	0.189	269
4/4/2017	FR_FR1	200251		632	< 0.20	< 0.50			11.35	0.2	354
4/11/2017	FR_FR1	200251							11.96		
4/18/2017	FR_FR1	200251							11.68		
4/26/2017	FR_FR1	200251							11.91		
5/1/2017	FR_FR1	200251		505	< 0.20	< 0.50			11.83	0.165	252
5/5/2017	FR_FR1	200251									
5/6/2017	FR_FR1	200251									
5/7/2017	FR_FR1	200251									
5/10/2017	FR_FR1	200251							11.02		
5/15/2017	FR_FR1	200251							11.15		
5/23/2017	FR_FR1	200251							11.33		
5/29/2017	FR_FR1	200251							11.7		
6/5/2017	FR_FR1	200251		262	0.23	0.67			9.59	0.152	123
6/14/2017	FR_FR1	200251							11		
6/20/2017	FR_FR1	200251							10.43		
6/28/2017	FR_FR1	200251							10.92		
7/3/2017	FR_FR1	200251		298	< 0.20	< 0.50			10.3	0.189	145
7/11/2017	FR_FR1	200251							9.23		
8/9/2017	FR_FR1	200251		446	< 0.50	< 0.50			8.1	0.243	238
8/28/2017	FR_FR1	200251		487	< 0.50	< 0.50			7.56	0.192	271
9/11/2017	FR_FR1	200251		532	< 0.50	< 0.50			8.44	0.191	320
10/11/2017	FR_FR1	200251		497	< 0.50	< 0.50			10.3	0.146	271
11/29/2017	FR_FR1	200251		546	< 0.50	< 0.50			10.92	0.182	325
12/4/2017	FR_FR1	200251									
1/16/2017	FR_FR2	200201		845	< 0.20	< 0.50			11.84	0.176	457
2/1/2017	FR_FR2	200201		912	< 0.20	< 0.50			12.54	0.192	522
3/9/2017	FR_FR2	200201		969	< 0.50	< 0.50			12.23	0.18	519
3/15/2017	FR_FR2	200201		920	< 0.20	< 0.50			11.25	0.185	532
3/22/2017	FR_FR2	200201		864	< 0.20	0.56			11.19	0.176	507
3/29/2017	FR_FR2	200201		864	< 0.20	< 0.50			11.9	0.165	488
4/5/2017	FR_FR2	200201		886	< 0.20	< 0.50			12.23	0.144	482
4/5/2017	FR_FR2	200201		898	< 0.50	< 0.50				0.18	531
4/12/2017	FR_FR2	200201		861	< 0.20	< 0.50			12.11	0.162	483
4/20/2017	FR_FR2	200201		683	0.21	3.78			11.98	0.144	358

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
4/25/2017	FR_FR2	200201		668	0.31	0.97			11.25	0.14	357
5/2/2017	FR_FR2	200201		841	< 0.50	< 0.50			10.95	0.17	459
5/8/2017	FR_FR2	200201		510	0.46	0.72			11.13	0.162	270
5/16/2017	FR_FR2	200201		495	0.23	< 0.50			10.54	0.171	251
5/23/2017	FR_FR2	200201		363	< 0.20	0.52			11.04	0.144	184
5/30/2017	FR_FR2	200201		309	< 0.20	1.24			9.09	0.152	166
6/6/2017	FR_FR2	200201		348	< 0.20	< 0.50			11.73	0.156	174
6/6/2017	FR_FR2	200201		356	< 0.50	< 0.50				0.181	192
6/13/2017	FR_FR2	200201		385	< 0.20	< 0.50			9.56	0.175	204
6/20/2017	FR_FR2	200201		445	< 0.20	< 0.50			10.39	0.142	214
6/26/2017	FR_FR2	200201		441	< 0.20	< 0.50			10.43	0.172	214
7/5/2017	FR_FR2	200201		502	< 0.20	< 0.50			9.76	0.151	248
7/5/2017	FR_FR2	200201		501	< 0.20	< 0.50				0.185	241
7/11/2017	FR_FR2	200201		524	< 0.20	< 0.50			8.84	0.189	271
7/17/2017	FR_FR2	200201									
8/10/2017	FR_FR2	200201		696	< 0.50	< 0.50			8.87	0.21	380
8/28/2017	FR_FR2	200201		765	< 0.50	< 0.50			8.6	0.166	439
9/6/2017	FR_FR2	200201		851	< 0.50	< 0.50			8.9	0.155	533
9/20/2017	FR_FR2	200201									
10/4/2017	FR_FR2	200201		738	< 0.50	< 0.50			10.26	0.151	489
10/19/2017	FR_FR2	200201		809	< 0.50	< 0.50			10.25	0.157	441
10/31/2017	FR_FR2	200201		816	< 0.50	< 0.50				0.159	470
11/1/2017	FR_FR2	200201		831	< 1.0	< 0.50			11.58	0.138	435
11/2/2017	FR_FR2	200201		848	< 0.50	< 2.5			11.54	0.14	483
11/16/2017	FR_FR2	200201									
12/5/2017	FR_FR2	200201		829	< 0.50	< 0.50			12.28	0.158	456
1/19/2017	FR_FRCP1	E300071									
2/21/2017	FR_FRCP1	E300071		1430	< 0.20	< 0.50			12.2	0.13	841
2/28/2017	FR_FRCP1	E300071		1430	< 0.20	< 0.50			11.67	0.15	819
3/7/2017	FR_FRCP1	E300071		2040	< 0.20	< 0.50			11.44	0.12	1520
3/14/2017	FR_FRCP1	E300071		1440	< 0.20	< 0.50			11.37	0.17	852
3/21/2017	FR_FRCP1	E300071		1070	< 0.20	< 0.50			11.84	0.16	600
3/28/2017	FR_FRCP1	E300071		1020	< 0.20	< 0.50			11.77	0.14	560
4/5/2017	FR_FRCP1	E300071		1060	< 0.20	< 0.50			12.21	0.12	665
4/10/2017	FR_FRCP1	E300071		1000	< 0.20	1.08			11.83	0.159	605
4/20/2017	FR_FRCP1	E300071		766	0.23	1.97			11.45	0.146	403
4/24/2017	FR_FRCP1	E300071		725	0.34	1.08			10.5	0.139	392
5/2/2017	FR_FRCP1	E300071		947	0.21	< 0.50			11.14	0.153	529
5/9/2017	FR_FRCP1	E300071		577	0.3	0.94			10.85	0.156	309
5/16/2017	FR_FRCP1	E300071		646	0.25	0.5			10.38	0.162	328
5/23/2017	FR_FRCP1	E300071		496	0.21	0.97			11.03	0.146	250
5/30/2017	FR_FRCP1	E300071		471	< 0.20	1.44			9.05	0.156	249
6/6/2017	FR_FRCP1	E300071		508	0.27	0.5			11.48	0.16	257
6/13/2017	FR_FRCP1	E300071		545	< 0.20	< 0.50			9.48	0.167	295
6/20/2017	FR_FRCP1	E300071		605	0.28	< 0.50			10.77	0.14	295
6/26/2017	FR_FRCP1	E300071		585	< 0.20	< 0.50			10.66	0.17	290
7/5/2017	FR_FRCP1	E300071		677	< 0.20	< 0.50			9.36	0.145	345

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
7/11/2017	FR_FRCP1	E300071		696	< 0.20	< 0.50			8.84	0.18	372
7/25/2017	FR_FRCP1	E300071		857	< 0.20	< 0.50			9.85	0.177	447
8/1/2017	FR_FRCP1	E300071		976	< 0.50	< 0.50			8.88	0.21	647
8/8/2017	FR_FRCP1	E300071		1090	< 0.50	< 0.50			9.47	0.18	660
8/15/2017	FR_FRCP1	E300071		1050	< 0.50	< 0.50			11.29	0.2	580
8/22/2017	FR_FRCP1	E300071		1100	< 0.50	< 0.50			9.56	0.17	672
9/11/2017	FR_FRCP1	E300071		1290	< 0.50	< 0.50			10.32	0.1	898
10/2/2017	FR_FRCP1	E300071		1110	< 0.50	< 0.50			11.19	0.1	734
10/10/2017	FR_FRCP1	E300071		1150	< 0.50	< 0.50			11.65	0.11	753
10/17/2017	FR_FRCP1	E300071		1150	< 0.50	< 0.50			10.3	0.11	749
10/24/2017	FR_FRCP1	E300071		1200	< 0.50	< 0.50			11.97	0.12	701
10/31/2017	FR_FRCP1	E300071		1260	< 0.50	< 0.50			12.37	0.13	788
11/15/2017	FR_FRCP1	E300071		1340	< 0.50	< 0.50			12.92	0.13	868
12/5/2017	FR_FRCP1	E300071		1400	< 0.50	< 0.50			12.3	0.15	872
12/6/2017	FR_FRCP1	E300071		1600	< 0.50	< 0.50			12.66	0.12	929
12/12/2017	FR_FRCP1	E300071		1980	< 0.50	< 0.50			12.48	0.15	1170
12/28/2017	FR_FRCP1	E300071		1770	< 0.50	< 0.50			12.25	0.096	1130
1/19/2017	FR_FRRD	E300097		1120	< 0.20	< 0.50			11.43	0.14	631
2/22/2017	FR_FRRD	E300097		1110	< 0.50	< 0.50			9.49	0.14	627
3/15/2017	FR_FRRD	E300097		1110	< 0.20	< 0.50			10.07	0.14	645
4/25/2017	FR_FRRD	E300097		822	0.28	1.05			10.63	0.136	447
5/3/2017	FR_FRRD	E300097		978	< 0.20	0.77			10.53	0.149	517
5/3/2017	FR_FRRD	E300097		986	< 0.50	< 0.50				0.17	580
5/18/2017	FR_FRRD	E300097		770	< 0.20	< 0.50			11.11	0.146	389
6/13/2017	FR_FRRD	E300097		629	< 0.20	< 0.50			9.28	0.17	323
7/13/2017	FR_FRRD	E300097		795	< 0.20	< 0.50			9.75	0.17	425
7/13/2017	FR_FRRD	E300097		775	< 0.50	< 0.50			9.75	0.19	417
8/10/2017	FR_FRRD	E300097		1000	< 0.50	< 0.50			9.82	0.18	581
9/13/2017	FR_FRRD	E300097		1080	< 0.50	0.71			9.63	0.12	662
10/18/2017	FR_FRRD	E300097		1090	< 0.50	< 0.50			12.66	0.12	806
11/6/2017	FR_FRRD	E300097		1220	< 1.0	< 0.50			10.52	0.16	611
12/5/2017	FR_FRRD	E300097		1080	< 0.50	< 0.50			9.41	0.13	623
1/9/2017	FR_HC1	E216778		584	< 0.20	< 0.50			10.04	0.222	332
2/14/2017	FR_HC1	E216778		630	< 0.20	< 0.50			10.49	0.235	362
3/7/2017	FR_HC1	E216778		627	< 0.20	< 0.50			10.57	0.226	390
3/14/2017	FR_HC1	E216778		632	< 0.20	< 0.50			10.57	0.238	345
3/22/2017	FR_HC1	E216778		688	< 0.20	< 0.50			10.41	0.228	396
3/28/2017	FR_HC1	E216778		695	< 0.20	< 0.50			10.37	0.236	362
4/4/2017	FR_HC1	E216778		706	< 0.20	< 0.50			10.33	0.215	398
4/11/2017	FR_HC1	E216778		733	< 0.20	< 0.50			10.76	0.216	408
4/18/2017	FR_HC1	E216778		760	< 0.20	< 0.50			10.82	0.211	418
4/26/2017	FR_HC1	E216778		724	< 0.20	< 0.50			10.9	0.195	387
5/1/2017	FR_HC1	E216778		759	< 0.20	0.62			10.75	0.22	388
5/5/2017	FR_HC1	E216778									
5/6/2017	FR_HC1	E216778									
5/7/2017	FR_HC1	E216778									
5/9/2017	FR_HC1	E216778		457	< 0.20	< 0.50			10.52	0.223	246

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
5/15/2017	FR_HC1	E216778		393	< 0.20	< 0.50			10.62	0.201	188
5/23/2017	FR_HC1	E216778		281	< 0.20	0.59			11.44	0.171	137
5/29/2017	FR_HC1	E216778		251	< 0.20	0.52			11.77	0.157	130
6/5/2017	FR_HC1	E216778		282	0.27	< 0.50			10.42	0.178	132
6/14/2017	FR_HC1	E216778		250	< 0.20	< 0.50			10.95	0.154	123
6/20/2017	FR_HC1	E216778		320	< 0.20	< 0.50			10.38	0.155	149
6/27/2017	FR_HC1	E216778		284	< 0.20	< 0.50			10.2	0.187	141
7/3/2017	FR_HC1	E216778		301	< 0.20	< 0.50			10.44	0.188	145
7/11/2017	FR_HC1	E216778		334	< 0.20	< 0.50			9.46	0.211	168
8/8/2017	FR_HC1	E216778		493	< 0.50	< 0.50			8.7	0.267	253
9/5/2017	FR_HC1	E216778		580	< 0.50	< 0.50			8.51	0.238	294
10/11/2017	FR_HC1	E216778		545	< 0.50	< 0.50			9.71	0.167	306
10/30/2017	FR_HC1	E216778									
11/7/2017	FR_HC1	E216778		595	< 0.50	< 0.50			10.45	0.235	324
11/14/2017	FR_HC1	E216778									
12/6/2017	FR_HC1	E216778		653	< 0.50	< 0.50			11.12	0.196	325
1/17/2017	FR_HC3	E300096		352	< 0.50	< 0.50			11.34	0.381	189
2/14/2017	FR_HC3	E300096		368	< 0.50	< 0.50			11.23	0.37	188
3/1/2017	FR_HC3	E300096		363	< 0.20	< 0.50			11.34	0.351	185
3/16/2017	FR_HC3	E300096							11.29		
3/23/2017	FR_HC3	E300096							11.32		
3/27/2017	FR_HC3	E300096							11.32		
4/4/2017	FR_HC3	E300096		353	< 0.20	< 0.50			11.34	0.35	186
4/4/2017	FR_HC3	E300096		366	< 0.50	< 0.50				0.375	210
4/11/2017	FR_HC3	E300096							12.08		
4/18/2017	FR_HC3	E300096							11.61		
4/26/2017	FR_HC3	E300096							11.84		
5/1/2017	FR_HC3	E300096		356	< 0.20	< 0.50			11.45	0.339	172
5/1/2017	FR_HC3	E300096		356	< 0.50	< 0.50				0.368	183
5/10/2017	FR_HC3	E300096							10.36		
5/15/2017	FR_HC3	E300096							10.84		
5/24/2017	FR_HC3	E300096							10.75		
5/29/2017	FR_HC3	E300096							12.05		
6/5/2017	FR_HC3	E300096		191	< 0.20	0.51			10.73	0.17	88.9
6/5/2017	FR_HC3	E300096		193	< 0.50	< 0.50				0.185	104
6/14/2017	FR_HC3	E300096							11.12		
6/21/2017	FR_HC3	E300096							10.88		
6/27/2017	FR_HC3	E300096							10.09		
7/3/2017	FR_HC3	E300096		190	< 0.50	< 0.50				0.217	104
7/3/2017	FR_HC3	E300096		200	< 0.20	< 0.50			10.57	0.174	100
7/11/2017	FR_HC3	E300096							9.83		
8/9/2017	FR_HC3	E300096		282	< 0.50	< 0.50			9.69	0.342	148
9/5/2017	FR_HC3	E300096		324	< 0.50	< 0.50			8.98	0.329	169
10/11/2017	FR_HC3	E300096		308	< 0.50	< 0.50			11.16	0.261	164
11/14/2017	FR_HC3	E300096		352	< 0.50	< 0.50			11.65	0.358	194
12/21/2017	FR_HC3	E300096		380	< 0.50	< 0.50			11.76	0.333	189
1/31/2017	FR_HP1	E216781					0				

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
2/28/2017	FR_HP1	E216781					0				
3/8/2017	FR_HP1	E216781					0				
3/15/2017	FR_HP1	E216781					0				
3/22/2017	FR_HP1	E216781					0				
3/31/2017	FR_HP1	E216781					0				
4/3/2017	FR_HP1	E216781					0				
4/10/2017	FR_HP1	E216781					0				
4/17/2017	FR_HP1	E216781					0				
4/24/2017	FR_HP1	E216781					0				
5/1/2017	FR_HP1	E216781					0				
5/8/2017	FR_HP1	E216781					0				
5/15/2017	FR_HP1	E216781					0				
5/22/2017	FR_HP1	E216781					0				
5/29/2017	FR_HP1	E216781					0				
6/5/2017	FR_HP1	E216781					0				
6/15/2017	FR_HP1	E216781					0				
6/22/2017	FR_HP1	E216781					0				
6/29/2017	FR_HP1	E216781					0				
7/3/2017	FR_HP1	E216781					0				
7/10/2017	FR_HP1	E216781					0				
8/7/2017	FR_HP1	E216781					0				
9/4/2017	FR_HP1	E216781					0				
10/2/2017	FR_HP1	E216781					0				
11/6/2017	FR_HP1	E216781					0				
12/4/2017	FR_HP1	E216781					0				
1/19/2017	FR_KC1	200252		1880	< 0.20	< 0.50			11.71	0.15	1120
2/1/2017	FR_KC1	200252		1950	< 0.20	< 0.50			11.6	0.14	1220
3/6/2017	FR_KC1	200252		1970	< 0.20	1.25			10.24	0.14	1210
3/15/2017	FR_KC1	200252							10.37		
3/22/2017	FR_KC1	200252							10.44		
3/29/2017	FR_KC1	200252							11.28		
4/5/2017	FR_KC1	200252		2080	0.24	0.58			11.65	< 0.10	1380
4/12/2017	FR_KC1	200252							11.59		
4/20/2017	FR_KC1	200252							11.09		
4/25/2017	FR_KC1	200252							10.08		
5/2/2017	FR_KC1	200252		2140	< 0.20	< 0.50			10.77	< 0.10	1260
5/7/2017	FR_KC1	200252									
5/8/2017	FR_KC1	200252							10.2		
5/16/2017	FR_KC1	200252							10.08		
5/23/2017	FR_KC1	200252							10.73		
5/30/2017	FR_KC1	200252							8.84		
6/6/2017	FR_KC1	200252		807	0.51	0.57			11.06	0.196	426
6/13/2017	FR_KC1	200252							8.59		
6/19/2017	FR_KC1	200252							9.75		
6/26/2017	FR_KC1	200252							10.34		
7/5/2017	FR_KC1	200252		1080	0.35	< 0.50			9.9	0.12	567
7/10/2017	FR_KC1	200252							10.01		

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
8/8/2017	FR_KC1	200252		1410	< 0.50	< 0.50			10.36	0.18	770
9/6/2017	FR_KC1	200252		1570	< 0.50	< 0.50			10.03	0.11	1080
9/20/2017	FR_KC1	200252									
10/4/2017	FR_KC1	200252		1380	< 0.50	< 0.50			10.3	0.14	1060
10/19/2017	FR_KC1	200252		1710	< 0.50	< 0.50			9.78	0.1	1120
11/1/2017	FR_KC1	200252		1850	< 0.50	< 0.50			10.77	0.1	1120
11/16/2017	FR_KC1	200252									
12/12/2017	FR_KC1	200252		2150	< 0.50	< 0.50			11.29	0.12	1370
1/10/2017	FR_LMP1	E306924		469	< 0.20	< 0.50			10.39	0.141	279
1/10/2017	FR_LMP1	E306924		466		< 0.50			10.3	0.164	251
1/11/2017	FR_LMP1	E306924		484	< 0.20	< 0.50			11.18	0.154	254
1/12/2017	FR_LMP1	E306924		481	< 0.20	< 0.50			11.28	0.159	257
1/13/2017	FR_LMP1	E306924		467	0.34	< 0.50			10.54	0.165	260
1/14/2017	FR_LMP1	E306924		463	< 0.20	< 0.50			11.88	0.174	242
1/15/2017	FR_LMP1	E306924		476	< 0.20	< 0.50			11.41	0.174	250
1/16/2017	FR_LMP1	E306924		495	< 0.20	< 0.50			10.26	0.182	265
1/17/2017	FR_LMP1	E306924		531	< 0.20	< 0.50			10.77	0.168	286
1/24/2017	FR_LMP1	E306924		571	< 0.20	< 0.50			11.23	0.209	341
2/15/2017	FR_LMP1	E306924		590	< 0.50	< 0.50			11.73	0.204	335
3/2/2017	FR_LMP1	E306924		564	< 0.20	< 0.50			10.47	0.164	310
3/14/2017	FR_LMP1	E306924							10.94		
3/18/2017	FR_LMP1	E306924									
3/19/2017	FR_LMP1	E306924									
3/22/2017	FR_LMP1	E306924							10.43		
3/27/2017	FR_LMP1	E306924							10.76		
4/3/2017	FR_LMP1	E306924		472	0.33	1.7			11.37	0.116	262
4/3/2017	FR_LMP1	E306924		476	< 0.50	1.29				0.142	288
4/8/2017	FR_LMP1	E306924									
4/8/2017	FR_LMP1	E306924									
4/9/2017	FR_LMP1	E306924									
4/10/2017	FR_LMP1	E306924							11.64		
4/11/2017	FR_LMP1	E306924									
4/14/2017	FR_LMP1	E306924									
4/17/2017	FR_LMP1	E306924									
4/18/2017	FR_LMP1	E306924							11.56		
4/19/2017	FR_LMP1	E306924		381	0.46	5.56			11.52	0.112	204
4/19/2017	FR_LMP1	E306924									
4/20/2017	FR_LMP1	E306924									
4/20/2017	FR_LMP1	E306924		339	0.62	10.4				0.113	178
4/20/2017	FR_LMP1	E306924									
4/21/2017	FR_LMP1	E306924									
4/21/2017	FR_LMP1	E306924		339	0.46	5.49			10.25	0.086	169
4/21/2017	FR_LMP1	E306924									
4/22/2017	FR_LMP1	E306924									
4/22/2017	FR_LMP1	E306924									
4/23/2017	FR_LMP1	E306924		415	0.4	2.48			11.05	0.098	194
4/25/2017	FR_LMP1	E306924							10.88		

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
4/27/2017	FR_LMP1	E306924		410	0.41	3.04			10.13	0.096	215
4/27/2017	FR_LMP1	E306924									
5/1/2017	FR_LMP1	E306924		438	0.36	1.41			10.73	0.114	212
5/1/2017	FR_LMP1	E306924		437	< 0.50	1.47				0.134	233
5/2/2017	FR_LMP1	E306924									
5/3/2017	FR_LMP1	E306924									
5/4/2017	FR_LMP1	E306924									
5/5/2017	FR_LMP1	E306924									
5/5/2017	FR_LMP1	E306924		272	0.61	5.43			11.29	0.086	138
5/5/2017	FR_LMP1	E306924									
5/5/2017	FR_LMP1	E306924									
5/6/2017	FR_LMP1	E306924									
5/6/2017	FR_LMP1	E306924		345	0.42	1.37				0.114	175
5/6/2017	FR_LMP1	E306924									
5/7/2017	FR_LMP1	E306924									
5/7/2017	FR_LMP1	E306924									
5/8/2017	FR_LMP1	E306924									
5/9/2017	FR_LMP1	E306924									
5/10/2017	FR_LMP1	E306924		381	0.51	1.48			10.19	0.133	193
5/15/2017	FR_LMP1	E306924							10.54		
5/23/2017	FR_LMP1	E306924							11.13		
5/29/2017	FR_LMP1	E306924							11.74		
6/5/2017	FR_LMP1	E306924		303	0.69	1.48			10.73	0.166	147
6/5/2017	FR_LMP1	E306924		301	0.7	1.3				0.179	164
6/15/2017	FR_LMP1	E306924							9.85		
6/20/2017	FR_LMP1	E306924							10.46		
6/26/2017	FR_LMP1	E306924							10.23		
7/3/2017	FR_LMP1	E306924		386	0.37	0.62			9.55	0.134	197
7/3/2017	FR_LMP1	E306924		375	< 0.50	0.66				0.173	214
7/10/2017	FR_LMP1	E306924							9.32		
8/8/2017	FR_LMP1	E306924		491	< 0.50	< 0.50			7.81	0.177	284
9/4/2017	FR_LMP1	E306924									
10/2/2017	FR_LMP1	E306924									
11/20/2017	FR_LMP1	E306924		586	< 0.50	< 0.50			11.26	0.132	364
12/11/2017	FR_LMP1	E306924		595	< 0.50	< 0.50			10.74	0.117	303
12/14/2017	FR_LMP1	E306924									
1/11/2017	FR_LP1	E304835									
1/11/2017	FR_LP1	E304835									
1/12/2017	FR_LP1	E304835									
1/16/2017	FR_LP1	E304835		1340	0.62	1.01			11.43	0.2	818
2/16/2017	FR_LP1	E304835		1080	0.68	1.39	0.006		12.49	0.17	664
3/2/2017	FR_LP1	E304835		1290	0.49	0.83			12.07	0.15	799
3/9/2017	FR_LP1	E304835									
3/14/2017	FR_LP1	E304835		1300	0.58	0.88			11.61	0.19	802
3/18/2017	FR_LP1	E304835									
3/19/2017	FR_LP1	E304835									
3/20/2017	FR_LP1	E304835							11.92		

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
3/29/2017	FR_LP1	E304835							11.44		
4/3/2017	FR_LP1	E304835		1130	0.45	0.85			11.59	0.172	694
4/3/2017	FR_LP1	E304835		1130	< 0.50	0.73				0.19	725
4/10/2017	FR_LP1	E304835							10.55		
4/19/2017	FR_LP1	E304835							9.8		
4/26/2017	FR_LP1	E304835							10.11		
5/1/2017	FR_LP1	E304835		1250	0.49	0.65			8.97	0.14	706
5/1/2017	FR_LP1	E304835		1280	0.52	0.72				0.19	784
5/7/2017	FR_LP1	E304835									
5/10/2017	FR_LP1	E304835							8.59		
5/15/2017	FR_LP1	E304835							8.72		
5/23/2017	FR_LP1	E304835							8.76		
5/29/2017	FR_LP1	E304835							8.91		
6/5/2017	FR_LP1	E304835		881	0.78	1.2			8.29	0.201	475
6/5/2017	FR_LP1	E304835		888	0.68	0.81				0.23	536
6/13/2017	FR_LP1	E304835							7.01		
6/19/2017	FR_LP1	E304835							7.62		
6/26/2017	FR_LP1	E304835									
7/3/2017	FR_LP1	E304835									
7/10/2017	FR_LP1	E304835									
8/7/2017	FR_LP1	E304835									
9/25/2017	FR_LP1	E304835		1560	0.74	0.89			10.04	0.13	1030
10/2/2017	FR_LP1	E304835									
11/20/2017	FR_LP1	E304835		1490	0.59	0.72			11.37	0.19	1080
12/11/2017	FR_LP1	E304835		1680	0.58	0.88			11.61	0.19	1020
12/14/2017	FR_LP1	E304835									
12/18/2017	FR_LP1	E304835		1700	0.8	2.13			12.42	0.21	1070
12/19/2017	FR_LP1	E304835		1630	1.03	0.93			11.2	0.222	978
12/20/2017	FR_LP1	E304835		1580	0.7	0.66			11.84	0.243	968
12/21/2017	FR_LP1	E304835		1500	< 0.50	< 0.50				0.253	831
7/26/2017	FR_LP1H	E310052		1460	0.52	0.89			8.46	0.15	811
8/28/2017	FR_LP1H	E310052		1430	0.53	0.85			6.2	0.13	958
10/30/2017	FR_LP1H	E310052		1630	0.61	0.85			9.75	0.14	1000
1/31/2017	FR_MS1	E102478									
2/28/2017	FR_MS1	E102478									
3/7/2017	FR_MS1	E102478									
3/16/2017	FR_MS1	E102478									
3/23/2017	FR_MS1	E102478									
3/31/2017	FR_MS1	E102478									
4/4/2017	FR_MS1	E102478									
4/10/2017	FR_MS1	E102478									
4/17/2017	FR_MS1	E102478									
4/24/2017	FR_MS1	E102478									
5/1/2017	FR_MS1	E102478									
5/8/2017	FR_MS1	E102478									
5/15/2017	FR_MS1	E102478									
5/25/2017	FR_MS1	E102478									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
5/29/2017	FR_MS1	E102478									
6/5/2017	FR_MS1	E102478									
6/16/2017	FR_MS1	E102478									
6/22/2017	FR_MS1	E102478									
6/27/2017	FR_MS1	E102478									
7/3/2017	FR_MS1	E102478					0				
7/10/2017	FR_MS1	E102478					0				
8/7/2017	FR_MS1	E102478					0				
9/4/2017	FR_MS1	E102478									
10/2/2017	FR_MS1	E102478									
11/6/2017	FR_MS1	E102478									
12/4/2017	FR_MS1	E102478									
1/31/2017	FR_NL1	E102476									
2/28/2017	FR_NL1	E102476									
3/7/2017	FR_NL1	E102476									
3/11/2017	FR_NL1	E102476									
3/21/2017	FR_NL1	E102476									
3/28/2017	FR_NL1	E102476		606	< 0.20	0.8			4.5	0.231	317
4/4/2017	FR_NL1	E102476		613	< 0.20	< 0.50			5.96	0.218	346
4/11/2017	FR_NL1	E102476							8.81		
4/18/2017	FR_NL1	E102476									
4/25/2017	FR_NL1	E102476									
5/1/2017	FR_NL1	E102476									
5/8/2017	FR_NL1	E102476									
5/17/2017	FR_NL1	E102476									
5/25/2017	FR_NL1	E102476									
5/29/2017	FR_NL1	E102476									
6/5/2017	FR_NL1	E102476									
6/16/2017	FR_NL1	E102476									
6/22/2017	FR_NL1	E102476									
6/26/2017	FR_NL1	E102476									
7/3/2017	FR_NL1	E102476									
7/10/2017	FR_NL1	E102476									
8/7/2017	FR_NL1	E102476									
9/4/2017	FR_NL1	E102476									
10/2/2017	FR_NL1	E102476									
11/27/2017	FR_NL1	E102476		873	1.2	1.34			10.62	0.265	489
12/4/2017	FR_NL1	E102476		762	0.52	1.02			7.64	0.249	442
7/26/2017	FR_NL1H	E310046		652	0.68	1.22			5.7	0.208	299
8/28/2017	FR_NL1H	E310046		555	< 0.50	0.53			5.53	0.185	301
9/25/2017	FR_NL1H	E310046		552	< 0.50	< 0.50			9.23	0.2	303
10/23/2017	FR_NL1H	E310046		597	< 0.50	0.56			10.13	0.189	319
9/4/2017	FR_PP1	E304750									
1/31/2017	FR_SKP1	E208394									
2/28/2017	FR_SKP1	E208394									
3/6/2017	FR_SKP1	E208394									
3/15/2017	FR_SKP1	E208394									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
3/21/2017	FR_SKP1	E208394									
3/28/2017	FR_SKP1	E208394									
4/3/2017	FR_SKP1	E208394									
4/10/2017	FR_SKP1	E208394									
4/17/2017	FR_SKP1	E208394									
4/24/2017	FR_SKP1	E208394									
5/1/2017	FR_SKP1	E208394									
5/9/2017	FR_SKP1	E208394									
5/17/2017	FR_SKP1	E208394									
5/23/2017	FR_SKP1	E208394									
5/31/2017	FR_SKP1	E208394									
6/5/2017	FR_SKP1	E208394									
6/16/2017	FR_SKP1	E208394									
6/19/2017	FR_SKP1	E208394									
6/27/2017	FR_SKP1	E208394									
7/3/2017	FR_SKP1	E208394									
7/10/2017	FR_SKP1	E208394									
8/7/2017	FR_SKP1	E208394									
9/4/2017	FR_SKP1	E208394									
10/2/2017	FR_SKP1	E208394									
11/6/2017	FR_SKP1	E208394									
12/4/2017	FR_SKP1	E208394									
7/26/2017	FR_SKP1H	E310049		1040	0.32	< 0.50			6.51	0.16	526
8/28/2017	FR_SKP1H	E310049		1200	< 0.50	< 0.50			8.25	0.11	669
9/25/2017	FR_SKP1H	E310049		1440	< 0.50	< 0.50			10.91	< 0.10	866
10/23/2017	FR_SKP1H	E310049		1540	< 0.50	< 0.50			11.63	0.11	995
11/22/2017	FR_SKP1H	E310049		1690	< 0.50	< 0.50			10.49	0.12	1180
12/12/2017	FR_SKP1H	E310049		2010	< 0.50	< 0.50			9.87	0.14	1210
1/31/2017	FR_SKP2	E208395									
2/28/2017	FR_SKP2	E208395									
3/6/2017	FR_SKP2	E208395									
3/15/2017	FR_SKP2	E208395									
3/21/2017	FR_SKP2	E208395									
3/28/2017	FR_SKP2	E208395									
4/3/2017	FR_SKP2	E208395									
4/10/2017	FR_SKP2	E208395									
4/17/2017	FR_SKP2	E208395									
4/24/2017	FR_SKP2	E208395									
5/2/2017	FR_SKP2	E208395									
5/9/2017	FR_SKP2	E208395									
5/16/2017	FR_SKP2	E208395									
5/23/2017	FR_SKP2	E208395									
5/30/2017	FR_SKP2	E208395		999	0.34	0.59			9.24	0.19	560
6/6/2017	FR_SKP2	E208395		850	0.51	0.65			12.01	0.194	450
6/13/2017	FR_SKP2	E208395							9.29		
6/19/2017	FR_SKP2	E208395							9.38		
6/27/2017	FR_SKP2	E208395									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
7/3/2017	FR_SKP2	E208395									
7/10/2017	FR_SKP2	E208395									
8/7/2017	FR_SKP2	E208395									
9/4/2017	FR_SKP2	E208395									
10/2/2017	FR_SKP2	E208395									
11/6/2017	FR_SKP2	E208395									
12/4/2017	FR_SKP2	E208395									
7/26/2017	FR_SKP2H	E310050		1190	< 0.20	< 0.50			7.52	0.15	608
8/28/2017	FR_SKP2H	E310050		1320	< 0.50	< 0.50			6.42	0.12	791
9/25/2017	FR_SKP2H	E310050		1540	< 0.50	< 0.50			10.34	0.1	927
10/23/2017	FR_SKP2H	E310050		1720	< 0.50	< 0.50			10.74	0.11	1110
11/22/2017	FR_SKP2H	E310050		1780	< 0.50	< 0.50			10.57	0.12	1170
12/12/2017	FR_SKP2H	E310050		2100	< 0.50	< 0.50			12.01	0.14	1210
1/18/2017	FR_SP1	E261897		1270	< 0.20	< 0.50			8.42	0.29	783
2/15/2017	FR_SP1	E261897		1310	< 0.20	< 0.50			9.12	0.27	876
3/2/2017	FR_SP1	E261897		1320	< 0.20	< 0.50			9.39	0.27	829
3/16/2017	FR_SP1	E261897							9.14		
3/22/2017	FR_SP1	E261897		1320	< 0.20	0.64			9.52	0.3	878
3/27/2017	FR_SP1	E261897							9.24		
4/3/2017	FR_SP1	E261897		1350	< 0.20	< 0.50			8.93	0.24	871
4/10/2017	FR_SP1	E261897							10.23		
4/20/2017	FR_SP1	E261897							9.14		
4/26/2017	FR_SP1	E261897							9.35		
5/1/2017	FR_SP1	E261897		1330	< 0.20	< 0.50			8.41	0.25	755
5/2/2017	FR_SP1	E261897									
5/7/2017	FR_SP1	E261897									
5/8/2017	FR_SP1	E261897							8.6		
5/15/2017	FR_SP1	E261897							8.95		
5/24/2017	FR_SP1	E261897							6.55		
5/29/2017	FR_SP1	E261897							8.54		
6/5/2017	FR_SP1	E261897		1100	< 0.20	0.61			9.84	0.31	620
6/13/2017	FR_SP1	E261897							6.76		
6/19/2017	FR_SP1	E261897							7.66		
6/26/2017	FR_SP1	E261897							7.15		
7/3/2017	FR_SP1	E261897		1140	< 0.20	< 0.50			8.72	0.24	657
7/10/2017	FR_SP1	E261897							6.66		
8/8/2017	FR_SP1	E261897		1290	< 0.50	< 0.50			8.58	0.32	858
9/6/2017	FR_SP1	E261897		1240	< 0.50	< 0.50			9.16	0.22	797
10/11/2017	FR_SP1	E261897		957	< 0.50	< 0.50			10.08	0.18	769
11/20/2017	FR_SP1	E261897		1100	< 0.50	< 0.50			9.34	0.28	820
12/11/2017	FR_SP1	E261897		1270	< 0.50	< 0.50			7.77	0.29	728
1/31/2017	FR_TP1	E102475					0				
3/31/2017	FR_TP1	E102475						0			
10/2/2017	FR_TP1	E102475					0				
1/31/2017	FR_TP3	E206660					65235				
3/31/2017	FR_TP3	E206660					62825				
1/9/2017	FR_UFR1	E216777		326	< 0.20	< 0.50			10.82	0.12	178

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
2/21/2017	FR_UFR1	E216777		341	< 0.20	< 0.50			11.91	0.137	185
2/28/2017	FR_UFR1	E216777		341	< 0.20	< 0.50			11.18	0.131	164
3/7/2017	FR_UFR1	E216777		330	< 0.20	< 0.50			11.68	0.133	196
3/14/2017	FR_UFR1	E216777		338	< 0.20	< 0.50			11.53	0.143	181
3/21/2017	FR_UFR1	E216777		317	< 0.20	< 0.50			11.94	0.139	160
3/27/2017	FR_UFR1	E216777							11.72		
4/4/2017	FR_UFR1	E216777		300	< 0.20	< 0.50			11.32	0.121	160
4/11/2017	FR_UFR1	E216777							12.46		
4/18/2017	FR_UFR1	E216777							12.32		
4/24/2017	FR_UFR1	E216777		239	0.4	0.67			11.5	0.106	121
5/2/2017	FR_UFR1	E216777		274	0.28	< 0.50			11.45	0.114	141
5/5/2017	FR_UFR1	E216777									
5/6/2017	FR_UFR1	E216777									
5/7/2017	FR_UFR1	E216777									
5/9/2017	FR_UFR1	E216777		238	0.31	0.51			10.9	0.114	120
5/16/2017	FR_UFR1	E216777		237	0.26	< 0.50			10.93	0.121	122
5/23/2017	FR_UFR1	E216777		202	0.24	0.75			11.61	0.099	106
5/30/2017	FR_UFR1	E216777		197	< 0.20	0.76			9.36	0.111	102
6/6/2017	FR_UFR1	E216777		216	0.22	< 0.50			10.94	0.105	109
6/14/2017	FR_UFR1	E216777							10.89		
6/20/2017	FR_UFR1	E216777							10.22		
6/27/2017	FR_UFR1	E216777							9.69		
7/3/2017	FR_UFR1	E216777		281	< 0.20	< 0.50			10.2	0.117	140
7/11/2017	FR_UFR1	E216777							9.23		
7/25/2017	FR_UFR1	E216777		319	< 0.20	< 0.50			9.64	0.135	159
8/1/2017	FR_UFR1	E216777		325	< 0.50	< 0.50			9.55	0.158	194
8/8/2017	FR_UFR1	E216777		350	< 0.50	< 0.50			9.54	0.158	182
8/15/2017	FR_UFR1	E216777		336	< 0.50	< 0.50			11.15	0.166	177
8/22/2017	FR_UFR1	E216777		336	< 0.50	< 0.50			9.9	0.136	186
9/5/2017	FR_UFR1	E216777		353	< 0.50	< 0.50			9.28	0.13	183
10/2/2017	FR_UFR1	E216777		333	< 0.50	< 0.50			11.58	0.113	185
10/10/2017	FR_UFR1	E216777		341	< 0.50	< 0.50			11.9	0.115	191
10/17/2017	FR_UFR1	E216777		317	< 0.50	< 0.50			11.21	0.112	177
10/24/2017	FR_UFR1	E216777		339	< 0.50	< 0.50			11.85	0.107	177
10/31/2017	FR_UFR1	E216777		339	< 0.50	< 0.50			11.99	0.107	189
11/7/2017	FR_UFR1	E216777		356	< 0.50	< 0.50			11.97	0.128	191
12/21/2017	FR_UFR1	E216777		372	< 0.50	< 0.50			11.91	0.115	189
1/16/2017	GH_BR_F	E287437									
2/14/2017	GH_BR_F	E287437									
3/6/2017	GH_BR_F	E287437									
3/16/2017	GH_BR_F	E287437									
3/21/2017	GH_BR_F	E287437		239	0.81	0.94			11.28	0.115	137
3/27/2017	GH_BR_F	E287437							12		
4/4/2017	GH_BR_F	E287437							11.04		
4/10/2017	GH_BR_F	E287437							11.31		
4/18/2017	GH_BR_F	E287437		208	1.14	1.1			10.86	0.102	127
4/25/2017	GH_BR_F	E287437							11.58		

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
5/1/2017	GH_BR_F	E287437		222	0.92	1.24			11.07	0.101	108
5/8/2017	GH_BR_F	E287437							12.12		
5/15/2017	GH_BR_F	E287437							11.58		
5/24/2017	GH_BR_F	E287437							10.01		
5/29/2017	GH_BR_F	E287437							10.4		
6/5/2017	GH_BR_F	E287437		247	0.72	0.68			9.64	0.116	146
6/12/2017	GH_BR_F	E287437							10.82		
6/20/2017	GH_BR_F	E287437									
6/27/2017	GH_BR_F	E287437									
7/4/2017	GH_BR_F	E287437									
7/10/2017	GH_BR_F	E287437									
8/1/2017	GH_BR_F	E287437									
9/12/2017	GH_BR_F	E287437									
10/3/2017	GH_BR_F	E287437									
11/6/2017	GH_BR_F	E287437									
12/6/2017	GH_BR_F	E287437									
1/10/2017	GH_CC1	E0200384		3390	< 0.50	< 1.0			9.81	< 0.40	2440
2/9/2017	GH_CC1	E0200384		3300	0.26	< 0.50			10.97	0.13	2440
3/6/2017	GH_CC1	E0200384		3160	< 0.20	1.36			10.26	0.11	2280
3/15/2017	GH_CC1	E0200384							9.97		
3/21/2017	GH_CC1	E0200384		3020	< 0.20	< 0.50			11.24	0.13	2140
3/29/2017	GH_CC1	E0200384							10.8		
4/5/2017	GH_CC1	E0200384		2850	0.39	0.5			11.03	< 0.10	2250
4/5/2017	GH_CC1	E0200384		2700	< 0.50	< 1.0				< 0.40	2160
4/12/2017	GH_CC1	E0200384							11.11		
4/20/2017	GH_CC1	E0200384							10.7		
4/25/2017	GH_CC1	E0200384							10.51		
5/2/2017	GH_CC1	E0200384									
5/3/2017	GH_CC1	E0200384		2860	0.24	0.71			10.33	0.11	1960
5/3/2017	GH_CC1	E0200384		2810	< 0.50	< 1.0				< 0.40	2120
5/7/2017	GH_CC1	E0200384									
5/8/2017	GH_CC1	E0200384		2360	0.4	0.52			10.11	0.11	1730
5/17/2017	GH_CC1	E0200384							10.47		
5/23/2017	GH_CC1	E0200384							10.2		
5/31/2017	GH_CC1	E0200384							9.43		
6/6/2017	GH_CC1	E0200384		2960	0.45	0.67			9.9	0.11	2240
6/6/2017	GH_CC1	E0200384		3080	< 0.50	< 1.0				< 0.40	2360
6/13/2017	GH_CC1	E0200384							8.31		
6/19/2017	GH_CC1	E0200384							9.71		
6/27/2017	GH_CC1	E0200384							9.18		
7/5/2017	GH_CC1	E0200384		3320	0.24	< 0.50			10.01	< 0.10	2190
7/5/2017	GH_CC1	E0200384		3420	< 0.50	< 1.0				< 0.40	2180
7/10/2017	GH_CC1	E0200384							9.77		
8/8/2017	GH_CC1	E0200384		3410	< 0.50	< 1.0			9.01	< 0.40	2540
9/6/2017	GH_CC1	E0200384		3340	< 0.50	< 1.0			9.91	< 0.10	2870
9/20/2017	GH_CC1	E0200384									
10/4/2017	GH_CC1	E0200384		2690	< 0.50	0.62			11.07	< 0.10	2490

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
10/19/2017	GH_CC1	E0200384		3210	< 0.50	< 1.0			10.63	< 0.10	2400
11/1/2017	GH_CC1	E0200384		3330	< 0.50	< 0.50			10.95	< 0.10	2460
11/16/2017	GH_CC1	E0200384									
12/5/2017	GH_CC1	E0200384		3160	< 0.50	< 1.0			11.54	0.1	2480
1/16/2017	GH_COUGAR	E287432									
2/15/2017	GH_COUGAR	E287432									
3/6/2017	GH_COUGAR	E287432									
3/16/2017	GH_COUGAR	E287432		348	0.45	0.6			11.94	0.077	179
3/22/2017	GH_COUGAR	E287432							11.64		
3/27/2017	GH_COUGAR	E287432							12.31		
4/4/2017	GH_COUGAR	E287432							11.18		
4/10/2017	GH_COUGAR	E287432							11.31		
4/18/2017	GH_COUGAR	E287432		299	0.69	1.4			10.88	0.09	174
4/25/2017	GH_COUGAR	E287432							11.38		
5/1/2017	GH_COUGAR	E287432		342	0.62	1.35			10.81	0.088	175
5/8/2017	GH_COUGAR	E287432							10.63		
5/15/2017	GH_COUGAR	E287432							11.84		
5/24/2017	GH_COUGAR	E287432							9.95		
5/29/2017	GH_COUGAR	E287432							10.4		
6/5/2017	GH_COUGAR	E287432		396	0.54	0.6			9.64	0.105	220
6/12/2017	GH_COUGAR	E287432							10.55		
6/20/2017	GH_COUGAR	E287432									
6/27/2017	GH_COUGAR	E287432									
7/4/2017	GH_COUGAR	E287432									
7/10/2017	GH_COUGAR	E287432									
8/2/2017	GH_COUGAR	E287432									
9/12/2017	GH_COUGAR	E287432									
10/3/2017	GH_COUGAR	E287432									
11/6/2017	GH_COUGAR	E287432									
12/6/2017	GH_COUGAR	E287432									
1/16/2017	GH_ER1	206661		366	< 0.50	< 0.50			9.82	0.15	177
2/14/2017	GH_ER1	206661		352	< 0.50	< 0.50			9.63	0.148	171
2/21/2017	GH_ER1	206661								0.145	
3/6/2017	GH_ER1	206661		331	< 0.50	< 0.50			10.66	0.146	203
3/16/2017	GH_ER1	206661		333	< 0.20	< 0.50			10.01	0.134	175
3/21/2017	GH_ER1	206661		359	< 0.50	< 0.50			10.89	0.156	208
3/27/2017	GH_ER1	206661		390	< 0.50	< 0.50			10.06	0.15	186
4/4/2017	GH_ER1	206661		372	< 0.50	< 0.50			10	0.155	199
4/10/2017	GH_ER1	206661		380	< 0.50	< 0.50			10.13	0.147	200
4/20/2017	GH_ER1	206661		357	< 0.20	< 0.50			10.04	0.147	189
4/25/2017	GH_ER1	206661		366	< 0.50	< 0.50			10.12	0.154	202
5/1/2017	GH_ER1	206661		384	< 0.50	< 0.50			9.4	0.151	202
5/8/2017	GH_ER1	206661		336	< 0.50	1.46			9.71	0.142	181
5/15/2017	GH_ER1	206661		329	< 0.50	0.75			11.2	0.152	180
5/24/2017	GH_ER1	206661		294	< 0.50	6.95			9.52	0.141	150
5/29/2017	GH_ER1	206661		288	< 0.50	2.28			9.68	0.138	153
6/6/2017	GH_ER1	206661		287	< 0.50	1.65			9.8	0.145	153

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
6/12/2017	GH_ER1	206661		286	< 0.20	1.22			9.92	0.132	147
6/20/2017	GH_ER1	206661		267	< 0.20	< 0.50			8.18	0.099	145
6/27/2017	GH_ER1	206661		277	< 0.20	< 0.50			9.67	0.102	145
7/4/2017	GH_ER1	206661		285	0.41	< 0.50			9.18	0.173	140
7/11/2017	GH_ER1	206661		285	< 0.20	< 0.50			9.92	0.123	136
8/2/2017	GH_ER1	206661		310	< 0.50	< 0.50			9.75	0.162	155
9/5/2017	GH_ER1	206661		311	< 0.50	< 0.50			7.43	0.134	164
9/11/2017	GH_ER1	206661		287	< 0.50	< 0.50			9.42	0.125	159
10/4/2017	GH_ER1	206661		320	< 0.50	< 0.50			10.97	0.177	177
11/6/2017	GH_ER1	206661		335	< 0.50	< 2.5			11.5	0.115	186
12/5/2017	GH_ER1	206661		335	< 0.50	< 0.50			11.53	0.158	178
1/16/2017	GH_ER1A	E305876		319	< 0.50	< 0.50			10.3	0.159	150
2/15/2017	GH_ER1A	E305876		317	< 0.50	< 0.50			12.44	0.157	170
3/6/2017	GH_ER1A	E305876									
3/16/2017	GH_ER1A	E305876									
3/21/2017	GH_ER1A	E305876									
3/27/2017	GH_ER1A	E305876									
4/4/2017	GH_ER1A	E305876							9.45		
4/10/2017	GH_ER1A	E305876							10.23		
4/18/2017	GH_ER1A	E305876		525	< 0.50	< 0.50			9.52	0.145	275
4/25/2017	GH_ER1A	E305876							10.6		
5/1/2017	GH_ER1A	E305876		452	< 0.50	< 0.50			9.84	0.153	226
5/8/2017	GH_ER1A	E305876							9.95		
5/15/2017	GH_ER1A	E305876							11.42		
5/24/2017	GH_ER1A	E305876							9.02		
5/29/2017	GH_ER1A	E305876							10.25		
6/6/2017	GH_ER1A	E305876		283	< 0.50	1.23			9.54	0.144	156
6/12/2017	GH_ER1A	E305876							10.16		
6/19/2017	GH_ER1A	E305876		281	< 0.20	< 0.50			10.8	0.129	143
6/27/2017	GH_ER1A	E305876									
7/11/2017	GH_ER1A	E305876		271	< 0.20	< 0.50			10.16	0.128	128
8/2/2017	GH_ER1A	E305876		284	< 0.50	< 0.50			9.81	0.166	145
9/8/2017	GH_ER1A	E305876		277	< 0.50	< 0.50			10.35	0.12	149
9/12/2017	GH_ER1A	E305876		272	< 0.50	< 0.50			7.87	0.147	156
10/3/2017	GH_ER1A	E305876		282	< 0.50	< 0.50			11.62	0.14	168
11/28/2017	GH_ER1A	E305876		298	< 0.50	< 0.50			11.67	0.154	162
12/12/2017	GH_ER1A	E305876									
1/16/2017	GH_ER2	200389		314	< 0.50	9.57			10.49	0.158	158
2/14/2017	GH_ER2	200389		299	< 0.50	< 0.50			11.81	0.157	171
2/21/2017	GH_ER2	200389								0.157	
3/6/2017	GH_ER2	200389		294	< 0.50	< 0.50			12.01	0.158	175
3/16/2017	GH_ER2	200389		299	< 0.20	< 0.50			10.54	0.143	158
3/21/2017	GH_ER2	200389							11.28		
3/27/2017	GH_ER2	200389							10.78		
4/4/2017	GH_ER2	200389							10.34		
4/10/2017	GH_ER2	200389							10.69		
4/18/2017	GH_ER2	200389		307	< 0.50	< 0.50			10.07	0.155	183

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
4/24/2017	GH_ER2	200389							10.02		
4/25/2017	GH_ER2	200389		321	< 0.50	< 0.50			10.02	0.156	177
5/2/2017	GH_ER2	200389		320	< 0.50	< 0.50			9.5	0.153	172
5/9/2017	GH_ER2	200389		295	< 0.50	0.53			9.95	0.143	172
5/16/2017	GH_ER2	200389		292	< 0.50	0.51			11.59	0.15	177
5/23/2017	GH_ER2	200389		277	< 0.50	1.36			11.08	0.131	158
5/30/2017	GH_ER2	200389		266	< 0.50	2.91			10.32	0.138	135
6/11/2017	GH_ER2	200389		251	< 0.20	1.28			9.95	0.134	134
6/13/2017	GH_ER2	200389		253	< 0.20	0.56			9.95	0.129	136
6/20/2017	GH_ER2	200389							10.04		
6/27/2017	GH_ER2	200389							9.89		
7/4/2017	GH_ER2	200389							10.01		
7/10/2017	GH_ER2	200389		255	< 0.20	< 0.50			9.46	0.113	123
7/25/2017	GH_ER2	200389		276	< 0.20	< 0.50			9.02	0.139	137
8/1/2017	GH_ER2	200389		277	< 0.50	< 0.50			8.26	0.163	165
8/8/2017	GH_ER2	200389		289	< 0.50	< 0.50			8.34	0.163	157
8/15/2017	GH_ER2	200389		286	< 0.50	< 0.50			8.24	0.172	159
8/22/2017	GH_ER2	200389		281	< 0.50	< 0.50			7.35	< 0.020	159
9/10/2017	GH_ER2	200389		252	< 0.50	< 0.50			9.71	0.124	148
9/12/2017	GH_ER2	200389		263	< 0.50	< 0.50			9.38	0.146	151
10/2/2017	GH_ER2	200389		282	< 0.50	< 0.50			9.85	0.128	161
10/10/2017	GH_ER2	200389		283	< 0.50	< 0.50			11.08	0.131	163
10/16/2017	GH_ER2	200389		278	< 0.50	< 0.50			11.02	0.122	170
10/17/2017	GH_ER2	200389		269	< 0.50	< 0.50			10.63	0.143	149
10/24/2017	GH_ER2	200389		286	< 0.50	< 0.50				0.125	150
10/31/2017	GH_ER2	200389		280	< 0.50	< 0.50			11.59	0.118	153
11/6/2017	GH_ER2	200389		305	< 0.50	< 2.5			12.29	0.119	179
12/6/2017	GH_ER2	200389		302	< 0.50	< 0.50			12.1	0.167	168
1/16/2017	GH_ERC	E300090		374	< 0.50	< 0.50			9.92	0.149	184
2/1/2017	GH_ERC	E300090		366	< 0.50	< 0.50				0.15	192
2/14/2017	GH_ERC	E300090		350	< 0.50	< 0.50			11.24	0.146	200
2/21/2017	GH_ERC	E300090		354	< 0.50	< 0.50				0.141	190
3/6/2017	GH_ERC	E300090		321	< 0.50	< 0.50			11.62	0.147	197
3/16/2017	GH_ERC	E300090		318	< 0.20	< 0.50			10.96	0.134	168
3/21/2017	GH_ERC	E300090		340	< 0.50	< 0.50			11.31	0.157	200
3/28/2017	GH_ERC	E300090		355	< 0.50	< 0.50			11.22	0.154	188
4/4/2017	GH_ERC	E300090		366	< 0.50	< 0.50			10.12	0.157	196
4/10/2017	GH_ERC	E300090		377	< 0.50	< 0.50			10.28	0.151	204
4/20/2017	GH_ERC	E300090		357	< 0.20	< 0.50			10.01	0.132	183
4/24/2017	GH_ERC	E300090		368	< 0.50	< 0.50			10.52	0.155	187
5/2/2017	GH_ERC	E300090		372	< 0.50	< 0.50			9.72	0.15	211
5/9/2017	GH_ERC	E300090		333	< 0.50	0.87			10.06	0.141	199
5/16/2017	GH_ERC	E300090		325	< 0.50	0.71			11.57	0.15	191
5/23/2017	GH_ERC	E300090		291	< 0.50	1.78			10.72	0.131	155
5/30/2017	GH_ERC	E300090		283	< 0.50	3.2			9.9	0.14	150
6/11/2017	GH_ERC	E300090		278	< 0.20	1.6			9.67	0.133	145
6/13/2017	GH_ERC	E300090		277	< 0.20	1.13			9.67	0.13	149

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
6/19/2017	GH_ERC	E300090		259	0.52	< 0.50			8.79	0.16	140
6/27/2017	GH_ERC	E300090		273	< 0.20	0.56			9.87	0.096	141
7/4/2017	GH_ERC	E300090		278	0.2	< 0.50			9.96	0.104	137
7/11/2017	GH_ERC	E300090		279	< 0.20	< 0.50			10.02	0.127	134
7/25/2017	GH_ERC	E300090		295	< 0.20	< 0.50			9.22	0.139	149
8/1/2017	GH_ERC	E300090		283	< 0.50	< 0.50			8.77	0.163	173
9/5/2017	GH_ERC	E300090		303	< 0.50	< 0.50			7.13	0.134	159
9/11/2017	GH_ERC	E300090		279	< 0.50	< 0.50			7.7	0.125	153
10/2/2017	GH_ERC	E300090		303	< 0.50	< 0.50			9.01	0.117	174
10/10/2017	GH_ERC	E300090		304	< 0.50	< 0.50			10.19	0.127	175
10/17/2017	GH_ERC	E300090		284	< 0.50	< 0.50			10.98	0.142	156
10/24/2017	GH_ERC	E300090		305	< 0.50	< 0.50				0.12	162
10/31/2017	GH_ERC	E300090		303	< 0.50	< 0.50			10.65	0.12	168
11/14/2017	GH_ERC	E300090		320	< 0.50	< 0.50			10.67	0.123	192
12/5/2017	GH_ERC	E300090		329	< 0.50	< 0.50			10.75	0.161	176
1/16/2017	GH_ERSC2	E305877									
2/15/2017	GH_ERSC2	E305877									
3/6/2017	GH_ERSC2	E305877									
3/16/2017	GH_ERSC2	E305877									
3/22/2017	GH_ERSC2	E305877									
3/29/2017	GH_ERSC2	E305877									
4/5/2017	GH_ERSC2	E305877									
4/10/2017	GH_ERSC2	E305877									
4/20/2017	GH_ERSC2	E305877									
4/25/2017	GH_ERSC2	E305877		697	< 0.50	0.89			10.46	0.11	374
5/3/2017	GH_ERSC2	E305877		695	< 0.50	0.5			11.68	0.118	412
5/10/2017	GH_ERSC2	E305877							10.03		
5/15/2017	GH_ERSC2	E305877							10.61		
5/24/2017	GH_ERSC2	E305877							9.18		
5/29/2017	GH_ERSC2	E305877							10.02		
6/7/2017	GH_ERSC2	E305877		334	0.59	0.82			9.48	0.143	195
6/12/2017	GH_ERSC2	E305877							10.05		
6/19/2017	GH_ERSC2	E305877		324	< 0.20	0.59			9.63	0.13	165
6/27/2017	GH_ERSC2	E305877									
7/4/2017	GH_ERSC2	E305877									
7/11/2017	GH_ERSC2	E305877		304	< 0.20	0.55			9.61	0.118	144
8/2/2017	GH_ERSC2	E305877		328	< 0.50	< 0.50			9.8	0.163	170
9/13/2017	GH_ERSC2	E305877									
10/3/2017	GH_ERSC2	E305877									
11/14/2017	GH_ERSC2	E305877									
12/18/2017	GH_ERSC2	E305877									
1/16/2017	GH_ERSC4	E305878		506	< 0.50	< 0.50			10.73	0.247	277
2/15/2017	GH_ERSC4	E305878		318	< 0.50	< 0.50			12.34	0.157	178
3/6/2017	GH_ERSC4	E305878									
3/16/2017	GH_ERSC4	E305878									
3/21/2017	GH_ERSC4	E305878									
3/29/2017	GH_ERSC4	E305878									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
4/4/2017	GH_ERSC4	E305878									
4/10/2017	GH_ERSC4	E305878									
4/20/2017	GH_ERSC4	E305878		343	< 0.20	< 0.50			10.62	0.093	168
4/25/2017	GH_ERSC4	E305878							10.42		
5/1/2017	GH_ERSC4	E305878		347	< 0.50	< 0.50			9.88	0.154	173
5/10/2017	GH_ERSC4	E305878							10.97		
5/15/2017	GH_ERSC4	E305878							11.52		
5/24/2017	GH_ERSC4	E305878							9.87		
5/29/2017	GH_ERSC4	E305878							10.5		
6/5/2017	GH_ERSC4	E305878		262	< 0.50	1.85			8.68	0.148	137
6/12/2017	GH_ERSC4	E305878							10.42		
6/19/2017	GH_ERSC4	E305878									
6/27/2017	GH_ERSC4	E305878									
7/10/2017	GH_ERSC4	E305878		264	< 0.20	< 0.50			9.93	0.113	124
8/2/2017	GH_ERSC4	E305878		281	< 0.50	< 0.50			9.77	0.165	145
9/8/2017	GH_ERSC4	E305878		280	< 0.50	< 0.50			10.51	0.126	176
9/12/2017	GH_ERSC4	E305878		271	< 0.50	< 0.50			8.29	0.149	156
10/3/2017	GH_ERSC4	E305878		282	< 0.50	< 0.50			11.39	0.135	168
11/14/2017	GH_ERSC4	E305878		305	< 0.50	< 0.50			11.44	0.124	177
12/12/2017	GH_ERSC4	E305878		331	< 0.50	< 0.50			12.32	0.167	173
1/9/2017	GH_FR1	200378		863	< 0.50	< 0.50			10.33	0.16	478
2/1/2017	GH_FR1	200378		884	< 0.50	< 0.50				0.15	474
2/14/2017	GH_FR1	200378		834	< 0.50	< 0.50			11.87	0.14	501
2/21/2017	GH_FR1	200378		843	< 0.50	< 0.50				0.14	479
2/28/2017	GH_FR1	200378		870	< 0.50	< 0.50				0.14	483
3/7/2017	GH_FR1	200378		895	< 0.50	< 0.50			11.23	0.15	510
3/14/2017	GH_FR1	200378		868	< 0.50	< 0.50			11.5	0.14	524
3/16/2017	GH_FR1	200378		927	< 0.20	< 0.50			10.24	0.144	547
3/21/2017	GH_FR1	200378		903	< 0.50	< 0.50			10.01	0.14	538
3/27/2017	GH_FR1	200378		985	< 0.50	< 0.50			10.63	0.15	477
4/4/2017	GH_FR1	200378		908	< 0.50	< 0.50			10.44	0.16	488
4/11/2017	GH_FR1	200378		831	< 0.50	< 0.50			10.2	0.13	491
4/18/2017	GH_FR1	200378		863	< 0.50	< 0.50			10.01	0.13	517
4/24/2017	GH_FR1	200378		735	< 0.50	1.26			10.18	0.13	404
5/2/2017	GH_FR1	200378		727	< 0.50	< 0.50			10.06	0.14	415
5/9/2017	GH_FR1	200378		525	< 0.50	1.12			10.62	0.154	330
5/16/2017	GH_FR1	200378		531	< 0.50	0.68			10.74	0.17	314
5/23/2017	GH_FR1	200378		485	< 0.50	1.23			10.8	0.154	257
5/30/2017	GH_FR1	200378		445	< 0.50	1.33			10.29	0.168	222
6/11/2017	GH_FR1	200378		546	< 0.20	< 0.50			10.4	0.171	282
6/13/2017	GH_FR1	200378		554	< 0.20	< 0.50			9.85	0.172	296
6/19/2017	GH_FR1	200378		582	< 0.20	< 0.50			10.11	0.182	303
6/27/2017	GH_FR1	200378		603	< 0.20	< 0.50			8.68	0.121	316
7/4/2017	GH_FR1	200378		650	< 0.20	< 0.50			8.42	0.136	331
7/11/2017	GH_FR1	200378		692	< 0.20	< 0.50			9.49	0.15	345
7/25/2017	GH_FR1	200378		742	< 0.20	< 0.50			9.65	0.153	391
8/1/2017	GH_FR1	200378		768	< 0.50	< 0.50			9.72	0.18	442

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
8/8/2017	GH_FR1	200378		774	< 0.50	< 0.50			10.19	0.16	435
8/15/2017	GH_FR1	200378		785	< 0.50	< 0.50			10.06	0.181	467
8/22/2017	GH_FR1	200378		762	< 0.50	< 0.50			7.56	0.126	447
9/5/2017	GH_FR1	200378		822	< 0.50	< 0.50			8	0.145	446
9/11/2017	GH_FR1	200378		721	< 0.50	< 0.50			7.3	0.133	413
10/2/2017	GH_FR1	200378		749	< 0.50	< 0.50			10.56	0.126	476
10/10/2017	GH_FR1	200378		868	< 0.50	< 0.50			11.48	0.131	580
10/17/2017	GH_FR1	200378		820	< 0.50	< 0.50			9.88	0.145	487
10/24/2017	GH_FR1	200378		884	< 0.50	< 0.50			11.54	0.129	478
10/31/2017	GH_FR1	200378		808	< 0.50	< 0.50			11.36	0.117	465
11/7/2017	GH_FR1	200378		944	< 0.50	< 0.50			11.9	0.12	508
11/14/2017	GH_FR1	200378		867	< 0.50	< 0.50			11.58	0.126	530
11/21/2017	GH_FR1	200378		853	< 0.50	< 0.50			11.46	0.23	531
12/5/2017	GH_FR1	200378		844	< 0.50	< 0.50			12.66	0.15	464
1/9/2017	GH_GH1	E102709		1620	< 0.50	< 0.50			11.08	< 0.20	1020
2/15/2017	GH_GH1	E102709		1700	< 0.50	< 0.50			12.22	0.22	1150
3/7/2017	GH_GH1	E102709		1640	< 0.50	< 0.50			12.1	0.21	1070
3/14/2017	GH_GH1	E102709		1650	< 0.50	< 0.50			12.32	0.22	1160
3/16/2017	GH_GH1	E102709							10.65		
3/21/2017	GH_GH1	E102709							10.88		
3/27/2017	GH_GH1	E102709							10.65		
4/4/2017	GH_GH1	E102709							10.87		
4/11/2017	GH_GH1	E102709							10.94		
4/18/2017	GH_GH1	E102709		995	< 0.50	0.59			10.02	0.16	586
4/24/2017	GH_GH1	E102709							10.61		
4/27/2017	GH_GH1	E102709									
5/2/2017	GH_GH1	E102709		650	0.77	1.31			9.48	0.131	367
5/3/2017	GH_GH1	E102709									
5/9/2017	GH_GH1	E102709		459	0.97	3.01			9.79	0.113	275
5/10/2017	GH_GH1	E102709									
5/15/2017	GH_GH1	E102709							11.16		
5/24/2017	GH_GH1	E102709							9.05		
5/29/2017	GH_GH1	E102709							9.03		
6/7/2017	GH_GH1	E102709		1110	0.51	0.6				0.13	685
6/8/2017	GH_GH1	E102709		1150	0.49	0.6			8.74	< 0.10	631
6/12/2017	GH_GH1	E102709							8.49		
6/19/2017	GH_GH1	E102709							10.49		
6/27/2017	GH_GH1	E102709							8.6		
7/4/2017	GH_GH1	E102709							8.3		
7/11/2017	GH_GH1	E102709		1560	0.3	< 0.50			8.28	0.1	874
8/3/2017	GH_GH1	E102709		1580	< 0.50	< 0.50			8.5	< 0.10	1100
9/11/2017	GH_GH1	E102709		1440	< 0.50	< 0.50			8.09	0.1	1080
10/4/2017	GH_GH1	E102709		1720	< 0.50	< 0.50			10.21	< 0.20	1120
11/7/2017	GH_GH1	E102709		1690	< 0.50	< 0.50			11.75	0.11	1250
12/11/2017	GH_GH1	E102709		1770	< 0.50	< 0.50			12.59	0.24	1060
5/9/2017	GH_GH2	E309911		472	0.94	3.07			10.25	0.116	278
6/7/2017	GH_GH2	E309911		1100	< 0.50	0.59			7.74	0.13	670

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
6/19/2017	GH_GH2	E309911		1340	0.36	< 0.50			8.52	0.14	805
7/11/2017	GH_GH2	E309911		1550	0.25	< 0.50			8.26	0.1	874
8/3/2017	GH_GH2	E309911							8.16		
8/7/2017	GH_GH2	E309911		1550	< 0.50	< 0.50				< 0.10	1030
9/12/2017	GH_GH2	E309911		1700	< 0.50	< 0.50			7.1	0.14	1150
10/25/2017	GH_GH2	E309911		1640	< 0.50	< 0.50			10.73	0.12	1090
11/7/2017	GH_GH2	E309911		1680	< 0.50	< 0.50			11.83	0.11	1280
12/11/2017	GH_GH2	E309911		1760	< 0.50	< 0.50			12.25	0.25	1120
1/16/2017	GH_LC1	E257796									
2/14/2017	GH_LC1	E257796		1510	0.63	0.92			11.82	0.23	952
2/21/2017	GH_LC1	E257796		1530	0.78	0.95				0.24	958
3/6/2017	GH_LC1	E257796		1540	0.55	0.7			11.24	0.25	1050
3/16/2017	GH_LC1	E257796							10.78		
3/21/2017	GH_LC1	E257796							11.03		
3/27/2017	GH_LC1	E257796							10.9		
4/4/2017	GH_LC1	E257796							10.08		
4/10/2017	GH_LC1	E257796							10.21		
4/18/2017	GH_LC1	E257796		1800	< 0.50	0.67			10.13	0.25	1160
4/25/2017	GH_LC1	E257796							10.42		
5/1/2017	GH_LC1	E257796		1680	0.64	0.91			9.79	0.25	960
5/8/2017	GH_LC1	E257796							10.13		
5/15/2017	GH_LC1	E257796							11.34		
5/24/2017	GH_LC1	E257796							9.74		
5/29/2017	GH_LC1	E257796							10.8		
6/5/2017	GH_LC1	E257796		1840	< 0.50	0.93			10.29	0.23	1110
6/12/2017	GH_LC1	E257796							9.91		
6/19/2017	GH_LC1	E257796							10.47		
6/20/2017	GH_LC1	E257796									
6/27/2017	GH_LC1	E257796							10.07		
7/4/2017	GH_LC1	E257796							11.8		
7/10/2017	GH_LC1	E257796		1800	0.49	0.67			11.26	0.16	988
8/2/2017	GH_LC1	E257796		1940	0.62	< 1.0			11.42	0.23	1180
9/11/2017	GH_LC1	E257796		1630	0.58	0.84			10.04	0.11	1240
10/3/2017	GH_LC1	E257796		1870	0.91	0.85			11.61	0.13	1340
11/6/2017	GH_LC1	E257796									
12/12/2017	GH_LC1	E257796									
1/16/2017	GH_MC1	200388									
2/15/2017	GH_MC1	200388									
3/6/2017	GH_MC1	200388									
3/16/2017	GH_MC1	200388		630	0.35	0.58			11.96	0.161	326
3/22/2017	GH_MC1	200388		667	< 0.50	0.65			11.52	0.19	353
3/27/2017	GH_MC1	200388							11.93		
4/4/2017	GH_MC1	200388							10.73		
4/10/2017	GH_MC1	200388							10.44		
4/18/2017	GH_MC1	200388		538	0.64	0.8			10.8	0.168	276
4/25/2017	GH_MC1	200388							11.63		
5/1/2017	GH_MC1	200388		494	0.7	0.99			10.73	0.157	243

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
5/8/2017	GH_MC1	200388							10.8		
5/15/2017	GH_MC1	200388							11.85		
5/24/2017	GH_MC1	200388							11.09		
5/29/2017	GH_MC1	200388							10.03		
6/5/2017	GH_MC1	200388		541	0.53	0.63			9.6	0.198	279
6/12/2017	GH_MC1	200388							10.06		
6/20/2017	GH_MC1	200388							9.43		
6/27/2017	GH_MC1	200388							9.59		
7/4/2017	GH_MC1	200388							9.4		
7/10/2017	GH_MC1	200388		594	0.47	0.6			8.87	0.16	273
8/2/2017	GH_MC1	200388									
9/12/2017	GH_MC1	200388									
10/3/2017	GH_MC1	200388									
11/28/2017	GH_MC1	200388		629	< 0.50	< 0.50			11.48	0.177	317
12/6/2017	GH_MC1	200388		633	< 0.50	< 0.50			12.2	0.187	325
1/16/2017	GH_NNC	E305875		468	< 0.50	< 0.50			9.84	0.107	234
2/15/2017	GH_NNC	E305875									
3/6/2017	GH_NNC	E305875		427	< 0.50	0.8			11.09	0.111	258
3/16/2017	GH_NNC	E305875							11		
3/22/2017	GH_NNC	E305875							10.8		
3/28/2017	GH_NNC	E305875									
4/4/2017	GH_NNC	E305875									
4/10/2017	GH_NNC	E305875									
4/20/2017	GH_NNC	E305875		351	0.35	0.62			10.24	0.089	179
4/25/2017	GH_NNC	E305875							10.22		
5/1/2017	GH_NNC	E305875		371	< 0.50	0.62			9.96	0.1	168
5/8/2017	GH_NNC	E305875							9.71		
5/15/2017	GH_NNC	E305875							9.92		
5/24/2017	GH_NNC	E305875							8.93		
5/29/2017	GH_NNC	E305875							9.7		
6/5/2017	GH_NNC	E305875		422	< 0.50	0.58			8.76	0.115	234
6/12/2017	GH_NNC	E305875							9.46		
6/19/2017	GH_NNC	E305875									
6/26/2017	GH_NNC	E305875									
7/4/2017	GH_NNC	E305875									
7/10/2017	GH_NNC	E305875		471	0.32	< 0.50			9.09	0.085	230
8/2/2017	GH_NNC	E305875		479	< 0.50	0.52			9.26	0.109	254
9/12/2017	GH_NNC	E305875									
10/3/2017	GH_NNC	E305875									
11/28/2017	GH_NNC	E305875		441	< 0.50	< 0.50			10.27	0.103	235
12/6/2017	GH_NNC	E305875		437	< 0.50	< 0.50			10.98	0.126	239
1/9/2017	GH_PC1	200385		1070	< 0.50	< 0.50			10.42	0.4	628
2/9/2017	GH_PC1	200385		1050	< 0.20	< 0.50			11.52	0.344	623
2/9/2017	GH_PC1	200385									
3/6/2017	GH_PC1	200385		1030	< 0.50	< 0.50			11	0.42	583
3/15/2017	GH_PC1	200385							10.99		
3/21/2017	GH_PC1	200385		979	< 0.20	< 0.50			11.9	0.348	556

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
3/29/2017	GH_PC1	200385							11.34		
4/5/2017	GH_PC1	200385		934	< 0.50	< 0.50			12.15	0.39	566
4/12/2017	GH_PC1	200385							12.08		
4/20/2017	GH_PC1	200385							11.35		
4/25/2017	GH_PC1	200385							10.78		
5/3/2017	GH_PC1	200385		1000	< 0.50	< 0.50			10.88	0.32	559
5/8/2017	GH_PC1	200385		819	0.24	1.32			10.76	0.281	495
5/17/2017	GH_PC1	200385							11.34		
5/23/2017	GH_PC1	200385							11.24		
5/31/2017	GH_PC1	200385							11.27		
6/6/2017	GH_PC1	200385		1180	0.27	< 0.50			10.51	0.28	696
6/13/2017	GH_PC1	200385							10.51		
6/19/2017	GH_PC1	200385							11.29		
6/27/2017	GH_PC1	200385							10.46		
7/5/2017	GH_PC1	200385		1150	< 0.50	< 0.50			10.05	0.34	670
7/10/2017	GH_PC1	200385							9.94		
7/27/2017	GH_PC1	200385		1050	< 0.20	< 0.50			10.32	0.31	647
8/8/2017	GH_PC1	200385									
8/8/2017	GH_PC1	200385		1090	< 0.50	< 0.50			10.7	0.36	629
12/5/2017	GH_PC1	200385									
1/9/2017	GH_RLP	E207437									
2/7/2017	GH_RLP	E207437									
3/16/2017	GH_RLP	E207437		218	0.41	8.1			9.22	0.102	80.2
3/21/2017	GH_RLP	E207437							6.94		
3/27/2017	GH_RLP	E207437							6.68		
4/4/2017	GH_RLP	E207437									
4/11/2017	GH_RLP	E207437							8.35		
4/18/2017	GH_RLP	E207437		380	< 0.50	0.7			6.12	0.204	149
4/25/2017	GH_RLP	E207437							8.77		
5/3/2017	GH_RLP	E207437		610	0.64	0.9			7	0.251	301
5/10/2017	GH_RLP	E207437							8.62		
5/15/2017	GH_RLP	E207437							7.49		
5/24/2017	GH_RLP	E207437							6.4		
5/29/2017	GH_RLP	E207437									
6/7/2017	GH_RLP	E207437									
6/12/2017	GH_RLP	E207437									
6/22/2017	GH_RLP	E207437									
6/27/2017	GH_RLP	E207437									
7/4/2017	GH_RLP	E207437							5.74		
7/11/2017	GH_RLP	E207437									
7/27/2017	GH_RLP	E207437		738	0.45	0.6			6.43	0.366	361
8/3/2017	GH_RLP	E207437									
9/27/2017	GH_RLP	E207437						0			
10/25/2017	GH_RLP	E207437					0				
11/14/2017	GH_RLP	E207437					0				
12/7/2017	GH_RLP	E207437		962	< 0.50	0.92	12.3552		11.05	0.486	453
1/10/2017	GH_SC1	E221329		2650	0.45	0.75			9.9	< 0.10	2000

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
2/9/2017	GH_SC1	E221329		2820	0.59	0.66			10.34	0.14	1960
3/6/2017	GH_SC1	E221329		2800	0.34	1.62			9.98	0.12	2000
3/15/2017	GH_SC1	E221329							10.28		
3/21/2017	GH_SC1	E221329		2220	0.43	0.77			11.5	0.18	1490
3/29/2017	GH_SC1	E221329							11.19		
4/5/2017	GH_SC1	E221329		2130	0.69	1.44			11.72	0.11	1590
4/12/2017	GH_SC1	E221329							11.42		
4/20/2017	GH_SC1	E221329							11.07		
4/25/2017	GH_SC1	E221329							10.17		
5/2/2017	GH_SC1	E221329									
5/3/2017	GH_SC1	E221329		2220	0.71	1.44			10.26	0.12	1430
5/8/2017	GH_SC1	E221329		1840	0.95	1.57			10.19	0.12	1250
5/17/2017	GH_SC1	E221329							11.12		
5/17/2017	GH_SC1	E221329									
5/17/2017	GH_SC1	E221329									
5/18/2017	GH_SC1	E221329									
5/23/2017	GH_SC1	E221329							10.7		
5/31/2017	GH_SC1	E221329							11.31		
6/6/2017	GH_SC1	E221329		1800	1.05	1.39			10.4	0.1	1150
6/13/2017	GH_SC1	E221329							9.01		
6/19/2017	GH_SC1	E221329							9.62		
6/27/2017	GH_SC1	E221329							10.08		
7/5/2017	GH_SC1	E221329		2210	0.64	0.79			10.04	0.16	1350
7/10/2017	GH_SC1	E221329							10.33		
8/8/2017	GH_SC1	E221329		2470	0.51	< 1.0			13.26	< 0.40	1810
9/6/2017	GH_SC1	E221329		2710	0.61	0.78			11.23	< 0.10	2160
9/20/2017	GH_SC1	E221329									
10/4/2017	GH_SC1	E221329		2390	0.64	0.8			11.72	< 0.10	2050
10/19/2017	GH_SC1	E221329		2750	< 0.50	< 1.0			10.62	< 0.10	1980
11/1/2017	GH_SC1	E221329		2780	< 0.50	0.62			11.97	< 0.10	1980
11/16/2017	GH_SC1	E221329									
12/5/2017	GH_SC1	E221329		2640	0.55	< 1.0			10.81	0.13	2170
1/1/2017	GH_SC2	E105061									
2/1/2017	GH_SC2	E105061									
3/1/2017	GH_SC2	E105061									
4/1/2017	GH_SC2	E105061									
5/1/2017	GH_SC2	E105061									
6/1/2017	GH_SC2	E105061									
7/1/2017	GH_SC2	E105061									
8/1/2017	GH_SC2	E105061									
9/4/2017	GH_SC2	E105061									
10/2/2017	GH_SC2	E105061									
11/6/2017	GH_SC2	E105061									
12/4/2017	GH_SC2	E105061									
1/10/2017	GH_TC1	E102714		1570	< 0.50	< 0.50			11.91	< 0.10	979
2/15/2017	GH_TC1	E102714		1500	< 0.50	< 0.50			12.44	0.1	907
3/6/2017	GH_TC1	E102714		1410	< 0.50	< 0.50			12.51	< 0.10	922

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
3/16/2017	GH_TC1	E102714							12.34		
3/21/2017	GH_TC1	E102714							12.62		
3/27/2017	GH_TC1	E102714							12.25		
4/4/2017	GH_TC1	E102714							11.04		
4/10/2017	GH_TC1	E102714							10.9		
4/20/2017	GH_TC1	E102714		727	0.35	0.84			10.31	0.094	369
4/25/2017	GH_TC1	E102714							10.73		
5/3/2017	GH_TC1	E102714		761	< 0.50	0.58			11.77	< 0.10	426
5/10/2017	GH_TC1	E102714							10.38		
5/15/2017	GH_TC1	E102714							11.11		
5/24/2017	GH_TC1	E102714							9.02		
5/29/2017	GH_TC1	E102714							8.88		
6/7/2017	GH_TC1	E102714		1230	< 0.50	< 0.50			8.05	0.1	749
6/12/2017	GH_TC1	E102714							8.55		
6/19/2017	GH_TC1	E102714		1340	0.26	< 0.50			9.01	0.13	753
6/27/2017	GH_TC1	E102714							8.22		
7/4/2017	GH_TC1	E102714							8.41		
7/10/2017	GH_TC1	E102714		1620	0.26	< 0.50			8.66	< 0.10	888
8/2/2017	GH_TC1	E102714		1770	< 0.50	< 0.50			8.35	< 0.20	1070
9/13/2017	GH_TC1	E102714		1870	< 0.50	0.52			8.53	< 0.10	1250
10/4/2017	GH_TC1	E102714		1820	< 0.50	< 0.50			11.08	< 0.20	1180
11/6/2017	GH_TC1	E102714		1860	< 0.50	< 2.5			12.67	< 0.10	1230
12/12/2017	GH_TC1	E102714		1740	< 0.50	< 0.50			12.36	< 0.10	1080
1/10/2017	GH_TC2	E207436		1580	< 0.50	< 0.50			10.82	< 0.10	962
2/9/2017	GH_TC2	E207436		1550	< 0.20	0.65			11.24	< 0.10	878
2/15/2017	GH_TC2	E207436		1540	< 0.50	0.51			11.02	< 0.10	928
3/6/2017	GH_TC2	E207436		1430	< 0.50	< 0.50			10.62	< 0.20	923
3/16/2017	GH_TC2	E207436							10.8		
3/21/2017	GH_TC2	E207436							11.7		
3/28/2017	GH_TC2	E207436							11.43		
4/4/2017	GH_TC2	E207436							11.04		
4/10/2017	GH_TC2	E207436							11.34		
4/20/2017	GH_TC2	E207436		706	0.38	0.85			10.58	0.084	376
4/25/2017	GH_TC2	E207436							10.93		
5/3/2017	GH_TC2	E207436		759	< 0.50	0.65			11.89	< 0.10	428
5/10/2017	GH_TC2	E207436							10.31		
5/15/2017	GH_TC2	E207436							11.15		
5/24/2017	GH_TC2	E207436							10.08		
5/29/2017	GH_TC2	E207436							10.5		
6/7/2017	GH_TC2	E207436		1230	< 0.50	< 0.50			11.25	< 0.10	744
6/12/2017	GH_TC2	E207436							11.11		
6/19/2017	GH_TC2	E207436		1340	0.27	< 0.50			11.92	0.12	771
6/27/2017	GH_TC2	E207436							12.8		
7/4/2017	GH_TC2	E207436							13.98		
7/10/2017	GH_TC2	E207436		1620	0.26	< 0.50			17.13	< 0.10	895
8/2/2017	GH_TC2	E207436		1810	< 0.50	< 0.50			9.83	< 0.20	1130
9/12/2017	GH_TC2	E207436		1900	< 0.50	< 0.50			9.81	< 0.10	1280

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
10/3/2017	GH_TC2	E207436		1710	< 0.50	< 0.50			13.07	< 0.10	1240
11/14/2017	GH_TC2	E207436		1780	< 0.50	< 0.50			11.07	< 0.10	1230
12/6/2017	GH_TC2	E207436		1690	< 0.50	< 0.50			11.44	< 0.20	1080
6/7/2017	GH_TPS	E287438		591	0.93	1.31			6.03	0.367	286
6/19/2017	GH_TPS	E287438		631	1.06	< 2.5			4.9	0.359	295
11/21/2017	GH_TPS	E287438		1020	2.06	2.25				0.513	549
1/10/2017	GH_WADE	E287433									
2/14/2017	GH_WADE	E287433									
3/6/2017	GH_WADE	E287433									
3/16/2017	GH_WADE	E287433		403	0.53	1.97			12.08	0.091	184
3/22/2017	GH_WADE	E287433		409	0.65	0.9			11.72	0.121	195
3/27/2017	GH_WADE	E287433							12.1		
3/28/2017	GH_WADE	E287433									
3/30/2017	GH_WADE	E287433									
4/4/2017	GH_WADE	E287433							11.16		
4/4/2017	GH_WADE	E287433									
4/10/2017	GH_WADE	E287433							11.15		
4/18/2017	GH_WADE	E287433		411	0.66	0.92			10.81	0.137	200
4/25/2017	GH_WADE	E287433							11.51		
5/1/2017	GH_WADE	E287433		403	0.66	1.04			10.9	0.133	185
5/8/2017	GH_WADE	E287433							11		
5/15/2017	GH_WADE	E287433							12.05		
5/24/2017	GH_WADE	E287433							9.74		
5/29/2017	GH_WADE	E287433							10.02		
6/5/2017	GH_WADE	E287433		468	0.52	0.58			9.18	0.161	233
6/12/2017	GH_WADE	E287433							10.11		
6/20/2017	GH_WADE	E287433							8.87		
6/27/2017	GH_WADE	E287433							9.06		
7/4/2017	GH_WADE	E287433							8.61		
7/10/2017	GH_WADE	E287433		517	0.43	0.51			8.4	0.112	231
8/2/2017	GH_WADE	E287433									
9/12/2017	GH_WADE	E287433									
10/3/2017	GH_WADE	E287433									
11/28/2017	GH_WADE	E287433		538	< 0.50	< 0.50			12.1	0.125	268
12/6/2017	GH_WADE	E287433									
1/10/2017	GH_WC1	E257795									
2/15/2017	GH_WC1	E257795									
3/6/2017	GH_WC1	E257795									
3/16/2017	GH_WC1	E257795									
3/21/2017	GH_WC1	E257795									
3/27/2017	GH_WC1	E257795		795	0.67	0.97			10.5	< 0.10	334
4/4/2017	GH_WC1	E257795							10.07		
4/10/2017	GH_WC1	E257795							10.77		
4/20/2017	GH_WC1	E257795		1360	0.49	0.7			9.52	0.17	819
4/25/2017	GH_WC1	E257795							10.02		
5/1/2017	GH_WC1	E257795		1080	0.54	0.76			9.49	0.22	562
5/3/2017	GH_WC1	E257795									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
5/8/2017	GH_WC1	E257795							9.4		
5/15/2017	GH_WC1	E257795							10.38		
5/24/2017	GH_WC1	E257795							7.6		
5/29/2017	GH_WC1	E257795							8.54		
6/5/2017	GH_WC1	E257795		1550	0.52	0.59			8.68	< 0.20	914
6/12/2017	GH_WC1	E257795							8.71		
6/19/2017	GH_WC1	E257795									
6/27/2017	GH_WC1	E257795									
7/4/2017	GH_WC1	E257795									
7/10/2017	GH_WC1	E257795									
8/2/2017	GH_WC1	E257795									
9/11/2017	GH_WC1	E257795									
10/3/2017	GH_WC1	E257795									
11/6/2017	GH_WC1	E257795									
12/12/2017	GH_WC1	E257795		1750	< 0.50	< 0.50			11.75	0.26	1050
1/16/2017	GH_WILLOW_SP1	E305854									
2/14/2017	GH_WILLOW_SP1	E305854									
3/6/2017	GH_WILLOW_SP1	E305854									
3/16/2017	GH_WILLOW_SP1	E305854									
3/22/2017	GH_WILLOW_SP1	E305854									
3/27/2017	GH_WILLOW_SP1	E305854									
4/4/2017	GH_WILLOW_SP1	E305854							11.06		
4/10/2017	GH_WILLOW_SP1	E305854							11.26		
4/18/2017	GH_WILLOW_SP1	E305854		310	0.58	0.6			10.51	0.111	198
4/25/2017	GH_WILLOW_SP1	E305854							10.91		
5/3/2017	GH_WILLOW_SP1	E305854		322	0.54	0.56			10.22	0.117	190
5/8/2017	GH_WILLOW_SP1	E305854							11.19		
5/15/2017	GH_WILLOW_SP1	E305854							11.35		
5/24/2017	GH_WILLOW_SP1	E305854							9.12		
5/29/2017	GH_WILLOW_SP1	E305854							9.49		
6/5/2017	GH_WILLOW_SP1	E305854		388	< 0.50	< 0.50			9.16	0.129	200
6/12/2017	GH_WILLOW_SP1	E305854							8.78		
6/20/2017	GH_WILLOW_SP1	E305854									
6/27/2017	GH_WILLOW_SP1	E305854									
7/4/2017	GH_WILLOW_SP1	E305854									
7/10/2017	GH_WILLOW_SP1	E305854									
8/2/2017	GH_WILLOW_SP1	E305854									
9/12/2017	GH_WILLOW_SP1	E305854									
10/3/2017	GH_WILLOW_SP1	E305854									
11/6/2017	GH_WILLOW_SP1	E305854									
12/6/2017	GH_WILLOW_SP1	E305854									
1/10/2017	GH_WOLF_SP1	E305855									
2/14/2017	GH_WOLF_SP1	E305855									
3/6/2017	GH_WOLF_SP1	E305855									
3/16/2017	GH_WOLF_SP1	E305855									
3/22/2017	GH_WOLF_SP1	E305855									
3/27/2017	GH_WOLF_SP1	E305855									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
4/4/2017	GH_WOLF_SP1	E305855									
4/10/2017	GH_WOLF_SP1	E305855									
4/20/2017	GH_WOLF_SP1	E305855									
4/24/2017	GH_WOLF_SP1	E305855									
5/1/2017	GH_WOLF_SP1	E305855									
5/8/2017	GH_WOLF_SP1	E305855									
5/15/2017	GH_WOLF_SP1	E305855									
5/22/2017	GH_WOLF_SP1	E305855									
5/29/2017	GH_WOLF_SP1	E305855									
6/5/2017	GH_WOLF_SP1	E305855									
6/12/2017	GH_WOLF_SP1	E305855									
6/20/2017	GH_WOLF_SP1	E305855									
6/27/2017	GH_WOLF_SP1	E305855									
7/4/2017	GH_WOLF_SP1	E305855									
7/10/2017	GH_WOLF_SP1	E305855									
8/1/2017	GH_WOLF_SP1	E305855									
9/12/2017	GH_WOLF_SP1	E305855									
10/3/2017	GH_WOLF_SP1	E305855									
11/6/2017	GH_WOLF_SP1	E305855									
12/6/2017	GH_WOLF_SP1	E305855									
1/12/2017	LC_LC1	E216142									
2/14/2017	LC_LC1	E216142									
3/9/2017	LC_LC1	E216142									
3/14/2017	LC_LC1	E216142									
3/21/2017	LC_LC1	E216142									
3/29/2017	LC_LC1	E216142									
4/5/2017	LC_LC1	E216142									
4/11/2017	LC_LC1	E216142									
4/20/2017	LC_LC1	E216142									
4/25/2017	LC_LC1	E216142	311	< 0.20	< 0.50			9.38	0.348	158	
5/1/2017	LC_LC1	E216142	353	< 0.20	< 0.50			11.98	0.352	168	
5/5/2017	LC_LC1	E216142									
5/6/2017	LC_LC1	E216142									
5/9/2017	LC_LC1	E216142						11.36			
5/9/2017	LC_LC1	E216142									
5/16/2017	LC_LC1	E216142						12.1			
5/24/2017	LC_LC1	E216142						9.96			
5/30/2017	LC_LC1	E216142						10.83			
6/6/2017	LC_LC1	E216142									
6/7/2017	LC_LC1	E216142	222	< 0.20	< 0.50			12.06	0.212	110	
6/13/2017	LC_LC1	E216142						13.42			
6/20/2017	LC_LC1	E216142						11.98			
6/20/2017	LC_LC1	E216142									
6/26/2017	LC_LC1	E216142						10.85			
7/6/2017	LC_LC1	E216142	264	< 0.20	< 0.50			12.87	0.314	122	
7/10/2017	LC_LC1	E216142									
7/11/2017	LC_LC1	E216142						11.17			

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
8/2/2017	LC_LC1	E216142		300	< 0.50	< 0.50			10.86	0.285	160
8/2/2017	LC_LC1	E216142									
8/8/2017	LC_LC1	E216142							10.95		
8/15/2017	LC_LC1	E216142							10.66		
8/18/2017	LC_LC1	E216142							10.67		
8/18/2017	LC_LC1	E216142									
8/21/2017	LC_LC1	E216142							10.74		
8/24/2017	LC_LC1	E216142									
8/24/2017	LC_LC1	E216142							9.86		
8/27/2017	LC_LC1	E216142							8.54		
8/30/2017	LC_LC1	E216142							10.8		
9/2/2017	LC_LC1	E216142							10.77		
9/5/2017	LC_LC1	E216142		359	< 0.50	< 0.50			11.03	0.319	187
9/5/2017	LC_LC1	E216142									
9/8/2017	LC_LC1	E216142									
10/3/2017	LC_LC1	E216142		350	< 0.50	< 0.50			10.46	0.392	193
11/8/2017	LC_LC1	E216142		376	< 0.50	< 0.50			12.22	0.357	177
11/8/2017	LC_LC1	E216142									
11/30/2017	LC_LC1	E216142									
12/4/2017	LC_LC1	E216142		389	< 0.50	< 0.50			12.08	0.364	188
12/4/2017	LC_LC1	E216142									
1/9/2017	LC_LC12	E223240									
2/15/2017	LC_LC12	E223240									
3/6/2017	LC_LC12	E223240									
3/14/2017	LC_LC12	E223240									
3/20/2017	LC_LC12	E223240									
3/27/2017	LC_LC12	E223240									
4/3/2017	LC_LC12	E223240									
4/10/2017	LC_LC12	E223240									
4/17/2017	LC_LC12	E223240									
4/24/2017	LC_LC12	E223240									
5/1/2017	LC_LC12	E223240									
5/9/2017	LC_LC12	E223240		720	0.28	0.63			12.15	0.179	420
5/16/2017	LC_LC12	E223240							11.8		
5/23/2017	LC_LC12	E223240							10.1		
5/30/2017	LC_LC12	E223240							11.02		
6/6/2017	LC_LC12	E223240		461	< 0.20	< 0.50			13.13	0.191	255
6/13/2017	LC_LC12	E223240							13.12		
6/20/2017	LC_LC12	E223240							12.73		
6/26/2017	LC_LC12	E223240							10.98		
7/5/2017	LC_LC12	E223240		648	< 0.20	< 0.50			11.73	0.179	325
7/11/2017	LC_LC12	E223240							9.56		
1/9/2017	LC_LC2	200335		387	< 0.50	< 0.50			10.95	0.231	195
2/14/2017	LC_LC2	200335		395	< 0.20	< 0.50			10.59	0.203	208
3/6/2017	LC_LC2	200335		381	< 0.50	< 0.50			11.77	0.219	210
3/13/2017	LC_LC2	200335							12.59		
3/16/2017	LC_LC2	200335									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
3/17/2017	LC_LC2	200335		384	< 0.20	< 0.50			11.61	0.198	201
3/18/2017	LC_LC2	200335									
3/19/2017	LC_LC2	200335									
3/20/2017	LC_LC2	200335						9.01			
3/21/2017	LC_LC2	200335									
3/22/2017	LC_LC2	200335									
3/23/2017	LC_LC2	200335									
3/24/2017	LC_LC2	200335									
3/25/2017	LC_LC2	200335									
3/26/2017	LC_LC2	200335									
3/27/2017	LC_LC2	200335						11.28			
4/4/2017	LC_LC2	200335		385	< 0.20	0.55		12.59	0.191	214	
4/4/2017	LC_LC2	200335									
4/10/2017	LC_LC2	200335						11.19			
4/18/2017	LC_LC2	200335						11.03			
4/25/2017	LC_LC2	200335						9.35			
5/1/2017	LC_LC2	200335		393	< 0.20	< 0.50		12.49	0.21	189	
5/5/2017	LC_LC2	200335									
5/6/2017	LC_LC2	200335									
5/7/2017	LC_LC2	200335									
5/9/2017	LC_LC2	200335						12.1			
5/11/2017	LC_LC2	200335									
5/13/2017	LC_LC2	200335									
5/16/2017	LC_LC2	200335						12.06			
5/18/2017	LC_LC2	200335									
5/23/2017	LC_LC2	200335						11.15			
5/24/2017	LC_LC2	200335									
5/25/2017	LC_LC2	200335									
5/30/2017	LC_LC2	200335						11.23			
6/1/2017	LC_LC2	200335									
6/5/2017	LC_LC2	200335									
6/6/2017	LC_LC2	200335		241	< 0.20	< 0.50		11.86	0.183	121	
6/13/2017	LC_LC2	200335						12.51			
6/20/2017	LC_LC2	200335						10.63			
6/26/2017	LC_LC2	200335						10.69			
7/5/2017	LC_LC2	200335		294	< 0.20	< 0.50		9.35	0.263	136	
7/6/2017	LC_LC2	200335									
7/10/2017	LC_LC2	200335									
7/11/2017	LC_LC2	200335						11.18			
8/2/2017	LC_LC2	200335		339	< 0.50	< 0.50		11.17	0.2	185	
8/2/2017	LC_LC2	200335									
9/6/2017	LC_LC2	200335		388	< 0.50	< 0.50		11.29	0.179	205	
10/3/2017	LC_LC2	200335		375	< 0.50	< 0.50		9.96	0.165	213	
11/8/2017	LC_LC2	200335		419	< 0.50	< 0.50		10.94	0.182	217	
11/8/2017	LC_LC2	200335									
12/4/2017	LC_LC2	200335		432	< 0.50	< 0.50		12.22	0.173	222	
1/2/2017	LC_LC3	200337		1100	< 0.20	< 0.50		11.95	0.15	520	

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
1/2/2017	LC_LC3	200337									
1/9/2017	LC_LC3	200337		1200	< 0.50	< 0.50			10.81	0.23	643
1/16/2017	LC_LC3	200337		1190	< 0.50	< 0.50			12.36	0.25	597
1/23/2017	LC_LC3	200337		1260	< 0.50	< 0.50			12.34	0.22	670
1/31/2017	LC_LC3	200337		1220	< 0.50	< 0.50			11.31	0.22	659
2/7/2017	LC_LC3	200337		1200	< 0.20	< 0.50			14.21	0.181	716
2/14/2017	LC_LC3	200337		1240	< 0.20	< 0.50			11.05	0.19	712
2/20/2017	LC_LC3	200337		1240	< 0.20	< 0.50			12.37	0.207	733
2/24/2017	LC_LC3	200337		1220	< 0.20	< 0.50			11.82	0.186	714
2/27/2017	LC_LC3	200337		1260	< 0.20	< 0.50			12.8	0.186	698
3/1/2017	LC_LC3	200337									
3/6/2017	LC_LC3	200337		1180	< 0.50	< 0.50			11.99	0.2	726
3/13/2017	LC_LC3	200337		1220	< 0.20	< 0.50			12.19	0.193	712
3/16/2017	LC_LC3	200337									
3/16/2017	LC_LC3	200337									
3/17/2017	LC_LC3	200337		1070	0.21	1.09			11.87	0.199	603
3/18/2017	LC_LC3	200337									
3/19/2017	LC_LC3	200337									
3/20/2017	LC_LC3	200337		1050	< 0.20	1.02			12.36	0.212	599
3/21/2017	LC_LC3	200337									
3/22/2017	LC_LC3	200337									
3/23/2017	LC_LC3	200337									
3/24/2017	LC_LC3	200337									
3/25/2017	LC_LC3	200337									
3/26/2017	LC_LC3	200337									
3/27/2017	LC_LC3	200337		1190	< 0.20	< 0.50			10.8	0.15	715
3/28/2017	LC_LC3	200337									
3/29/2017	LC_LC3	200337									
3/30/2017	LC_LC3	200337									
4/3/2017	LC_LC3	200337		1160	0.21	0.78			10.51	0.177	692
4/4/2017	LC_LC3	200337									
4/10/2017	LC_LC3	200337		1230	< 0.20	< 0.50			11.08	0.16	728
4/18/2017	LC_LC3	200337		1210	0.22	< 0.50			10.88	0.15	705
4/25/2017	LC_LC3	200337		1140	0.23	< 0.50			9.22	0.14	619
5/1/2017	LC_LC3	200337		1140	< 0.20	< 0.50			11.03	0.15	584
5/4/2017	LC_LC3	200337									
5/7/2017	LC_LC3	200337									
5/9/2017	LC_LC3	200337		704	0.61	0.99			11.95	0.197	374
5/16/2017	LC_LC3	200337		634	0.61	0.71			11.75	0.197	310
5/18/2017	LC_LC3	200337									
5/23/2017	LC_LC3	200337		687	0.47	0.6			11.43	0.188	365
5/30/2017	LC_LC3	200337		603	0.41	0.5			11.27	0.188	298
6/6/2017	LC_LC3	200337									
6/7/2017	LC_LC3	200337		641	0.51	0.63			10.96	0.177	327
6/13/2017	LC_LC3	200337		710	0.43	0.57			13.3	0.179	372
6/19/2017	LC_LC3	200337		738	0.42	< 0.50			9.81	0.14	370
6/26/2017	LC_LC3	200337		793	0.33	< 0.50			11.23	0.18	423

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
7/6/2017	LC_LC3	200337									
7/6/2017	LC_LC3	200337		884	0.24	< 0.50			8.92	0.189	409
7/11/2017	LC_LC3	200337									
7/11/2017	LC_LC3	200337		925	0.32	< 0.50			10.64	0.149	476
7/13/2017	LC_LC3	200337									
7/14/2017	LC_LC3	200337			1.1	1.21				0.18	488
7/14/2017	LC_LC3	200337							11.45		
7/18/2017	LC_LC3	200337		966	0.28	< 0.50			10.39	0.15	503
7/25/2017	LC_LC3	200337									
7/25/2017	LC_LC3	200337		1040	0.24	< 0.50			9.26	0.181	536
7/26/2017	LC_LC3	200337			0.25	< 0.50					540
8/2/2017	LC_LC3	200337									
8/2/2017	LC_LC3	200337		1030	< 0.50	< 0.50			10.67	0.13	600
8/8/2017	LC_LC3	200337									
8/8/2017	LC_LC3	200337		1010	< 0.50	< 0.50			11.65	0.16	574
8/12/2017	LC_LC3	200337			0.3	< 0.50				0.16	532
8/12/2017	LC_LC3	200337							10.71		
8/15/2017	LC_LC3	200337									
8/15/2017	LC_LC3	200337		1010	< 0.50	< 0.50			10.47	0.14	525
8/18/2017	LC_LC3	200337							10.53		
8/21/2017	LC_LC3	200337		1010	0.63	< 0.50			10.12	0.13	595
8/24/2017	LC_LC3	200337									
8/24/2017	LC_LC3	200337							9.97		
8/25/2017	LC_LC3	200337							10.63		
8/27/2017	LC_LC3	200337									
8/27/2017	LC_LC3	200337							7.86		
8/30/2017	LC_LC3	200337									
8/30/2017	LC_LC3	200337		995	< 0.50	< 0.50			10.14	0.15	583
9/2/2017	LC_LC3	200337									
9/2/2017	LC_LC3	200337							10.06		
9/5/2017	LC_LC3	200337									
9/5/2017	LC_LC3	200337		1080	< 0.50	< 0.50			10.74	0.158	596
9/5/2017	LC_LC3	200337							10.74		
9/8/2017	LC_LC3	200337							8.67		
9/12/2017	LC_LC3	200337		1030	< 0.50	< 0.50			10.36	0.12	637
9/20/2017	LC_LC3	200337									
9/20/2017	LC_LC3	200337		1030	< 0.50	< 0.50			9.72	0.14	615
9/21/2017	LC_LC3	200337			< 0.50	< 0.50				0.152	607
9/25/2017	LC_LC3	200337									
9/25/2017	LC_LC3	200337			< 0.50	< 0.50				0.174	555
9/25/2017	LC_LC3	200337		1050	< 0.50	< 0.50			11.09	0.13	593
10/2/2017	LC_LC3	200337		930	< 0.50	3.6			9.9	0.11	579
10/10/2017	LC_LC3	200337		919	< 0.50	< 0.50			10.92	0.17	606
10/10/2017	LC_LC3	200337									
10/17/2017	LC_LC3	200337		1040	< 0.50	< 0.50			10.73	0.16	633
10/24/2017	LC_LC3	200337		1090	< 0.50	< 0.50			11.87	0.17	662
10/24/2017	LC_LC3	200337									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
10/31/2017	LC_LC3	200337		1090	< 0.50	< 0.50			10.27	0.15	614
10/31/2017	LC_LC3	200337									
11/6/2017	LC_LC3	200337		1140	< 0.50	< 0.50			10.62	0.182	637
11/8/2017	LC_LC3	200337									
11/9/2017	LC_LC3	200337		1100	< 0.50	< 0.50			10.38	0.15	677
11/14/2017	LC_LC3	200337		1080	< 0.50	< 0.50			11.58	0.15	635
11/21/2017	LC_LC3	200337		1080	< 0.50	< 0.50			11.74	0.17	664
11/28/2017	LC_LC3	200337		1090	< 0.50	< 0.50			11.53	0.176	691
12/4/2017	LC_LC3	200337		1170	< 0.50	< 0.50			10.39	0.175	647
12/12/2017	LC_LC3	200337		1200	< 0.50	12.2			11.7	0.084	644
12/18/2017	LC_LC3	200337		1220	< 0.50	0.52			10.77	0.207	675
12/27/2017	LC_LC3	200337		1170	< 0.50	< 0.50			12.46	0.161	681
12/27/2017	LC_LC3	200337									
1/9/2017	LC_LC4	200044		786	< 0.50	< 0.50			12.51	0.29	399
2/14/2017	LC_LC4	200044		789	< 0.20	< 0.50			13.05	0.276	428
2/24/2017	LC_LC4	200044		776	< 0.20	< 0.50			13.95	0.264	459
2/27/2017	LC_LC4	200044		782	< 0.20	< 0.50			14.3	0.272	380
3/6/2017	LC_LC4	200044		753	< 0.50	< 0.50			12.64	0.27	430
3/13/2017	LC_LC4	200044		764	< 0.20	< 0.50			12.83	0.267	403
3/15/2017	LC_LC4	200044									
3/16/2017	LC_LC4	200044									
3/17/2017	LC_LC4	200044		738	< 0.20	< 0.50			13.4	0.26	399
3/18/2017	LC_LC4	200044									
3/19/2017	LC_LC4	200044									
3/20/2017	LC_LC4	200044		713	< 0.20	0.56			11.73	0.257	390
3/21/2017	LC_LC4	200044									
3/22/2017	LC_LC4	200044									
3/23/2017	LC_LC4	200044									
3/24/2017	LC_LC4	200044									
3/25/2017	LC_LC4	200044									
3/26/2017	LC_LC4	200044									
3/27/2017	LC_LC4	200044		788	< 0.20	< 0.50			11.46	0.266	445
4/3/2017	LC_LC4	200044		789	< 0.20	0.54			11.78	0.239	462
4/10/2017	LC_LC4	200044		787	< 0.20	< 0.50			11.92	0.245	444
4/18/2017	LC_LC4	200044		796	< 0.20	< 0.50			11.23	0.241	444
4/24/2017	LC_LC4	200044		739	< 0.20	< 0.50			11.86	0.211	389
4/27/2017	LC_LC4	200044									
5/1/2017	LC_LC4	200044		812	0.24	< 0.50			11.85	0.224	426
5/5/2017	LC_LC4	200044									
5/6/2017	LC_LC4	200044									
5/7/2017	LC_LC4	200044									
5/8/2017	LC_LC4	200044									
5/8/2017	LC_LC4	200044		535	0.39	1.12			10.17	0.193	276
5/10/2017	LC_LC4	200044									
5/11/2017	LC_LC4	200044									
5/13/2017	LC_LC4	200044									
5/14/2017	LC_LC4	200044									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
5/15/2017	LC_LC4	200044		479	0.32	0.92			12.57	0.185	234
5/16/2017	LC_LC4	200044									
5/17/2017	LC_LC4	200044									
5/18/2017	LC_LC4	200044									
5/19/2017	LC_LC4	200044									
5/23/2017	LC_LC4	200044		412	0.28	0.59			11.96	0.167	206
5/24/2017	LC_LC4	200044									
5/25/2017	LC_LC4	200044									
5/30/2017	LC_LC4	200044		370	< 0.20	0.68			12	0.167	177
5/31/2017	LC_LC4	200044									
6/1/2017	LC_LC4	200044									
6/2/2017	LC_LC4	200044									
6/7/2017	LC_LC4	200044		428	0.21	< 0.50			12.73	0.162	213
6/13/2017	LC_LC4	200044		472	< 0.20	< 0.50			11.1	0.174	243
6/19/2017	LC_LC4	200044		498	< 0.20	< 0.50			8.54	0.149	242
6/26/2017	LC_LC4	200044		522	< 0.20	< 0.50			11.1	0.19	269
7/5/2017	LC_LC4	200044		610	< 0.20	< 0.50			10.96	0.208	290
7/11/2017	LC_LC4	200044		621	< 0.20	< 0.50			10.69	0.174	312
7/18/2017	LC_LC4	200044		684	< 0.20	0.75			10	0.213	339
7/25/2017	LC_LC4	200044		705	< 0.20	< 0.50			9.15	0.221	349
8/2/2017	LC_LC4	200044		701	< 0.50	< 0.50			10.14	0.21	396
8/8/2017	LC_LC4	200044		707	< 0.50	< 0.50			10.58	0.234	403
8/15/2017	LC_LC4	200044		700	< 0.50	< 0.50			10.9	0.214	376
8/18/2017	LC_LC4	200044							10.75		
8/21/2017	LC_LC4	200044		712	< 0.50	< 0.50			11.02	0.225	416
8/24/2017	LC_LC4	200044							10.19		
8/27/2017	LC_LC4	200044							7.57		
8/30/2017	LC_LC4	200044		730	< 0.50	< 0.50			10.57	0.17	393
9/2/2017	LC_LC4	200044							10.68		
9/5/2017	LC_LC4	200044							11.18		
9/5/2017	LC_LC4	200044		759	< 0.50	< 0.50			11.18	0.222	405
9/8/2017	LC_LC4	200044							9.92		
9/12/2017	LC_LC4	200044		699	< 0.50	< 0.50			11.03	0.226	417
9/20/2017	LC_LC4	200044		738	< 0.50	< 0.50			10.13	0.224	425
9/25/2017	LC_LC4	200044		759	< 0.50	< 0.50			10.33	0.226	416
10/2/2017	LC_LC4	200044		695	< 0.50	< 0.50			10.46	0.216	405
10/10/2017	LC_LC4	200044		678	< 0.50	< 0.50			11.21	0.193	399
10/17/2017	LC_LC4	200044		715	< 0.50	< 0.50			10.42	0.242	405
10/24/2017	LC_LC4	200044		760	< 0.50	< 0.50			10.4	0.225	448
10/31/2017	LC_LC4	200044		809	< 0.50	< 0.50			11.49	0.219	453
11/6/2017	LC_LC4	200044		797	< 0.50	< 0.50			11.44	0.241	444
11/10/2017	LC_LC4	200044		799	< 0.50	< 2.5			11.93	0.228	443
11/14/2017	LC_LC4	200044		790	< 0.50	< 0.50			13.16	0.202	460
11/21/2017	LC_LC4	200044		805	< 0.50	< 0.50			11.56	0.229	463
11/23/2017	LC_LC4	200044									
11/28/2017	LC_LC4	200044		761	< 0.50	0.5			11.64	0.232	448
12/4/2017	LC_LC4	200044		857	< 0.50	< 0.50			15.17	0.226	432

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
12/12/2017	LC_LC4	200044		856	< 0.50	< 0.50			12.35	0.14	435
12/18/2017	LC_LC4	200044		868	< 0.50	< 0.50			13.52	0.26	458
12/27/2017	LC_LC4	200044		815	< 0.50	< 0.50			13.55	0.214	463
1/2/2017	LC_LC5	200028		785	< 0.20	< 0.50			12.81	0.203	391
1/9/2017	LC_LC5	200028		755	< 0.50	< 0.50			11.01	0.21	392
1/16/2017	LC_LC5	200028		754	< 0.50	< 0.50			13.4	0.19	378
2/14/2017	LC_LC5	200028		761	< 0.20	< 0.50			12.32	0.188	412
3/6/2017	LC_LC5	200028		723	< 0.50	< 0.50			13.49	0.19	416
3/13/2017	LC_LC5	200028		742	< 0.20	< 0.50			13.47	0.187	385
3/16/2017	LC_LC5	200028									
3/20/2017	LC_LC5	200028		724	< 0.20	1.1			12.97	0.196	414
3/27/2017	LC_LC5	200028		762	< 0.20	< 0.50			12.38	0.183	440
4/3/2017	LC_LC5	200028		762	< 0.20	0.56			12.09	0.167	455
4/10/2017	LC_LC5	200028		753	< 0.20	< 0.50			12.25	0.168	429
4/18/2017	LC_LC5	200028		752	< 0.20	< 0.50			11.53	0.116	423
4/25/2017	LC_LC5	200028		698	< 0.20	< 0.50			11.23	0.15	375
5/1/2017	LC_LC5	200028		737	< 0.20	< 0.50			10.94	0.175	395
5/8/2017	LC_LC5	200028		504	0.27	1.12			11.35	0.162	270
5/15/2017	LC_LC5	200028		499	0.3	0.89			12.15	0.158	252
5/24/2017	LC_LC5	200028		400	0.21	4.31			12.02	0.152	206
5/31/2017	LC_LC5	200028		424	< 0.20	1.99			10.48	0.18	200
6/6/2017	LC_LC5	200028		463	< 0.20	< 0.50			14.06	0.16	236
6/13/2017	LC_LC5	200028		496	< 0.20	< 0.50			11.17	0.168	242
6/19/2017	LC_LC5	200028		543	< 0.20	< 0.50			12.48	0.13	257
6/26/2017	LC_LC5	200028		540	< 0.20	< 0.50			10.21	0.173	281
7/6/2017	LC_LC5	200028		599	< 0.20	< 0.50			10.34	0.146	294
7/10/2017	LC_LC5	200028		621	< 0.20	< 0.50				0.152	310
7/18/2017	LC_LC5	200028		643	< 0.20	< 0.50			9.73	0.165	334
7/25/2017	LC_LC5	200028		668	< 0.20	< 0.50			8.47	0.181	338
8/2/2017	LC_LC5	200028		660	< 0.50	1.14				0.174	375
8/8/2017	LC_LC5	200028							9.56		
8/15/2017	LC_LC5	200028		683	< 0.50	< 0.50			10.99	0.17	368
8/18/2017	LC_LC5	200028							9.79		
8/21/2017	LC_LC5	200028							9.88		
8/24/2017	LC_LC5	200028							9.46		
8/27/2017	LC_LC5	200028							9.13		
8/30/2017	LC_LC5	200028							9.53		
9/2/2017	LC_LC5	200028							9.95		
9/5/2017	LC_LC5	200028							10.34		
9/5/2017	LC_LC5	200028		721	< 0.50	< 0.50			10.34	0.172	389
9/8/2017	LC_LC5	200028							10.07		
9/12/2017	LC_LC5	200028		676	< 0.50	< 0.50			10.46	0.176	410
10/2/2017	LC_LC5	200028		652	< 0.50	< 0.50			11	0.162	388
11/7/2017	LC_LC5	200028		771	< 0.50	0.78			12.67	0.183	423
11/28/2017	LC_LC5	200028		770	< 0.50	< 0.50			12.06	0.172	463
11/30/2017	LC_LC5	200028									
12/4/2017	LC_LC5	200028		829	< 0.50	< 0.50			12.2	0.182	440

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
1/9/2017	LC_LC7	E216144									
2/14/2017	LC_LC7	E216144									
3/6/2017	LC_LC7	E216144									
3/13/2017	LC_LC7	E216144									
3/17/2017	LC_LC7	E216144									
3/18/2017	LC_LC7	E216144									
3/19/2017	LC_LC7	E216144									
3/20/2017	LC_LC7	E216144									
3/21/2017	LC_LC7	E216144		455	0.4	2.9			11.92	0.177	247
3/21/2017	LC_LC7	E216144									
3/22/2017	LC_LC7	E216144									
3/23/2017	LC_LC7	E216144									
3/25/2017	LC_LC7	E216144									
3/26/2017	LC_LC7	E216144									
3/27/2017	LC_LC7	E216144		507	0.45	1.07			11.47	0.199	284
3/28/2017	LC_LC7	E216144									
3/29/2017	LC_LC7	E216144									
3/30/2017	LC_LC7	E216144									
3/31/2017	LC_LC7	E216144									
4/4/2017	LC_LC7	E216144		531	0.4	1.08			12.95	0.198	314
4/11/2017	LC_LC7	E216144									
4/18/2017	LC_LC7	E216144									
4/25/2017	LC_LC7	E216144									
5/1/2017	LC_LC7	E216144		523	0.55	0.96			11.95	0.207	284
5/1/2017	LC_LC7	E216144									
5/5/2017	LC_LC7	E216144									
5/6/2017	LC_LC7	E216144		360	0.53	2.25				0.184	183
5/7/2017	LC_LC7	E216144									
5/8/2017	LC_LC7	E216144									
5/11/2017	LC_LC7	E216144									
5/16/2017	LC_LC7	E216144									
5/23/2017	LC_LC7	E216144									
5/30/2017	LC_LC7	E216144									
5/31/2017	LC_LC7	E216144									
6/6/2017	LC_LC7	E216144		265	0.26	< 0.50			13.32	0.195	135
6/13/2017	LC_LC7	E216144									
6/20/2017	LC_LC7	E216144									
6/26/2017	LC_LC7	E216144									
7/5/2017	LC_LC7	E216144		291	< 0.20	< 0.50			8.18	0.187	137
7/7/2017	LC_LC7	E216144									
7/11/2017	LC_LC7	E216144									
7/11/2017	LC_LC7	E216144							10.38		
7/13/2017	LC_LC7	E216144									
8/2/2017	LC_LC7	E216144		289	< 0.50	< 0.50			10.64	0.225	158
8/2/2017	LC_LC7	E216144									
8/8/2017	LC_LC7	E216144		296					10.78	0.245	
8/8/2017	LC_LC7	E216144			< 0.50	< 0.50					159

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
9/6/2017	LC_LC7	E216144		335	< 0.50	< 0.50			10.14	0.216	174
9/6/2017	LC_LC7	E216144									
10/3/2017	LC_LC7	E216144		331	< 0.50	< 0.50			10.11	0.208	178
10/3/2017	LC_LC7	E216144									
11/8/2017	LC_LC7	E216144		378	< 0.50	< 0.50			11.74	0.231	205
12/4/2017	LC_LC7	E216144		445	< 0.50	< 0.50			10.92	0.216	226
12/21/2017	LC_LC7	E216144					25				
5/23/2017	LC_LC7DSTF	E304613									
6/6/2017	LC_LC7DSTF	E304613		273	0.22	< 0.50				< 0.020	136
7/6/2017	LC_LC7DSTF	E304613		292	< 0.20	< 0.50			8.15	0.186	136
8/2/2017	LC_LC7DSTF	E304613		286						0.217	
8/8/2017	LC_LC7DSTF	E304613		296					10.37	0.244	
8/8/2017	LC_LC7DSTF	E304613			< 0.50	< 0.50					157
1/9/2017	LC_LC8	E219411									
2/14/2017	LC_LC8	E219411									
3/6/2017	LC_LC8	E219411									
3/13/2017	LC_LC8	E219411									
3/21/2017	LC_LC8	E219411									
3/27/2017	LC_LC8	E219411									
4/3/2017	LC_LC8	E219411									
4/11/2017	LC_LC8	E219411									
4/18/2017	LC_LC8	E219411									
4/25/2017	LC_LC8	E219411									
5/1/2017	LC_LC8	E219411									
5/9/2017	LC_LC8	E219411									
5/16/2017	LC_LC8	E219411									
5/23/2017	LC_LC8	E219411									
5/30/2017	LC_LC8	E219411									
6/6/2017	LC_LC8	E219411									
6/13/2017	LC_LC8	E219411									
6/19/2017	LC_LC8	E219411									
6/26/2017	LC_LC8	E219411									
10/3/2017	LC_LC8	E219411					0				
11/8/2017	LC_LC8	E219411					0				
12/4/2017	LC_LC8	E219411					0				
1/9/2017	LC_LC9	E221268									
2/14/2017	LC_LC9	E221268									
3/13/2017	LC_LC9	E221268									
3/16/2017	LC_LC9	E221268									
3/17/2017	LC_LC9	E221268									
3/18/2017	LC_LC9	E221268									
3/19/2017	LC_LC9	E221268									
3/21/2017	LC_LC9	E221268		512	0.42	1.54			10.8	0.153	230
3/21/2017	LC_LC9	E221268									
3/22/2017	LC_LC9	E221268									
3/23/2017	LC_LC9	E221268									
3/24/2017	LC_LC9	E221268									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
3/25/2017	LC_LC9	E221268									
3/26/2017	LC_LC9	E221268									
3/27/2017	LC_LC9	E221268									
3/28/2017	LC_LC9	E221268									
3/29/2017	LC_LC9	E221268									
3/30/2017	LC_LC9	E221268									
3/31/2017	LC_LC9	E221268									
4/4/2017	LC_LC9	E221268		657	0.32	0.81			10.78	0.099	327
4/5/2017	LC_LC9	E221268									
4/11/2017	LC_LC9	E221268									
4/18/2017	LC_LC9	E221268									
4/25/2017	LC_LC9	E221268									
5/1/2017	LC_LC9	E221268									
5/9/2017	LC_LC9	E221268									
5/16/2017	LC_LC9	E221268									
5/23/2017	LC_LC9	E221268									
5/30/2017	LC_LC9	E221268									
6/6/2017	LC_LC9	E221268									
6/13/2017	LC_LC9	E221268									
6/19/2017	LC_LC9	E221268									
6/26/2017	LC_LC9	E221268									
10/3/2017	LC_LC9	E221268					0				
11/8/2017	LC_LC9	E221268					0				
12/4/2017	LC_LC9	E221268					0				
1/2/2017	LC_LCDSSLCC	E297110		888	0.49	< 0.50			12.39	0.205	497
1/5/2017	LC_LCDSSLCC	E297110									
1/9/2017	LC_LCDSSLCC	E297110		916	< 0.50	< 0.50			11.87	0.24	479
1/13/2017	LC_LCDSSLCC	E297110									
1/16/2017	LC_LCDSSLCC	E297110		930	< 0.50	< 0.50			13.15	0.22	469
1/18/2017	LC_LCDSSLCC	E297110									
1/23/2017	LC_LCDSSLCC	E297110		953	< 0.50	< 0.50			13.46	0.23	489
1/31/2017	LC_LCDSSLCC	E297110		925	< 0.50	< 0.50			11.74	0.23	482
2/7/2017	LC_LCDSSLCC	E297110		908	< 0.20	< 0.50			12.89	0.209	537
2/14/2017	LC_LCDSSLCC	E297110		946	< 0.20	< 0.50			12.69	0.19	520
2/21/2017	LC_LCDSSLCC	E297110		954	< 0.50	< 0.50				0.21	552
2/21/2017	LC_LCDSSLCC	E297110							13.78		
2/22/2017	LC_LCDSSLCC	E297110									
2/27/2017	LC_LCDSSLCC	E297110		932	< 0.20	< 0.50			13.05	0.227	512
3/6/2017	LC_LCDSSLCC	E297110		907	< 0.50	< 0.50			12.43	0.21	534
3/9/2017	LC_LCDSSLCC	E297110									
3/13/2017	LC_LCDSSLCC	E297110		926	< 0.20	0.69			12.68	0.217	497
3/15/2017	LC_LCDSSLCC	E297110									
3/20/2017	LC_LCDSSLCC	E297110		830	< 0.20	< 0.50			10.59	0.223	478
3/21/2017	LC_LCDSSLCC	E297110									
3/27/2017	LC_LCDSSLCC	E297110		920	< 0.20	< 0.50			11.52	0.17	536
4/3/2017	LC_LCDSSLCC	E297110		941	< 0.20	< 0.50			11.04	0.196	560
4/10/2017	LC_LCDSSLCC	E297110		950	< 0.20	< 0.50			13.37	0.17	544

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
4/18/2017	LC_LCDSSLCC	E297110		945	< 0.20	< 0.50			11.26	0.187	538
4/24/2017	LC_LCDSSLCC	E297110							11.32		
4/25/2017	LC_LCDSSLCC	E297110		889	< 0.20	< 0.50				0.203	477
4/27/2017	LC_LCDSSLCC	E297110									
5/2/2017	LC_LCDSSLCC	E297110		925	< 0.20	< 0.50			11.53	0.195	463
5/5/2017	LC_LCDSSLCC	E297110									
5/9/2017	LC_LCDSSLCC	E297110		579	0.42	0.84			12	0.195	305
5/16/2017	LC_LCDSSLCC	E297110		526	0.41	< 0.50			12.14	0.188	261
5/17/2017	LC_LCDSSLCC	E297110									
5/23/2017	LC_LCDSSLCC	E297110		458	0.31	< 0.50			11.97	0.171	235
5/30/2017	LC_LCDSSLCC	E297110		406	< 0.20	< 0.50			11.84	0.168	200
6/7/2017	LC_LCDSSLCC	E297110		478	0.31	< 0.50			12.65	0.167	240
6/12/2017	LC_LCDSSLCC	E297110		541	< 0.20	0.81			12.61	0.195	258
6/13/2017	LC_LCDSSLCC	E297110							9.77		
6/19/2017	LC_LCDSSLCC	E297110		585	0.22	< 0.50			9.3	0.145	273
6/20/2017	LC_LCDSSLCC	E297110									
6/20/2017	LC_LCDSSLCC	E297110		587	0.22	< 0.50				0.144	272
6/26/2017	LC_LCDSSLCC	E297110		586	< 0.20	< 0.50			10.89	0.186	302
7/6/2017	LC_LCDSSLCC	E297110		679	< 0.20	< 0.50			10.43	0.163	331
7/11/2017	LC_LCDSSLCC	E297110									
7/11/2017	LC_LCDSSLCC	E297110		706	< 0.20	< 0.50			10.55	0.159	355
7/13/2017	LC_LCDSSLCC	E297110									
7/18/2017	LC_LCDSSLCC	E297110		774	< 0.20	< 0.50			9.78	0.175	391
7/21/2017	LC_LCDSSLCC	E297110							9.04		
7/25/2017	LC_LCDSSLCC	E297110									
7/25/2017	LC_LCDSSLCC	E297110		796	0.21	< 0.50			8.97	0.2	397
8/2/2017	LC_LCDSSLCC	E297110									
8/2/2017	LC_LCDSSLCC	E297110		790	< 0.50	< 0.50			10.52	0.182	451
8/8/2017	LC_LCDSSLCC	E297110									
8/8/2017	LC_LCDSSLCC	E297110		816	< 0.50	< 0.50			11.28	0.198	457
8/15/2017	LC_LCDSSLCC	E297110									
8/15/2017	LC_LCDSSLCC	E297110		800	< 0.50	< 0.50			10.66	0.187	424
8/18/2017	LC_LCDSSLCC	E297110							10.39		
8/21/2017	LC_LCDSSLCC	E297110		810	< 0.50	< 0.50			10.53	0.192	475
8/24/2017	LC_LCDSSLCC	E297110									
8/24/2017	LC_LCDSSLCC	E297110							10.19		
8/27/2017	LC_LCDSSLCC	E297110									
8/27/2017	LC_LCDSSLCC	E297110							7.63		
8/30/2017	LC_LCDSSLCC	E297110									
8/30/2017	LC_LCDSSLCC	E297110		816	< 0.50	< 0.50			10.21	0.16	455
9/2/2017	LC_LCDSSLCC	E297110							10.58		
9/5/2017	LC_LCDSSLCC	E297110									
9/5/2017	LC_LCDSSLCC	E297110		854	< 0.50	< 0.50			10.56	0.184	461
9/8/2017	LC_LCDSSLCC	E297110							10.22		
9/12/2017	LC_LCDSSLCC	E297110									
9/12/2017	LC_LCDSSLCC	E297110		812	< 0.50	< 0.50			10.73	0.178	483
9/13/2017	LC_LCDSSLCC	E297110							10.43		

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
9/20/2017	LC_LCDSSLCC	E297110									
9/20/2017	LC_LCDSSLCC	E297110		852	< 0.50	< 0.50			9.77	0.193	464
9/25/2017	LC_LCDSSLCC	E297110		856	< 0.50	< 0.50			11.53	0.19	483
9/25/2017	LC_LCDSSLCC	E297110									
9/26/2017	LC_LCDSSLCC	E297110									
10/2/2017	LC_LCDSSLCC	E297110		777	< 0.50	< 0.50			9.95	0.175	471
10/3/2017	LC_LCDSSLCC	E297110									
10/10/2017	LC_LCDSSLCC	E297110		867	< 0.50	< 0.50			11.1	0.171	471
10/10/2017	LC_LCDSSLCC	E297110									
10/17/2017	LC_LCDSSLCC	E297110		817	< 0.50	< 0.50			10.46	0.198	484
10/18/2017	LC_LCDSSLCC	E297110									
10/24/2017	LC_LCDSSLCC	E297110		874	< 0.50	< 0.50			10.84	0.186	522
10/24/2017	LC_LCDSSLCC	E297110									
10/31/2017	LC_LCDSSLCC	E297110		930	< 0.50	< 0.50			10.73	0.186	520
11/6/2017	LC_LCDSSLCC	E297110		893	< 0.50	< 0.50			11.11	0.199	480
11/10/2017	LC_LCDSSLCC	E297110		915	< 0.50	< 2.5			11.56	0.19	512
11/14/2017	LC_LCDSSLCC	E297110		907	< 0.50	< 0.50			11.61	0.16	533
11/16/2017	LC_LCDSSLCC	E297110									
11/21/2017	LC_LCDSSLCC	E297110		913	< 0.50	< 0.50			10.27	0.186	527
11/28/2017	LC_LCDSSLCC	E297110									
11/28/2017	LC_LCDSSLCC	E297110		861	< 0.50	< 0.50			12.43	0.199	444
11/30/2017	LC_LCDSSLCC	E297110									
12/4/2017	LC_LCDSSLCC	E297110		983	< 0.50	< 0.50			11.15	0.185	520
12/12/2017	LC_LCDSSLCC	E297110		984	< 0.50	< 0.50			11.97	0.113	516
12/12/2017	LC_LCDSSLCC	E297110									
12/14/2017	LC_LCDSSLCC	E297110									
12/18/2017	LC_LCDSSLCC	E297110		991	< 0.50	< 0.50			10.53	0.221	533
12/18/2017	LC_LCDSSLCC	E297110									
12/27/2017	LC_LCDSSLCC	E297110									
12/27/2017	LC_LCDSSLCC	E297110		963	< 0.50	< 0.50			13.33	0.168	552
1/2/2017	LC_LCUSWLC	E293369		964	< 0.20	< 0.50			11.39	0.222	475
1/9/2017	LC_LCUSWLC	E293369		998	< 0.50	< 0.50			10.51	0.23	601
1/16/2017	LC_LCUSWLC	E293369		1000	< 0.50	< 0.50			11.77	0.23	492
2/14/2017	LC_LCUSWLC	E293369		1010	< 0.20	< 0.50			10.8	0.18	553
2/24/2017	LC_LCUSWLC	E293369		1030	< 0.20	< 0.50			11.21	0.196	557
2/27/2017	LC_LCUSWLC	E293369		1050	< 0.20	< 0.50			12.23	0.191	497
3/6/2017	LC_LCUSWLC	E293369		985	< 0.50	< 0.50			11.65	0.2	577
3/13/2017	LC_LCUSWLC	E293369		1020	0.21	0.53			12.07	0.186	537
3/16/2017	LC_LCUSWLC	E293369									
3/18/2017	LC_LCUSWLC	E293369									
3/19/2017	LC_LCUSWLC	E293369									
3/20/2017	LC_LCUSWLC	E293369		914	< 0.20	1.19			10.84	0.203	531
3/22/2017	LC_LCUSWLC	E293369									
3/23/2017	LC_LCUSWLC	E293369									
3/24/2017	LC_LCUSWLC	E293369									
3/25/2017	LC_LCUSWLC	E293369									
3/26/2017	LC_LCUSWLC	E293369									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
3/27/2017	LC_LCUSWLC	E293369		998	0.21	0.64			11.02	0.197	568
3/28/2017	LC_LCUSWLC	E293369									
3/29/2017	LC_LCUSWLC	E293369									
3/30/2017	LC_LCUSWLC	E293369									
4/3/2017	LC_LCUSWLC	E293369		1030	0.25	0.6			10.52	0.16	604
4/10/2017	LC_LCUSWLC	E293369		1050	0.22	< 0.50			10.89	0.16	591
4/18/2017	LC_LCUSWLC	E293369		1050	0.28	< 0.50			10.83	0.16	585
4/25/2017	LC_LCUSWLC	E293369		987	0.28	< 0.50			10.77	0.15	512
5/1/2017	LC_LCUSWLC	E293369		991	0.28	< 0.50			10.79	0.181	493
5/9/2017	LC_LCUSWLC	E293369		644	0.64	1.43			11.71	0.197	338
5/16/2017	LC_LCUSWLC	E293369		536	0.62	0.62			11.43	0.199	266
5/23/2017	LC_LCUSWLC	E293369		579	0.47	0.6			11.38	0.191	293
5/30/2017	LC_LCUSWLC	E293369		481	0.4	0.69			10.95	0.202	228
6/7/2017	LC_LCUSWLC	E293369		518	0.52	0.6			12.86	0.186	266
6/13/2017	LC_LCUSWLC	E293369		594	0.45	< 0.50			9.87	0.184	293
6/19/2017	LC_LCUSWLC	E293369		658	0.5	< 0.50			8.75	0.148	303
6/26/2017	LC_LCUSWLC	E293369		672	0.42	< 0.50			10.61	0.194	349
7/6/2017	LC_LCUSWLC	E293369		734	0.28	< 0.50			9.44	0.164	350
7/11/2017	LC_LCUSWLC	E293369		777	0.34	< 0.50			9.62	0.155	383
7/18/2017	LC_LCUSWLC	E293369		819	0.32	< 0.50			9.88	0.184	412
7/25/2017	LC_LCUSWLC	E293369		880	0.33	< 0.50			10.56	0.197	432
8/2/2017	LC_LCUSWLC	E293369		871	< 0.50	< 0.50			9.74	0.179	492
8/8/2017	LC_LCUSWLC	E293369		870	< 0.50	< 0.50			10.04	0.19	490
8/15/2017	LC_LCUSWLC	E293369		809	1.12	1.28			9.14	0.186	1310
8/18/2017	LC_LCUSWLC	E293369							9.12		
8/21/2017	LC_LCUSWLC	E293369		810	< 0.50	< 0.50			8.69	0.187	451
8/24/2017	LC_LCUSWLC	E293369							8.59		
8/27/2017	LC_LCUSWLC	E293369							7.02		
8/30/2017	LC_LCUSWLC	E293369		808	< 0.50	< 0.50			9.23	0.15	442
9/2/2017	LC_LCUSWLC	E293369							9.56		
9/5/2017	LC_LCUSWLC	E293369							9.32		
9/5/2017	LC_LCUSWLC	E293369		846	< 0.50	< 0.50			9.32	0.178	443
9/8/2017	LC_LCUSWLC	E293369							9.47		
9/12/2017	LC_LCUSWLC	E293369		826	< 0.50	< 0.50			9.43	0.13	461
9/20/2017	LC_LCUSWLC	E293369		837	< 0.50	< 0.50			8.94	0.183	449
9/25/2017	LC_LCUSWLC	E293369		837	< 0.50	< 0.50			10.42	0.197	468
10/2/2017	LC_LCUSWLC	E293369		776	< 0.50	< 0.50			9.05	0.172	449
10/10/2017	LC_LCUSWLC	E293369		898	< 0.50	< 0.50			9.92	0.178	487
10/17/2017	LC_LCUSWLC	E293369		888	< 0.50	< 0.50			10.15	0.178	526
10/24/2017	LC_LCUSWLC	E293369		935	1.18	< 0.50			11.11	0.174	544
10/31/2017	LC_LCUSWLC	E293369		930	< 0.50	< 0.50			9.72	0.17	532
11/6/2017	LC_LCUSWLC	E293369		1000	< 0.50	< 0.50			10.31	0.185	538
11/9/2017	LC_LCUSWLC	E293369		924	< 0.50	< 0.50			10.15	0.166	527
11/14/2017	LC_LCUSWLC	E293369		910	< 0.50	< 0.50			10.71	0.159	522
11/21/2017	LC_LCUSWLC	E293369		936	< 0.50	< 0.50			10.56	0.19	540
11/28/2017	LC_LCUSWLC	E293369		967	< 0.50	< 0.50			10.9	0.196	497
12/4/2017	LC_LCUSWLC	E293369		1020	< 0.50	< 0.50			9.86	0.18	535

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
12/12/2017	LC_LCUSWLC	E293369		1050	< 0.50	< 0.50			10.8	0.134	540
12/18/2017	LC_LCUSWLC	E293369		1080	< 0.50	< 0.50			9.86	0.215	574
12/27/2017	LC_LCUSWLC	E293369		1030	< 0.50	< 0.50			13.86	0.166	559
1/9/2017	LC_SLC	E282149									
1/9/2017	LC_SLC	E282149		379	< 0.50	< 0.50			11.6	0.345	225
2/14/2017	LC_SLC	E282149		389	< 0.20	< 0.50			11.75	0.333	214
2/14/2017	LC_SLC	E282149									
3/6/2017	LC_SLC	E282149		373	< 0.50	< 0.50			12.44	0.359	211
3/9/2017	LC_SLC	E282149									
4/3/2017	LC_SLC	E282149		380	< 0.20	< 0.50			11.68	0.313	217
4/3/2017	LC_SLC	E282149									
5/1/2017	LC_SLC	E282149		368	< 0.20	< 0.50			11.76	0.27	180
5/6/2017	LC_SLC	E282149									
5/7/2017	LC_SLC	E282149									
5/17/2017	LC_SLC	E282149									
5/24/2017	LC_SLC	E282149									
6/7/2017	LC_SLC	E282149		219	< 0.20	< 0.50			13.42	0.166	107
6/22/2017	LC_SLC	E282149									
7/6/2017	LC_SLC	E282149		270	< 0.20	< 0.50			10.67	0.186	128
7/13/2017	LC_SLC	E282149									
8/2/2017	LC_SLC	E282149		313	< 0.50	< 0.50			10.77	0.255	177
8/8/2017	LC_SLC	E282149							11.46		
8/15/2017	LC_SLC	E282149							11.03		
8/18/2017	LC_SLC	E282149							10.74		
8/21/2017	LC_SLC	E282149							10.45		
8/24/2017	LC_SLC	E282149							10.56		
8/24/2017	LC_SLC	E282149									
8/27/2017	LC_SLC	E282149							8.34		
8/30/2017	LC_SLC	E282149							10.65		
9/2/2017	LC_SLC	E282149							10.3		
9/5/2017	LC_SLC	E282149									
9/5/2017	LC_SLC	E282149		367	< 0.50	< 0.50			11.13	0.282	195
9/5/2017	LC_SLC	E282149							11.13		
9/8/2017	LC_SLC	E282149							10.33		
9/29/2017	LC_SLC	E282149									
10/2/2017	LC_SLC	E282149		357	< 0.50	< 0.50			10.9	0.272	199
10/18/2017	LC_SLC	E282149									
11/8/2017	LC_SLC	E282149		375	< 0.50	< 0.50			12.06	0.308	208
11/8/2017	LC_SLC	E282149									
11/16/2017	LC_SLC	E282149									
12/4/2017	LC_SLC	E282149		383	< 0.50	< 0.50			12.94	0.289	194
12/14/2017	LC_SLC	E282149									
1/9/2017	LC_WLC	E261958		2250	0.7	0.88			10.32	0.27	1440
2/14/2017	LC_WLC	E261958		2280	< 0.20	0.71			10.91	0.2	1550
3/6/2017	LC_WLC	E261958		2180	0.69	0.81			11.64	< 0.40	1570
3/13/2017	LC_WLC	E261958		2270	0.67	1.06			12.2	0.2	1490
3/18/2017	LC_WLC	E261958									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
3/19/2017	LC_WLC	E261958									
3/20/2017	LC_WLC	E261958		2220	0.44	1			10.2	0.2	1540
3/21/2017	LC_WLC	E261958									
3/25/2017	LC_WLC	E261958									
3/26/2017	LC_WLC	E261958									
3/27/2017	LC_WLC	E261958		2280	0.68	0.76			11.13	0.13	1630
4/3/2017	LC_WLC	E261958		2380	0.73	1.5			10.66	0.16	1710
4/10/2017	LC_WLC	E261958		2330	0.66	0.68			10.45	0.17	1630
4/18/2017	LC_WLC	E261958		2320	0.74	0.83			11.34	0.16	1630
4/25/2017	LC_WLC	E261958		2260	0.68	0.72			9.14	0.15	1510
4/26/2017	LC_WLC	E261958									
5/1/2017	LC_WLC	E261958		2290	0.67	0.75			11.23	0.15	1440
5/1/2017	LC_WLC	E261958									
5/9/2017	LC_WLC	E261958		2060	0.92	1.31			11.82	0.15	1410
5/16/2017	LC_WLC	E261958		1800	0.82	0.89			11.46	0.12	1110
5/23/2017	LC_WLC	E261958		1620	0.76	0.97			11.08	0.136	1040
5/30/2017	LC_WLC	E261958		1240	0.64	1.06			11.38	0.13	715
6/6/2017	LC_WLC	E261958		1170	0.86	1			13.13	0.14	696
6/13/2017	LC_WLC	E261958		1320	0.9	0.91			9.43	< 0.10	795
6/19/2017	LC_WLC	E261958		1500	0.81	0.85			11.6	< 0.10	811
6/26/2017	LC_WLC	E261958		1540	0.94	1.01			11.15	< 0.10	969
7/6/2017	LC_WLC	E261958									
7/6/2017	LC_WLC	E261958		1740	0.97	1.07			10.64	< 0.10	971
7/11/2017	LC_WLC	E261958									
7/11/2017	LC_WLC	E261958		1780	0.92	0.98			10.93	< 0.10	1070
7/18/2017	LC_WLC	E261958		1850	0.96	0.97			10.91	< 0.10	1130
7/25/2017	LC_WLC	E261958									
7/25/2017	LC_WLC	E261958		1920	1	1.02			11.84	< 0.10	1170
8/2/2017	LC_WLC	E261958		1870	1.02	1.16			11.83	< 0.10	1340
8/3/2017	LC_WLC	E261958									
8/8/2017	LC_WLC	E261958									
8/8/2017	LC_WLC	E261958		1930	1.2	1.16			11.86	0.12	1370
8/15/2017	LC_WLC	E261958									
8/15/2017	LC_WLC	E261958		2080	< 0.50	< 0.50			11.47	< 0.10	423
8/21/2017	LC_WLC	E261958		2100	1.29	1.26			11.28	< 0.10	1460
8/30/2017	LC_WLC	E261958									
8/30/2017	LC_WLC	E261958		2070	1.07	1.13			11.61	0.1	1470
9/5/2017	LC_WLC	E261958									
9/5/2017	LC_WLC	E261958		2190	1.08	1.3			12.4	< 0.10	1520
9/5/2017	LC_WLC	E261958							12.48		
9/12/2017	LC_WLC	E261958		2010	1.25	1.28			11.79	< 0.10	1590
9/20/2017	LC_WLC	E261958									
9/20/2017	LC_WLC	E261958		2150	1.06	1.26			9.29	0.11	1450
9/25/2017	LC_WLC	E261958									
9/25/2017	LC_WLC	E261958		2220	1.07	1.06			12.26	0.12	1610
10/3/2017	LC_WLC	E261958		1980	< 0.50	1.17			9.86	< 0.10	1490
10/10/2017	LC_WLC	E261958		1860	0.91	1.12			11.08	0.11	1500

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
10/10/2017	LC_WLC	E261958									
10/17/2017	LC_WLC	E261958		1880	0.61	1			11.13	0.17	1490
10/24/2017	LC_WLC	E261958		2250	0.88	1.1			12.21	0.138	1490
10/31/2017	LC_WLC	E261958									
10/31/2017	LC_WLC	E261958		2270	0.9	1			11.02	0.15	1490
11/8/2017	LC_WLC	E261958		2210	0.95	< 1.0			10.93	0.18	1520
11/8/2017	LC_WLC	E261958									
11/14/2017	LC_WLC	E261958		2280	0.75	1.02			11.29	0.16	1670
11/21/2017	LC_WLC	E261958		2190	0.73	0.96			12.1	0.19	1620
11/28/2017	LC_WLC	E261958		2150	0.87	1.01			11.39	0.18	1640
11/28/2017	LC_WLC	E261958									
12/4/2017	LC_WLC	E261958		2410	0.73	1			10.08	0.17	1640
12/12/2017	LC_WLC	E261958		2450	0.8	1.3			11.52	0.12	1560
12/18/2017	LC_WLC	E261958		2480	0.77	1.09			9.98	0.194	1620
12/18/2017	LC_WLC	E261958									
12/27/2017	LC_WLC	E261958		2400	< 0.50	1.2			12.45	0.17	1640
4/11/2017	RG_BORDER	E300094		325	0.78	1.21			10.76	0.101	168
4/11/2017	RG_BORDER	E300094		327	0.65	1.04			11.35	0.102	171
4/11/2017	RG_BORDER	E300094		324	< 0.50	1.04			10.67	0.101	165
4/17/2017	RG_BORDER	E300094		312	< 0.50	1.3			11.31	0.097	151
4/17/2017	RG_BORDER	E300094		311	< 0.50	1.4			10.99	0.096	150
4/17/2017	RG_BORDER	E300094		316	< 0.50	1.37			10.85	0.098	150
4/24/2017	RG_BORDER	E300094		318	< 0.50	1.95			9.25	0.094	165
4/24/2017	RG_BORDER	E300094		323	< 0.50	2.05			9.25	0.097	153
4/24/2017	RG_BORDER	E300094		326	< 0.50	1.63			9.19	0.1	151
5/2/2017	RG_BORDER	E300094		298	< 0.50	1.77			9.56	0.087	145
5/2/2017	RG_BORDER	E300094		305	< 0.50	1.62			9.41	0.089	157
5/9/2017	RG_BORDER	E300094		226	0.64	3.19			11.07	0.069	115
5/9/2017	RG_BORDER	E300094		225	0.62	3.36			11.37	0.069	121
5/9/2017	RG_BORDER	E300094		226	0.59	3.29			11.28	0.07	114
5/16/2017	RG_BORDER	E300094		220	< 0.50	1.52			11.51	0.069	115
5/16/2017	RG_BORDER	E300094		221	< 0.50	1.49			11.53	0.065	111
5/16/2017	RG_BORDER	E300094		219	< 0.50	1.43			11.39	0.067	131
5/23/2017	RG_BORDER	E300094		239	< 0.50	0.75				0.071	129
5/23/2017	RG_BORDER	E300094		232	< 0.50	0.78				0.067	125
5/23/2017	RG_BORDER	E300094		242	< 0.50	0.62				0.07	128
5/30/2017	RG_BORDER	E300094		218	0.58	1.3			9.94	0.072	115
5/30/2017	RG_BORDER	E300094		211	< 0.50	1.25			9.85	0.069	108
5/30/2017	RG_BORDER	E300094		205	< 0.50	1.01			9.86	0.064	107
6/6/2017	RG_BORDER	E300094		196	< 0.50	1.65			10.38	0.067	92.6
6/6/2017	RG_BORDER	E300094		195	< 0.50	1.69			10.13	0.065	91.7
6/6/2017	RG_BORDER	E300094		221	< 0.50	< 0.50			10.47	0.072	105
6/13/2017	RG_BORDER	E300094		185	< 0.50	1.38			9.95	0.064	92
6/13/2017	RG_BORDER	E300094		202	< 0.50	0.51			10.13	0.067	109
6/13/2017	RG_BORDER	E300094		179	< 0.50	1.84			9.46	0.064	92.5
6/20/2017	RG_BORDER	E300094		196	< 0.50	0.97			9.92	0.069	104
6/20/2017	RG_BORDER	E300094		192	< 0.50	0.68			9.81	0.064	102

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
6/20/2017	RG_BORDER	E300094		202	< 0.50	< 0.50			10.07	0.066	104
6/27/2017	RG_BORDER	E300094		208	< 0.50	0.81			10.01	0.072	120
6/27/2017	RG_BORDER	E300094		210	< 0.50	0.51			9.2	0.074	119
6/27/2017	RG_BORDER	E300094		208	< 0.50	< 0.50			8.66	0.067	117
7/4/2017	RG_BORDER	E300094		215	< 0.50	0.7			7.26	0.075	115
7/4/2017	RG_BORDER	E300094		203	< 0.50	< 0.50			10	0.069	106
7/4/2017	RG_BORDER	E300094		210	< 0.50	< 0.50			9.57	0.067	112
7/11/2017	RG_BORDER	E300094		215	< 0.50	< 0.50			9.33	0.074	111
7/11/2017	RG_BORDER	E300094		214	< 0.50	< 0.50			9.37	0.072	106
7/11/2017	RG_BORDER	E300094		212	< 0.50	< 0.50			9.61	0.068	112
8/8/2017	RG_BORDER	E300094		223	< 0.50	< 0.50			8.56	0.075	108
8/8/2017	RG_BORDER	E300094		226	< 0.50	< 0.50			8.34	0.076	110
8/8/2017	RG_BORDER	E300094		229	< 0.50	< 0.50			7.76	0.078	115
9/18/2017	RG_BORDER	E300094		222	< 0.50	0.58			8.29	0.077	109
9/18/2017	RG_BORDER	E300094		254	< 0.50	< 0.50			8.38	0.089	126
9/18/2017	RG_BORDER	E300094		250	< 0.50	< 0.50			8.35	0.088	126
10/3/2017	RG_BORDER	E300094		282	< 0.50	< 0.50			8.27	0.097	143
10/3/2017	RG_BORDER	E300094		245	< 0.50	< 0.50			8.34	0.087	126
10/3/2017	RG_BORDER	E300094		243	< 0.50	< 0.50			8.49	0.089	123
11/8/2017	RG_BORDER	E300094		265	< 0.50	< 0.50			8.31	0.085	127
11/8/2017	RG_BORDER	E300094		254	< 0.50	< 0.50			9.36	0.085	124
11/8/2017	RG_BORDER	E300094		264	< 0.50	< 0.50			8.73	0.084	122
12/5/2017	RG_BORDER	E300094		277	< 0.50	< 0.50			10.91	0.094	149
12/5/2017	RG_BORDER	E300094		255	< 0.50	< 0.50			10.56	0.089	156
12/5/2017	RG_BORDER	E300094		256	< 0.50	< 0.50			10.7	0.087	127
4/4/2017	RG_DSELK	E300230		354	< 0.50	2.59			12.06	0.11	178
4/11/2017	RG_DSELK	E300230		329	< 0.50	4.92			11.36	0.098	160
4/17/2017	RG_DSELK	E300230		333	< 0.50	4.7			11.14	0.095	157
4/24/2017	RG_DSELK	E300230		317	< 0.50	13.3			9.44	0.093	148
5/2/2017	RG_DSELK	E300230		311	< 0.50	4.81			10.11	0.09	153
5/9/2017	RG_DSELK	E300230		239	< 0.50	8.75			11.68	0.07	125
5/16/2017	RG_DSELK	E300230		235	< 0.50	2.12			11.61	0.066	119
5/23/2017	RG_DSELK	E300230		212	< 0.50	2.07				0.056	111
5/30/2017	RG_DSELK	E300230		203	< 0.50	3.95			10.54	0.073	106
6/6/2017	RG_DSELK	E300230		216	< 0.50	1.52			10.54	0.085	103
6/6/2017	RG_DSELK	E300230		196	< 0.50	1.34			10.46	0.064	93.4
6/6/2017	RG_DSELK	E300230		196	< 0.50	1.55			10.55	0.063	93.6
6/13/2017	RG_DSELK	E300230		185	< 0.50	1.91			10	0.056	98.8
6/13/2017	RG_DSELK	E300230		192	< 0.50	1.72			9.83	0.06	96.4
6/13/2017	RG_DSELK	E300230		229	< 0.50	1.24			10.35	0.096	121
6/20/2017	RG_DSELK	E300230		200	< 0.50	0.84			10.02	0.066	107
6/20/2017	RG_DSELK	E300230		203	< 0.50	0.74			9.71	0.068	106
6/20/2017	RG_DSELK	E300230		194	< 0.50	1.19			9.85	0.061	101
6/27/2017	RG_DSELK	E300230		203	< 0.50	< 0.50			8.57	0.066	117
6/27/2017	RG_DSELK	E300230		203	< 0.50	0.72			9.17	0.067	114
6/27/2017	RG_DSELK	E300230		212	< 0.50	< 0.50			8.9	0.073	118
7/4/2017	RG_DSELK	E300230		206	< 0.50	< 0.50			9.61	0.067	99.6

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
7/4/2017	RG_DSELK	E300230		228	< 0.50	< 0.50			8.72	0.082	112
7/4/2017	RG_DSELK	E300230		209	< 0.50	< 0.50			9.57	0.069	105
7/11/2017	RG_DSELK	E300230		211	< 0.50	< 0.50			9.67	0.074	110
7/11/2017	RG_DSELK	E300230		226	< 0.50	< 0.50			9.92	0.097	139
7/11/2017	RG_DSELK	E300230		210	< 0.50	< 0.50			9.48	0.07	117
8/8/2017	RG_DSELK	E300230		262	< 0.50	< 0.50			8.55	0.092	125
8/8/2017	RG_DSELK	E300230		228	< 0.50	< 0.50			7.49	0.079	116
9/18/2017	RG_DSELK	E300230		288	< 0.50	< 0.50			8.19	0.102	146
9/18/2017	RG_DSELK	E300230		270	< 0.50	< 0.50			7.6	0.093	132
9/18/2017	RG_DSELK	E300230		268	< 0.50	< 0.50			8.5	0.093	129
10/3/2017	RG_DSELK	E300230		301	1.09	< 0.50			8.92	0.112	152
10/3/2017	RG_DSELK	E300230		252	< 0.50	< 0.50			8.64	0.091	131
10/3/2017	RG_DSELK	E300230		252	< 0.50	< 0.50			8.45	0.091	132
11/8/2017	RG_DSELK	E300230		306	< 0.50	< 0.50			10.15	0.096	138
11/8/2017	RG_DSELK	E300230		295	< 0.50	< 0.50			10.29	0.096	138
11/8/2017	RG_DSELK	E300230		275	< 0.50	< 0.50			9.79	0.089	131
12/5/2017	RG_DSELK	E300230		313	< 0.50	< 0.50			11.8	0.111	159
12/5/2017	RG_DSELK	E300230		302	< 0.50	< 0.50			11.63	0.104	162
12/5/2017	RG_DSELK	E300230		273	< 0.50	< 0.50			11.27	0.096	143
1/3/2017	RG_ELKORES	E294312		478	< 0.50	0.58			12.04	0.198	254
2/8/2017	RG_ELKORES	E294312		492	0.72	1.23			9.1	0.185	259
3/7/2017	RG_ELKORES	E294312		428	0.67	0.97			11.77	0.156	216
3/14/2017	RG_ELKORES	E294312		365	< 0.50	1.34			9.38	0.129	154
3/21/2017	RG_ELKORES	E294312		336	< 0.50	1.2			10.57	0.122	170
3/28/2017	RG_ELKORES	E294312		434	0.72	0.51			11.89	0.138	189
4/4/2017	RG_ELKORES	E294312		408	< 0.50	< 0.50			14.14	0.141	215
4/11/2017	RG_ELKORES	E294312		382	< 0.50	< 0.50			12.45	0.136	200
4/18/2017	RG_ELKORES	E294312		385	< 0.50	< 0.50			11.86	0.142	211
4/25/2017	RG_ELKORES	E294312		374	< 0.50	0.93			13.07	0.138	204
5/1/2017	RG_ELKORES	E294312		376	< 0.50	0.55			11.47	0.142	192
5/9/2017	RG_ELKORES	E294312		316	< 0.50	1.56			11.25	0.133	173
5/16/2017	RG_ELKORES	E294312		334	< 0.50	1.01			11.74	0.148	182
5/23/2017	RG_ELKORES	E294312		277	0.95	1.83			11.34	0.11	172
5/30/2017	RG_ELKORES	E294312		253	< 0.50	4.12			11.53	0.121	131
6/6/2017	RG_ELKORES	E294312		278	< 0.50	2.18			10.97	0.135	143
6/13/2017	RG_ELKORES	E294312		300	< 0.50	1.03			10.41	0.149	161
6/20/2017	RG_ELKORES	E294312		298	< 0.50	0.65			11.54	0.147	159
6/27/2017	RG_ELKORES	E294312		310	< 0.50	< 0.50			9.72	0.158	170
7/4/2017	RG_ELKORES	E294312		348	< 0.50	< 0.50			10.43	0.171	187
7/11/2017	RG_ELKORES	E294312		360	< 0.50	1.12			9.1	0.175	194
8/1/2017	RG_ELKORES	E294312		404	< 0.50	< 0.50			8.63	0.201	221
9/19/2017	RG_ELKORES	E294312		424	< 0.50	< 0.50			7.6	0.203	242
10/3/2017	RG_ELKORES	E294312		432	< 0.50	< 0.50			9.27	0.2	229
11/8/2017	RG_ELKORES	E294312		465	< 0.50	< 0.50			13.33	0.194	266
12/5/2017	RG_ELKORES	E294312		411	< 0.50	< 0.50			12.45	0.171	227
4/4/2017	RG_GRASMERE	E300092		345	< 0.50	1.23			11.42	0.108	172
4/4/2017	RG_GRASMERE	E300092		351	< 0.50	1.19			11.53	0.109	170

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
4/11/2017	RG_GRASMERE	E300092		327	< 0.50	2.1			11.27	0.099	161
4/17/2017	RG_GRASMERE	E300092		328	< 0.50	1.79			11	0.096	161
4/24/2017	RG_GRASMERE	E300092		360	< 0.50	2			8.25	0.108	172
5/2/2017	RG_GRASMERE	E300092		317	< 0.50	13.1			9.85	0.091	162
5/9/2017	RG_GRASMERE	E300092		243	< 0.50	6.94			11.91	0.073	127
5/16/2017	RG_GRASMERE	E300092		232	< 0.50	1.16			11.61	0.069	120
5/23/2017	RG_GRASMERE	E300092		229	< 0.50	1.09				0.059	112
5/30/2017	RG_GRASMERE	E300092		186	< 0.50	2.14			10.03	0.055	96
6/6/2017	RG_GRASMERE	E300092		206	< 0.50	1.26			10.33	0.074	98.8
6/6/2017	RG_GRASMERE	E300092		193	< 0.50	1.66			10.12	0.063	93.8
6/6/2017	RG_GRASMERE	E300092		188	< 0.50	1.17			10.26	0.057	88.9
6/13/2017	RG_GRASMERE	E300092		187	< 0.50	2.12			9.87	0.062	95.3
6/13/2017	RG_GRASMERE	E300092		193	< 0.50	1.79			9.7	0.067	99.9
6/13/2017	RG_GRASMERE	E300092		205	< 0.50	1.06			10.08	0.075	107
6/20/2017	RG_GRASMERE	E300092		206	< 0.50	0.83			9.67	0.072	110
6/20/2017	RG_GRASMERE	E300092		194	< 0.50	0.64			9.75	0.061	98
6/20/2017	RG_GRASMERE	E300092		199	< 0.50	< 0.50			9.79	0.064	104
6/27/2017	RG_GRASMERE	E300092		221	< 0.50	< 0.50			9.63	0.082	127
6/27/2017	RG_GRASMERE	E300092		213	< 0.50	< 0.50			9.07	0.076	121
6/27/2017	RG_GRASMERE	E300092		203	< 0.50	< 0.50			8.75	0.066	118
7/4/2017	RG_GRASMERE	E300092		214	< 0.50	< 0.50			9.59	0.074	106
7/4/2017	RG_GRASMERE	E300092		208	< 0.50	< 0.50			9.48	0.068	107
7/4/2017	RG_GRASMERE	E300092		209	< 0.50	< 0.50			9.98	0.066	107
7/11/2017	RG_GRASMERE	E300092		215	< 0.50	< 0.50			9.46	0.077	117
7/11/2017	RG_GRASMERE	E300092		201	< 0.50	< 0.50			9.32	0.068	104
7/11/2017	RG_GRASMERE	E300092		211	< 0.50	< 0.50			9.08	0.069	112
8/8/2017	RG_GRASMERE	E300092		250	< 0.50	< 0.50			8.26	0.087	121
8/8/2017	RG_GRASMERE	E300092		240	< 0.50	< 0.50			8.19	0.083	121
9/18/2017	RG_GRASMERE	E300092		278	< 0.50	< 0.50			7.97	0.098	141
9/18/2017	RG_GRASMERE	E300092		259	< 0.50	< 0.50			8.33	0.092	128
9/18/2017	RG_GRASMERE	E300092		259	< 0.50	< 0.50			8.32	0.092	132
10/3/2017	RG_GRASMERE	E300092		279	< 0.50	< 0.50			8.64	0.098	139
10/3/2017	RG_GRASMERE	E300092		253	< 0.50	< 0.50			8.58	0.091	128
10/3/2017	RG_GRASMERE	E300092		251	< 0.50	< 0.50			8.46	0.09	124
11/8/2017	RG_GRASMERE	E300092		287	< 0.50	< 0.50			10.02	0.094	136
11/8/2017	RG_GRASMERE	E300092		274	< 0.50	< 0.50			9.69	0.088	130
11/8/2017	RG_GRASMERE	E300092		269	< 0.50	< 0.50			9.62	0.089	127
12/5/2017	RG_GRASMERE	E300092		304	< 0.50	< 0.50			11.57	0.097	161
12/5/2017	RG_GRASMERE	E300092		283	< 0.50	< 0.50			11.02	0.096	144
12/5/2017	RG_GRASMERE	E300092		263	< 0.50	< 0.50			10.88	0.091	142
4/24/2017	RG_KERRRD	E300095		307	< 0.50	2.09			10.21	0.082	144
5/2/2017	RG_KERRRD	E300095		296	< 0.50	1.03			10.29	0.076	152
5/9/2017	RG_KERRRD	E300095		225	< 0.50	6.75			11.3	0.058	115
5/16/2017	RG_KERRRD	E300095		226	< 0.50	1.37			11.76	0.059	115
5/23/2017	RG_KERRRD	E300095		206	0.72	3.36				0.052	106
5/30/2017	RG_KERRRD	E300095		180	< 0.50	4.12			10.44	0.05	90.9
6/6/2017	RG_KERRRD	E300095		183	< 0.50	2.08			10.31	0.054	86.8

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
6/6/2017	RG_KERRRD	E300095		185	< 0.50	2.17			9.97	0.054	94.4
6/13/2017	RG_KERRRD	E300095		193	< 0.50	1.61			9.46	0.053	99
6/13/2017	RG_KERRRD	E300095		195	< 0.50	1.65			9.99	0.056	104
6/20/2017	RG_KERRRD	E300095		185	< 0.50	0.76			9.83	0.055	95.5
6/20/2017	RG_KERRRD	E300095		187	< 0.50	0.78			9.26	0.055	101
6/20/2017	RG_KERRRD	E300095		188	< 0.50	0.76			10.13	0.055	102
6/27/2017	RG_KERRRD	E300095		199	< 0.50	< 0.50			9.05	0.062	114
6/27/2017	RG_KERRRD	E300095		200	< 0.50	< 0.50			9.18	0.061	112
6/27/2017	RG_KERRRD	E300095		202	< 0.50	< 0.50			9.31	0.061	110
7/4/2017	RG_KERRRD	E300095		200	< 0.50	< 0.50			93	0.062	93.6
7/4/2017	RG_KERRRD	E300095		200	< 0.50	< 0.50			9.35	0.063	97.8
7/4/2017	RG_KERRRD	E300095		208	< 0.50	< 0.50			9.69	0.064	100
7/11/2017	RG_KERRRD	E300095		201	< 0.50	< 0.50			9.4	0.065	103
7/11/2017	RG_KERRRD	E300095		201	< 0.50	< 0.50			9.61	0.066	108
7/11/2017	RG_KERRRD	E300095		197	< 0.50	< 0.50			9.09	0.068	104
8/8/2017	RG_KERRRD	E300095		251	< 0.50	< 0.50			6.72	0.079	118
8/8/2017	RG_KERRRD	E300095		257	< 0.50	< 0.50			8.3	0.08	127
8/8/2017	RG_KERRRD	E300095		240	< 0.50	< 0.50			8.01	0.076	114
9/18/2017	RG_KERRRD	E300095		286	< 0.50	< 0.50			8.08	0.091	142
9/18/2017	RG_KERRRD	E300095		261	< 0.50	< 0.50			8.62	0.091	132
9/18/2017	RG_KERRRD	E300095		258	< 0.50	< 0.50			8.63	0.089	134
10/3/2017	RG_KERRRD	E300095		305	< 0.50	< 0.50			9.45	0.097	152
10/3/2017	RG_KERRRD	E300095		264	< 0.50	< 0.50			8.79	0.094	134
10/3/2017	RG_KERRRD	E300095		267	< 0.50	< 0.50			8.73	0.092	135
11/8/2017	RG_KERRRD	E300095		315	< 0.50	< 0.50			10.37	0.092	145
11/8/2017	RG_KERRRD	E300095		313	< 0.50	< 0.50			10.18	0.09	146
11/8/2017	RG_KERRRD	E300095		309	< 0.50	< 0.50			10.32	0.09	143
12/5/2017	RG_KERRRD	E300095		293	< 0.50	< 0.50			12.33	0.09	148
12/5/2017	RG_KERRRD	E300095		280	< 0.50	< 0.50			11.93	0.088	141
12/5/2017	RG_KERRRD	E300095		275	< 0.50	< 0.50			11.96	0.088	141
4/4/2017	RG_USGOLD	E300093		346	< 0.50	0.97			11.6	0.108	172
4/4/2017	RG_USGOLD	E300093		346	< 0.50	0.82			11.69	0.106	172
4/11/2017	RG_USGOLD	E300093		324	< 0.50	1.75			11.33	0.099	160
4/17/2017	RG_USGOLD	E300093		328	< 0.50	1.35			11.15	0.102	159
4/24/2017	RG_USGOLD	E300093		316	< 0.50	5.01			9.17	0.094	156
5/2/2017	RG_USGOLD	E300093		327	< 0.50	4			8.22	0.104	167
5/9/2017	RG_USGOLD	E300093		241	< 0.50	2.98			11.6	0.072	125
5/16/2017	RG_USGOLD	E300093		235	< 0.50	1.4			10.68	0.068	120
5/23/2017	RG_USGOLD	E300093		221	< 0.50	1.19				0.062	111
5/30/2017	RG_USGOLD	E300093		207	< 0.50	2.15			9.66	0.067	105
5/30/2017	RG_USGOLD	E300093		205	< 0.50	2.29			9.76	0.075	109
5/30/2017	RG_USGOLD	E300093		211	< 0.50	1.57			9.96	0.077	111
6/6/2017	RG_USGOLD	E300093		220	< 0.50	1.44			10.41	0.085	102
6/6/2017	RG_USGOLD	E300093		188	< 0.50	1.54			10.1	0.053	89
6/6/2017	RG_USGOLD	E300093		211	< 0.50	0.82			10.4	0.074	102
6/13/2017	RG_USGOLD	E300093		183	< 0.50	2.32			10.06	0.059	93.4
6/13/2017	RG_USGOLD	E300093		199	< 0.50	1.48			9.7	0.071	106

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
6/13/2017	RG_USGOLD	E300093		202	< 0.50	0.51			9.68	0.067	99.5
6/20/2017	RG_USGOLD	E300093		209	< 0.50	0.87			10.16	0.073	107
6/20/2017	RG_USGOLD	E300093		198	< 0.50	0.56			9.75	0.062	104
6/20/2017	RG_USGOLD	E300093		201	< 0.50	2.48			10.05	0.064	103
6/27/2017	RG_USGOLD	E300093		229	< 0.50	< 0.50			9.49	0.089	133
6/27/2017	RG_USGOLD	E300093		203	< 0.50	0.55			9.12	0.069	117
6/27/2017	RG_USGOLD	E300093		205	< 0.50	< 0.50			8.61	0.067	119
7/4/2017	RG_USGOLD	E300093		206	< 0.50	< 0.50			9.77	0.072	108
7/4/2017	RG_USGOLD	E300093		213	< 0.50	< 0.50			8.1	0.072	108
7/4/2017	RG_USGOLD	E300093		206	< 0.50	< 0.50			9.36	0.066	105
7/11/2017	RG_USGOLD	E300093		221	< 0.50	< 0.50			9.69	0.081	116
7/11/2017	RG_USGOLD	E300093		208	< 0.50	< 0.50			9.44	0.071	108
7/11/2017	RG_USGOLD	E300093		206	< 0.50	< 0.50			9.28	0.069	115
8/8/2017	RG_USGOLD	E300093		223	< 0.50	< 0.50			9	0.076	110
8/8/2017	RG_USGOLD	E300093		288	< 0.50	< 0.50			7.87	0.108	142
8/8/2017	RG_USGOLD	E300093		238	< 0.50	< 0.50			7.9	0.081	117
9/18/2017	RG_USGOLD	E300093		260	< 0.50	< 0.50			6.64	0.097	134
9/18/2017	RG_USGOLD	E300093		256	< 0.50	< 0.50			7.52	0.089	131
9/18/2017	RG_USGOLD	E300093		252	< 0.50	< 0.50			8.26	0.089	128
10/3/2017	RG_USGOLD	E300093		292	< 0.50	< 0.50			8.58	0.103	144
10/3/2017	RG_USGOLD	E300093		250	< 0.50	< 0.50			8.41	0.091	127
10/3/2017	RG_USGOLD	E300093		253	< 0.50	< 0.50			8.27	0.091	128
11/8/2017	RG_USGOLD	E300093		283	< 0.50	< 0.50			9.23	0.089	131
11/8/2017	RG_USGOLD	E300093		271	< 0.50	< 0.50			9.18	0.088	130
11/8/2017	RG_USGOLD	E300093		265	< 0.50	< 0.50			9.67	0.088	125
12/5/2017	RG_USGOLD	E300093		295	< 0.50	< 0.50			11.47	0.1	170
12/5/2017	RG_USGOLD	E300093		270	< 0.50	< 0.50			10.91	0.091	153
12/5/2017	RG_USGOLD	E300093		266	< 0.50	< 0.50			10.73	0.09	139
1/1/2017	WL_BFWB_OUT_SP21	E291569			0.99	< 0.50					1080
1/2/2017	WL_BFWB_OUT_SP21	E291569			2.21	< 0.50					1080
1/3/2017	WL_BFWB_OUT_SP21	E291569			0.27	< 0.50					1160
1/4/2017	WL_BFWB_OUT_SP21	E291569									
1/5/2017	WL_BFWB_OUT_SP21	E291569			0.7	< 0.50					1120
1/6/2017	WL_BFWB_OUT_SP21	E291569									
1/7/2017	WL_BFWB_OUT_SP21	E291569									
1/8/2017	WL_BFWB_OUT_SP21	E291569			0.56	< 0.50					1170
1/9/2017	WL_BFWB_OUT_SP21	E291569			< 0.20	< 0.50				0.18	1100
1/10/2017	WL_BFWB_OUT_SP21	E291569			0.29	< 0.50					1110
1/11/2017	WL_BFWB_OUT_SP21	E291569									
1/12/2017	WL_BFWB_OUT_SP21	E291569			0.83	< 0.50					1070
1/12/2017	WL_BFWB_OUT_SP21	E291569									
1/13/2017	WL_BFWB_OUT_SP21	E291569									
1/14/2017	WL_BFWB_OUT_SP21	E291569									
1/15/2017	WL_BFWB_OUT_SP21	E291569			0.69	< 0.50					1070
1/16/2017	WL_BFWB_OUT_SP21	E291569			3.08	< 0.50					1100
1/17/2017	WL_BFWB_OUT_SP21	E291569			2.5	< 0.50					1060
1/18/2017	WL_BFWB_OUT_SP21	E291569									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
1/19/2017	WL_BFWB_OUT_SP21	E291569			0.52	< 0.50					1110
1/20/2017	WL_BFWB_OUT_SP21	E291569									
1/21/2017	WL_BFWB_OUT_SP21	E291569									
1/22/2017	WL_BFWB_OUT_SP21	E291569			8.11	< 0.50					1130
1/23/2017	WL_BFWB_OUT_SP21	E291569			0.3	< 0.50					1130
1/24/2017	WL_BFWB_OUT_SP21	E291569			0.65	< 0.50					1180
1/25/2017	WL_BFWB_OUT_SP21	E291569									
1/26/2017	WL_BFWB_OUT_SP21	E291569			0.21	< 0.50					1090
1/27/2017	WL_BFWB_OUT_SP21	E291569									
1/28/2017	WL_BFWB_OUT_SP21	E291569									
1/29/2017	WL_BFWB_OUT_SP21	E291569			1.35	< 0.50					1130
1/30/2017	WL_BFWB_OUT_SP21	E291569			< 1.0	< 2.5					1080
1/31/2017	WL_BFWB_OUT_SP21	E291569			< 1.0	< 2.5			11.3		1170
1/31/2017	WL_BFWB_OUT_SP21	E291569									
2/1/2017	WL_BFWB_OUT_SP21	E291569							11.52		
2/1/2017	WL_BFWB_OUT_SP21	E291569									
2/2/2017	WL_BFWB_OUT_SP21	E291569			0.26	< 0.50			12.05		1100
2/2/2017	WL_BFWB_OUT_SP21	E291569									
2/3/2017	WL_BFWB_OUT_SP21	E291569							12.33		
2/3/2017	WL_BFWB_OUT_SP21	E291569									
2/4/2017	WL_BFWB_OUT_SP21	E291569							11.83		
2/4/2017	WL_BFWB_OUT_SP21	E291569									
2/5/2017	WL_BFWB_OUT_SP21	E291569			1.22	< 0.50			11.75		995
2/6/2017	WL_BFWB_OUT_SP21	E291569			1.26	0.59			11.91		989
2/6/2017	WL_BFWB_OUT_SP21	E291569									
2/7/2017	WL_BFWB_OUT_SP21	E291569			0.27	< 0.50			12.16	0.19	1050
2/8/2017	WL_BFWB_OUT_SP21	E291569							12.11		
2/8/2017	WL_BFWB_OUT_SP21	E291569									
2/9/2017	WL_BFWB_OUT_SP21	E291569			1.45	< 0.50			11.32		1080
2/10/2017	WL_BFWB_OUT_SP21	E291569							11		
2/10/2017	WL_BFWB_OUT_SP21	E291569									
2/11/2017	WL_BFWB_OUT_SP21	E291569							10.88		
2/11/2017	WL_BFWB_OUT_SP21	E291569									
2/12/2017	WL_BFWB_OUT_SP21	E291569			< 0.20	< 0.50			11.83		1120
2/12/2017	WL_BFWB_OUT_SP21	E291569									
2/13/2017	WL_BFWB_OUT_SP21	E291569			3.03	< 0.50			11.32		1090
2/13/2017	WL_BFWB_OUT_SP21	E291569									
2/14/2017	WL_BFWB_OUT_SP21	E291569			1.29	< 0.50			12.13		1080
2/14/2017	WL_BFWB_OUT_SP21	E291569									
2/15/2017	WL_BFWB_OUT_SP21	E291569							12.32		
2/16/2017	WL_BFWB_OUT_SP21	E291569			0.57	< 0.50			12.47		1090
2/16/2017	WL_BFWB_OUT_SP21	E291569									
2/17/2017	WL_BFWB_OUT_SP21	E291569							11.93		
2/17/2017	WL_BFWB_OUT_SP21	E291569									
2/18/2017	WL_BFWB_OUT_SP21	E291569							11.95		
2/18/2017	WL_BFWB_OUT_SP21	E291569									
2/19/2017	WL_BFWB_OUT_SP21	E291569							12.06		

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
2/19/2017	WL_BFWB_OUT_SP21	E291569			< 0.20	< 0.50					1090
2/19/2017	WL_BFWB_OUT_SP21	E291569									
2/20/2017	WL_BFWB_OUT_SP21	E291569			0.72	1.32			11.41		1130
2/20/2017	WL_BFWB_OUT_SP21	E291569									
2/21/2017	WL_BFWB_OUT_SP21	E291569									
2/21/2017	WL_BFWB_OUT_SP21	E291569			< 0.20	< 0.50			11.63		998
2/21/2017	WL_BFWB_OUT_SP21	E291569									
2/22/2017	WL_BFWB_OUT_SP21	E291569							11.67		
2/22/2017	WL_BFWB_OUT_SP21	E291569									
2/23/2017	WL_BFWB_OUT_SP21	E291569			< 0.20	< 0.50			11.73		1050
2/23/2017	WL_BFWB_OUT_SP21	E291569									
2/24/2017	WL_BFWB_OUT_SP21	E291569							12.11		
2/24/2017	WL_BFWB_OUT_SP21	E291569									
2/25/2017	WL_BFWB_OUT_SP21	E291569							11.98		
2/25/2017	WL_BFWB_OUT_SP21	E291569									
2/26/2017	WL_BFWB_OUT_SP21	E291569			0.28	< 0.50			12.78		1050
2/26/2017	WL_BFWB_OUT_SP21	E291569									
2/27/2017	WL_BFWB_OUT_SP21	E291569			< 0.20	< 0.50			13.16		1020
2/27/2017	WL_BFWB_OUT_SP21	E291569									
2/28/2017	WL_BFWB_OUT_SP21	E291569			< 0.20	< 0.50			11.75		994
2/28/2017	WL_BFWB_OUT_SP21	E291569									
3/1/2017	WL_BFWB_OUT_SP21	E291569							12.13		
3/2/2017	WL_BFWB_OUT_SP21	E291569			< 0.20	0.63			11.72		1070
3/2/2017	WL_BFWB_OUT_SP21	E291569									
3/3/2017	WL_BFWB_OUT_SP21	E291569							12.09		
3/3/2017	WL_BFWB_OUT_SP21	E291569									
3/4/2017	WL_BFWB_OUT_SP21	E291569							13.1		
3/4/2017	WL_BFWB_OUT_SP21	E291569									
3/5/2017	WL_BFWB_OUT_SP21	E291569							12.41		
3/5/2017	WL_BFWB_OUT_SP21	E291569			3.21	< 0.50					1110
3/5/2017	WL_BFWB_OUT_SP21	E291569									
3/6/2017	WL_BFWB_OUT_SP21	E291569			0.41	1.48			11.7	0.17	1080
3/6/2017	WL_BFWB_OUT_SP21	E291569									
3/7/2017	WL_BFWB_OUT_SP21	E291569			0.24	< 0.50			12.44		1060
3/7/2017	WL_BFWB_OUT_SP21	E291569									
3/8/2017	WL_BFWB_OUT_SP21	E291569									
3/8/2017	WL_BFWB_OUT_SP21	E291569							12.1		
3/8/2017	WL_BFWB_OUT_SP21	E291569									
3/9/2017	WL_BFWB_OUT_SP21	E291569							12.47		
3/9/2017	WL_BFWB_OUT_SP21	E291569			0.66	< 0.50					994
3/9/2017	WL_BFWB_OUT_SP21	E291569									
3/10/2017	WL_BFWB_OUT_SP21	E291569			0.71	< 0.50			12.2		1030
3/10/2017	WL_BFWB_OUT_SP21	E291569									
3/11/2017	WL_BFWB_OUT_SP21	E291569			2.12	< 0.50			13.03		1020
3/11/2017	WL_BFWB_OUT_SP21	E291569									
3/12/2017	WL_BFWB_OUT_SP21	E291569			3.1	< 0.50			12.39		1020
3/12/2017	WL_BFWB_OUT_SP21	E291569									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
3/12/2017	WL_BFWB_OUT_SP21	E291569									
3/13/2017	WL_BFWB_OUT_SP21	E291569			3.25	< 0.50			12.3		1100
3/13/2017	WL_BFWB_OUT_SP21	E291569									
3/14/2017	WL_BFWB_OUT_SP21	E291569			1.16	< 0.50			12.59		972
3/14/2017	WL_BFWB_OUT_SP21	E291569									
3/15/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			12.65		998
3/15/2017	WL_BFWB_OUT_SP21	E291569									
3/16/2017	WL_BFWB_OUT_SP21	E291569			0.64	< 0.50			13.48		1030
3/16/2017	WL_BFWB_OUT_SP21	E291569									
3/20/2017	WL_BFWB_OUT_SP21	E291569			0.9	< 0.50			13.34		957
3/20/2017	WL_BFWB_OUT_SP21	E291569									
3/21/2017	WL_BFWB_OUT_SP21	E291569									
3/21/2017	WL_BFWB_OUT_SP21	E291569			0.68	< 0.50			13.22		1020
3/21/2017	WL_BFWB_OUT_SP21	E291569									
3/22/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			12.5		1270
3/22/2017	WL_BFWB_OUT_SP21	E291569									
3/23/2017	WL_BFWB_OUT_SP21	E291569			5.8	< 0.50			12.01		1300
3/23/2017	WL_BFWB_OUT_SP21	E291569									
3/24/2017	WL_BFWB_OUT_SP21	E291569			0.96	< 0.50			11.98		1290
3/24/2017	WL_BFWB_OUT_SP21	E291569									
3/25/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.78		1170
3/25/2017	WL_BFWB_OUT_SP21	E291569									
3/26/2017	WL_BFWB_OUT_SP21	E291569									
3/26/2017	WL_BFWB_OUT_SP21	E291569									
3/27/2017	WL_BFWB_OUT_SP21	E291569			0.88	0.66			11.38		1130
3/27/2017	WL_BFWB_OUT_SP21	E291569									
3/28/2017	WL_BFWB_OUT_SP21	E291569			0.88	< 0.50			11.39		1130
3/28/2017	WL_BFWB_OUT_SP21	E291569									
3/29/2017	WL_BFWB_OUT_SP21	E291569			2.15	< 0.50			11.85		1070
3/29/2017	WL_BFWB_OUT_SP21	E291569									
3/30/2017	WL_BFWB_OUT_SP21	E291569			1.14	5.27			10.87		1080
3/31/2017	WL_BFWB_OUT_SP21	E291569			1.06	< 0.50			11.85		1110
3/31/2017	WL_BFWB_OUT_SP21	E291569									
4/1/2017	WL_BFWB_OUT_SP21	E291569			1.09	< 0.50			10.07		1060
4/1/2017	WL_BFWB_OUT_SP21	E291569									
4/2/2017	WL_BFWB_OUT_SP21	E291569			1.53	< 0.50			10.73		1060
4/2/2017	WL_BFWB_OUT_SP21	E291569									
4/2/2017	WL_BFWB_OUT_SP21	E291569									
4/3/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.73	0.16	1040
4/3/2017	WL_BFWB_OUT_SP21	E291569									
4/4/2017	WL_BFWB_OUT_SP21	E291569			1.83	< 0.50			11.35		1070
4/4/2017	WL_BFWB_OUT_SP21	E291569									
4/5/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.33		1100
4/5/2017	WL_BFWB_OUT_SP21	E291569									
4/6/2017	WL_BFWB_OUT_SP21	E291569			0.73	< 0.50			11.38		1150
4/6/2017	WL_BFWB_OUT_SP21	E291569									
4/7/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.25		1160

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
4/7/2017	WL_BFWB_OUT_SP21	E291569									
4/8/2017	WL_BFWB_OUT_SP21	E291569			6.14	< 0.50			11.21		1120
4/8/2017	WL_BFWB_OUT_SP21	E291569									
4/9/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.47		1130
4/9/2017	WL_BFWB_OUT_SP21	E291569									
4/10/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.47		1170
4/10/2017	WL_BFWB_OUT_SP21	E291569									
4/11/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.5		1060
4/11/2017	WL_BFWB_OUT_SP21	E291569									
4/12/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.59		1090
4/12/2017	WL_BFWB_OUT_SP21	E291569									
4/13/2017	WL_BFWB_OUT_SP21	E291569			0.76	0.54			11.49		1050
4/13/2017	WL_BFWB_OUT_SP21	E291569									
4/14/2017	WL_BFWB_OUT_SP21	E291569			1.62	< 0.50			11.8		1000
4/14/2017	WL_BFWB_OUT_SP21	E291569									
4/15/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.56		1060
4/15/2017	WL_BFWB_OUT_SP21	E291569									
4/16/2017	WL_BFWB_OUT_SP21	E291569			1.61	< 0.50			11.83		1150
4/16/2017	WL_BFWB_OUT_SP21	E291569									
4/17/2017	WL_BFWB_OUT_SP21	E291569			12.5	< 0.50			11.31		1050
4/17/2017	WL_BFWB_OUT_SP21	E291569									
4/18/2017	WL_BFWB_OUT_SP21	E291569			11.7	< 0.50			11.06		1110
4/18/2017	WL_BFWB_OUT_SP21	E291569									
4/19/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.26		1100
4/19/2017	WL_BFWB_OUT_SP21	E291569									
4/20/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.45		1120
4/20/2017	WL_BFWB_OUT_SP21	E291569									
4/21/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.82		1150
4/21/2017	WL_BFWB_OUT_SP21	E291569									
4/22/2017	WL_BFWB_OUT_SP21	E291569			0.58	< 0.50			11.5		1200
4/22/2017	WL_BFWB_OUT_SP21	E291569									
4/23/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.29		1190
4/23/2017	WL_BFWB_OUT_SP21	E291569									
4/24/2017	WL_BFWB_OUT_SP21	E291569			0.96	< 0.50			11.34		1190
4/24/2017	WL_BFWB_OUT_SP21	E291569									
4/25/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.24		1150
4/25/2017	WL_BFWB_OUT_SP21	E291569									
4/26/2017	WL_BFWB_OUT_SP21	E291569			0.92	< 0.50			11.21		1170
4/27/2017	WL_BFWB_OUT_SP21	E291569			0.51	< 0.50			11.2		1170
4/27/2017	WL_BFWB_OUT_SP21	E291569									
4/28/2017	WL_BFWB_OUT_SP21	E291569			0.71	< 0.50			11.16		1160
4/28/2017	WL_BFWB_OUT_SP21	E291569									
4/29/2017	WL_BFWB_OUT_SP21	E291569			6.87	< 0.50			11.08		1140
4/29/2017	WL_BFWB_OUT_SP21	E291569									
4/30/2017	WL_BFWB_OUT_SP21	E291569			8.23	< 0.50			11.19		1130
4/30/2017	WL_BFWB_OUT_SP21	E291569									
5/1/2017	WL_BFWB_OUT_SP21	E291569			1.69	< 0.50			10.95	0.16	1110

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
5/1/2017	WL_BFWB_OUT_SP21	E291569									
5/2/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					1130
5/2/2017	WL_BFWB_OUT_SP21	E291569						10.91			
5/2/2017	WL_BFWB_OUT_SP21	E291569									
5/3/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.97		1240
5/3/2017	WL_BFWB_OUT_SP21	E291569									
5/4/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.13		1250
5/4/2017	WL_BFWB_OUT_SP21	E291569									
5/5/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					1280
5/5/2017	WL_BFWB_OUT_SP21	E291569						10.84			
5/5/2017	WL_BFWB_OUT_SP21	E291569									
5/6/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.75		1180
5/6/2017	WL_BFWB_OUT_SP21	E291569									
5/7/2017	WL_BFWB_OUT_SP21	E291569			0.85	< 0.50			10.95		1260
5/7/2017	WL_BFWB_OUT_SP21	E291569									
5/8/2017	WL_BFWB_OUT_SP21	E291569			2.3	< 0.50			11.12		1270
5/8/2017	WL_BFWB_OUT_SP21	E291569									
5/9/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.17		1130
5/9/2017	WL_BFWB_OUT_SP21	E291569									
5/10/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.35		1200
5/10/2017	WL_BFWB_OUT_SP21	E291569									
5/11/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.51		1210
5/11/2017	WL_BFWB_OUT_SP21	E291569									
5/12/2017	WL_BFWB_OUT_SP21	E291569			0.73	< 0.50			10.19		1250
5/12/2017	WL_BFWB_OUT_SP21	E291569									
5/13/2017	WL_BFWB_OUT_SP21	E291569			2.17	< 0.50			10.2		1270
5/13/2017	WL_BFWB_OUT_SP21	E291569									
5/14/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.73		1420
5/14/2017	WL_BFWB_OUT_SP21	E291569									
5/15/2017	WL_BFWB_OUT_SP21	E291569				0.63					1280
5/15/2017	WL_BFWB_OUT_SP21	E291569						10.93			
5/15/2017	WL_BFWB_OUT_SP21	E291569									
5/16/2017	WL_BFWB_OUT_SP21	E291569			1.4	< 0.50			10.38		1360
5/16/2017	WL_BFWB_OUT_SP21	E291569									
5/17/2017	WL_BFWB_OUT_SP21	E291569			2.14	< 0.50			10.7		1230
5/17/2017	WL_BFWB_OUT_SP21	E291569									
5/18/2017	WL_BFWB_OUT_SP21	E291569			0.93	< 0.50			10.83		1180
5/18/2017	WL_BFWB_OUT_SP21	E291569									
5/19/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.75		1280
5/19/2017	WL_BFWB_OUT_SP21	E291569									
5/20/2017	WL_BFWB_OUT_SP21	E291569				< 0.50			10.83		1220
5/20/2017	WL_BFWB_OUT_SP21	E291569									
5/21/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.42		1200
5/21/2017	WL_BFWB_OUT_SP21	E291569									
5/22/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.4		1290
5/22/2017	WL_BFWB_OUT_SP21	E291569									
5/23/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.59		1120

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
5/23/2017	WL_BFWB_OUT_SP21	E291569									
5/24/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.24		1110
5/24/2017	WL_BFWB_OUT_SP21	E291569									
5/25/2017	WL_BFWB_OUT_SP21	E291569			0.61						
5/25/2017	WL_BFWB_OUT_SP21	E291569							10.24		
5/25/2017	WL_BFWB_OUT_SP21	E291569									
5/26/2017	WL_BFWB_OUT_SP21	E291569							11.04		
5/26/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					1000
5/26/2017	WL_BFWB_OUT_SP21	E291569									
5/27/2017	WL_BFWB_OUT_SP21	E291569			0.65	< 0.50			11.16		982
5/27/2017	WL_BFWB_OUT_SP21	E291569									
5/28/2017	WL_BFWB_OUT_SP21	E291569			1.23	< 0.50			10.59		975
5/28/2017	WL_BFWB_OUT_SP21	E291569									
5/29/2017	WL_BFWB_OUT_SP21	E291569			1.63	< 0.50			10.45		1060
5/29/2017	WL_BFWB_OUT_SP21	E291569									
5/30/2017	WL_BFWB_OUT_SP21	E291569			1.01	< 0.50			10.46		919
5/30/2017	WL_BFWB_OUT_SP21	E291569									
5/31/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					847
5/31/2017	WL_BFWB_OUT_SP21	E291569							9.75		
5/31/2017	WL_BFWB_OUT_SP21	E291569									
6/1/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			9.11		850
6/1/2017	WL_BFWB_OUT_SP21	E291569									
6/2/2017	WL_BFWB_OUT_SP21	E291569			1.03	< 0.50			10.44		831
6/2/2017	WL_BFWB_OUT_SP21	E291569									
6/3/2017	WL_BFWB_OUT_SP21	E291569							10.49		
6/3/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					800
6/4/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.5		769
6/4/2017	WL_BFWB_OUT_SP21	E291569									
6/5/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.79	0.15	743
6/5/2017	WL_BFWB_OUT_SP21	E291569									
6/6/2017	WL_BFWB_OUT_SP21	E291569			0.93	< 0.50			10.97		713
6/6/2017	WL_BFWB_OUT_SP21	E291569									
6/7/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			12.47		710
6/7/2017	WL_BFWB_OUT_SP21	E291569									
6/8/2017	WL_BFWB_OUT_SP21	E291569			0.51	< 0.50			10.54		715
6/8/2017	WL_BFWB_OUT_SP21	E291569									
6/9/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.14		721
6/9/2017	WL_BFWB_OUT_SP21	E291569									
6/10/2017	WL_BFWB_OUT_SP21	E291569			1.43	< 0.50			9.5		707
6/10/2017	WL_BFWB_OUT_SP21	E291569									
6/11/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.32		716
6/11/2017	WL_BFWB_OUT_SP21	E291569									
6/12/2017	WL_BFWB_OUT_SP21	E291569			2.46	< 0.50			10.81	0.14	742
6/12/2017	WL_BFWB_OUT_SP21	E291569									
6/12/2017	WL_BFWB_OUT_SP21	E291569									
6/13/2017	WL_BFWB_OUT_SP21	E291569			0.53	< 0.50			10.42		733
6/13/2017	WL_BFWB_OUT_SP21	E291569									

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
6/14/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.57		742
6/14/2017	WL_BFWB_OUT_SP21	E291569									
6/15/2017	WL_BFWB_OUT_SP21	E291569			0.54	< 0.50			10.7		813
6/15/2017	WL_BFWB_OUT_SP21	E291569									
6/16/2017	WL_BFWB_OUT_SP21	E291569			3.59	< 0.50			10.12		890
6/16/2017	WL_BFWB_OUT_SP21	E291569									
6/17/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.53		787
6/17/2017	WL_BFWB_OUT_SP21	E291569									
6/18/2017	WL_BFWB_OUT_SP21	E291569			< 0.50				10.52		807
6/18/2017	WL_BFWB_OUT_SP21	E291569									
6/19/2017	WL_BFWB_OUT_SP21	E291569			1	< 0.50			11.17		822
6/19/2017	WL_BFWB_OUT_SP21	E291569									
6/20/2017	WL_BFWB_OUT_SP21	E291569			0.78	< 0.50			10.14		856
6/22/2017	WL_BFWB_OUT_SP21	E291569			1.88	< 0.50			9.72		900
6/22/2017	WL_BFWB_OUT_SP21	E291569									
6/23/2017	WL_BFWB_OUT_SP21	E291569			0.94	< 0.50			10.37		933
6/23/2017	WL_BFWB_OUT_SP21	E291569									
6/24/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	0.51			11.46		955
6/24/2017	WL_BFWB_OUT_SP21	E291569									
6/25/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			12.84		964
6/25/2017	WL_BFWB_OUT_SP21	E291569									
6/26/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.8		974
6/27/2017	WL_BFWB_OUT_SP21	E291569			1.25	< 0.50			9.69		932
6/28/2017	WL_BFWB_OUT_SP21	E291569			0.5	< 0.50			10.02		976
6/29/2017	WL_BFWB_OUT_SP21	E291569			0.83	< 0.50					998
6/29/2017	WL_BFWB_OUT_SP21	E291569							10.25		
6/30/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.31		999
7/1/2017	WL_BFWB_OUT_SP21	E291569			3.25	1.07			10.44		1210
7/2/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.09		1120
7/3/2017	WL_BFWB_OUT_SP21	E291569			2.68	< 0.50					1150
7/3/2017	WL_BFWB_OUT_SP21	E291569							9.99		
7/4/2017	WL_BFWB_OUT_SP21	E291569			1.27	1.33			10.34		1100
7/5/2017	WL_BFWB_OUT_SP21	E291569			0.98	0.95			10.35		1090
7/6/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			9.75		1130
7/7/2017	WL_BFWB_OUT_SP21	E291569			1.56	< 0.50			10.6		1120
7/8/2017	WL_BFWB_OUT_SP21	E291569			1.37	< 0.50			10.72		1070
7/9/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.64		1090
7/10/2017	WL_BFWB_OUT_SP21	E291569									
7/10/2017	WL_BFWB_OUT_SP21	E291569			2.44	< 0.50			10.47	< 0.10	1030
7/11/2017	WL_BFWB_OUT_SP21	E291569			2.03	< 0.50			10.35		1140
7/12/2017	WL_BFWB_OUT_SP21	E291569			1.03	< 0.50					1130
7/12/2017	WL_BFWB_OUT_SP21	E291569							10.2		
7/13/2017	WL_BFWB_OUT_SP21	E291569			1.04	< 0.50			10.9		1140
7/14/2017	WL_BFWB_OUT_SP21	E291569			1.44	< 0.50				< 0.10	1120
7/14/2017	WL_BFWB_OUT_SP21	E291569							10.96		
7/14/2017	WL_BFWB_OUT_SP21	E291569									
7/15/2017	WL_BFWB_OUT_SP21	E291569							9.22		

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
7/16/2017	WL_BFWB_OUT_SP21	E291569							9.17		
7/16/2017	WL_BFWB_OUT_SP21	E291569									
7/17/2017	WL_BFWB_OUT_SP21	E291569			0.52	< 0.50			9.91		1140
7/18/2017	WL_BFWB_OUT_SP21	E291569			0.78	< 0.50			10.48		1190
7/19/2017	WL_BFWB_OUT_SP21	E291569			1.58	< 0.50			10.53		1210
7/20/2017	WL_BFWB_OUT_SP21	E291569			1.44	< 0.50					1170
7/20/2017	WL_BFWB_OUT_SP21	E291569							10.5		
7/21/2017	WL_BFWB_OUT_SP21	E291569			1.68	< 0.50			10.44		1170
7/22/2017	WL_BFWB_OUT_SP21	E291569			0.9	< 0.50			9.66		1110
7/22/2017	WL_BFWB_OUT_SP21	E291569							9.66		
7/23/2017	WL_BFWB_OUT_SP21	E291569			4.02	< 0.50			10.5		1120
7/24/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.2		1180
7/25/2017	WL_BFWB_OUT_SP21	E291569			1.72	< 0.50			10.33		1290
7/26/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.21		1340
7/27/2017	WL_BFWB_OUT_SP21	E291569			1.09	0.75			10.03		1250
7/28/2017	WL_BFWB_OUT_SP21	E291569			0.92	0.98			10.48		1290
7/29/2017	WL_BFWB_OUT_SP21	E291569			1.76	< 0.50			10.7		1170
7/30/2017	WL_BFWB_OUT_SP21	E291569			7.23	< 0.50			10.92		1230
7/31/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.66	< 0.10	1230
8/1/2017	WL_BFWB_OUT_SP21	E291569			1.19	< 0.50			10.52		1360
8/2/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.41		1360
8/3/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.55		1330
8/4/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			9.84		1400
8/5/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			9.84		1360
8/6/2017	WL_BFWB_OUT_SP21	E291569			< 0.50				10.08		1410
8/7/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.18		1410
8/8/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			9.54	0.12	1270
8/9/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					1340
8/9/2017	WL_BFWB_OUT_SP21	E291569							9.37		
8/10/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.04		1340
8/11/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					1320
8/11/2017	WL_BFWB_OUT_SP21	E291569							11.26		
8/12/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.59	0.1	1410
8/13/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					1400
8/13/2017	WL_BFWB_OUT_SP21	E291569							10.56		
8/14/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50				< 0.10	1420
8/15/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.84		1390
8/16/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.81		1350
8/17/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.86		1260
8/18/2017	WL_BFWB_OUT_SP21	E291569				< 0.50			10.62		1280
8/19/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.88		1410
8/20/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.9		1410
8/21/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.88	< 0.10	1430
8/22/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.82		1350
8/23/2017	WL_BFWB_OUT_SP21	E291569			0.57	< 0.50			10.02		1310
8/24/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			9.47		1270
8/25/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					1400

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
8/25/2017	WL_BFWB_OUT_SP21	E291569							10		
8/26/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					1340
8/26/2017	WL_BFWB_OUT_SP21	E291569							9.2		
8/27/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			9.83		1380
8/28/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.76	0.12	1340
8/29/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.8		1260
8/30/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.84		1260
8/31/2017	WL_BFWB_OUT_SP21	E291569			1.94	< 0.50			10.74		1380
9/1/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.97		1290
9/2/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.81		1300
9/3/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.7		1310
9/4/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.6		1300
9/5/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.71	0.14	1310
9/6/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.94		1310
9/7/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.34		1250
9/8/2017	WL_BFWB_OUT_SP21	E291569			1.33	< 0.50			11.19		1220
9/9/2017	WL_BFWB_OUT_SP21	E291569			0.51	< 0.50			10.72		1300
9/10/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.66		1260
9/11/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.97		1290
9/12/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.22	< 0.10	1300
9/13/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			9.9		1390
9/14/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.64		1380
9/15/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.72		1330
9/16/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.04		1300
9/17/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.04		1360
9/18/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.86	< 0.10	1330
9/19/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.54		1240
9/20/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.6		1220
9/21/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50				0.11	1210
9/21/2017	WL_BFWB_OUT_SP21	E291569							10.43		
9/22/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.27		1220
9/23/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.82		1370
9/24/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					1300
9/24/2017	WL_BFWB_OUT_SP21	E291569							12.74		
9/25/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.11	0.13	1270
9/26/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					1290
9/26/2017	WL_BFWB_OUT_SP21	E291569							11.13		
9/27/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.8		1300
9/28/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					1300
9/28/2017	WL_BFWB_OUT_SP21	E291569							10.82		
9/29/2017	WL_BFWB_OUT_SP21	E291569				< 0.50					1300
9/29/2017	WL_BFWB_OUT_SP21	E291569			< 0.50				10.86		1320
9/30/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					1310
9/30/2017	WL_BFWB_OUT_SP21	E291569							10.8		
10/1/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.25		1250
10/2/2017	WL_BFWB_OUT_SP21	E291569									
10/2/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.04	0.15	1300

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
10/3/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.58		1350
10/4/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.47		1320
10/5/2017	WL_BFWB_OUT_SP21	E291569				0.54					1240
10/5/2017	WL_BFWB_OUT_SP21	E291569			< 0.50				10.43		1230
10/6/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					1230
10/6/2017	WL_BFWB_OUT_SP21	E291569							10.24		
10/7/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					1260
10/7/2017	WL_BFWB_OUT_SP21	E291569							10.24		
10/8/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.25		1260
10/9/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					1270
10/9/2017	WL_BFWB_OUT_SP21	E291569							10.76		
10/10/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.59	0.12	1270
10/11/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.53		1310
10/12/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.46		1280
10/13/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.3		1180
10/14/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.46		1310
10/15/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.53		1310
10/16/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.2	0.16	1320
10/17/2017	WL_BFWB_OUT_SP21	E291569							10.34		
10/18/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.6		1270
10/19/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.88		1050
10/20/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.71		924
10/21/2017	WL_BFWB_OUT_SP21	E291569			0.59	< 0.50					932
10/21/2017	WL_BFWB_OUT_SP21	E291569							11.03		
10/22/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.09		747
10/23/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.87	< 0.10	779
10/24/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			12.51		712
10/25/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			12.45		689
10/26/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.38		648
10/27/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.19		658
10/28/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					697
10/28/2017	WL_BFWB_OUT_SP21	E291569							11.75		
10/29/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.81		670
10/30/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.75	0.16	685
10/31/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			12.17		672
11/1/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 2.5			11.1		643
11/2/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.09		624
11/3/2017	WL_BFWB_OUT_SP21	E291569				< 0.50					628
11/3/2017	WL_BFWB_OUT_SP21	E291569			< 0.50				11.15		635
11/4/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.37		682
11/5/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					643
11/5/2017	WL_BFWB_OUT_SP21	E291569							11.31		
11/6/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.32	0.21	646
11/7/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.79		637
11/8/2017	WL_BFWB_OUT_SP21	E291569							11.8		
11/8/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					644
11/9/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					642

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
11/9/2017	WL_BFWB_OUT_SP21	E291569							12.61		
11/10/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					667
11/10/2017	WL_BFWB_OUT_SP21	E291569			0.81	0.9					684
11/10/2017	WL_BFWB_OUT_SP21	E291569							11.5		
11/11/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					738
11/11/2017	WL_BFWB_OUT_SP21	E291569							10.73		
11/12/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					712
11/12/2017	WL_BFWB_OUT_SP21	E291569							10.9		
11/13/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					622
11/13/2017	WL_BFWB_OUT_SP21	E291569							10.4		
11/14/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			10.48	0.13	616
11/15/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.32		677
11/16/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					623
11/16/2017	WL_BFWB_OUT_SP21	E291569			1.05	0.61			10.8		700
11/17/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					639
11/17/2017	WL_BFWB_OUT_SP21	E291569			0.82	0.93			11.66		678
11/18/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					686
11/18/2017	WL_BFWB_OUT_SP21	E291569							12.25		
11/19/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			13.06		663
11/20/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			12.53	0.2	678
11/21/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			13.76		650
11/22/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			13.59		628
11/23/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					738
11/23/2017	WL_BFWB_OUT_SP21	E291569							12.13		
11/24/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					739
11/24/2017	WL_BFWB_OUT_SP21	E291569			0.51	0.51			11.1		602
11/25/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.5		693
11/26/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.6		693
11/27/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.27		690
11/28/2017	WL_BFWB_OUT_SP21	E291569			0.51	0.59					711
11/28/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.49	0.21	664
11/29/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.54		656
11/30/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					693
11/30/2017	WL_BFWB_OUT_SP21	E291569			0.8	< 1.0			12.58		620
12/1/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			12.42		678
12/2/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			13.79		691
12/3/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			13.57		673
12/4/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			14.84	0.2	693
12/5/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			15.11		677
12/6/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					682
12/6/2017	WL_BFWB_OUT_SP21	E291569			0.53	0.65					686
12/6/2017	WL_BFWB_OUT_SP21	E291569							14.58		
12/7/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	0.54					616
12/7/2017	WL_BFWB_OUT_SP21	E291569							15.18		
12/8/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	0.53			16.53		650
12/9/2017	WL_BFWB_OUT_SP21	E291569			< 0.50				11.86		685
12/10/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			13.56		655

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
12/11/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			13.87	0.201	667
12/12/2017	WL_BFWB_OUT_SP21	E291569			1.31	< 0.50			14.02		635
12/13/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			13.11		635
12/14/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			13.92		653
12/15/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			13.59		659
12/16/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			13.37		671
12/17/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			12.95		675
12/18/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			13.66	0.21	693
12/19/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			12.96		684
12/20/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50					672
12/20/2017	WL_BFWB_OUT_SP21	E291569			8.6	7.4			13.2		592
12/21/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			14.93		685
12/22/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			13.29		728
12/23/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	0.94			13.52		1590
12/23/2017	WL_BFWB_OUT_SP21	E291569							13.52		
12/24/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			12.03		683
12/25/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.73		667
12/26/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			12.25		662
12/27/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			12.24	0.177	752
12/28/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			11.52		734
12/29/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			13.02		709
12/30/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			12.84		720
12/31/2017	WL_BFWB_OUT_SP21	E291569			< 0.50	< 0.50			14.02		631
1/1/2017	WL_LCI_SP02	E293370			0.73	< 0.50					527
1/2/2017	WL_LCI_SP02	E293370			0.82	< 0.50					530
1/3/2017	WL_LCI_SP02	E293370			0.35	0.74					527
1/4/2017	WL_LCI_SP02	E293370									
1/5/2017	WL_LCI_SP02	E293370			< 0.20	< 0.50					556
1/6/2017	WL_LCI_SP02	E293370									
1/7/2017	WL_LCI_SP02	E293370									
1/8/2017	WL_LCI_SP02	E293370			< 0.20	< 0.50					524
1/9/2017	WL_LCI_SP02	E293370			< 0.20	< 0.50				0.19	526
1/10/2017	WL_LCI_SP02	E293370			0.37	< 0.50					536
1/11/2017	WL_LCI_SP02	E293370									
1/12/2017	WL_LCI_SP02	E293370			0.44	< 0.50					512
1/13/2017	WL_LCI_SP02	E293370									
1/14/2017	WL_LCI_SP02	E293370									
1/15/2017	WL_LCI_SP02	E293370			0.66	< 0.50					573
1/16/2017	WL_LCI_SP02	E293370			1.73	0.67					530
1/17/2017	WL_LCI_SP02	E293370			0.27	< 0.50					555
1/18/2017	WL_LCI_SP02	E293370			0.26	< 0.50				0.2	552
1/19/2017	WL_LCI_SP02	E293370			1.27	< 0.50					534
1/20/2017	WL_LCI_SP02	E293370									
1/21/2017	WL_LCI_SP02	E293370									
1/22/2017	WL_LCI_SP02	E293370			4.97	< 0.50					520
1/23/2017	WL_LCI_SP02	E293370			0.5	< 0.50					584
1/24/2017	WL_LCI_SP02	E293370			0.53	< 0.50					581

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
1/25/2017	WL_LCI_SP02	E293370									
1/26/2017	WL_LCI_SP02	E293370			0.45	< 0.50					556
1/27/2017	WL_LCI_SP02	E293370									
1/28/2017	WL_LCI_SP02	E293370									
1/29/2017	WL_LCI_SP02	E293370			0.25	< 0.50			12.07		558
1/30/2017	WL_LCI_SP02	E293370			1.48	< 0.50					534
1/31/2017	WL_LCI_SP02	E293370			< 0.20	< 0.50			11.65		567
2/1/2017	WL_LCI_SP02	E293370							11.94		
2/1/2017	WL_LCI_SP02	E293370			< 0.20	< 0.50				0.19	586
2/2/2017	WL_LCI_SP02	E293370			0.21	< 0.50			11.99		535
2/3/2017	WL_LCI_SP02	E293370							11.68		
2/4/2017	WL_LCI_SP02	E293370							10.73		
2/5/2017	WL_LCI_SP02	E293370			< 0.20	< 0.50			10.85		519
2/6/2017	WL_LCI_SP02	E293370			0.52	< 0.50			11.35		512
2/7/2017	WL_LCI_SP02	E293370			0.27	< 0.50			10.19	0.17	530
2/8/2017	WL_LCI_SP02	E293370							11.43		
2/8/2017	WL_LCI_SP02	E293370			< 0.20	< 0.50				0.198	559
2/9/2017	WL_LCI_SP02	E293370							10.88		
2/10/2017	WL_LCI_SP02	E293370			0.22	< 0.50			11.36		589
2/11/2017	WL_LCI_SP02	E293370							11.36		
2/12/2017	WL_LCI_SP02	E293370			0.4	< 0.50			11.35		538
2/13/2017	WL_LCI_SP02	E293370			3.3	< 0.50			11.51		567
2/14/2017	WL_LCI_SP02	E293370			< 0.20	< 0.50			10.54		534
2/15/2017	WL_LCI_SP02	E293370							11.44		
2/16/2017	WL_LCI_SP02	E293370			0.33	< 0.50			11.3		573
2/17/2017	WL_LCI_SP02	E293370							11.4		
2/18/2017	WL_LCI_SP02	E293370							12.38		
2/19/2017	WL_LCI_SP02	E293370			0.37	< 0.50			10.84		548
2/20/2017	WL_LCI_SP02	E293370			0.3	1.8			11.15		607
2/21/2017	WL_LCI_SP02	E293370			0.22	< 0.50			11.85		586
2/22/2017	WL_LCI_SP02	E293370							11.95		
2/22/2017	WL_LCI_SP02	E293370									
2/23/2017	WL_LCI_SP02	E293370			0.49	< 0.50			12.44		541
2/24/2017	WL_LCI_SP02	E293370							12.34		
2/25/2017	WL_LCI_SP02	E293370							12.27		
2/26/2017	WL_LCI_SP02	E293370			0.24	< 0.50			11.36		513
2/27/2017	WL_LCI_SP02	E293370			0.2	< 0.50			11.32		567
2/28/2017	WL_LCI_SP02	E293370			0.59	< 0.50			12.11		514
3/1/2017	WL_LCI_SP02	E293370							13.08		
3/2/2017	WL_LCI_SP02	E293370			< 0.20	< 0.50					552
3/3/2017	WL_LCI_SP02	E293370							12.49		
3/4/2017	WL_LCI_SP02	E293370							11.65		
3/5/2017	WL_LCI_SP02	E293370			0.8	< 0.50			12.26		578
3/6/2017	WL_LCI_SP02	E293370			< 0.20	1.59			11.65	0.16	512
3/7/2017	WL_LCI_SP02	E293370			0.21	< 0.50			12.2		547
3/8/2017	WL_LCI_SP02	E293370							12.12		
3/9/2017	WL_LCI_SP02	E293370			0.27	< 0.50			12.09		536

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
3/10/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			12.23		563
3/11/2017	WL_LCI_SP02	E293370			1.02	< 0.50			12.07		545
3/12/2017	WL_LCI_SP02	E293370			2.78	< 0.50			11.3		564
3/13/2017	WL_LCI_SP02	E293370			2.25	< 0.50			12.18		529
3/14/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.83		523
3/15/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			12.42		562
3/16/2017	WL_LCI_SP02	E293370			0.64	1.38			13.16		496
3/20/2017	WL_LCI_SP02	E293370			0.61	0.64					505
3/21/2017	WL_LCI_SP02	E293370			< 0.50	1.2					559
3/22/2017	WL_LCI_SP02	E293370			< 0.50	0.58			11.77		591
3/23/2017	WL_LCI_SP02	E293370			0.81	0.6			12.16		592
3/24/2017	WL_LCI_SP02	E293370			< 0.50	0.65			12.23		579
3/25/2017	WL_LCI_SP02	E293370			0.87	0.65			12.36		531
3/26/2017	WL_LCI_SP02	E293370			< 0.50	0.77			12.7		535
3/27/2017	WL_LCI_SP02	E293370			< 0.50	0.58			12.17		572
3/28/2017	WL_LCI_SP02	E293370			0.67	< 0.50			11.83		586
3/29/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.82		590
3/30/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.53		557
3/31/2017	WL_LCI_SP02	E293370			< 0.50	1.04			10.85		701
4/1/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.37		582
4/2/2017	WL_LCI_SP02	E293370			4.27	< 0.50			9.81		586
4/3/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.9	0.15	587
4/4/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.33		571
4/5/2017	WL_LCI_SP02	E293370			0.59	< 0.50			11.38		606
4/6/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			12.2		623
4/7/2017	WL_LCI_SP02	E293370							11.41		
4/7/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50					586
4/8/2017	WL_LCI_SP02	E293370			2.75	< 0.50			10.68		632
4/9/2017	WL_LCI_SP02	E293370			1.23	< 0.50			11.23		648
4/10/2017	WL_LCI_SP02	E293370			1.13	< 0.50			10.74		576
4/12/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.53		629
4/13/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.62		594
4/14/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.77		576
4/15/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.56		655
4/16/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.97		641
4/17/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.26		580
4/18/2017	WL_LCI_SP02	E293370			1.59	< 0.50			11.92		622
4/19/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.53		621
4/20/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.54		642
4/21/2017	WL_LCI_SP02	E293370			0.52	< 0.50			11.5		604
4/22/2017	WL_LCI_SP02	E293370			0.59	0.86			11.31		599
4/23/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.27		629
4/24/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.63		596
4/25/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.1		614
4/26/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.17		608
4/27/2017	WL_LCI_SP02	E293370			0.54	< 0.50			11.2		605
4/28/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.27		579

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
4/29/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			12.13		588
4/30/2017	WL_LCI_SP02	E293370			< 0.50	0.82			11.32		596
5/1/2017	WL_LCI_SP02	E293370			3.27	< 0.50			11.27	0.181	591
5/2/2017	WL_LCI_SP02	E293370			1.54	< 0.50			10.94		624
5/3/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.31		625
5/4/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.15		634
5/5/2017	WL_LCI_SP02	E293370			< 0.50	0.77			11.17		622
5/6/2017	WL_LCI_SP02	E293370			0.55	0.72			10.89		609
5/7/2017	WL_LCI_SP02	E293370			0.64	0.86			10.95		512
5/8/2017	WL_LCI_SP02	E293370			1.02	0.82			11.14		438
5/9/2017	WL_LCI_SP02	E293370			0.79	0.91			11.25		379
5/10/2017	WL_LCI_SP02	E293370			0.61	0.85			11.5		393
5/11/2017	WL_LCI_SP02	E293370			0.64	0.58			10.81		452
5/12/2017	WL_LCI_SP02	E293370			0.6	0.64			9.32		411
5/13/2017	WL_LCI_SP02	E293370			0.89	0.62			8.83		413
5/14/2017	WL_LCI_SP02	E293370			0.62	0.63			9.09		428
5/15/2017	WL_LCI_SP02	E293370							8.26		
5/16/2017	WL_LCI_SP02	E293370			0.73	0.77			7.58		353
5/17/2017	WL_LCI_SP02	E293370			0.69	0.73			11.39		382
5/18/2017	WL_LCI_SP02	E293370			1.51	0.78			11.46		404
5/19/2017	WL_LCI_SP02	E293370			1.15	0.73			11.68		405
5/20/2017	WL_LCI_SP02	E293370							11.28		
5/21/2017	WL_LCI_SP02	E293370			0.74	0.6			11.56		446
5/22/2017	WL_LCI_SP02	E293370			0.66	0.68			12.1		456
5/23/2017	WL_LCI_SP02	E293370			0.57	0.84			11.47		434
5/24/2017	WL_LCI_SP02	E293370			0.79	0.81			11.24		412
5/25/2017	WL_LCI_SP02	E293370			0.67	0.8			11.4		365
5/26/2017	WL_LCI_SP02	E293370			0.67	0.78			11.32		358
5/27/2017	WL_LCI_SP02	E293370			0.7	0.75			11.53		374
5/28/2017	WL_LCI_SP02	E293370			1.24	0.73			11.51		371
5/29/2017	WL_LCI_SP02	E293370			2.09	0.78			11.61		372
5/30/2017	WL_LCI_SP02	E293370			0.79	0.65			11.42		359
5/31/2017	WL_LCI_SP02	E293370			0.59	0.67			11.19		337
6/1/2017	WL_LCI_SP02	E293370			0.83	0.77			11.2		363
6/2/2017	WL_LCI_SP02	E293370			0.92	0.75			11.12		370
6/3/2017	WL_LCI_SP02	E293370			0.86	< 0.50			11.23		370
6/4/2017	WL_LCI_SP02	E293370			0.74	0.75			11.19		370
6/5/2017	WL_LCI_SP02	E293370								0.197	
6/5/2017	WL_LCI_SP02	E293370			0.74	0.79			11.43		382
6/6/2017	WL_LCI_SP02	E293370			0.75	0.74			11.36		375
6/7/2017	WL_LCI_SP02	E293370			0.74	0.71			11.11		397
6/8/2017	WL_LCI_SP02	E293370			0.66	0.67			10.92		340
6/9/2017	WL_LCI_SP02	E293370			0.65	0.72			11.12		353
6/10/2017	WL_LCI_SP02	E293370			0.71	0.65			10.75		356
6/11/2017	WL_LCI_SP02	E293370			0.64	0.63			10.96		346
6/12/2017	WL_LCI_SP02	E293370			0.72	0.61			11.04	0.196	363
6/13/2017	WL_LCI_SP02	E293370			0.73	0.69			10.89		445

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
6/13/2017	WL_LCI_SP02	E293370					0				
6/14/2017	WL_LCI_SP02	E293370			0.74	0.64			11.49		430
6/14/2017	WL_LCI_SP02	E293370					0				
6/15/2017	WL_LCI_SP02	E293370			0.78	0.64			11.41		440
6/15/2017	WL_LCI_SP02	E293370					0				
6/16/2017	WL_LCI_SP02	E293370			0.79	0.59			11.32		369
6/16/2017	WL_LCI_SP02	E293370					0				
6/17/2017	WL_LCI_SP02	E293370			0.74	0.66			11.44		364
6/17/2017	WL_LCI_SP02	E293370					0				
6/18/2017	WL_LCI_SP02	E293370			0.75	0.62			11.16		383
6/18/2017	WL_LCI_SP02	E293370					0				
6/19/2017	WL_LCI_SP02	E293370			0.76	0.61			11.44		433
6/19/2017	WL_LCI_SP02	E293370					0				
6/20/2017	WL_LCI_SP02	E293370					0				
6/21/2017	WL_LCI_SP02	E293370					0				
6/22/2017	WL_LCI_SP02	E293370			0.8	0.62			11.27		475
6/22/2017	WL_LCI_SP02	E293370					0				
6/23/2017	WL_LCI_SP02	E293370			0.66	0.56			11.55		470
6/23/2017	WL_LCI_SP02	E293370					0				
6/24/2017	WL_LCI_SP02	E293370			0.76	0.55			11.43		477
6/24/2017	WL_LCI_SP02	E293370					0				
6/25/2017	WL_LCI_SP02	E293370			3.73	< 0.50			11.35		465
6/25/2017	WL_LCI_SP02	E293370					0				
6/26/2017	WL_LCI_SP02	E293370			1.34	0.5			11.47		488
6/27/2017	WL_LCI_SP02	E293370			0.74	0.74			10.82		434
6/28/2017	WL_LCI_SP02	E293370			1.63	0.57			10.92		452
6/29/2017	WL_LCI_SP02	E293370			1.25	0.54			10.97		457
6/30/2017	WL_LCI_SP02	E293370			1.15	1.37			10.86		456
7/1/2017	WL_LCI_SP02	E293370			0.67	0.71			11.19		488
7/2/2017	WL_LCI_SP02	E293370			0.72	0.53			11.07		442
7/3/2017	WL_LCI_SP02	E293370			0.85	< 0.50			10.94		471
7/4/2017	WL_LCI_SP02	E293370			0.84	0.53			11.05		498
7/5/2017	WL_LCI_SP02	E293370			0.73	0.65			10.9		486
7/6/2017	WL_LCI_SP02	E293370			0.62	0.92			10.99		474
7/7/2017	WL_LCI_SP02	E293370			0.84	0.59			11.7		473
7/8/2017	WL_LCI_SP02	E293370			0.66	0.75			11.39		467
7/9/2017	WL_LCI_SP02	E293370			1.17	0.54			11.08		448
7/10/2017	WL_LCI_SP02	E293370			0.84	0.68			11.12	0.16	452
7/11/2017	WL_LCI_SP02	E293370			0.58	< 0.50			10.89		506
7/12/2017	WL_LCI_SP02	E293370			0.59	0.58			11.35		487
7/13/2017	WL_LCI_SP02	E293370			0.71	0.51			10.97		515
7/14/2017	WL_LCI_SP02	E293370			0.75	0.68			11.43	0.13	507
7/14/2017	WL_LCI_SP02	E293370									
7/15/2017	WL_LCI_SP02	E293370							10.85		
7/16/2017	WL_LCI_SP02	E293370							11.36		
7/17/2017	WL_LCI_SP02	E293370			0.83	< 0.50			10.83		537
7/18/2017	WL_LCI_SP02	E293370			0.77	< 0.50			11.3		526

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
7/19/2017	WL_LCI_SP02	E293370			0.6	0.58			11.54		521
7/20/2017	WL_LCI_SP02	E293370			0.72	0.53			10.6		
7/21/2017	WL_LCI_SP02	E293370			0.77	< 0.50			11.33		501
7/22/2017	WL_LCI_SP02	E293370			3.93	< 0.50			11.85		470
7/23/2017	WL_LCI_SP02	E293370			0.79	< 0.50			11.4		487
7/24/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.42		477
7/25/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.92		531
7/26/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.35		533
7/27/2017	WL_LCI_SP02	E293370			1	< 0.50			10.87		522
7/28/2017	WL_LCI_SP02	E293370			1.21	1.4			11.05		514
7/29/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.01		567
7/30/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.5		557
7/31/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.02		552
8/1/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.4		518
8/2/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.46		510
8/3/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.87		513
8/4/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.15		538
8/5/2017	WL_LCI_SP02	E293370			0.53	0.6			10.05		506
8/6/2017	WL_LCI_SP02	E293370			0.52	0.6			10.09		518
8/7/2017	WL_LCI_SP02	E293370			0.58	0.61			10.11		528
8/8/2017	WL_LCI_SP02	E293370			< 0.50	0.57			10.13		542
8/9/2017	WL_LCI_SP02	E293370			0.53	< 0.50			10.44		583
8/11/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.17		501
8/12/2017	WL_LCI_SP02	E293370			0.54	< 1.0			10.9		465
8/13/2017	WL_LCI_SP02	E293370			0.52	< 1.0					471
8/13/2017	WL_LCI_SP02	E293370							10.23		
8/14/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50				0.14	466
8/15/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.14		498
8/16/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.02		503
8/17/2017	WL_LCI_SP02	E293370			0.64	0.53			9.95		454
8/18/2017	WL_LCI_SP02	E293370							9.84		
8/19/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.98		505
8/20/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.86		506
8/21/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			8.95		507
8/22/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.83		493
8/23/2017	WL_LCI_SP02	E293370			0.55	0.62			8.94		475
8/24/2017	WL_LCI_SP02	E293370			< 0.50	0.55			9.32		468
8/25/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.2		508
8/26/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			8.72		490
8/27/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.63		486
8/28/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.16		487
8/29/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.01		469
8/30/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.11		488
8/31/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.51		482
9/1/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.95		473
9/2/2017	WL_LCI_SP02	E293370					915.7512207				
9/2/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.53		488

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
9/3/2017	WL_LCI_SP02	E293370					941.9359741				
9/3/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.63		487
9/4/2017	WL_LCI_SP02	E293370					980.260376				
9/4/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.73		480
9/5/2017	WL_LCI_SP02	E293370					1010.779602				
9/5/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.03		474
9/6/2017	WL_LCI_SP02	E293370					1065.842896				
9/6/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50					491
9/7/2017	WL_LCI_SP02	E293370					1088.264282				
9/7/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.58		472
9/7/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.28		462
9/8/2017	WL_LCI_SP02	E293370					1105.711914				
9/8/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.32		462
9/9/2017	WL_LCI_SP02	E293370					1122.865723				
9/9/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.53		493
9/10/2017	WL_LCI_SP02	E293370					1147.135498				
9/10/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.4		510
9/11/2017	WL_LCI_SP02	E293370					1167.557373				
9/11/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.15		535
9/12/2017	WL_LCI_SP02	E293370					1187.160522				
9/12/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.3	0.14	507
9/13/2017	WL_LCI_SP02	E293370					1230.285889				
9/13/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.88		533
9/14/2017	WL_LCI_SP02	E293370					489.8536987				
9/14/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.56		550
9/15/2017	WL_LCI_SP02	E293370					689.7475586				
9/15/2017	WL_LCI_SP02	E293370			0.7	0.8			9.65		504
9/16/2017	WL_LCI_SP02	E293370					1295.544189				
9/16/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.83		482
9/17/2017	WL_LCI_SP02	E293370					1324.313965				
9/17/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.74		472
9/18/2017	WL_LCI_SP02	E293370					1345.647339				
9/18/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.25		483
9/18/2017	WL_LCI_SP02	E293370									
9/19/2017	WL_LCI_SP02	E293370					1354.836182				
9/19/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.67		450
9/20/2017	WL_LCI_SP02	E293370					1394.586914				
9/20/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.67		519
9/20/2017	WL_LCI_SP02	E293370									
9/21/2017	WL_LCI_SP02	E293370					1388.314819				
9/21/2017	WL_LCI_SP02	E293370			0.54	< 0.50			9.68		482
9/21/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50				0.177	495
9/22/2017	WL_LCI_SP02	E293370					1410.907959				
9/22/2017	WL_LCI_SP02	E293370			0.5	0.52			10.13		489
9/23/2017	WL_LCI_SP02	E293370					1411.633911				
9/23/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.18		442
9/24/2017	WL_LCI_SP02	E293370					1466.832764				

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
9/24/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.54		508
9/25/2017	WL_LCI_SP02	E293370					1485.997437				
9/25/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.76		529
9/26/2017	WL_LCI_SP02	E293370					1491.712891				
9/26/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.13		523
9/27/2017	WL_LCI_SP02	E293370					1529.334473				
9/27/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.46		519
9/28/2017	WL_LCI_SP02	E293370					1566.623535				
9/28/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.18		522
9/29/2017	WL_LCI_SP02	E293370					1579.952271				
9/29/2017	WL_LCI_SP02	E293370			< 0.50	0.51			9.78		511
9/30/2017	WL_LCI_SP02	E293370					1220.737427				
9/30/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.03		497
10/1/2017	WL_LCI_SP02	E293370					1610.481812				
10/1/2017	WL_LCI_SP02	E293370			< 0.50	0.56			9.46		496
10/2/2017	WL_LCI_SP02	E293370					1642.069946				
10/2/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			8.81	0.183	504
10/2/2017	WL_LCI_SP02	E293370					1628.305908				
10/3/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.39		496
10/4/2017	WL_LCI_SP02	E293370					1644.39563				
10/4/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.43		514
10/5/2017	WL_LCI_SP02	E293370					1713.498779				
10/5/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.43		491
10/6/2017	WL_LCI_SP02	E293370					1710.132324				
10/6/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.84		489
10/7/2017	WL_LCI_SP02	E293370					1726.862427				
10/7/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.84		514
10/8/2017	WL_LCI_SP02	E293370					1718.890015				
10/8/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			8.62		528
10/9/2017	WL_LCI_SP02	E293370					1715.594727				
10/9/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.04		545
10/10/2017	WL_LCI_SP02	E293370					1764.658447				
10/10/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.5		553
10/11/2017	WL_LCI_SP02	E293370					1691.217896				
10/11/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			8.67		536
10/12/2017	WL_LCI_SP02	E293370					1795.906982				
10/12/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.58		561
10/13/2017	WL_LCI_SP02	E293370					1825.295654				
10/13/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.65		530
10/14/2017	WL_LCI_SP02	E293370					1800.810425				
10/14/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.08		540
10/15/2017	WL_LCI_SP02	E293370					1845.087891				
10/15/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.14		536
10/16/2017	WL_LCI_SP02	E293370					1947.154419				
10/16/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.18		544
10/17/2017	WL_LCI_SP02	E293370					1466.669312				

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
10/17/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			8.8		652
10/18/2017	WL_LCI_SP02	E293370					606.7574463				
10/18/2017	WL_LCI_SP02	E293370			< 0.50	0.55			10.72		691
10/19/2017	WL_LCI_SP02	E293370					2431.630127				
10/19/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			9.31		676
10/20/2017	WL_LCI_SP02	E293370					2493.218018				
10/20/2017	WL_LCI_SP02	E293370			0.53	< 0.50			9.76		669
10/21/2017	WL_LCI_SP02	E293370					2493.246094				
10/21/2017	WL_LCI_SP02	E293370			1.21	1.12			9.63		648
10/22/2017	WL_LCI_SP02	E293370					2484.253906				
10/22/2017	WL_LCI_SP02	E293370			0.53	< 0.50			10.15		636
10/23/2017	WL_LCI_SP02	E293370					2493.411133				
10/23/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.69		659
10/24/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.89		627
10/25/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.25		630
10/26/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.65		683
10/27/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.65		679
10/28/2017	WL_LCI_SP02	E293370							10.56		
10/29/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.3		649
10/30/2017	WL_LCI_SP02	E293370			< 0.50	0.51			11.37		645
10/31/2017	WL_LCI_SP02	E293370			< 0.50	0.51			10.95		623
11/1/2017	WL_LCI_SP02	E293370			0.51	< 0.50			11.26		664
11/2/2017	WL_LCI_SP02	E293370			< 0.50	0.5			11.11		640
11/3/2017	WL_LCI_SP02	E293370			< 0.50	0.51			10.6		643
11/4/2017	WL_LCI_SP02	E293370			< 0.50	0.52			11.7		640
11/5/2017	WL_LCI_SP02	E293370			< 0.50	0.61			13.67		606
11/6/2017	WL_LCI_SP02	E293370			< 0.50	0.51			10.47	0.2	658
11/7/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.04		680
11/8/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.28		626
11/9/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.22		653
11/10/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.63		628
11/11/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.84		645
11/12/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.5		648
11/13/2017	WL_LCI_SP02	E293370			< 0.50	0.64			11.93		650
11/14/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.22		643
11/15/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.75		676
11/16/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.37		718
11/17/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.52		653
11/18/2017	WL_LCI_SP02	E293370			0.55	< 0.50			10.34		704
11/19/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.77		692
11/20/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.74		715
11/21/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.9		682
11/22/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.74		728
11/23/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.61		754
11/24/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.1		761
11/25/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11		693
11/26/2017	WL_LCI_SP02	E293370			< 0.50	0.53			10.1		674

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
11/27/2017	WL_LCI_SP02	E293370			0.56	0.82			10.4		662
11/28/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.68		660
11/29/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.57		609
11/30/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.85		650
12/1/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.27		654
12/2/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			12.12		663
12/3/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			12.2		681
12/4/2017	WL_LCI_SP02	E293370			0.78	< 0.50			12.6	0.2	630
12/5/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			14.5		686
12/6/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.97		687
12/7/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			13.09		589
12/8/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			12.79		608
12/9/2017	WL_LCI_SP02	E293370			< 0.50	0.55			13.47		698
12/10/2017	WL_LCI_SP02	E293370			< 0.50	0.57			10.71		655
12/11/2017	WL_LCI_SP02	E293370			< 0.50	0.5			12.89		634
12/12/2017	WL_LCI_SP02	E293370			< 0.50	0.55			13.03		629
12/13/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.24		641
12/14/2017	WL_LCI_SP02	E293370			0.62	< 0.50			12.01		675
12/15/2017	WL_LCI_SP02	E293370			0.53	< 0.50			12.11		671
12/16/2017	WL_LCI_SP02	E293370			< 0.50	0.55			11.22		661
12/17/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.98		682
12/18/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			10.67		725
12/19/2017	WL_LCI_SP02	E293370			< 0.50	0.52			12.36		669
12/20/2017	WL_LCI_SP02	E293370			< 0.50	0.53			11.33		665
12/21/2017	WL_LCI_SP02	E293370			< 0.50	0.5			12.74		870
12/22/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.85		801
12/23/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			12.9		702
12/24/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			12.25		760
12/25/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.17		707
12/26/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			12.29		678
12/27/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			12.35		678
12/28/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			11.15		687
12/29/2017	WL_LCI_SP02	E293370			0.52	< 0.50			12.4		691
12/30/2017	WL_LCI_SP02	E293370			< 0.50	< 0.50			12.6		676
12/31/2017	WL_LCI_SP02	E293370									
12/31/2017	WL_LCI_SP02	E293370			1.04	< 0.50			12.69		668
1/1/2017	WL_WLCI_SP01	E293371			1.53	0.79					1430
1/3/2017	WL_WLCI_SP01	E293371			0.85	0.96					1470
1/4/2017	WL_WLCI_SP01	E293371									
1/5/2017	WL_WLCI_SP01	E293371			0.67	0.91					1430
1/6/2017	WL_WLCI_SP01	E293371									
1/7/2017	WL_WLCI_SP01	E293371									
1/8/2017	WL_WLCI_SP01	E293371			1.21	< 0.50					1490
1/9/2017	WL_WLCI_SP01	E293371			1.08	0.57				0.18	1550
1/10/2017	WL_WLCI_SP01	E293371			0.95	0.79					1490
1/11/2017	WL_WLCI_SP01	E293371									
1/12/2017	WL_WLCI_SP01	E293371			0.97	0.8					1420

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
1/13/2017	WL_WLCI_SP01	E293371									
1/14/2017	WL_WLCI_SP01	E293371									
1/15/2017	WL_WLCI_SP01	E293371			1.73	0.92					1470
1/16/2017	WL_WLCI_SP01	E293371			2.6	0.82					1510
1/17/2017	WL_WLCI_SP01	E293371			0.91	1.02					1590
1/18/2017	WL_WLCI_SP01	E293371			0.89	1.28				0.21	1500
1/19/2017	WL_WLCI_SP01	E293371			3.19	1.07					1490
1/20/2017	WL_WLCI_SP01	E293371									
1/21/2017	WL_WLCI_SP01	E293371									
1/22/2017	WL_WLCI_SP01	E293371			5.03	0.86					1510
1/23/2017	WL_WLCI_SP01	E293371			0.81	0.96					1520
1/24/2017	WL_WLCI_SP01	E293371			0.8	0.9					1570
1/25/2017	WL_WLCI_SP01	E293371									
1/26/2017	WL_WLCI_SP01	E293371			0.76	0.79					1510
1/27/2017	WL_WLCI_SP01	E293371									
1/28/2017	WL_WLCI_SP01	E293371									
1/29/2017	WL_WLCI_SP01	E293371			0.84	0.83			11.62		1540
1/30/2017	WL_WLCI_SP01	E293371			1.96	0.78					1510
1/31/2017	WL_WLCI_SP01	E293371			< 1.0	< 2.5			11.46		1580
2/1/2017	WL_WLCI_SP01	E293371			1.9	0.74			11.98		1420
2/1/2017	WL_WLCI_SP01	E293371			< 1.0	< 2.5				0.21	1540
2/2/2017	WL_WLCI_SP01	E293371			0.78	0.64			11.75		1550
2/3/2017	WL_WLCI_SP01	E293371							11.64		
2/4/2017	WL_WLCI_SP01	E293371							10.6		
2/5/2017	WL_WLCI_SP01	E293371			0.77	0.72			10.77		1430
2/6/2017	WL_WLCI_SP01	E293371			1.07	0.87			11.21		1420
2/7/2017	WL_WLCI_SP01	E293371			1.1	1.63			10.58	0.22	1310
2/8/2017	WL_WLCI_SP01	E293371							11.51		
2/8/2017	WL_WLCI_SP01	E293371			0.7	0.71				0.2	1600
2/9/2017	WL_WLCI_SP01	E293371							10.61		
2/10/2017	WL_WLCI_SP01	E293371			0.75	0.76			11.5		1550
2/11/2017	WL_WLCI_SP01	E293371							11.45		
2/12/2017	WL_WLCI_SP01	E293371			0.9	0.82			11.06		1630
2/13/2017	WL_WLCI_SP01	E293371			3.29	0.8			11.17		1630
2/14/2017	WL_WLCI_SP01	E293371			0.5	0.63			11.14		1540
2/15/2017	WL_WLCI_SP01	E293371							11.99		
2/16/2017	WL_WLCI_SP01	E293371			0.87	0.77			11.08		1600
2/17/2017	WL_WLCI_SP01	E293371							11.72		
2/18/2017	WL_WLCI_SP01	E293371							11.98		
2/19/2017	WL_WLCI_SP01	E293371			0.85	0.83			10.45		1620
2/20/2017	WL_WLCI_SP01	E293371			0.96	0.97			11.12		1630
2/21/2017	WL_WLCI_SP01	E293371			0.61	0.7			11.72		1520
2/22/2017	WL_WLCI_SP01	E293371							11.6		
2/22/2017	WL_WLCI_SP01	E293371									
2/23/2017	WL_WLCI_SP01	E293371			1.17	0.84			12		1500
2/24/2017	WL_WLCI_SP01	E293371							12.14		
2/25/2017	WL_WLCI_SP01	E293371							12.01		

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
2/26/2017	WL_WLCI_SP01	E293371			0.64	1.05			11.06		1500
2/27/2017	WL_WLCI_SP01	E293371			0.64	0.69			11.07		1500
2/28/2017	WL_WLCI_SP01	E293371			0.74	0.77			12.47		1440
3/1/2017	WL_WLCI_SP01	E293371							11.9		
3/2/2017	WL_WLCI_SP01	E293371			0.47	0.97					1550
3/3/2017	WL_WLCI_SP01	E293371							11.58		
3/4/2017	WL_WLCI_SP01	E293371							12.49		
3/5/2017	WL_WLCI_SP01	E293371			2.47	0.56			11.57		1590
3/6/2017	WL_WLCI_SP01	E293371			0.6	1.97			11.58	0.18	1500
3/7/2017	WL_WLCI_SP01	E293371			0.75	0.73			12.22		1510
3/8/2017	WL_WLCI_SP01	E293371							12.14		
3/9/2017	WL_WLCI_SP01	E293371			0.77	0.67			12.36		1430
3/10/2017	WL_WLCI_SP01	E293371			0.87	0.77			13.08		1570
3/11/2017	WL_WLCI_SP01	E293371			1.49	0.78			12		1510
3/12/2017	WL_WLCI_SP01	E293371			3.13	1.09			11.78		1610
3/13/2017	WL_WLCI_SP01	E293371			4.17	0.96			12.05		1540
3/14/2017	WL_WLCI_SP01	E293371			0.64	< 1.0			11.98		1550
3/15/2017	WL_WLCI_SP01	E293371			0.81	0.9			11.99		1420
3/16/2017	WL_WLCI_SP01	E293371			0.88	1.65			13.1		1210
3/20/2017	WL_WLCI_SP01	E293371			2.09	1.13			13.02		1620
3/21/2017	WL_WLCI_SP01	E293371			1.05	0.79			13.23		1580
3/22/2017	WL_WLCI_SP01	E293371			0.79	1			11.89		1580
3/23/2017	WL_WLCI_SP01	E293371			1.34	0.88			12.79		1510
3/24/2017	WL_WLCI_SP01	E293371			0.94	< 1.0			12.31		1590
3/25/2017	WL_WLCI_SP01	E293371			1.45	0.78			12.89		1470
3/26/2017	WL_WLCI_SP01	E293371			0.94	0.76			13.3		1440
3/27/2017	WL_WLCI_SP01	E293371			0.78	0.79			13.83		1590
3/28/2017	WL_WLCI_SP01	E293371			2.28	0.74			11.86		1570
3/29/2017	WL_WLCI_SP01	E293371			1.04	0.75			12.04		1580
3/30/2017	WL_WLCI_SP01	E293371			1.01	0.53			9.02		1610
3/31/2017	WL_WLCI_SP01	E293371			2.13	0.89			12.28		1630
4/1/2017	WL_WLCI_SP01	E293371			0.68	0.7			10.36		1500
4/2/2017	WL_WLCI_SP01	E293371			9.21	0.79			10.88		1560
4/3/2017	WL_WLCI_SP01	E293371			0.86	0.76			11.41	0.17	1570
4/4/2017	WL_WLCI_SP01	E293371			0.68	0.76			10.85		1600
4/5/2017	WL_WLCI_SP01	E293371			0.72	0.75			11.39		1610
4/6/2017	WL_WLCI_SP01	E293371			0.9	0.84			11.55		1590
4/7/2017	WL_WLCI_SP01	E293371			0.74	0.83			10.65		1500
4/8/2017	WL_WLCI_SP01	E293371			1.85	0.88			11.21		1650
4/9/2017	WL_WLCI_SP01	E293371			2.52	0.88			10.98		1640
4/10/2017	WL_WLCI_SP01	E293371			2.18	0.73			11.74		1520
4/11/2017	WL_WLCI_SP01	E293371			0.75	0.82			10.75		1600
4/12/2017	WL_WLCI_SP01	E293371			0.84	0.85			12.04		1600
4/13/2017	WL_WLCI_SP01	E293371			0.95	0.81			11.75		1580
4/14/2017	WL_WLCI_SP01	E293371			0.82	0.88			12.09		1560
4/15/2017	WL_WLCI_SP01	E293371			0.77	0.83			12.11		1540
4/16/2017	WL_WLCI_SP01	E293371			1.31	0.84			12.15		1700

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
4/17/2017	WL_WLCI_SP01	E293371			0.9	1.02			11.67		1510
4/18/2017	WL_WLCI_SP01	E293371			1.74	0.75			11.64		1600
4/19/2017	WL_WLCI_SP01	E293371			0.77	0.85			10.9		1620
4/20/2017	WL_WLCI_SP01	E293371			0.9	0.71			11.71		1660
4/21/2017	WL_WLCI_SP01	E293371			0.94	0.69			11.53		1640
4/22/2017	WL_WLCI_SP01	E293371			0.91	0.83			11.74		1640
4/23/2017	WL_WLCI_SP01	E293371			0.75	0.79			11.76		1660
4/24/2017	WL_WLCI_SP01	E293371			0.99	0.89			11.35		1540
4/25/2017	WL_WLCI_SP01	E293371			1	0.8			11.45		1630
4/26/2017	WL_WLCI_SP01	E293371			0.71	0.82			11.42		1620
4/27/2017	WL_WLCI_SP01	E293371			0.97	0.9			11.3		1540
4/28/2017	WL_WLCI_SP01	E293371			0.76	0.83			11.5		1580
4/29/2017	WL_WLCI_SP01	E293371			1.12	0.82			12.34		1570
4/30/2017	WL_WLCI_SP01	E293371			0.99	0.85			11.87		1570
5/1/2017	WL_WLCI_SP01	E293371			2.86	0.82			11.2	0.17	1560
5/2/2017	WL_WLCI_SP01	E293371			1.61	0.8			11.04		1680
5/3/2017	WL_WLCI_SP01	E293371			0.83	0.78			11.42		1670
5/4/2017	WL_WLCI_SP01	E293371			0.76	0.77			11.51		1670
5/5/2017	WL_WLCI_SP01	E293371			0.79	1.72			11.53		1570
5/6/2017	WL_WLCI_SP01	E293371			1.07	1.04			11.48		1530
5/7/2017	WL_WLCI_SP01	E293371			0.98	0.93			11.52		1570
5/8/2017	WL_WLCI_SP01	E293371			1.33	1.07			11.63		1520
5/9/2017	WL_WLCI_SP01	E293371			1.03	1.13			11.29		1470
5/10/2017	WL_WLCI_SP01	E293371			0.85	1.12			11.9		1380
5/11/2017	WL_WLCI_SP01	E293371			0.89	0.98			11.36		1380
5/12/2017	WL_WLCI_SP01	E293371			0.93	0.98			11.01		1290
5/13/2017	WL_WLCI_SP01	E293371			0.92	0.94			11.1		1320
5/14/2017	WL_WLCI_SP01	E293371			1.16	0.94			11.91		1370
5/15/2017	WL_WLCI_SP01	E293371				0.96			13		1170
5/16/2017	WL_WLCI_SP01	E293371			1.13	0.92			10.94		1220
5/17/2017	WL_WLCI_SP01	E293371			1.04	0.95			11.18		1230
5/18/2017	WL_WLCI_SP01	E293371			1.91	0.94			11.14		1210
5/19/2017	WL_WLCI_SP01	E293371			0.94	0.94			12.55		1190
5/20/2017	WL_WLCI_SP01	E293371							12.52		
5/21/2017	WL_WLCI_SP01	E293371			1.15	0.91			11.38		1210
5/22/2017	WL_WLCI_SP01	E293371			0.94	1			11.92		1260
5/23/2017	WL_WLCI_SP01	E293371			0.82	0.94			11.65		1190
5/24/2017	WL_WLCI_SP01	E293371			0.92	0.92			11.51		1090
5/25/2017	WL_WLCI_SP01	E293371			0.81	0.97			11.24		927
5/26/2017	WL_WLCI_SP01	E293371			0.91	0.95			11.38		969
5/27/2017	WL_WLCI_SP01	E293371			1.05	1.04			10.63		1040
5/28/2017	WL_WLCI_SP01	E293371			1.06	0.99			11.05		937
5/29/2017	WL_WLCI_SP01	E293371			2.09	1.08			11.3		900
5/30/2017	WL_WLCI_SP01	E293371			1.14	0.98			11.23		775
5/31/2017	WL_WLCI_SP01	E293371			0.89	1			11.07		750
6/1/2017	WL_WLCI_SP01	E293371			1.44	1.1			10.79		823
6/2/2017	WL_WLCI_SP01	E293371			1.1	1			11.38		778

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
6/3/2017	WL_WLCI_SP01	E293371			2.96	1.09			11.7		747
6/4/2017	WL_WLCI_SP01	E293371			1.6	1.13			12.25		740
6/5/2017	WL_WLCI_SP01	E293371			1.19	1.1			10.23	0.14	746
6/6/2017	WL_WLCI_SP01	E293371			0.94	0.99					694
6/6/2017	WL_WLCI_SP01	E293371							11.88		
6/7/2017	WL_WLCI_SP01	E293371			1.13	1.24			12.19		718
6/8/2017	WL_WLCI_SP01	E293371			1	1.14			11.35		701
6/9/2017	WL_WLCI_SP01	E293371			1.03	0.86			11.67		692
6/10/2017	WL_WLCI_SP01	E293371			1.09	0.99			11.66		746
6/11/2017	WL_WLCI_SP01	E293371			1.15	0.95			11.55		743
6/12/2017	WL_WLCI_SP01	E293371			1.41	0.98			10.96	0.13	791
6/13/2017	WL_WLCI_SP01	E293371			1.01	0.91			11.72		771
6/13/2017	WL_WLCI_SP01	E293371					5524.849609				
6/14/2017	WL_WLCI_SP01	E293371			1.19	0.95			11.49		857
6/14/2017	WL_WLCI_SP01	E293371					5522.346191				
6/15/2017	WL_WLCI_SP01	E293371			1.41	0.89			11.12		853
6/15/2017	WL_WLCI_SP01	E293371					5526.119629				
6/16/2017	WL_WLCI_SP01	E293371			1.2	0.93			10.58		850
6/16/2017	WL_WLCI_SP01	E293371					5521.771973				
6/17/2017	WL_WLCI_SP01	E293371			1.17	0.97			12.35		812
6/17/2017	WL_WLCI_SP01	E293371					5527.595215				
6/18/2017	WL_WLCI_SP01	E293371			1.19	0.95			11.38		824
6/18/2017	WL_WLCI_SP01	E293371					5520.013184				
6/19/2017	WL_WLCI_SP01	E293371			1.24	0.97			11.33		936
6/19/2017	WL_WLCI_SP01	E293371					5524.206543				
6/20/2017	WL_WLCI_SP01	E293371					0				
6/21/2017	WL_WLCI_SP01	E293371					0				
6/22/2017	WL_WLCI_SP01	E293371			1.18	0.97			9.9		960
6/22/2017	WL_WLCI_SP01	E293371					5532.476563				
6/23/2017	WL_WLCI_SP01	E293371			1.18	0.96			11.98		960
6/23/2017	WL_WLCI_SP01	E293371					5535.695801				
6/24/2017	WL_WLCI_SP01	E293371			1	0.84			11.85		930
6/24/2017	WL_WLCI_SP01	E293371					5529.090332				
6/25/2017	WL_WLCI_SP01	E293371			2.73	0.89			12.64		908
6/25/2017	WL_WLCI_SP01	E293371					5536.40332				
6/26/2017	WL_WLCI_SP01	E293371			0.86	0.89			11.83		942
6/27/2017	WL_WLCI_SP01	E293371			1.36	0.97			10.65		982
6/28/2017	WL_WLCI_SP01	E293371			1.21	1.01			10.89		996
6/29/2017	WL_WLCI_SP01	E293371			1.29	1.1			11.28		1040
6/30/2017	WL_WLCI_SP01	E293371			1.18	0.99			11.57		1040
7/1/2017	WL_WLCI_SP01	E293371			1.22	0.88			11.27		1080
7/2/2017	WL_WLCI_SP01	E293371			1.36	1.03			11.81		1050
7/3/2017	WL_WLCI_SP01	E293371			2.37	1.36			11.42		1100
7/4/2017	WL_WLCI_SP01	E293371			1.27	1.02			11.07		1070
7/5/2017	WL_WLCI_SP01	E293371			2.06	1.08			11.03		1130
7/6/2017	WL_WLCI_SP01	E293371			1.19	1.03			11.7		1050
7/7/2017	WL_WLCI_SP01	E293371			1.37	1.04			12.03		1070

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
7/8/2017	WL_WLCI_SP01	E293371			1.18	1.25			11.74		1050
7/9/2017	WL_WLCI_SP01	E293371			1.82	1.05			11.5		1000
7/10/2017	WL_WLCI_SP01	E293371			1.37	1.03			10.91	< 0.10	1090
7/11/2017	WL_WLCI_SP01	E293371			1.33	1.03			10.87		1220
7/12/2017	WL_WLCI_SP01	E293371			2.06	1.06			11.68		1190
7/13/2017	WL_WLCI_SP01	E293371			1.66	1.08			12.99		1170
7/14/2017	WL_WLCI_SP01	E293371			1.02	1.07			10.07	< 0.10	1180
7/14/2017	WL_WLCI_SP01	E293371									
7/15/2017	WL_WLCI_SP01	E293371							11.98		
7/16/2017	WL_WLCI_SP01	E293371							11.88		
7/17/2017	WL_WLCI_SP01	E293371			1.53	0.97			11.05		1210
7/18/2017	WL_WLCI_SP01	E293371			1.54	1.16			11.93		1230
7/19/2017	WL_WLCI_SP01	E293371			1.39	1.57			11.54		1210
7/20/2017	WL_WLCI_SP01	E293371			1.34	1.1			10.74		
7/21/2017	WL_WLCI_SP01	E293371			1.5	1.09			10.52		1190
7/22/2017	WL_WLCI_SP01	E293371			7.2	1.15			10.29		1180
7/23/2017	WL_WLCI_SP01	E293371			5.96	1.19			11.93		1130
7/24/2017	WL_WLCI_SP01	E293371			0.99	1.1			10.71		1170
7/25/2017	WL_WLCI_SP01	E293371			1.29	1.16			11.74		1320
7/26/2017	WL_WLCI_SP01	E293371			1.18	1.09			10.16		1300
7/27/2017	WL_WLCI_SP01	E293371			1.85	2.39			11.68		1280
7/28/2017	WL_WLCI_SP01	E293371			2.2	2.98			10.41		1280
7/29/2017	WL_WLCI_SP01	E293371			1.09	1.1			12.09		1400
7/30/2017	WL_WLCI_SP01	E293371			1.09	1.1			11.79		1410
7/31/2017	WL_WLCI_SP01	E293371			1.06	1.23			12.12		1390
8/1/2017	WL_WLCI_SP01	E293371			1.11	1.5			12.04		1310
8/2/2017	WL_WLCI_SP01	E293371			1.05	1.14			11.88		1290
8/3/2017	WL_WLCI_SP01	E293371			1.35	1.12			11.5		1300
8/4/2017	WL_WLCI_SP01	E293371			1.04	1.15			10.7		1320
8/5/2017	WL_WLCI_SP01	E293371			1.4	1.54			10.38		1420
8/6/2017	WL_WLCI_SP01	E293371			1.37				10.61		1420
8/7/2017	WL_WLCI_SP01	E293371			1.4	1.5			10.75		1390
8/8/2017	WL_WLCI_SP01	E293371			1.15	1.21			10.8		1390
8/9/2017	WL_WLCI_SP01	E293371			1.16	1.17			10.88		1290
8/11/2017	WL_WLCI_SP01	E293371			1.2	1.19			11.71		1360
8/12/2017	WL_WLCI_SP01	E293371			1.28	< 1.5			11.84		1340
8/12/2017	WL_WLCI_SP01	E293371			1.15	1.22				0.1	1330
8/13/2017	WL_WLCI_SP01	E293371			1.24	< 1.5					1390
8/13/2017	WL_WLCI_SP01	E293371							11.32		
8/14/2017	WL_WLCI_SP01	E293371			1.28	< 1.5				< 0.10	1380
8/15/2017	WL_WLCI_SP01	E293371			1.12	1.14			11.88		1480
8/16/2017	WL_WLCI_SP01	E293371			1.18	1.24			11.67		1480
8/17/2017	WL_WLCI_SP01	E293371			1.29	1.28			11.16		1310
8/18/2017	WL_WLCI_SP01	E293371							11.52		
8/19/2017	WL_WLCI_SP01	E293371			1.18	1.19			11.36		1530
8/20/2017	WL_WLCI_SP01	E293371			1.15	1.21			11.12		1500
8/21/2017	WL_WLCI_SP01	E293371			1.18	1.28			11.28		1490

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
8/22/2017	WL_WLCI_SP01	E293371			1.18	1.35			11.58		1500
8/23/2017	WL_WLCI_SP01	E293371			1.54	1.42			10.1		1450
8/24/2017	WL_WLCI_SP01	E293371			1.32	1.46			10.17		1340
8/25/2017	WL_WLCI_SP01	E293371			1.2	1.21			11.15		1540
8/26/2017	WL_WLCI_SP01	E293371			1.23	1.3			10.12		1490
8/27/2017	WL_WLCI_SP01	E293371			1.23	1.23			10.83		1490
8/28/2017	WL_WLCI_SP01	E293371			1.22	1.22			11.43		1510
8/29/2017	WL_WLCI_SP01	E293371			1.2	1.26			11.93		1460
8/30/2017	WL_WLCI_SP01	E293371			1.2	1.26			11.56		1490
8/31/2017	WL_WLCI_SP01	E293371			1.21	1.2			11.38		1500
9/1/2017	WL_WLCI_SP01	E293371			1.19	1.21			11.21		1480
9/2/2017	WL_WLCI_SP01	E293371					4617.710449				
9/2/2017	WL_WLCI_SP01	E293371			1.13	1.2			11.79		1490
9/3/2017	WL_WLCI_SP01	E293371					4590.864258				
9/3/2017	WL_WLCI_SP01	E293371			1.17	1.15			11.21		1480
9/4/2017	WL_WLCI_SP01	E293371					4552.890625				
9/4/2017	WL_WLCI_SP01	E293371			1.17	1.21			10.45		1510
9/5/2017	WL_WLCI_SP01	E293371					4522.496582				
9/5/2017	WL_WLCI_SP01	E293371			1.25	1.25			11.05		1490
9/6/2017	WL_WLCI_SP01	E293371					4467.736816				
9/6/2017	WL_WLCI_SP01	E293371			1.18	1.16					1500
9/7/2017	WL_WLCI_SP01	E293371					4446.845703				
9/7/2017	WL_WLCI_SP01	E293371			1.25	1.13			10.25		1310
9/8/2017	WL_WLCI_SP01	E293371					4430.672363				
9/8/2017	WL_WLCI_SP01	E293371			1.2	1.21			11.19		1450
9/9/2017	WL_WLCI_SP01	E293371					4408.63623				
9/9/2017	WL_WLCI_SP01	E293371			1.09	1.16			11.12		1540
9/10/2017	WL_WLCI_SP01	E293371					4383.496582				
9/10/2017	WL_WLCI_SP01	E293371			1.21	1.26			10.93		1640
9/11/2017	WL_WLCI_SP01	E293371					4363.546875				
9/11/2017	WL_WLCI_SP01	E293371			1.26	1.23			11.31		1610
9/12/2017	WL_WLCI_SP01	E293371					4346.13623				
9/12/2017	WL_WLCI_SP01	E293371			1.18	1.18			10.82	< 0.10	1600
9/13/2017	WL_WLCI_SP01	E293371					4303.123047				
9/13/2017	WL_WLCI_SP01	E293371			1.26	< 1.5			11.3		1560
9/14/2017	WL_WLCI_SP01	E293371					1834.065063				
9/14/2017	WL_WLCI_SP01	E293371			1.24	< 1.5			11.24		1560
9/15/2017	WL_WLCI_SP01	E293371					2422.758057				
9/15/2017	WL_WLCI_SP01	E293371			1.61	2.27			10.6		1580
9/16/2017	WL_WLCI_SP01	E293371					4247.318848				
9/16/2017	WL_WLCI_SP01	E293371			1.24	1.48			10.76		1480
9/17/2017	WL_WLCI_SP01	E293371					4218.761719				
9/17/2017	WL_WLCI_SP01	E293371			1.19	1.21			11.34		1430
9/18/2017	WL_WLCI_SP01	E293371					4194.605469				
9/18/2017	WL_WLCI_SP01	E293371			1.24	1.24			11.62		1520
9/19/2017	WL_WLCI_SP01	E293371					4185.166992				
9/19/2017	WL_WLCI_SP01	E293371			1.03	1.16			10.99		1480

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N	N	D	T	N	N	N	D	N
Sample Date	Location	EMS Number	uS/cm at 25 C	us/cm	mg/l	mg/l	m3/day	m3/s	mg/l	mg/l	mg/l
9/20/2017	WL_WLCI_SP01	E293371					4174.702148				
9/20/2017	WL_WLCI_SP01	E293371			1.24	1.2			11.11		1590
9/21/2017	WL_WLCI_SP01	E293371					4162.178223				
9/21/2017	WL_WLCI_SP01	E293371			1.27	1.27			10.94		1530
9/22/2017	WL_WLCI_SP01	E293371					4141.93457				
9/22/2017	WL_WLCI_SP01	E293371			1.31	1.49			12.74		1510
9/23/2017	WL_WLCI_SP01	E293371					4135.359863				
9/23/2017	WL_WLCI_SP01	E293371			1.01	1.06			11.3		1470
9/24/2017	WL_WLCI_SP01	E293371					4078.431396				
9/24/2017	WL_WLCI_SP01	E293371			1.11	1.09			12.74		1590
9/25/2017	WL_WLCI_SP01	E293371					4060.195557				
9/25/2017	WL_WLCI_SP01	E293371			1.11	1.11			11.93		1600
9/26/2017	WL_WLCI_SP01	E293371					4055.682129				
9/26/2017	WL_WLCI_SP01	E293371			1.46	1.25			11.33		1660
9/27/2017	WL_WLCI_SP01	E293371					4017.972168				
9/27/2017	WL_WLCI_SP01	E293371			1.22	1.26			10.8		1640
9/28/2017	WL_WLCI_SP01	E293371					3919.885742				
9/28/2017	WL_WLCI_SP01	E293371			1.08	1.2			11.3		1620
9/29/2017	WL_WLCI_SP01	E293371					3966.625244				
9/29/2017	WL_WLCI_SP01	E293371			1.2	1.21			11.19		1620
9/30/2017	WL_WLCI_SP01	E293371					3064.99707				
9/30/2017	WL_WLCI_SP01	E293371			1.05	1.26			10.72		1580
10/1/2017	WL_WLCI_SP01	E293371					3935.442139				
10/1/2017	WL_WLCI_SP01	E293371			1.34	1.47			10.25		1570
10/2/2017	WL_WLCI_SP01	E293371					3886.76001				
10/2/2017	WL_WLCI_SP01	E293371			1.21	1.26			9.77	0.13	1610
10/3/2017	WL_WLCI_SP01	E293371					3923.976318				
10/3/2017	WL_WLCI_SP01	E293371			1.22	1.26			10.72		1600
10/4/2017	WL_WLCI_SP01	E293371					3689.180664				
10/4/2017	WL_WLCI_SP01	E293371			1.27	1.21			10.12		1630
10/5/2017	WL_WLCI_SP01	E293371					3824.625488				
10/5/2017	WL_WLCI_SP01	E293371			1.09	1.07			10.12		1550
10/6/2017	WL_WLCI_SP01	E293371					3822.626709				
10/6/2017	WL_WLCI_SP01	E293371			1.08	1.08			11.28		1580
10/7/2017	WL_WLCI_SP01	E293371					3804.252441				
10/7/2017	WL_WLCI_SP01	E293371			1.13	1.07			11.28		1610
10/8/2017	WL_WLCI_SP01	E293371					3811.010742				
10/8/2017	WL_WLCI_SP01	E293371			1.12	1.01			10.16		1610
10/9/2017	WL_WLCI_SP01	E293371					3813.786377				
10/9/2017	WL_WLCI_SP01	E293371			1.13	1.1			11.09		1640
10/10/2017	WL_WLCI_SP01	E293371					3763.881348				
10/10/2017	WL_WLCI_SP01	E293371			1.03	1.23			10.72		1670
10/11/2017	WL_WLCI_SP01	E293371					3731.625488				
10/11/2017	WL_WLCI_SP01	E293371			1.09	1.02			10.21		1630
10/12/2017	WL_WLCI_SP01	E293371					3730.827148				
10/12/2017	WL_WLCI_SP01	E293371			1.01	1.1			10.42		1670
10/13/2017	WL_WLCI_SP01	E293371					3700.860596				

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
10/13/2017	WL_WLCI_SP01	E293371			1.01	1.01			10.75		1590
10/14/2017	WL_WLCI_SP01	E293371					3727.126221				
10/14/2017	WL_WLCI_SP01	E293371			0.97	1.03			11.57		1550
10/15/2017	WL_WLCI_SP01	E293371					3682.705811				
10/15/2017	WL_WLCI_SP01	E293371			1.02	1.03			11.31		1550
10/16/2017	WL_WLCI_SP01	E293371					3485.458984				
10/16/2017	WL_WLCI_SP01	E293371			0.99	1			10.41		1580
10/17/2017	WL_WLCI_SP01	E293371					2797.01123				
10/17/2017	WL_WLCI_SP01	E293371			1.03	1.08			11.73		1600
10/18/2017	WL_WLCI_SP01	E293371					0				
10/18/2017	WL_WLCI_SP01	E293371			1.03	1.12			11.27		1600
10/19/2017	WL_WLCI_SP01	E293371					0				
10/19/2017	WL_WLCI_SP01	E293371			1.02	1.06			10.38		1590
10/20/2017	WL_WLCI_SP01	E293371					0				
10/20/2017	WL_WLCI_SP01	E293371			1	1.06			10.19		1570
10/21/2017	WL_WLCI_SP01	E293371					0				
10/21/2017	WL_WLCI_SP01	E293371			2.26	1.11					1580
10/21/2017	WL_WLCI_SP01	E293371							10.16		
10/22/2017	WL_WLCI_SP01	E293371					0				
10/22/2017	WL_WLCI_SP01	E293371			1.23	0.98			10.45		1650
10/23/2017	WL_WLCI_SP01	E293371					0				
10/23/2017	WL_WLCI_SP01	E293371			1.09	1.02			12.35		1590
10/24/2017	WL_WLCI_SP01	E293371			0.89	0.82			11.45		1390
10/25/2017	WL_WLCI_SP01	E293371			0.9	0.89			11.47		1500
10/26/2017	WL_WLCI_SP01	E293371			0.99	1.04			13.17		1680
10/27/2017	WL_WLCI_SP01	E293371			1	1.02					1710
10/27/2017	WL_WLCI_SP01	E293371							13.17		
10/28/2017	WL_WLCI_SP01	E293371			1.06	1.04			12.29		1660
10/29/2017	WL_WLCI_SP01	E293371			1.02	1.15			12.17		1590
10/30/2017	WL_WLCI_SP01	E293371			1.05	1.19			13.73		1660
10/31/2017	WL_WLCI_SP01	E293371			1.37	1.39			10.98		1580
11/1/2017	WL_WLCI_SP01	E293371			1.09	1.03			10.45		1630
11/2/2017	WL_WLCI_SP01	E293371			1.03	1.19			11.28		1610
11/3/2017	WL_WLCI_SP01	E293371			1	1.13			10.65		1630
11/4/2017	WL_WLCI_SP01	E293371			1.01	1.13			11.13		1600
11/5/2017	WL_WLCI_SP01	E293371			1.1	1.39			11.38		1590
11/6/2017	WL_WLCI_SP01	E293371			1.02	1.17			11.77	0.19	1620
11/7/2017	WL_WLCI_SP01	E293371			0.91	0.89			11.14		1600
11/8/2017	WL_WLCI_SP01	E293371			0.9	1.04			13.11		1540
11/9/2017	WL_WLCI_SP01	E293371			0.92	0.94			11.86		1550
11/10/2017	WL_WLCI_SP01	E293371			0.95	1.04			12.26		1540
11/11/2017	WL_WLCI_SP01	E293371			1.03	1.08			11.66		1550
11/12/2017	WL_WLCI_SP01	E293371			1.05	1.1			11.8		1620
11/13/2017	WL_WLCI_SP01	E293371			1.19	1.39			10.7		1580
11/14/2017	WL_WLCI_SP01	E293371			1.14	1.04			11.8		1640
11/15/2017	WL_WLCI_SP01	E293371			1.08	1.09			12.17		1640
11/16/2017	WL_WLCI_SP01	E293371			0.93	1.05			11.97		1670

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
11/17/2017	WL_WLCI_SP01	E293371			1.03	1.04					1660
11/17/2017	WL_WLCI_SP01	E293371							11.3		
11/18/2017	WL_WLCI_SP01	E293371			0.91	0.93			11.72		1730
11/19/2017	WL_WLCI_SP01	E293371			0.98	0.97			12.48		1820
11/20/2017	WL_WLCI_SP01	E293371			0.92	0.91			12.15		1760
11/21/2017	WL_WLCI_SP01	E293371			0.98	0.87			13.85		1720
11/22/2017	WL_WLCI_SP01	E293371			0.99	0.91			11.19		1760
11/23/2017	WL_WLCI_SP01	E293371			0.92	0.93			12.11		1720
11/24/2017	WL_WLCI_SP01	E293371			1	0.92			11.3		1690
11/25/2017	WL_WLCI_SP01	E293371			0.97	0.97			11.3		1600
11/26/2017	WL_WLCI_SP01	E293371			1	1.02			10.9		1630
11/27/2017	WL_WLCI_SP01	E293371			0.99	1.06			10.87		1560
11/28/2017	WL_WLCI_SP01	E293371			1.06	1.06			11.13		1650
11/29/2017	WL_WLCI_SP01	E293371			0.92	1.01			10.73		1560
11/30/2017	WL_WLCI_SP01	E293371			0.91	1.03			10.85		1580
12/1/2017	WL_WLCI_SP01	E293371			0.97	0.97			10.56		1660
12/2/2017	WL_WLCI_SP01	E293371			1.32	0.89			12.17		1580
12/3/2017	WL_WLCI_SP01	E293371			0.9	0.93			12.51		1640
12/4/2017	WL_WLCI_SP01	E293371			0.93	0.88			13.9	0.21	1620
12/5/2017	WL_WLCI_SP01	E293371			1	0.99			13.3		1670
12/6/2017	WL_WLCI_SP01	E293371			1.01	1.02					1660
12/6/2017	WL_WLCI_SP01	E293371									
12/6/2017	WL_WLCI_SP01	E293371							12.7		
12/7/2017	WL_WLCI_SP01	E293371			0.99	0.93			13.15		1570
12/8/2017	WL_WLCI_SP01	E293371			0.95	0.98			15.03		1520
12/9/2017	WL_WLCI_SP01	E293371			0.89	1.13			11.86		1640
12/10/2017	WL_WLCI_SP01	E293371			0.88	1.15			12.27		1580
12/11/2017	WL_WLCI_SP01	E293371			0.9	1.08			11.53		1670
12/12/2017	WL_WLCI_SP01	E293371			0.9	0.97			11.64		1580
12/13/2017	WL_WLCI_SP01	E293371			0.92	0.96			11.43		1530
12/13/2017	WL_WLCI_SP01	E293371			1.4	1.7					1730
12/14/2017	WL_WLCI_SP01	E293371			1.24	1.04			12.4		1640
12/15/2017	WL_WLCI_SP01	E293371			1.17	0.98			11.99		1680
12/16/2017	WL_WLCI_SP01	E293371			0.95	1			11.79		1670
12/17/2017	WL_WLCI_SP01	E293371			1.04	0.94			11.84		1670
12/18/2017	WL_WLCI_SP01	E293371			0.97	1.02			12.22		1620
12/19/2017	WL_WLCI_SP01	E293371			1.1	1.17			12.05		1640
12/20/2017	WL_WLCI_SP01	E293371			0.97	1.62			12.02		1580
12/21/2017	WL_WLCI_SP01	E293371			0.85	1.13			11.88		1650
12/22/2017	WL_WLCI_SP01	E293371			0.96	0.94			14.08		1790
12/22/2017	WL_WLCI_SP01	E293371			2.15	2.31					1690
12/23/2017	WL_WLCI_SP01	E293371			1.02	1.02			11.86		1540
12/23/2017	WL_WLCI_SP01	E293371				0.83					1600
12/24/2017	WL_WLCI_SP01	E293371			0.88	0.97			11.15		1640
12/25/2017	WL_WLCI_SP01	E293371			0.92	0.86			12.31		1560
12/26/2017	WL_WLCI_SP01	E293371			0.95	0.9			11.02		1560
12/27/2017	WL_WLCI_SP01	E293371			0.86	0.86			11.36		1560

Analyte			CONDUCTIVITY, FIELD	CONDUCTIVITY, LAB	COPPER	COPPER	DAILY FLOW (Average Daily Flow)	DAILY FLOW (Average Daily Flow)	DISSOLVED OXYGEN, FIELD	FLUORIDE	Hardness, Total or Dissolved CaCO3
Fraction Result Unit			N uS/cm at 25 C	N us/cm	D mg/l	T mg/l	N m3/day	N m3/s	N mg/l	D mg/l	N mg/l
Sample Date	Location	EMS Number									
12/28/2017	WL_WLCI_SP01	E293371			0.91	1.05			10.72		1580
12/29/2017	WL_WLCI_SP01	E293371			0.89	0.93			11.81		1610
12/30/2017	WL_WLCI_SP01	E293371			0.87	0.92					1540
12/30/2017	WL_WLCI_SP01	E293371							11.56		
12/31/2017	WL_WLCI_SP01	E293371			1	1			12.26		1650

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
1/5/2017	CM_CC1	200209	0.287	< 0.010	0.016	< 0.050	< 0.050	0.0463	0.0427	107	0.0511	0.0534				
1/17/2017	CM_CC1	200209	0.191	< 0.010	0.014	< 0.050	< 0.050	0.0485	0.0484	112	0.0514	0.054	< 0.0050			< 0.00050
1/24/2017	CM_CC1	200209	0.194	< 0.010	0.014	< 0.050	< 0.050	0.0466	0.0482	108	0.0514	0.0539				
1/29/2017	CM_CC1	200209	0.162													
1/30/2017	CM_CC1	200209	0.194	< 0.010	0.012	< 0.050	< 0.050	0.048	0.047	98.3	0.0531	0.0518				
1/31/2017	CM_CC1	200209		< 0.050	< 0.050	< 0.25	< 0.25	0.0389	0.0399	115	0.0506	0.0545				
2/1/2017	CM_CC1	200209	0.168	< 0.050	< 0.050	< 0.25	< 0.25	0.0391	0.042	116	0.051	0.0564	< 0.0050			< 0.00050
2/7/2017	CM_CC1	200209	0.194	< 0.010	0.018	< 0.050	< 0.050	0.0442	0.0419	123	0.0525	0.057				
2/21/2017	CM_CC1	200209	0.178	< 0.010	< 0.010	< 0.050	< 0.050	0.0366	0.0366	102	0.0458	0.0482				
3/1/2017	CM_CC1	200209	0.159	< 0.010	0.012	< 0.050	< 0.050	0.0424	0.0429	94.5	0.0523	0.053	< 0.0050			< 0.00050
3/7/2017	CM_CC1	200209	0.148	< 0.010	0.011	< 0.050	< 0.050	0.0484	0.0495	113	0.0849	0.0878				
3/22/2017	CM_CC1	200209	0.38													
3/22/2017	CM_CC1	200209		< 0.010	0.023	< 0.050	< 0.050	0.0383	0.041	95.7	0.0975	0.104	< 0.0050			< 0.00050
3/29/2017	CM_CC1	200209	0.319	< 0.010	0.026	< 0.050	< 0.050	0.044	0.0382	79.9	0.105	0.0934	< 0.0050			0.00052
4/4/2017	CM_CC1	200209	0.355769144													
4/5/2017	CM_CC1	200209	0.35577	< 0.010	0.016	< 0.050	< 0.050	0.0461	0.0429	77.6	0.0902	0.0857	< 0.0050			0.0005
4/12/2017	CM_CC1	200209	0.355769144	< 0.010	0.012	< 0.050	< 0.050	0.0409	0.0374	76	0.0886	0.0829	< 0.0050			< 0.00050
4/19/2017	CM_CC1	200209	0.666957	0.031	0.023	0.067	< 0.050	0.0397	0.0391	83.9	0.108	0.11	< 0.0050			0.00075
4/26/2017	CM_CC1	200209	1.0308925	< 0.010	0.05	< 0.050	0.065	0.0335	0.0329	72.8	0.0678	0.0702	< 0.0050			0.00104
5/2/2017	CM_CC1	200209	0.5235	< 0.010	0.016	< 0.050	< 0.050	0.0364	0.0374	80.4	0.0706	0.0757	< 0.0050			0.00123
5/9/2017	CM_CC1	200209	1.41	< 0.010	0.066	< 0.050	0.076	0.0258	0.0248	70.7	0.0469	0.0487	< 0.0050			0.00129
5/16/2017	CM_CC1	200209	1.89426	< 0.010	< 0.010	< 0.050	< 0.050	0.0273	0.0233	70	0.0331	0.0334	< 0.0050			0.00114
5/17/2017	CM_CC1	200209														
5/17/2017	CM_CC1	200209														
5/18/2017	CM_CC1	200209														
5/23/2017	CM_CC1	200209	2.54	< 0.010	0.071	< 0.050	0.081	0.0262	0.0252	58	0.0457	0.0505	< 0.0050			0.00126
5/30/2017	CM_CC1	200209	1.955	< 0.010	0.107	< 0.050	0.108	0.0236	0.0223	60.4	0.0428	0.0471	< 0.0050			0.00134
6/6/2017	CM_CC1	200209	1.478	< 0.010	0.048	< 0.050	0.051	0.0237	0.0227	61.7	0.0537	0.0548	< 0.0050			0.00085
6/14/2017	CM_CC1	200209	1.1035	< 0.010	0.038	< 0.050	< 0.050	0.0295	0.0338	74.2	0.0788	0.0793	< 0.0050			0.00076
6/21/2017	CM_CC1	200209	0.7206	< 0.010	0.039	< 0.050	< 0.050	0.0356	0.0344	86.3	0.0916	0.0971	< 0.0050			0.0008
6/28/2017	CM_CC1	200209	0.4053	< 0.010	0.011	< 0.050	< 0.050	0.0392	0.0387	84.6	0.0692	0.0783	< 0.0050			< 0.00050
7/5/2017	CM_CC1	200209	0.55	< 0.010	0.018	< 0.050	< 0.050	0.0396	0.0374	93.8	0.0426	0.0699	< 0.0050			0.00052
7/12/2017	CM_CC1	200209	0.32	< 0.010	0.011	< 0.050	< 0.050	0.0425	0.0406	97.8	0.0446	0.0732	< 0.0050			< 0.00050
7/19/2017	CM_CC1	200209	0.41	< 0.010	< 0.010	< 0.050	< 0.050	0.0409	0.0412	91	0.0217	0.0268	< 0.0050			0.0005
7/25/2017	CM_CC1	200209	0.36746	< 0.010	< 0.010	< 0.050	< 0.050	0.0365	0.0356	108	0.023	0.031	< 0.0050			0.0005
8/1/2017	CM_CC1	200209	0.3312	< 0.010	0.025	< 0.050	< 0.050	0.0354	0.0336	108	0.00655	0.0321	< 0.0050		< 0.0050	
8/8/2017	CM_CC1	200209	0.2936	< 0.010	< 0.010	< 0.050	< 0.050	0.0366	0.0359	115	0.0118	0.0209	< 0.0050			< 0.00050
8/15/2017	CM_CC1	200209		< 0.010	< 0.010	< 0.050	< 0.050	0.0372	0.0378	119	0.00961	0.0179	< 0.0050			< 0.00050
8/15/2017	CM_CC1	200209	0.19415													
8/22/2017	CM_CC1	200209	0.1716	< 0.010	< 0.010	< 0.050	< 0.050	0.038	0.0335	113	0.00909	0.0141	< 0.0050			< 0.00050
8/29/2017	CM_CC1	200209	0.1564	< 0.010	< 0.010	< 0.050	< 0.050	0.0386	0.0345	98.1	0.00559	0.0106	< 0.0050			< 0.00050
9/5/2017	CM_CC1	200209	0.1941	< 0.010	< 0.010	< 0.050	0.295	0.035	0.0371	122	0.00338	0.0129	< 0.0050			< 0.00050
9/12/2017	CM_CC1	200209	0.1716	< 0.010	< 0.010	< 0.050	< 0.050	0.0367	0.0344	108	0.00665	0.0113	< 0.0050			< 0.00050
9/19/2017	CM_CC1	200209	0.10857	< 0.010	< 0.010	< 0.050	< 0.050	0.0237	0.0234	109	0.00103	0.00401	< 0.0050			< 0.00050
10/4/2017	CM_CC1	200209	0.159397954	< 0.010	< 0.010	< 0.050	< 0.050	0.0354	0.0364	118	0.0117	0.019	< 0.0050			< 0.00050
11/7/2017	CM_CC1	200209	0.1366	< 0.010	< 0.010	< 0.050	< 0.050	0.0446	0.0428	107	0.0376	0.0377	< 0.0050			0.00099
12/6/2017	CM_CC1	200209	0.268	< 0.010	0.015	< 0.050	< 0.050	0.0424	0.0411	103	0.0288	0.0293	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
1/17/2017	CM_CCPD	E206438	0.156	< 0.010	0.064	< 0.050	0.1	0.0383	0.0367	122	0.0527	0.0528	< 0.0050			0.00122
2/1/2017	CM_CCPD	E206438	0.149	< 0.050	< 0.050	< 0.25	< 0.25	0.0198	0.0206	140	0.0444	0.0466	< 0.0050			< 0.00050
3/1/2017	CM_CCPD	E206438	0.156	< 0.010	0.011	< 0.050	< 0.050	0.0225	0.0218	126	0.0456	0.0442	< 0.0050			< 0.00050
4/5/2017	CM_CCPD	E206438	0.134	< 0.010	0.055	< 0.050	0.057	0.0423	0.0439	118	0.0634	0.0623	< 0.0050			0.00081
4/12/2017	CM_CCPD	E206438	0.16127628													
4/19/2017	CM_CCPD	E206438														
4/19/2017	CM_CCPD	E206438	0.14851092													
4/26/2017	CM_CCPD	E206438	0.218													
5/2/2017	CM_CCPD	E206438	0.218	< 0.010	0.063	< 0.050	0.069	0.0328	0.0327	118	0.0364	0.0469	< 0.0050			0.001
5/6/2017	CM_CCPD	E206438														
5/9/2017	CM_CCPD	E206438	0.628													
5/16/2017	CM_CCPD	E206438	0.834													
5/17/2017	CM_CCPD	E206438														
5/17/2017	CM_CCPD	E206438														
5/18/2017	CM_CCPD	E206438														
5/23/2017	CM_CCPD	E206438	1.043													
5/30/2017	CM_CCPD	E206438	1.146	< 0.010	0.232	< 0.050	0.189	0.022	0.0181	71.5	0.0124	0.0143	< 0.0050			0.00178
6/6/2017	CM_CCPD	E206438	0.9775	< 0.010	0.044	< 0.050	0.067	0.0146	0.0153	72.4	0.00687	0.00686	< 0.0050			0.00097
6/14/2017	CM_CCPD	E206438	0.708	< 0.010	0.112	< 0.050	0.109	0.0131	0.0151	87.4	0.00731	0.00924	< 0.0050			0.00131
6/21/2017	CM_CCPD	E206438	0.4599	< 0.010	0.069	< 0.050	0.068	0.0163	0.0164	114	0.00753	0.00826	< 0.0050			0.0012
6/28/2017	CM_CCPD	E206438	0.3757	< 0.010	0.025	< 0.050	< 0.050	0.0198	0.0195	112	0.00713	0.0075	< 0.0050			0.00057
7/5/2017	CM_CCPD	E206438	0.413	< 0.010	0.038	< 0.050	< 0.050	0.0229	0.0218	123	0.00747	0.00793	< 0.0050			0.00085
7/12/2017	CM_CCPD	E206438	0.356	< 0.010	0.016	< 0.050	< 0.050	0.0252	0.0237	129	0.0101	0.0105	< 0.0050			0.00054
7/19/2017	CM_CCPD	E206438	0.2394	< 0.010	0.092	< 0.050	0.102	0.0265	0.0254	109	0.00791	0.0116	< 0.0050			0.0022
7/25/2017	CM_CCPD	E206438	0.249	< 0.010	0.02	< 0.050	< 0.050	0.0231	0.0217	144	0.00686	0.00839	< 0.0050			0.0039
8/1/2017	CM_CCPD	E206438	0.2146	< 0.010	0.014	< 0.050	< 0.050	0.0226	0.0227	151	0.00344	0.00717	< 0.0050	< 0.0050		0.00064
8/22/2017	CM_CCPD	E206438	0.17457	< 0.010	0.011	< 0.050	< 0.050	0.0245	0.0215	155	0.0044	0.00559	< 0.0050			0.00067
9/12/2017	CM_CCPD	E206438	0.1028	< 0.010	0.022	< 0.050	< 0.050	0.0295	0.0283	144	0.0062	0.00727	< 0.0050			< 0.00050
9/19/2017	CM_CCPD	E206438	0.10276	< 0.010	0.029	< 0.050	0.054	0.029	0.0287	149	0.00069	0.00914	< 0.0050			0.0006
10/3/2017	CM_CCPD	E206438	0.113400418	< 0.010	0.039	< 0.050	0.057	0.0276	0.0313	169	0.00385	0.00673	< 0.0050			< 0.00050
10/10/2017	CM_CCPD	E206438	0.08306	< 0.010	0.028	< 0.050	< 0.050	0.0288	0.0307	166	0.00193	0.00418	< 0.0050			< 0.00050
10/11/2017	CM_CCPD	E206438														
10/24/2017	CM_CCPD	E206438	0.09264	< 0.010	0.024	< 0.050	< 0.050	0.0343	0.0362	148	0.0206	0.0276	< 0.0050			< 0.00050
11/7/2017	CM_CCPD	E206438	0.06714	< 0.010	< 0.010	< 0.050	< 0.050	0.0424	0.0415	154	0.0161	0.0198	< 0.0050			< 0.00050
11/22/2017	CM_CCPD	E206438	0.12457	< 0.010	0.034	< 0.050	0.062	0.0377	0.039	172	0.0102	0.0142	< 0.0050			0.00061
11/28/2017	CM_CCPD	E206438	0.180041	< 0.010	0.11	< 0.050	0.085	0.0564	0.0511	129	0.0971	0.102	< 0.0050			0.00107
12/6/2017	CM_CCPD	E206438	0.169	< 0.010	0.048	< 0.050	< 0.050	0.0575	0.0603	121	0.0413	0.0457	< 0.0050			0.00084
12/12/2017	CM_CCPD	E206438	0.161	< 0.010	0.036	< 0.050	0.051	0.0522	0.0548	119	0.0288	0.0294	< 0.0050			< 0.00050
12/19/2017	CM_CCPD	E206438	0.146	< 0.020	0.037	< 0.10	< 0.10	0.0451	0.0476	133	0.0226	0.0246	< 0.0050			0.00054
12/27/2017	CM_CCPD	E206438	0.199	< 0.010	0.019	< 0.050	< 0.050	0.0415	0.048	139	0.0151	0.0158	< 0.0050			< 0.00050
1/18/2017	CM_MC1	E258175	0.055	< 0.010	0.052	< 0.050	< 0.050	0.0043	0.0044	11.1	0.00017	0.00209	< 0.0050			< 0.00050
2/1/2017	CM_MC1	E258175	0.0406	< 0.010	0.025	< 0.050	< 0.050	0.0039	0.004	11.1	0.00013	0.0011	< 0.0050			< 0.00050
3/1/2017	CM_MC1	E258175	0.054	< 0.010	0.024	< 0.050	< 0.050	0.0039	0.0041	9.54	0.00013	0.0007	< 0.0050			0.00057
4/5/2017	CM_MC1	E258175	0.080337	< 0.010	0.028	< 0.050	< 0.050	0.0046	0.0042	9.35	0.00012	0.00112	< 0.0050			0.00058
4/12/2017	CM_MC1	E258175	0.196973	< 0.010	< 0.010	< 0.050	< 0.050	0.0044	0.004	9.25	0.00014	0.00039	< 0.0050			0.00073
4/19/2017	CM_MC1	E258175	0.1107105	< 0.010	0.019	< 0.050	< 0.050	0.0043	0.0044	9.89	0.00013	0.00112	< 0.0050			0.00058
4/26/2017	CM_MC1	E258175	1.152775	< 0.010	0.038	< 0.050	< 0.050	0.0043	0.0045	10.2	0.00013	0.00187	< 0.0050			0.00116

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
5/2/2017	CM_MC1	E258175	0.22394	< 0.010	0.021	< 0.050	< 0.050	0.0041	0.0042	10.2	0.00015	0.00057	< 0.0050			0.00113
5/9/2017	CM_MC1	E258175	0.681	0.01	0.164	< 0.050	0.122	0.0035	0.0035	7.77	0.00032	0.00357	< 0.0050			0.00203
5/16/2017	CM_MC1	E258175	1.042905	< 0.010	< 0.010	< 0.050	< 0.050	0.0031	0.0033	8.74	0.00049	0.00074	< 0.0050			0.00159
5/23/2017	CM_MC1	E258175	2.99	0.014	0.485	< 0.050	0.368	0.0026	0.0031	6.72	0.00205	0.0162	< 0.0050			0.00372
5/30/2017	CM_MC1	E258175	1.724	0.082	0.794	0.272	0.668	0.0018	0.0024	6.61	0.0201	0.0206	< 0.0050			0.00407
6/6/2017	CM_MC1	E258175	1.428	0.015	0.454	< 0.050	0.297	0.0017	0.0018	6.59	0.00155	0.0134	< 0.0050			0.00279
6/14/2017	CM_MC1	E258175	1.274	< 0.010	0.38	< 0.050	0.34	0.0013	0.002	6.5	0.00086	0.0143	< 0.0050			0.00264
6/21/2017	CM_MC1	E258175	0.6803	< 0.010	0.136	< 0.050	0.085	0.0019	0.002	8.35	0.00048	0.00386	< 0.0050			0.0013
6/28/2017	CM_MC1	E258175	0.3313	< 0.010	0.063	< 0.050	< 0.050	0.0028	0.0027	8	0.00024	0.00173	< 0.0050			0.00075
7/4/2017	CM_MC1	E258175		< 0.010	0.049	< 0.050	< 0.050	0.0031	0.0033	9.18	0.00032	0.00171	< 0.0050			0.00072
7/4/2017	CM_MC1	E258175	0.69													
7/12/2017	CM_MC1	E258175	0.1	< 0.010	0.025	< 0.050	< 0.050	0.0037	0.0037	9.55	0.00016	0.0012	< 0.0050			0.00053
7/19/2017	CM_MC1	E258175	0.33	< 0.010	0.035	< 0.050	< 0.050	0.0043	0.0042	9.35	0.00026	0.0012	< 0.0050			0.0006
7/25/2017	CM_MC1	E258175	0.06293	< 0.010	0.033	< 0.050	< 0.050	0.0044	0.0045	9.52	< 0.00010	0.00104	< 0.0050			0.00067
8/1/2017	CM_MC1	E258175	0.1783	< 0.010	0.011	< 0.050	< 0.050	0.005	0.0043	11.3	< 0.00010	0.00054	< 0.0050			0.00052
8/8/2017	CM_MC1	E258175	0.13304	< 0.010	< 0.010	< 0.050	< 0.050	0.0052	0.0046	11.2	0.00012	0.00032	< 0.0050			< 0.00050
8/15/2017	CM_MC1	E258175	0.05606	< 0.010	< 0.010	< 0.050	< 0.050	0.0047	0.0047	11	< 0.00010	0.00027	< 0.0050			< 0.00050
8/22/2017	CM_MC1	E258175	0.04547	< 0.010	< 0.010	< 0.050	< 0.050	0.0053	0.0043	11.2	0.00016	0.00041	< 0.0050			0.00053
8/29/2017	CM_MC1	E258175	0.04547	< 0.010	< 0.010	< 0.050	< 0.050	0.0048	0.0051	10.3	0.00022	0.00039	< 0.0050			< 0.00050
9/12/2017	CM_MC1	E258175	0.0406	< 0.010	< 0.010	< 0.050	< 0.050	0.0048	0.0051	10.8	0.00013	0.0003	< 0.0050			< 0.00050
9/19/2017	CM_MC1	E258175	0.05061	< 0.010	0.081	< 0.050	0.092	0.005	0.0049	11.5	< 0.00010	0.00282	< 0.0050			< 0.00050
9/26/2017	CM_MC1	E258175	0.04547	< 0.010	< 0.010	< 0.050	< 0.050	0.0049	0.0054	11	0.00021	0.00064	< 0.0050			< 0.00050
10/2/2017	CM_MC1	E258175	0.056056488	< 0.010	< 0.010	< 0.050	< 0.050	0.0045	0.0046	11	0.00012	0.00035	< 0.0050			0.00059
10/10/2017	CM_MC1	E258175	0.05061	< 0.010	< 0.010	< 0.050	< 0.050	0.005	0.0052	11.5	< 0.00010	0.00014	< 0.0050			< 0.00050
10/17/2017	CM_MC1	E258175	0.05606	< 0.010	< 0.010	< 0.050	< 0.050	0.0043	0.0044	10.7	< 0.00010	0.00016	< 0.0050			< 0.00050
10/24/2017	CM_MC1	E258175	0.08106	< 0.010	< 0.010	< 0.050	< 0.050	0.0046	0.0048	10.7	0.0002	0.00031	< 0.0050			0.00056
10/31/2017	CM_MC1	E258175	0.06182	< 0.010	< 0.010	< 0.050	< 0.050	0.0044	0.0043	11.1	0.00011	0.00032	< 0.0050			< 0.00050
11/7/2017	CM_MC1	E258175	0.04448	< 0.010	0.036	< 0.050	< 0.050	0.0054	0.0051	11.3	0.00019	0.00125	< 0.0050			< 0.00050
12/6/2017	CM_MC1	E258175	0.081	< 0.010	0.05	< 0.050	0.055	0.0039	0.0037	9.88	0.00035	0.00155	< 0.0050			0.00063
1/5/2017	CM_MC2	E258937		< 0.010	0.047	< 0.050	< 0.050	0.0264	0.022	62.7	0.0169	0.0239				
1/12/2017	CM_MC2	E258937		< 0.010	0.026	< 0.050	< 0.050	0.0213	0.0221	57.4	0.0152	0.017				
1/17/2017	CM_MC2	E258937		< 0.010	0.032	< 0.050	< 0.050	0.0254	0.0256	63.8	0.0154	0.0189	< 0.0050			< 0.00050
1/24/2017	CM_MC2	E258937	0.3583	< 0.010	0.035	< 0.050	< 0.050	0.023	0.0236	56.7	0.0144	0.0166				
1/29/2017	CM_MC2	E258937	0.3397													
1/30/2017	CM_MC2	E258937	0.3397	< 0.010	0.013	< 0.050	< 0.050	0.0218	0.0219	60.9	0.0136	0.0149	< 0.0050			< 0.00050
1/31/2017	CM_MC2	E258937		< 0.010	0.017	< 0.050	< 0.050	0.0263	0.0262	69.8	0.0157	0.0174				
2/1/2017	CM_MC2	E258937	0.322	< 0.010	0.027	< 0.050	< 0.050	0.0218	0.0221	65	0.0127	0.0154	< 0.0050			< 0.00050
2/7/2017	CM_MC2	E258937		< 0.010	0.037	< 0.050	< 0.050	0.0214	0.0218	62.4	0.013	0.0167				
2/21/2017	CM_MC2	E258937	0.2943	< 0.010	0.013	< 0.050	< 0.050	0.0179	0.0174	55.2	0.0112	0.0128				
2/28/2017	CM_MC2	E258937		< 0.010	0.02	< 0.050	< 0.050	0.0209	0.0217	59	0.0113	0.0134	< 0.0050			< 0.00050
3/1/2017	CM_MC2	E258937	0.232	< 0.010	0.056	< 0.050	< 0.050	0.0195	0.0196	50.6	0.0119	0.0169	< 0.0050			0.00075
3/7/2017	CM_MC2	E258937	0.2877	< 0.010	0.037	< 0.050	< 0.050	0.0217	0.0214	57.6	0.0213	0.0256	< 0.0050			< 0.00050
3/14/2017	CM_MC2	E258937	0.2564	< 0.010	< 0.010	< 0.050	< 0.050	0.0212	0.0224	52.5	0.0296	0.0283	< 0.0050			< 0.00050
3/21/2017	CM_MC2	E258937	1.018	< 0.010	0.098	< 0.050	0.071	0.0115	0.0115	32	0.0201	0.0249	< 0.0050			0.00078
3/22/2017	CM_MC2	E258937	1.00884													
3/29/2017	CM_MC2	E258937	0.6763													
4/5/2017	CM_MC2	E258937	0.789982	< 0.010	0.024	< 0.050	< 0.050	0.0244	0.0224	41.5	0.0324	0.0297	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
4/12/2017	CM_MC2	E258937	0.7403825													
4/12/2017	CM_MC2	E258937	0.7403825	< 0.010	0.022	< 0.050	< 0.050	0.0198	0.0184	38.6	0.0296	0.029	< 0.0050			< 0.00050
4/19/2017	CM_MC2	E258937	1.046121	< 0.010	0.052	< 0.050	< 0.050	0.0197	0.0179	43.1	0.0357	0.0392	< 0.0050			0.00073
4/24/2017	CM_MC2	E258937	1.37403	< 0.010	0.157	< 0.050	0.124	0.0154	0.0147	35.5	0.0261	0.0307	< 0.0050			0.00112
5/2/2017	CM_MC2	E258937	1.347	< 0.010	0.114	< 0.050	0.077	0.0167	0.0199	46.9	0.0241	0.0342	< 0.0050			0.00125
5/9/2017	CM_MC2	E258937	3.99	< 0.010	0.319	< 0.050	0.243	0.0105	0.0108	30.7	0.00784	0.0278	< 0.0050			0.00188
5/16/2017	CM_MC2	E258937	3.7	< 0.010	0.357	< 0.050	0.223	0.0117	0.0108	32.2	0.0115	0.0211	< 0.0050			0.00136
5/23/2017	CM_MC2	E258937	6.785	< 0.010	1.14	< 0.050	0.695	0.0097	0.0106	23	0.0132	0.0511	< 0.0050			0.00288
5/30/2017	CM_MC2	E258937	6.785	0.01	1.41	< 0.050	0.841	0.0063	0.008	20.7	0.0119	0.0519	< 0.0050			0.00297
6/6/2017	CM_MC2	E258937	5.384	< 0.010	0.902	< 0.050	0.501	0.007	0.0074	21.7	0.0127	0.0415	< 0.0050			0.0021
6/13/2017	CM_MC2	E258937	3.396	< 0.010	0.278	< 0.050	0.17	0.0079	0.0085	26.4	0.0155	0.0269				
6/14/2017	CM_MC2	E258937	3.987	< 0.010	0.78	< 0.050	0.428	0.0067	0.0081	20.7	0.0147	0.0384	< 0.0050			0.00192
6/21/2017	CM_MC2	E258937	2.476	< 0.010	0.334	< 0.050	0.204	0.008	0.0083	24.8	0.0173	0.0304	< 0.0050			0.0012
6/28/2017	CM_MC2	E258937	1.867	< 0.010	0.135	< 0.050	0.082	0.0092	0.0091	23	0.0123	0.0181	< 0.0050			0.00063
7/4/2017	CM_MC2	E258937	2.69	< 0.010	0.075	< 0.050	0.093	0.0104	0.0103	29.8	0.011	0.0157	< 0.0050			0.00052
7/12/2017	CM_MC2	E258937	1.06	< 0.010	0.039	< 0.050	< 0.050	0.0153	0.0147	38.6	0.0148	0.0187	< 0.0050			< 0.00050
7/19/2017	CM_MC2	E258937	1.43	< 0.010	0.055	< 0.050	< 0.050	0.0181	0.0176	41.8	0.00728	0.0117	< 0.0050			0.0007
7/25/2017	CM_MC2	E258937	1.089	< 0.010	0.032	< 0.050	< 0.050	0.017	0.0159	47.1	0.00577	0.01	< 0.0050			0.0013
8/1/2017	CM_MC2	E258937	0.8297	< 0.010	0.026	< 0.050	< 0.050	0.0174	0.0163	49.3	0.00043	0.00726	< 0.0050			< 0.00050
8/8/2017	CM_MC2	E258937	0.6161	< 0.010	0.139	< 0.050	0.15	0.0198	0.0192	58.8	0.00055	0.0277	< 0.0050			0.00063
8/15/2017	CM_MC2	E258937	0.7	< 0.010	0.011	< 0.050	< 0.050	0.0178	0.0181	56.4	0.0016	0.00428	< 0.0050			< 0.00050
8/22/2017	CM_MC2	E258937	0.5	< 0.010	< 0.010	< 0.050	< 0.050	0.0198	0.0191	60.9	0.00022	0.00316	< 0.0050			< 0.00050
8/29/2017	CM_MC2	E258937	0.437	< 0.010	< 0.010	< 0.050	< 0.050	0.0223	0.0203	56.7	0.00073	0.00225	< 0.0050			< 0.00050
9/12/2017	CM_MC2	E258937	0.2989	< 0.010	< 0.010	< 0.050	< 0.050	0.0206	0.0214	62.3	0.00078	0.00181	< 0.0050			< 0.00050
9/19/2017	CM_MC2	E258937	0.3478	< 0.010	< 0.010	< 0.050	< 0.050	0.0142	0.0143	53	0.00014	0.00135	< 0.0050			< 0.00050
9/26/2017	CM_MC2	E258937	0.34	< 0.010	0.079	< 0.050	< 0.050	0.0132	0.014	49	0.00056	0.00137	< 0.0050			< 0.00050
10/2/2017	CM_MC2	E258937		< 0.010	< 0.010	< 0.050	< 0.050	0.0194	0.0192	59.6	0.00129	0.0023	< 0.0050			< 0.00050
10/2/2017	CM_MC2	E258937	0.142532699	< 0.010	0.013	< 0.050	< 0.050	0.0215	0.0228	58.3	0.00201	0.00343	< 0.0050			< 0.00050
10/3/2017	CM_MC2	E258937	0.241775	< 0.010	0.012	< 0.050	< 0.050	0.0187	0.0198	60	0.00223	0.00365	< 0.0050			< 0.00050
10/5/2017	CM_MC2	E258937	0.47266	< 0.010	< 0.010	< 0.050	< 0.050	0.0184	0.0192	62.9	0.00308	0.00348	< 0.0050			< 0.00050
10/6/2017	CM_MC2	E258937	0.52862	< 0.010	< 0.010	< 0.050	< 0.050	0.0179	0.0191	63.1	0.00309	0.00384	< 0.0050			< 0.00050
10/10/2017	CM_MC2	E258937	0.3889	< 0.010	< 0.010	< 0.050	< 0.050	0.0179	0.0183	60.2	0.00267	0.00332	< 0.0050			< 0.00050
10/11/2017	CM_MC2	E258937	0.5166	< 0.010	< 0.010	< 0.050	< 0.050	0.0181	0.0194	60.8	0.00303	0.00402	< 0.0050		< 0.0050	
10/12/2017	CM_MC2	E258937	0.5315	< 0.010	< 0.010	< 0.050	< 0.050	0.0173	0.0187	58.6	0.00339	0.00429	< 0.0050		< 0.0050	
10/16/2017	CM_MC2	E258937	0.4325	< 0.010	< 0.010	< 0.050	< 0.050	0.0184	0.0198	62.4	0.00341	0.00456	< 0.0050		< 0.0050	
10/17/2017	CM_MC2	E258937	0.42836	< 0.010	< 0.010	< 0.050	< 0.050	0.0164	0.0184	57.1	0.00321	0.00396	< 0.0050			< 0.00050
10/19/2017	CM_MC2	E258937	1.0912	0.01	2.41	< 0.050	1.66	0.0222	0.0266	51.2	0.0109	0.183	< 0.0050		0.0064	
10/20/2017	CM_MC2	E258937	1.05046	< 0.010	0.095	< 0.050	0.059	0.0154	0.0161	44.1	0.00789	0.0116	< 0.0050		< 0.0050	
10/23/2017	CM_MC2	E258937	0.5693	< 0.010	0.016	< 0.050	< 0.050	0.0174	0.0177	47.3	0.0072	0.00877	< 0.0050		< 0.0050	
10/24/2017	CM_MC2	E258937	0.43198	< 0.010	0.016	< 0.050	< 0.050	0.0166	0.016	51.9	0.00797	0.00925	< 0.0050			< 0.00050
10/26/2017	CM_MC2	E258937	0.43198	< 0.010	0.011	< 0.050	< 0.050	0.0175	0.0169	50.3	0.00619	0.00721	< 0.0050		< 0.0050	
10/30/2017	CM_MC2	E258937	0.369025	< 0.010	0.014	< 0.050	< 0.050	0.0199	0.0185	59.9	0.00658	0.00766	< 0.0050		< 0.0050	
10/31/2017	CM_MC2	E258937	0.520715	< 0.010	< 0.010	< 0.050	< 0.050	0.0195	0.019	69.9	0.0056	0.00701	< 0.0050			< 0.00050
11/7/2017	CM_MC2	E258937	0.1759	< 0.010	0.053	< 0.050	< 0.050	0.02	0.0193	55.4	0.00664	0.00975	< 0.0050			0.00057
11/9/2017	CM_MC2	E258937	0.17765	< 0.010	< 0.010	< 0.050	< 0.050	0.0191	0.019	62.6	0.00404	0.00493	< 0.0050			< 0.00050
11/14/2017	CM_MC2	E258937	0.1313	< 0.050	< 0.050	< 0.25	< 0.25	0.0201	0.0173	56.5	0.00374	0.00419	< 0.0050		< 0.0050	
11/21/2017	CM_MC2	E258937	0.2235	< 0.010	< 0.010	< 0.050	< 0.050	0.0198	0.0179	62.1	0.00352	0.00377	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
11/28/2017	CM_MC2	E258937	0.96372	< 0.010	0.05	< 0.050	0.06	0.0176	0.0172	47.6	0.0134	0.0157	< 0.0050			0.00064
12/6/2017	CM_MC2	E258937	0.34	< 0.010	0.017	< 0.050	< 0.050	0.0256	0.0246	61.2	0.0106	0.0125	< 0.0050			< 0.00050
12/12/2017	CM_MC2	E258937	0.329	< 0.010	0.015	< 0.050	< 0.050	0.0219	0.0223	59.2	0.00788	0.00959	< 0.0050			< 0.00050
12/19/2017	CM_MC2	E258937	0.201	< 0.010	0.026	< 0.050	< 0.050	0.0179	0.018	56.8	0.00744	0.00965	< 0.0050			< 0.00050
12/27/2017	CM_MC2	E258937	0	< 0.010	0.021	< 0.050	< 0.050	0.0226	0.0222	65.7	0.00757	0.0088	< 0.0050			< 0.00050
4/12/2017	CM_PC2	E298733	0.00012714													
4/19/2017	CM_PC2	E298733		< 0.010	0.047	< 0.050	0.05	0.0058	0.006	18.9	0.00052	0.00095	< 0.0050			0.00067
4/26/2017	CM_PC2	E298733	0.0287													
5/2/2017	CM_PC2	E298733	0.009573	< 0.010	0.023	< 0.050	< 0.050	0.0028	0.0031	16.6	< 0.00010	0.00062	< 0.0050		< 0.0050	
5/9/2017	CM_PC2	E298733	0.178													
5/16/2017	CM_PC2	E298733	0.137													
5/23/2017	CM_PC2	E298733	0.347													
5/30/2017	CM_PC2	E298733	0.3473													
6/6/2017	CM_PC2	E298733	0.1561	< 0.010	< 0.010	< 0.050	< 0.050	0.0011	0.0013	8.79	< 0.00010	< 0.00010	0.008			0.00066
6/14/2017	CM_PC2	E298733	0.04791													
6/21/2017	CM_PC2	E298733	0.02117													
6/28/2017	CM_PC2	E298733	0.00507													
7/5/2017	CM_PC2	E298733	0.0003	< 0.010	0.016	< 0.050	< 0.050	0.0014	0.0014	10.9	< 0.00010	0.00027	< 0.0050			< 0.00050
7/12/2017	CM_PC2	E298733	0													
7/19/2017	CM_PC2	E298733	0													
7/25/2017	CM_PC2	E298733	0													
8/1/2017	CM_PC2	E298733	0													
8/8/2017	CM_PC2	E298733	0													
8/15/2017	CM_PC2	E298733	0													
8/22/2017	CM_PC2	E298733	0													
8/29/2017	CM_PC2	E298733	0													
9/5/2017	CM_PC2	E298733	0													
9/12/2017	CM_PC2	E298733	0													
9/19/2017	CM_PC2	E298733	0													
9/26/2017	CM_PC2	E298733	0													
10/3/2017	CM_PC2	E298733	0													
10/10/2017	CM_PC2	E298733	0													
10/17/2017	CM_PC2	E298733	0													
10/24/2017	CM_PC2	E298733	0													
10/31/2017	CM_PC2	E298733	0													
11/7/2017	CM_PC2	E298733	0													
11/14/2017	CM_PC2	E298733	0													
11/21/2017	CM_PC2	E298733	0													
11/24/2017	CM_PC2	E298733	0.06467	< 0.010	0.011	< 0.050	< 0.050	0.0024	0.0025	18.5	< 0.00010	0.00049	< 0.0050			0.00097
11/28/2017	CM_PC2	E298733	0													
12/6/2017	CM_PC2	E298733	0													
12/12/2017	CM_PC2	E298733	0													
12/19/2017	CM_PC2	E298733	0													
12/27/2017	CM_PC2	E298733	0													
1/17/2017	CM_SOW	E298734		< 0.010	0.016	< 0.050	< 0.050	0.0193	0.0201	84.7	0.00317	0.00383	< 0.0050		< 0.0050	
2/1/2017	CM_SOW	E298734		< 0.050	0.18	< 0.25	< 0.25	0.0158	0.0172	84.6	0.00157	0.00275	< 0.0050		< 0.0050	
3/1/2017	CM_SOW	E298734		< 0.010	0.015	< 0.050	< 0.050	0.02	0.0192	68.2	0.00439	0.0044	< 0.0050		< 0.0050	

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
4/5/2017	CM_SOW	E298734		< 0.010	0.112	< 0.050	0.147	0.0318	0.0312	60.4	0.0153	0.0185	< 0.0050		< 0.0050	
5/2/2017	CM_SOW	E298734		< 0.010	0.266	< 0.050	0.249	0.0418	0.0409	120	0.00314	0.0101	< 0.0050		< 0.050	
6/6/2017	CM_SOW	E298734		< 0.010	0.048	< 0.050	0.054	0.028	0.0281	102	0.00103	0.00213	< 0.0050		< 0.0050	
7/4/2017	CM_SOW	E298734		< 0.010	0.037	< 0.050	0.088	0.0492	0.0471	102	0.00218	0.00416	< 0.0050		0.0116	
8/1/2017	CM_SOW	E298734		< 0.010	0.029	< 0.050	< 0.050	0.033	0.0312	106	< 0.00010	0.00151	< 0.0050		< 0.0050	
9/12/2017	CM_SOW	E298734		< 0.010	< 0.010	< 0.050	< 0.050	0.0336	0.0322	96.6	0.00089	0.00134	< 0.0050			< 0.00050
10/4/2017	CM_SOW	E298734		< 0.010	0.089	< 0.050	0.166	0.0281	0.0269	89.9	0.00531	0.0109	< 0.0050			0.00134
11/7/2017	CM_SOW	E298734		< 0.010	10.1	< 0.050	9.72	0.176	0.205	61.8	0.00816	0.25	< 0.0050			< 0.25
12/5/2017	CM_SOW	E298734		< 0.010	28.7	< 0.050	29.5	0.129	0.135	34.8	0.0407	0.446	< 0.0050			0.239
1/5/2017	CM_SPD	E102488		< 0.010	0.022	< 0.050	< 0.050	0.0927	0.0851	127	0.129	0.134				
1/17/2017	CM_SPD	E102488	0.063	< 0.020	0.027	< 0.10	< 0.10	0.0842	0.0863	128	0.131	0.137	< 0.0050			< 0.00050
1/24/2017	CM_SPD	E102488	0.053	< 0.010	0.026	< 0.050	< 0.050	0.096	0.0893	120	0.143	0.131				
1/29/2017	CM_SPD	E102488	0.0471													
1/30/2017	CM_SPD	E102488	0.044	< 0.010	0.041	< 0.050	< 0.050	0.0961	0.0919	116	0.138	0.139				
1/31/2017	CM_SPD	E102488		< 0.050	< 0.050	< 0.25	< 0.25	0.0704	0.0789	132	0.133	0.148				
2/1/2017	CM_SPD	E102488	0.0472	< 0.050	< 0.050	< 0.25	< 0.25	0.0728	0.0781	133	0.124	0.144	< 0.0050			< 0.00050
2/7/2017	CM_SPD	E102488	0.05	< 0.010	0.048	< 0.050	0.054	0.0902	0.0878	130	0.146	0.14				
2/21/2017	CM_SPD	E102488	0.053	< 0.010	0.039	< 0.050	< 0.050	0.0651	0.066	106	0.117	0.133				
3/1/2017	CM_SPD	E102488	0.056	< 0.010	0.02	< 0.050	< 0.050	0.0713	0.0676	95	0.117	0.108	< 0.0050			< 0.00050
3/7/2017	CM_SPD	E102488	0.0561	< 0.010	0.053	< 0.050	< 0.050	0.0784	0.0886	142	0.161	0.244				
3/29/2017	CM_SPD	E102488	0.113													
3/29/2017	CM_SPD	E102488														
4/5/2017	CM_SPD	E102488	0.133	< 0.010	0.028	< 0.050	0.071	0.0619	0.0626	83.3	0.186	0.195	< 0.0050			0.00052
4/10/2017	CM_SPD	E102488														
4/12/2017	CM_SPD	E102488	0.141770504													
4/19/2017	CM_SPD	E102488	0.210043417													
4/26/2017	CM_SPD	E102488	0.46512													
4/27/2017	CM_SPD	E102488														
4/28/2017	CM_SPD	E102488														
4/28/2017	CM_SPD	E102488														
5/2/2017	CM_SPD	E102488	0.217	< 0.010	0.038	< 0.050	0.054	0.046	0.0455	86.4	0.166	0.172	< 0.0050			0.0009
5/5/2017	CM_SPD	E102488														
5/5/2017	CM_SPD	E102488														
5/6/2017	CM_SPD	E102488														
5/6/2017	CM_SPD	E102488														
5/6/2017	CM_SPD	E102488														
5/6/2017	CM_SPD	E102488														
5/7/2017	CM_SPD	E102488														
5/9/2017	CM_SPD	E102488	1.3645													
5/16/2017	CM_SPD	E102488	0.141													
5/17/2017	CM_SPD	E102488														
5/17/2017	CM_SPD	E102488														
5/18/2017	CM_SPD	E102488														
5/23/2017	CM_SPD	E102488	0.57295													
5/30/2017	CM_SPD	E102488	0.51857													
6/6/2017	CM_SPD	E102488	0.51857	< 0.010	0.086	< 0.050	0.095	0.0582	0.0612	76.1	0.238	0.24	< 0.0050			0.00115
6/14/2017	CM_SPD	E102488	0.488782													

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
6/21/2017	CM_SPD	E102488	0.2171													
6/28/2017	CM_SPD	E102488	0.217058													
7/4/2017	CM_SPD	E102488	0.2242	< 0.010	0.02	< 0.050	< 0.050	0.08	0.0785	94.6	0.145	0.222	< 0.0050			< 0.00050
7/12/2017	CM_SPD	E102488	0.1198													
7/19/2017	CM_SPD	E102488	0.09569													
7/25/2017	CM_SPD	E102488	0.07323													
8/1/2017	CM_SPD	E102488	0.04066	< 0.010	0.359	< 0.050	0.338	0.0789	0.0757	106	0.0357	0.26	< 0.0050		< 0.0050	< 0.00050
8/8/2017	CM_SPD	E102488	0.0455													
8/15/2017	CM_SPD	E102488	0.04439													
8/22/2017	CM_SPD	E102488	0.04439	< 0.010	0.015	< 0.050	< 0.050	0.082	0.0716	111	0.0305	0.0575	< 0.0050			0.00053
8/29/2017	CM_SPD	E102488	0.05065													
9/5/2017	CM_SPD	E102488	0.04948													
9/12/2017	CM_SPD	E102488	0.04331	< 0.010	0.015	< 0.050	< 0.050	0.0813	0.0761	108	0.0277	0.0511	< 0.0050			< 0.00050
9/19/2017	CM_SPD	E102488	4.60721E-05													
10/3/2017	CM_SPD	E102488	0.034253685	< 0.010	0.014	< 0.050	< 0.050	0.0656	0.0782	131	0.0436	0.0702	< 0.0050			< 0.00050
10/19/2017	CM_SPD	E102488														
10/19/2017	CM_SPD	E102488														
10/20/2017	CM_SPD	E102488														
10/23/2017	CM_SPD	E102488														
11/7/2017	CM_SPD	E102488	0.02849	< 0.010	0.016	< 0.050	< 0.050	0.0747	0.0757	131	0.107	0.132	< 0.0050			< 0.00050
11/22/2017	CM_SPD	E102488	0.088903	< 0.010	0.041	< 0.050	< 0.050	0.0576	0.0631	140	0.0929	0.119	< 0.0050			< 0.00050
12/6/2017	CM_SPD	E102488	0.05	< 0.010	0.021	< 0.050	< 0.050	0.0436	0.0406	99.4	0.0897	0.0922	< 0.0050			< 0.00050
1/10/2017	EV_AQ1	E210369														
2/8/2017	EV_AQ1	E210369														
3/7/2017	EV_AQ1	E210369														
3/15/2017	EV_AQ1	E210369		0.047	0.056	< 0.050	0.09	0.017	0.0166	10.3	0.00042	0.00413		0.00125		0.00255
3/15/2017	EV_AQ1	E210369														
3/16/2017	EV_AQ1	E210369														
3/17/2017	EV_AQ1	E210369														
3/18/2017	EV_AQ1	E210369														
3/19/2017	EV_AQ1	E210369														
3/19/2017	EV_AQ1	E210369														
3/20/2017	EV_AQ1	E210369														
3/21/2017	EV_AQ1	E210369														
3/22/2017	EV_AQ1	E210369		< 0.010	0.806	< 0.050	0.759	0.0188	0.0191	30.7	0.00018	0.0196		0.00094		0.00541
3/23/2017	EV_AQ1	E210369														
3/24/2017	EV_AQ1	E210369														
3/28/2017	EV_AQ1	E210369														
4/4/2017	EV_AQ1	E210369		< 0.010	0.338	< 0.050	0.351	0.0193	0.0212	33.1	0.00142	0.0101		0.00064		0.00202
4/12/2017	EV_AQ1	E210369														
4/20/2017	EV_AQ1	E210369														
4/26/2017	EV_AQ1	E210369														
5/3/2017	EV_AQ1	E210369		< 0.010	0.051	< 0.050	0.055	0.0195	0.0173	34.8	0.0022	0.00491		< 0.00050		0.00109
5/10/2017	EV_AQ1	E210369														
5/17/2017	EV_AQ1	E210369														
5/24/2017	EV_AQ1	E210369														
5/31/2017	EV_AQ1	E210369														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
6/5/2017	EV_AQ1	E210369		< 0.010	0.035	< 0.050	< 0.050	0.0161	0.0161	37.1	0.00092	0.00301		< 0.00050		0.00083
6/14/2017	EV_AQ1	E210369														
6/21/2017	EV_AQ1	E210369														
6/28/2017	EV_AQ1	E210369														
7/5/2017	EV_AQ1	E210369														
7/11/2017	EV_AQ1	E210369														
8/2/2017	EV_AQ1	E210369														
9/12/2017	EV_AQ1	E210369														
10/3/2017	EV_AQ1	E210369														
11/15/2017	EV_AQ1	E210369														
12/6/2017	EV_AQ1	E210369														
1/10/2017	EV_AQ6	E302170		< 0.010	0.029	< 0.050	< 0.050	0.0208	0.0258	38.2	0.0012	0.00161		< 0.00050		0.00056
2/8/2017	EV_AQ6	E302170														
2/16/2017	EV_AQ6	E302170		< 0.010	0.309	< 0.050	0.303	0.017	0.018	30.2	0.00251	0.00998		0.00054		0.00251
2/23/2017	EV_AQ6	E302170														
3/8/2017	EV_AQ6	E302170		< 0.010	0.021	< 0.050	< 0.050	0.0171	0.0203	36.4	0.00071	0.00124		< 0.00050		< 0.00050
3/15/2017	EV_AQ6	E302170														
3/15/2017	EV_AQ6	E302170														
3/16/2017	EV_AQ6	E302170														
3/17/2017	EV_AQ6	E302170														
3/18/2017	EV_AQ6	E302170														
3/18/2017	EV_AQ6	E302170														
3/19/2017	EV_AQ6	E302170														
3/20/2017	EV_AQ6	E302170														
3/21/2017	EV_AQ6	E302170														
3/22/2017	EV_AQ6	E302170														
3/23/2017	EV_AQ6	E302170														
3/24/2017	EV_AQ6	E302170														
3/28/2017	EV_AQ6	E302170														
3/31/2017	EV_AQ6	E302170														
4/4/2017	EV_AQ6	E302170		< 0.010	0.242	< 0.050	0.236	0.018	0.0199	31.7	0.00169	0.00625		0.00073		0.0027
4/12/2017	EV_AQ6	E302170														
4/20/2017	EV_AQ6	E302170														
4/26/2017	EV_AQ6	E302170														
5/2/2017	EV_AQ6	E302170														
5/3/2017	EV_AQ6	E302170		< 0.010	0.053	< 0.050	0.052	0.0181	0.0159	33.9	0.00061	0.00237		< 0.00050		0.00124
5/7/2017	EV_AQ6	E302170														
5/10/2017	EV_AQ6	E302170														
5/17/2017	EV_AQ6	E302170														
5/18/2017	EV_AQ6	E302170														
5/24/2017	EV_AQ6	E302170														
5/31/2017	EV_AQ6	E302170														
6/5/2017	EV_AQ6	E302170		< 0.010	0.019	< 0.050	< 0.050	0.0189	0.0187	39.6	0.0004	0.0009		< 0.00050		0.00066
6/14/2017	EV_AQ6	E302170														
6/21/2017	EV_AQ6	E302170														
6/28/2017	EV_AQ6	E302170														
7/5/2017	EV_AQ6	E302170														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
7/11/2017	EV_AQ6	E302170		< 0.010	0.583	< 0.050	0.532	0.0266	0.0269	35.5	0.00875	0.0227		0.00109		0.00499
8/2/2017	EV_AQ6	E302170		< 0.010	0.036	< 0.050	< 0.050	0.0197	0.02	36.7	0.00015	0.00282	< 0.0050		< 0.0050	
8/2/2017	EV_AQ6	E302170												< 0.00050		0.00069
8/10/2017	EV_AQ6	E302170												< 0.00050		0.00479
9/12/2017	EV_AQ6	E302170		< 0.010	0.033	< 0.050	< 0.050	0.018	0.0179	37.4	0.00025	0.00373		< 0.00050		< 0.00050
10/3/2017	EV_AQ6	E302170		< 0.010	0.023	< 0.050	< 0.050	0.0171	0.0168	36.3	< 0.00010	0.00173	< 0.0050			< 0.00050
11/15/2017	EV_AQ6	E302170		< 0.010	< 0.010	< 0.050	< 0.050	0.02	0.0211	34.7	0.001	0.0011	< 0.0050			< 0.00050
11/23/2017	EV_AQ6	E302170														
11/23/2017	EV_AQ6	E302170														
11/24/2017	EV_AQ6	E302170														
12/6/2017	EV_AQ6	E302170		< 0.010	0.013	< 0.050	< 0.050	0.0309	0.0287	42.4	0.00168	0.00197	< 0.0050			< 0.00050
1/10/2017	EV_BC1	E102685														
2/7/2017	EV_BC1	E102685														
3/7/2017	EV_BC1	E102685														
3/16/2017	EV_BC1	E102685														
3/17/2017	EV_BC1	E102685														
3/18/2017	EV_BC1	E102685														
3/18/2017	EV_BC1	E102685														
3/20/2017	EV_BC1	E102685		< 0.010	0.063	< 0.050	0.101	0.0903	0.101	102	0.0167	0.0192		< 0.00050		0.00118
3/29/2017	EV_BC1	E102685		< 0.010	0.067	< 0.050	0.088	0.0988	0.0981	143	0.0099	0.0124		< 0.00050		0.00105
4/5/2017	EV_BC1	E102685		< 0.010	0.028	< 0.050	< 0.050	0.11	0.107	154	0.00673	0.00776		< 0.00050		0.00109
4/7/2017	EV_BC1	E102685														
4/12/2017	EV_BC1	E102685														
4/20/2017	EV_BC1	E102685														
4/26/2017	EV_BC1	E102685														
5/2/2017	EV_BC1	E102685		< 0.020	0.035	< 0.10	< 0.10	0.12	0.113	239	0.00184	0.00448		< 0.00050		0.00068
5/10/2017	EV_BC1	E102685														
5/18/2017	EV_BC1	E102685														
5/24/2017	EV_BC1	E102685														
5/31/2017	EV_BC1	E102685														
6/2/2017	EV_BC1	E102685														
6/6/2017	EV_BC1	E102685		< 0.010	0.011	< 0.050	< 0.050	0.149	0.154	131	0.00066	0.00138		< 0.00050		< 0.00050
6/14/2017	EV_BC1	E102685														
6/21/2017	EV_BC1	E102685														
6/28/2017	EV_BC1	E102685														
7/5/2017	EV_BC1	E102685														
7/12/2017	EV_BC1	E102685		< 0.010	0.052	< 0.050	0.079	0.17	0.169	119	0.00795	0.0701		< 0.00050		0.0023
8/3/2017	EV_BC1	E102685		< 0.010	0.017	< 0.050	< 0.050	0.16	0.153	154	0.00027	0.00215	< 0.0050		< 0.0050	
8/3/2017	EV_BC1	E102685												< 0.00050		< 0.00050
8/9/2017	EV_BC1	E102685												0.00062		0.0114
9/12/2017	EV_BC1	E102685														
10/2/2017	EV_BC1	E102685														
10/4/2017	EV_BC1	E102685		< 0.010	0.023	< 0.050	< 0.050	0.157	0.167	143	0.00042	0.00307	< 0.0050			0.00061
11/10/2017	EV_BC1	E102685														
11/15/2017	EV_BC1	E102685		< 0.010	0.031	< 0.050	< 0.050	0.158	0.171	151	0.00713	0.00835	< 0.0050			0.00056
11/23/2017	EV_BC1	E102685														
12/6/2017	EV_BC1	E102685		< 0.010	0.013	< 0.050	< 0.050	0.207	0.175	119	0.00151	0.00186	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
1/9/2017	EV_BLM2	E298592		< 0.010	0.104	< 0.050	0.089	0.0164	0.0175	20	0.00155	0.00591		< 0.00050		0.00091
2/23/2017	EV_BLM2	E298592		< 0.010	0.097	< 0.050	0.1	0.0186	0.0189	20.4	0.0012	0.00489				0.00121
3/6/2017	EV_BLM2	E298592		< 0.010	0.088	< 0.050	0.095	0.0177	0.0188	21.4	0.00131	0.00455		< 0.00050		0.00092
3/15/2017	EV_BLM2	E298592														
3/22/2017	EV_BLM2	E298592														
3/28/2017	EV_BLM2	E298592														
4/3/2017	EV_BLM2	E298592		0.019	0.579	< 0.050	0.549	0.0115	0.012	15.2	0.0011	0.0203		0.00158		0.00498
4/11/2017	EV_BLM2	E298592														
4/19/2017	EV_BLM2	E298592														
4/20/2017	EV_BLM2	E298592														
4/21/2017	EV_BLM2	E298592														
4/22/2017	EV_BLM2	E298592														
4/23/2017	EV_BLM2	E298592														
4/25/2017	EV_BLM2	E298592														
5/2/2017	EV_BLM2	E298592		0.033	3.7	< 0.050	2.92	0.0103	0.0132	16.3	0.00103	0.107		0.00157		0.0157
5/9/2017	EV_BLM2	E298592														
5/16/2017	EV_BLM2	E298592														
5/23/2017	EV_BLM2	E298592														
5/24/2017	EV_BLM2	E298592														
5/30/2017	EV_BLM2	E298592														
6/5/2017	EV_BLM2	E298592		< 0.010	1.09	< 0.050	0.677	0.0069	0.0077	17	0.00131	0.0205		< 0.00050		0.00582
6/13/2017	EV_BLM2	E298592														
6/20/2017	EV_BLM2	E298592														
6/27/2017	EV_BLM2	E298592														
7/4/2017	EV_BLM2	E298592														
7/10/2017	EV_BLM2	E298592		< 0.010	0.162	< 0.050	0.108	0.0111	0.0108	19	0.00126	0.00671		< 0.00050		0.00125
8/1/2017	EV_BLM2	E298592		< 0.010	0.173	< 0.050	0.13	0.014	0.0134	21.1	0.00011	0.00723		< 0.00050		0.00209
8/10/2017	EV_BLM2	E298592												0.00066		0.00244
8/15/2017	EV_BLM2	E298592												< 0.00050		0.00121
9/11/2017	EV_BLM2	E298592		< 0.010	0.077	< 0.050	0.066	0.0162	0.0173	19.7	0.00049	0.00495		< 0.00050		< 0.00050
10/2/2017	EV_BLM2	E298592		< 0.010	0.181	< 0.050	0.145	0.0163	0.0166	20.1	< 0.00010	0.00966	< 0.0050			0.00175
11/14/2017	EV_BLM2	E298592		< 0.050	0.06	< 0.25	< 0.25	0.0177	0.0173	20.7	0.00065	0.00344	< 0.0050			0.00095
12/1/2017	EV_BLM2	E298592		< 0.010	0.103	< 0.050	0.087	0.0178	0.0177	19.9	0.00078	0.00337	< 0.0050			0.00113
1/9/2017	EV_DC1	E298590		< 0.010	< 0.010	< 0.050	< 0.050	0.021	0.0228	155	0.00016	0.00018		< 0.00050		0.00054
2/21/2017	EV_DC1	E298590		< 0.010	< 0.010	< 0.050	< 0.050	0.0211	0.0211	159	0.00056	0.00062		< 0.00050		< 0.00050
3/6/2017	EV_DC1	E298590		< 0.010	< 0.010	< 0.050	< 0.050	0.0213	0.023	158	0.00024	0.00026	< 0.0050			< 0.00050
3/15/2017	EV_DC1	E298590														
3/21/2017	EV_DC1	E298590														
3/28/2017	EV_DC1	E298590														
4/3/2017	EV_DC1	E298590		< 0.010	< 0.010	< 0.050	< 0.050	0.0176	0.0177	116	0.00041	0.00054		< 0.00050		< 0.00050
4/11/2017	EV_DC1	E298590														
4/19/2017	EV_DC1	E298590														
4/25/2017	EV_DC1	E298590														
5/1/2017	EV_DC1	E298590		< 0.010	0.022	< 0.050	< 0.050	0.0145	0.016	81	0.0004	0.00112		< 0.00050		0.00074
5/9/2017	EV_DC1	E298590														
5/16/2017	EV_DC1	E298590														
5/23/2017	EV_DC1	E298590														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
5/30/2017	EV_DC1	E298590														
6/5/2017	EV_DC1	E298590		< 0.010	< 0.010	< 0.050	< 0.050	0.0177	0.0178	115	0.00036	0.00064		< 0.00050		0.00059
6/13/2017	EV_DC1	E298590														
6/20/2017	EV_DC1	E298590														
6/27/2017	EV_DC1	E298590														
7/4/2017	EV_DC1	E298590														
7/10/2017	EV_DC1	E298590		< 0.010	< 0.010	< 0.050	< 0.050	0.0221	0.0217	138	0.00039	0.00047		< 0.00050		< 0.00050
8/1/2017	EV_DC1	E298590		< 0.010	< 0.010	< 0.050	< 0.050	0.0238	0.0223	157	0.00014	0.00052		< 0.00050		< 0.00050
9/11/2017	EV_DC1	E298590		< 0.010	< 0.010	< 0.050	< 0.050	0.0229	0.0251	147	0.00057	0.00074		< 0.00050		< 0.00050
10/2/2017	EV_DC1	E298590														
10/4/2017	EV_DC1	E298590		< 0.010	< 0.010	< 0.050	< 0.050	0.0224	0.0239	170	0.00029	0.00035	< 0.0050			< 0.00050
10/6/2017	EV_DC1	E298590														
11/14/2017	EV_DC1	E298590		< 0.050	< 0.050	< 0.25	< 0.25	0.0219	0.0203	156	< 0.00050	< 0.00050	< 0.0050			< 0.00050
12/1/2017	EV_DC1	E298590		< 0.010	0.122	< 0.050	< 0.050	0.0217	0.0228	163	0.00022	0.00139	< 0.0050			< 0.00050
1/18/2017	EV_EC1	200097		< 0.010	< 0.010	< 0.050	< 0.050	0.0181	0.0217	139	< 0.00010	< 0.00010		< 0.00050		< 0.00050
2/23/2017	EV_EC1	200097		< 0.010	< 0.010	< 0.050	< 0.050	0.0202	0.0205	144	< 0.00010	< 0.00010				0.00052
3/8/2017	EV_EC1	200097		< 0.010	< 0.010	< 0.050	< 0.050	0.0168	0.0197	140	< 0.00010	< 0.00010		< 0.00050		< 0.00050
3/16/2017	EV_EC1	200097														
3/19/2017	EV_EC1	200097														
3/29/2017	EV_EC1	200097														
4/4/2017	EV_EC1	200097		< 0.010	< 0.010	< 0.050	< 0.050	0.0189	0.0195	140	< 0.00010	< 0.00010		< 0.00050		< 0.00050
4/12/2017	EV_EC1	200097														
4/19/2017	EV_EC1	200097														
4/26/2017	EV_EC1	200097														
5/3/2017	EV_EC1	200097		< 0.010	< 0.010	< 0.050	< 0.050	0.0176	0.0152	123	< 0.00010	< 0.00010		< 0.00050		0.00064
5/10/2017	EV_EC1	200097														
5/17/2017	EV_EC1	200097														
5/24/2017	EV_EC1	200097														
5/31/2017	EV_EC1	200097														
6/7/2017	EV_EC1	200097														
6/14/2017	EV_EC1	200097		0.01	< 0.010	< 0.050	< 0.050	0.0201	0.0184	130	< 0.00010	< 0.00010		< 0.00050		< 0.00050
6/21/2017	EV_EC1	200097														
6/28/2017	EV_EC1	200097														
7/5/2017	EV_EC1	200097														
7/11/2017	EV_EC1	200097		< 0.010	< 0.010	< 0.050	< 0.050	0.0173	0.0173	118	< 0.00010	< 0.00010		< 0.00050		< 0.00050
8/2/2017	EV_EC1	200097		< 0.010	< 0.010	< 0.050	< 0.050	0.0179	0.019	121	< 0.00010	< 0.00010	< 0.0050		< 0.0050	
8/2/2017	EV_EC1	200097												< 0.00050		< 0.00050
9/12/2017	EV_EC1	200097		< 0.010	0.015	< 0.050	< 0.050	0.0191	0.02	134	< 0.00010	0.00048		< 0.00050		< 0.00050
10/3/2017	EV_EC1	200097		< 0.010	< 0.010	< 0.050	< 0.050	0.0191	0.0186	134	< 0.00010	< 0.00010	< 0.0050			< 0.00050
11/15/2017	EV_EC1	200097		< 0.010	< 0.010	< 0.050	< 0.050	0.0209	0.0213	125	< 0.00010	< 0.00010	< 0.0050			< 0.00050
12/6/2017	EV_EC1	200097		< 0.010	0.013	< 0.050	< 0.050	0.0218	0.0219	133	< 0.00010	0.00014	< 0.0050			< 0.00050
1/10/2017	EV_ER1	200393		< 0.010	0.012	< 0.050	< 0.050	0.0096	0.0094	22	0.00093	0.00136		< 0.00050		< 0.00050
2/7/2017	EV_ER1	200393		< 0.010	0.011	< 0.050	< 0.050	0.0099	0.0102	25	0.00132	0.00162		< 0.00050		< 0.00050
2/20/2017	EV_ER1	200393		< 0.010	0.028	< 0.050	< 0.050	0.0116	0.0119	26.1	0.00117	0.00269		< 0.00050		< 0.00050
3/7/2017	EV_ER1	200393		< 0.010	< 0.010	< 0.050	< 0.050	0.0105	0.0103	23	0.00087	0.00184		< 0.00050		< 0.00050
3/16/2017	EV_ER1	200393		< 0.010	0.218	< 0.050	0.188	0.0098	0.01	21	0.00107	0.0104		< 0.00050		0.00138
3/19/2017	EV_ER1	200393														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
3/20/2017	EV_ER1	200393		0.014	0.138	< 0.050	0.124	0.0074	0.0075	18.2	0.00191	0.00622		0.00072		0.00153
3/29/2017	EV_ER1	200393		< 0.010	0.11	< 0.050	0.087	0.009	0.0095	19.2	0.00154	0.00514		< 0.00050		0.00081
4/5/2017	EV_ER1	200393		< 0.010	0.05	< 0.050	< 0.050	0.0086	0.0082	21.6	0.0014	0.00333		< 0.00050		0.00075
4/12/2017	EV_ER1	200393		< 0.010	0.031	< 0.050	< 0.050	0.009	0.0086	20.9	0.00137	0.00293		< 0.00050		0.00072
4/20/2017	EV_ER1	200393		< 0.010	0.148	< 0.050	0.116	0.0078	0.0074	19	0.00119	0.00697		0.00059		0.00168
4/26/2017	EV_ER1	200393		< 0.010	0.139	< 0.050	0.136	0.0072	0.0078	20.5	0.00083	0.00893		0.00065		0.00182
5/2/2017	EV_ER1	200393		< 0.010	0.128	< 0.050	0.085	0.0076	0.0082	22.4	0.00036	0.00573		< 0.00050		0.00117
5/10/2017	EV_ER1	200393		0.011	0.602	< 0.050	0.308	0.0052	0.0054	16.3	0.00115	0.0181		0.00117		0.00306
5/17/2017	EV_ER1	200393		0.011	0.687	< 0.050	0.454	0.0058	0.0059	16.4	0.00192	0.0192		0.00095		0.00412
5/24/2017	EV_ER1	200393		0.03	7.44	< 0.050	5.54	0.0041	0.0083	14.4	0.00096	0.252		0.00134		0.0314
5/30/2017	EV_ER1	200393		0.025	3.32	< 0.050	2.77	0.0029	0.0063	14.2	0.00114	0.13		0.00108		0.0112
6/6/2017	EV_ER1	200393		< 0.010	1.08	< 0.050	0.691	0.0039	0.0048	12.1	0.00079	0.0482		0.00066		0.00515
6/13/2017	EV_ER1	200393		< 0.010	0.582	< 0.050	0.393	0.0049	0.0064	13.8	0.00044	0.0282		< 0.0005000000		0.0031
6/21/2017	EV_ER1	200393		< 0.010	0.275	< 0.050	0.191	0.005	0.0056	13.8	0.00093	0.0149		< 0.00050		0.00217
6/28/2017	EV_ER1	200393		< 0.010	0.192	< 0.050	0.141	0.0062	0.0065	15.6	0.00149	0.0121		< 0.00050		0.00114
7/5/2017	EV_ER1	200393		< 0.010	0.1	< 0.050	0.076	0.0062	0.0063	16.6	0.00019	0.0068		< 0.00050		0.00071
7/12/2017	EV_ER1	200393		< 0.010	0.051	< 0.050	< 0.050	0.0072	0.0072	16.7	0.00127	0.008		< 0.00050		0.0007
8/3/2017	EV_ER1	200393		< 0.010	0.021	< 0.050	< 0.050	0.0084	0.0084	19.4	< 0.00010	0.00242	< 0.0050		< 0.0050	
8/3/2017	EV_ER1	200393												< 0.00050		< 0.00050
9/12/2017	EV_ER1	200393		< 0.010	0.013	< 0.050	< 0.050	0.0086	0.0088	21.9	0.00076	0.00236		< 0.00050		< 0.00050
10/3/2017	EV_ER1	200393		< 0.010	0.014	< 0.050	< 0.050	0.0101	0.0103	24.7	0.00098	0.0019	< 0.0050			< 0.00050
11/15/2017	EV_ER1	200393		< 0.010	< 0.010	< 0.050	< 0.050	0.0105	0.0112	21.6	0.00103	0.00159	< 0.0050			< 0.00050
12/6/2017	EV_ER1	200393		< 0.010	0.015	< 0.050	< 0.050	0.0117	0.011	21.9	0.00101	0.00172	< 0.0050			< 0.00050
1/10/2017	EV_ER2	200111		< 0.010	0.018	< 0.050	< 0.050	0.0083	0.011	21.4	0.0008	0.00157		< 0.00050		< 0.00050
2/7/2017	EV_ER2	200111		< 0.010	0.059	< 0.050	0.076	0.0085	0.0086	23.1	0.00205	0.00412		< 0.00050		< 0.00050
3/6/2017	EV_ER2	200111		< 0.010	0.347	< 0.050	0.241	0.0078	0.0088	22.9	0.00136	0.0198		< 0.00050		< 0.00050
3/16/2017	EV_ER2	200111														
3/17/2017	EV_ER2	200111														
3/18/2017	EV_ER2	200111														
3/19/2017	EV_ER2	200111														
3/20/2017	EV_ER2	200111														
3/21/2017	EV_ER2	200111														
3/28/2017	EV_ER2	200111														
4/3/2017	EV_ER2	200111		< 0.010	0.121	< 0.050	0.082	0.0094	0.0095	23	0.00172	0.00584		< 0.00050		0.00055
4/11/2017	EV_ER2	200111														
4/20/2017	EV_ER2	200111														
4/25/2017	EV_ER2	200111														
5/4/2017	EV_ER2	200111		< 0.010	0.109	< 0.050	0.067	0.0092	0.0102	23.5	0.00079	0.00652		< 0.00050		0.00075
5/9/2017	EV_ER2	200111														
5/16/2017	EV_ER2	200111														
5/23/2017	EV_ER2	200111														
5/31/2017	EV_ER2	200111														
6/5/2017	EV_ER2	200111		< 0.010	1.53	< 0.050	0.939	0.0052	0.0067	17.7	0.00129	0.092		< 0.00050		0.00491
6/13/2017	EV_ER2	200111														
6/20/2017	EV_ER2	200111														
6/27/2017	EV_ER2	200111														
7/4/2017	EV_ER2	200111														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
7/10/2017	EV_ER2	200111		< 0.010	0.062	< 0.050	< 0.050	0.0055	0.0053	14.3	0.00169	0.00644		< 0.00050		0.00064
8/1/2017	EV_ER2	200111		< 0.010	0.029	< 0.050	< 0.050	0.0065	0.006	17.5	0.00011	0.00353		< 0.00050		< 0.00050
8/9/2017	EV_ER2	200111												< 0.00050		0.00389
9/11/2017	EV_ER2	200111		< 0.010	< 0.010	< 0.050	< 0.050	0.0069	0.0076	17.3	0.0012	0.00223		< 0.00050		< 0.00050
10/2/2017	EV_ER2	200111		< 0.010	0.013	< 0.050	< 0.050	0.0096	0.009	20.5	< 0.00010	0.00216	< 0.0050			< 0.00050
11/14/2017	EV_ER2	200111		< 0.050	< 0.050	< 0.25	< 0.25	0.0086	0.0091	22.9	0.00146	0.00192	< 0.0050			< 0.00050
12/7/2017	EV_ER2	200111		< 0.010	0.02	< 0.050	< 0.050	0.0086	0.0088	21.8	0.00104	0.00216	< 0.0050			< 0.00050
1/10/2017	EV_ER4	200027		< 0.010	0.011	< 0.050	< 0.050	0.0097	0.0119	23.7	0.00086	0.00121		< 0.00050		< 0.00050
2/21/2017	EV_ER4	200027		< 0.010	0.012	< 0.050	< 0.050	0.0093	0.0091	23.6	0.0007	0.00123		< 0.00050		< 0.00050
3/6/2017	EV_ER4	200027		< 0.010	< 0.010	< 0.050	< 0.050	0.0086	0.0089	23.6	0.00058	0.00093		< 0.00050		< 0.00050
3/15/2017	EV_ER4	200027		< 0.010	0.022	< 0.050	< 0.050	0.0097	0.0097	23.2	0.00048	0.00176		< 0.00050		< 0.00050
3/19/2017	EV_ER4	200027														
3/20/2017	EV_ER4	200027		< 0.010	0.029	< 0.050	< 0.050	0.0094	0.01	21	0.00108	0.00283		< 0.00050		< 0.00050
3/28/2017	EV_ER4	200027		< 0.010	0.048	< 0.050	< 0.050	0.0101	0.0103	23.6	0.0011	0.00425		< 0.00050		< 0.00050
4/3/2017	EV_ER4	200027		< 0.010	0.038	< 0.050	< 0.050	0.0105	0.0104	23.6	0.00114	0.00317		< 0.00050		< 0.00050
4/11/2017	EV_ER4	200027		< 0.010	0.032	< 0.050	< 0.050	0.0114	0.0116	24.1	0.00028	0.00288		< 0.00050		< 0.00050
4/19/2017	EV_ER4	200027		< 0.010	0.048	< 0.050	< 0.050	0.0097	0.0105	25	0.00021	0.00399		< 0.00050		< 0.00050
4/24/2017	EV_ER4	200027		< 0.010	0.122	< 0.050	0.075	0.0107	0.0109	23.9	0.00137	0.00728		< 0.00050		0.00086
5/1/2017	EV_ER4	200027		< 0.010	0.058	< 0.050	0.051	0.0103	0.0115	24.2	0.00144	0.00519		< 0.00050		0.00058
5/9/2017	EV_ER4	200027		< 0.010	0.619	< 0.050	0.338	0.008	0.0076	21.5	0.00022	0.0315		< 0.00050		0.00271
5/16/2017	EV_ER4	200027		< 0.010	0.414	< 0.050	0.25	0.0071	0.0078	18.9	0.00059	0.0223		< 0.00050		0.00221
5/23/2017	EV_ER4	200027		< 0.010	0.791	< 0.050	0.51	0.0067	0.008	18.8	0.00026	0.0459		< 0.00050		0.00345
5/30/2017	EV_ER4	200027		< 0.010	2.39	< 0.050	1.42	0.0055	0.0079	18.2	0.00063	0.132		< 0.00050		0.00751
6/6/2017	EV_ER4	200027		< 0.010	1.11	< 0.050	0.717	0.0058	0.0063	14.6	0.00068	0.0658		< 0.00050		0.0043
6/13/2017	EV_ER4	200027		< 0.010	0.763	< 0.050	0.458	0.0059	0.0078	15.9	0.00021	0.0412		< 0.0005000000		0.0029
6/20/2017	EV_ER4	200027		< 0.010	0.32	< 0.050	0.2	0.006	0.0064	15.7	0.00106	0.0203		< 0.00050		0.00149
6/21/2017	EV_ER4	200027												0.0007		0.0087
6/27/2017	EV_ER4	200027		< 0.010	0.177	< 0.050	0.153	0.0062	0.0064	15.8	0.00174	0.0151		< 0.00050		0.00127
7/4/2017	EV_ER4	200027		< 0.010	0.152	< 0.050	0.117	0.0055	0.0055	16.7	0.00119	0.0103		< 0.00050		0.00099
7/10/2017	EV_ER4	200027		< 0.010	0.072	< 0.050	0.053	0.0058	0.0056	14.7	0.00215	0.00714		< 0.00050		< 0.00050
7/25/2017	EV_ER4	200027		< 0.010	0.051	< 0.050	< 0.050	0.0074	0.0066	19.5	0.00206	0.0051		< 0.00050		0.001
8/1/2017	EV_ER4	200027		< 0.010	0.039	< 0.050	< 0.050	0.007	0.0066	17.8	0.00012	0.00413		< 0.00050		< 0.00050
8/15/2017	EV_ER4	200027												< 0.00050		< 0.00050
9/11/2017	EV_ER4	200027		< 0.010	0.012	< 0.050	< 0.050	0.0071	0.0076	16.9	0.00146	0.0027		< 0.00050		< 0.00050
10/2/2017	EV_ER4	200027		< 0.010	0.011	< 0.050	< 0.050	0.0104	0.01	21.6	< 0.00010	0.00218	< 0.0050			< 0.00050
11/14/2017	EV_ER4	200027		< 0.050	< 0.050	< 0.25	< 0.25	0.0096	0.0082	22.4	0.00118	0.00146	< 0.0050			< 0.00050
12/7/2017	EV_ER4	200027		< 0.010	< 0.010	< 0.050	< 0.050	0.01	0.0099	21.7	0.0009	0.00138	< 0.0050			< 0.00050
1/9/2017	EV_FC1	E298591														
2/19/2017	EV_FC1	E298591														
3/6/2017	EV_FC1	E298591														
3/16/2017	EV_FC1	E298591		0.016	3.91	< 0.050	1.65	0.0142	0.0175	21.6	0.00023	0.15		0.00147		0.00727
3/21/2017	EV_FC1	E298591														
3/28/2017	EV_FC1	E298591														
4/3/2017	EV_FC1	E298591		0.017	1.41	< 0.050	0.856	0.013	0.015	19.1	0.00067	0.0248		0.00155		0.00522
4/11/2017	EV_FC1	E298591														
4/19/2017	EV_FC1	E298591														
4/20/2017	EV_FC1	E298591														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
4/21/2017	EV_FC1	E298591														
4/25/2017	EV_FC1	E298591														
5/2/2017	EV_FC1	E298591		0.031	0.455	< 0.050	0.269	0.0125	0.0126	15.3	0.0005	0.00672		0.00247		0.00417
5/9/2017	EV_FC1	E298591														
5/16/2017	EV_FC1	E298591														
5/23/2017	EV_FC1	E298591														
5/30/2017	EV_FC1	E298591														
6/5/2017	EV_FC1	E298591		< 0.010	0.093	< 0.050	0.062	0.0157	0.0156	20.5	0.00019	0.00165		0.00091		0.0017
6/13/2017	EV_FC1	E298591														
6/20/2017	EV_FC1	E298591														
6/27/2017	EV_FC1	E298591														
7/4/2017	EV_FC1	E298591														
7/10/2017	EV_FC1	E298591		< 0.010	0.04	< 0.050	< 0.050	0.0211	0.0204	25.1	0.00129	0.00189		0.00076		0.00123
8/1/2017	EV_FC1	E298591		< 0.010	0.052	< 0.050	< 0.050	0.0247	0.0227	30.3	0.00033	0.00284		0.00074		0.00136
8/15/2017	EV_FC1	E298591												0.00062		0.00122
9/11/2017	EV_FC1	E298591		< 0.010	0.02	< 0.050	< 0.050	0.0247	0.0262	30	0.00424	0.00509		0.00084		0.00092
10/2/2017	EV_FC1	E298591		< 0.010	0.18	< 0.050	0.128	0.0223	0.0253	33	0.0001	0.011	< 0.0050			0.00276
11/14/2017	EV_FC1	E298591		< 0.050	< 0.050	< 0.25	< 0.25	0.02	0.0203	27.3	0.001	0.00175	< 0.0050			0.00109
12/1/2017	EV_FC1	E298591		< 0.010	0.029	< 0.050	< 0.050	0.0172	0.0172	24.8	0.00041	0.00096	< 0.0050			0.00103
1/19/2017	EV_GC2	E208043		< 0.010	0.122	< 0.050	0.16	0.0299	0.0291	67.5	0.00648	0.0101		< 0.00050		0.00105
1/31/2017	EV_GC2	E208043		< 0.010	0.08	< 0.050	0.098	0.0272	0.0278	61.6	0.00306	0.00906	< 0.0050		< 0.0050	
2/8/2017	EV_GC2	E208043		< 0.010	0.095	< 0.050	0.123	0.0292	0.031	70.4	0.00683	0.00986		< 0.00050		0.00071
2/16/2017	EV_GC2	E208043														
2/16/2017	EV_GC2	E208043		< 0.010	0.222	< 0.050	0.302	0.0302	0.027	47.8	0.0123	0.0155		< 0.00050		0.0021
2/17/2017	EV_GC2	E208043														
2/17/2017	EV_GC2	E208043														
3/6/2017	EV_GC2	E208043		< 0.010	0.077	< 0.050	0.133	0.0298	0.0325	61	0.00881	0.0128		< 0.00050		0.00086
3/15/2017	EV_GC2	E208043														
3/15/2017	EV_GC2	E208043														
3/16/2017	EV_GC2	E208043														
3/17/2017	EV_GC2	E208043														
3/18/2017	EV_GC2	E208043														
3/18/2017	EV_GC2	E208043														
3/19/2017	EV_GC2	E208043														
3/20/2017	EV_GC2	E208043														
3/28/2017	EV_GC2	E208043														
4/5/2017	EV_GC2	E208043		< 0.010	0.093	< 0.050	0.11	0.0224	0.0228	38.3	0.00586	0.00773		0.00068		0.00204
4/11/2017	EV_GC2	E208043														
4/20/2017	EV_GC2	E208043														
4/24/2017	EV_GC2	E208043														
5/2/2017	EV_GC2	E208043		< 0.010	0.266	< 0.050	0.204	0.0224	0.023	49.3	0.00505	0.00933		< 0.00050		0.0031
5/3/2017	EV_GC2	E208043														
5/4/2017	EV_GC2	E208043		< 0.010	0.365	< 0.050	0.262	0.0228	0.0235	54.1	0.00491	0.0108	< 0.0050		0.0072	
5/7/2017	EV_GC2	E208043														
5/11/2017	EV_GC2	E208043														
5/18/2017	EV_GC2	E208043														
5/23/2017	EV_GC2	E208043														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
5/30/2017	EV_GC2	E208043														
5/30/2017	EV_GC2	E208043		< 0.010	0.237	< 0.050	0.347	0.0256	0.027	77.3	0.00266	0.00987		< 0.00050		0.00259
6/6/2017	EV_GC2	E208043		< 0.010	0.155	< 0.050	0.145	0.0264	0.0259	70.1	0.00353	0.00729		< 0.00050		0.00149
6/13/2017	EV_GC2	E208043														
6/20/2017	EV_GC2	E208043														
6/27/2017	EV_GC2	E208043														
7/4/2017	EV_GC2	E208043														
7/12/2017	EV_GC2	E208043		< 0.010	0.078	< 0.050	0.091	0.0316	0.0309	71	0.00509	0.0176		< 0.00050		0.0022
7/24/2017	EV_GC2	E208043														
8/3/2017	EV_GC2	E208043		< 0.010	0.049	< 0.050	0.07	0.0327	0.0331	74.7	0.00159	0.00407	< 0.0050		< 0.0050	
8/3/2017	EV_GC2	E208043												< 0.00050		0.00059
8/9/2017	EV_GC2	E208043												0.00061		0.00268
9/1/2017	EV_GC2	E208043														
9/11/2017	EV_GC2	E208043		< 0.010	0.021	< 0.050	0.112	0.0286	0.0302	66.6	0.00051	0.00233		< 0.00050		0.00054
9/26/2017	EV_GC2	E208043														
9/27/2017	EV_GC2	E208043														
9/28/2017	EV_GC2	E208043														
10/3/2017	EV_GC2	E208043		< 0.010	0.025	< 0.050	< 0.050	0.0289	0.0295	71.5	0.00173	0.00326	< 0.0050			< 0.00050
10/13/2017	EV_GC2	E208043		< 0.010	0.026	< 0.050	0.055	0.0286	0.0293	66	0.00264	0.00434	< 0.0050			0.00064
10/16/2017	EV_GC2	E208043														
10/24/2017	EV_GC2	E208043														
10/30/2017	EV_GC2	E208043														
10/30/2017	EV_GC2	E208043		0.024	0.02	< 0.050	< 0.050	0.0323	0.0408	58.9	0.00865	0.00589		< 0.00050		< 0.00050
11/14/2017	EV_GC2	E208043		< 0.050	0.059	< 0.25	< 0.25	0.0296	0.0297	60.6	0.00732	0.00975	< 0.0050			0.00084
11/23/2017	EV_GC2	E208043														
11/23/2017	EV_GC2	E208043														
11/24/2017	EV_GC2	E208043														
12/6/2017	EV_GC2	E208043		< 0.010	0.104	< 0.050	0.12	0.0307	0.029	59.9	0.00736	0.00971	< 0.0050			0.0009
1/1/2017	EV_GH1	E296310														
1/2/2017	EV_GH1	E296310														
1/9/2017	EV_GH1	E296310														
1/16/2017	EV_GH1	E296310														
1/23/2017	EV_GH1	E296310														
1/30/2017	EV_GH1	E296310														
2/6/2017	EV_GH1	E296310														
2/13/2017	EV_GH1	E296310														
2/20/2017	EV_GH1	E296310														
2/27/2017	EV_GH1	E296310														
3/6/2017	EV_GH1	E296310														
3/13/2017	EV_GH1	E296310														
3/20/2017	EV_GH1	E296310														
3/27/2017	EV_GH1	E296310														
4/1/2017	EV_GH1	E296310														
4/3/2017	EV_GH1	E296310														
4/9/2017	EV_GH1	E296310		< 0.010	17.4	< 0.050	10.8	0.0099	0.0119	26	0.0119	0.161		< 0.00050		0.041
4/10/2017	EV_GH1	E296310														
4/17/2017	EV_GH1	E296310														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
4/24/2017	EV_GH1	E296310														
5/1/2017	EV_GH1	E296310														
5/8/2017	EV_GH1	E296310														
5/15/2017	EV_GH1	E296310														
5/22/2017	EV_GH1	E296310														
5/29/2017	EV_GH1	E296310														
6/5/2017	EV_GH1	E296310														
6/12/2017	EV_GH1	E296310														
6/19/2017	EV_GH1	E296310														
6/26/2017	EV_GH1	E296310														
7/1/2017	EV_GH1	E296310														
7/3/2017	EV_GH1	E296310														
7/10/2017	EV_GH1	E296310														
7/17/2017	EV_GH1	E296310														
7/24/2017	EV_GH1	E296310														
7/31/2017	EV_GH1	E296310														
8/7/2017	EV_GH1	E296310														
8/14/2017	EV_GH1	E296310														
8/21/2017	EV_GH1	E296310														
8/28/2017	EV_GH1	E296310														
9/4/2017	EV_GH1	E296310														
9/11/2017	EV_GH1	E296310														
9/18/2017	EV_GH1	E296310														
9/25/2017	EV_GH1	E296310														
10/1/2017	EV_GH1	E296310														
10/2/2017	EV_GH1	E296310														
10/3/2017	EV_GH1	E296310		< 0.010	360	0.159	702	0.0448	0.168	181	0.0371	3.38	< 0.0050			< 2.5
10/9/2017	EV_GH1	E296310														
10/16/2017	EV_GH1	E296310														
10/23/2017	EV_GH1	E296310														
10/30/2017	EV_GH1	E296310														
11/6/2017	EV_GH1	E296310														
11/13/2017	EV_GH1	E296310														
11/20/2017	EV_GH1	E296310														
11/27/2017	EV_GH1	E296310														
12/4/2017	EV_GH1	E296310														
12/11/2017	EV_GH1	E296310														
12/18/2017	EV_GH1	E296310														
12/25/2017	EV_GH1	E296310														
1/10/2017	EV_GT1	E206231		< 0.010	0.012	< 0.050	< 0.050	0.141	0.179	131	0.00169	0.00209		< 0.00050		< 0.00050
1/31/2017	EV_GT1	E206231														
2/7/2017	EV_GT1	E206231		< 0.010	0.013	< 0.050	< 0.050	0.145	0.154	126	0.00178	0.00201		< 0.00050		< 0.00050
2/17/2017	EV_GT1	E206231														
3/7/2017	EV_GT1	E206231		< 0.010	0.012	< 0.050	< 0.050	0.147	0.153	115	0.00137	0.0021		< 0.00050		< 0.00050
3/16/2017	EV_GT1	E206231														
3/17/2017	EV_GT1	E206231														
3/18/2017	EV_GT1	E206231														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
3/18/2017	EV_GT1	E206231														
3/19/2017	EV_GT1	E206231														
3/19/2017	EV_GT1	E206231														
3/20/2017	EV_GT1	E206231														
3/29/2017	EV_GT1	E206231		< 0.010	0.281	< 0.050	0.191	0.0561	0.0594	133	0.00218	0.00543		0.00078		0.00226
4/5/2017	EV_GT1	E206231		< 0.010	0.047	< 0.050	0.063	0.0634	0.066	132	0.00149	0.00247		0.00066		0.00131
4/12/2017	EV_GT1	E206231														
4/20/2017	EV_GT1	E206231														
4/26/2017	EV_GT1	E206231														
5/2/2017	EV_GT1	E206231		< 0.010	0.046	< 0.050	0.061	0.0589	0.0587	145	0.00075	0.00211		< 0.00050		0.00102
5/10/2017	EV_GT1	E206231														
5/17/2017	EV_GT1	E206231														
5/24/2017	EV_GT1	E206231														
5/31/2017	EV_GT1	E206231														
6/6/2017	EV_GT1	E206231		< 0.010	0.012	< 0.050	< 0.050	0.139	0.15	136	0.00112	0.00143		< 0.00050		< 0.00050
6/14/2017	EV_GT1	E206231														
6/21/2017	EV_GT1	E206231														
6/28/2017	EV_GT1	E206231														
7/5/2017	EV_GT1	E206231														
7/12/2017	EV_GT1	E206231		< 0.010	0.021	< 0.050	< 0.050	0.16	0.155	130	0.00111	0.00388		< 0.00050		0.0008
8/3/2017	EV_GT1	E206231		< 0.010	0.016	< 0.050	< 0.050	0.155	0.155	158	0.00046	0.00155	< 0.0050		< 0.0050	
8/3/2017	EV_GT1	E206231												< 0.00050		0.00058
9/12/2017	EV_GT1	E206231		< 0.010	0.015	< 0.050	< 0.050	0.141	0.169	157	0.00177	0.00225		< 0.00050		< 0.00050
10/2/2017	EV_GT1	E206231		< 0.010	0.04	< 0.050	0.07	0.152	0.163	157	< 0.00010	0.00766	< 0.0050			0.00085
10/3/2017	EV_GT1	E206231														
10/4/2017	EV_GT1	E206231														
10/26/2017	EV_GT1	E206231														
10/27/2017	EV_GT1	E206231														
11/2/2017	EV_GT1	E206231														
11/3/2017	EV_GT1	E206231														
11/6/2017	EV_GT1	E206231														
11/7/2017	EV_GT1	E206231														
11/8/2017	EV_GT1	E206231														
11/9/2017	EV_GT1	E206231														
11/10/2017	EV_GT1	E206231														
11/15/2017	EV_GT1	E206231		< 0.010	0.085	< 0.050	0.112	0.146	0.154	135	0.004	0.0066	< 0.0050			0.0014
11/16/2017	EV_GT1	E206231														
11/23/2017	EV_GT1	E206231														
12/6/2017	EV_GT1	E206231		< 0.010	0.016	< 0.050	< 0.050	0.185	0.168	118	0.00165	0.00201	< 0.0050			< 0.00050
1/9/2017	EV_HC1	E102682		< 0.010	0.011	< 0.050	< 0.050	0.0064	0.0067	45.2	0.00199	0.00241		< 0.00050		< 0.00050
2/21/2017	EV_HC1	E102682		< 0.010	0.017	< 0.050	< 0.050	0.0064	0.0065	46.7	0.00235	0.00266		< 0.00050		< 0.00050
3/6/2017	EV_HC1	E102682		< 0.010	< 0.010	< 0.050	< 0.050	0.0065	0.0066	48.4	0.00135	0.00159		< 0.00050		< 0.00050
3/15/2017	EV_HC1	E102682		< 0.010	0.033	< 0.050	< 0.050	0.007	0.0069	46.6	0.0016	0.00287		< 0.00050		0.00064
3/21/2017	EV_HC1	E102682		< 0.010	0.091	< 0.050	0.112	0.0069	0.0069	47.5	0.00162	0.00332		0.00066		0.00134
3/24/2017	EV_HC1	E102682		< 0.010	0.043	< 0.050	< 0.050	0.007	0.007	44.7	0.00177	0.00255		< 0.00050		0.00079
3/28/2017	EV_HC1	E102682		< 0.010	0.04	< 0.050	0.053	0.007	0.0071	41.6	0.00155	0.00235		< 0.00050		0.00069
4/3/2017	EV_HC1	E102682		< 0.010	0.057	< 0.050	< 0.050	0.0071	0.0069	43.2	0.00136	0.00207		0.00059		0.0009

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
4/11/2017	EV_HC1	E102682		< 0.010	0.044	< 0.050	< 0.050	0.0076	0.0082	43	0.00139	0.00254		0.00055		0.00105
4/19/2017	EV_HC1	E102682		< 0.010	0.07	< 0.050	0.056	0.0068	0.0066	42.7	0.00185	0.00425		0.00065		0.00133
4/24/2017	EV_HC1	E102682		< 0.010	0.104	< 0.050	0.076	0.0068	0.0068	38.1	0.0014	0.00341		0.00061		0.00131
5/2/2017	EV_HC1	E102682		< 0.010	0.076	< 0.050	0.053	0.0077	0.0072	46.8	0.00097	0.00271		0.00051		0.00105
5/9/2017	EV_HC1	E102682		< 0.010	0.303	< 0.050	0.141	0.0052	0.005	28.1	0.00095	0.00697		0.0011		0.00235
5/16/2017	EV_HC1	E102682		< 0.010	0.308	< 0.050	0.166	0.0051	0.0056	30.5	0.00119	0.007		0.00078		0.00217
5/23/2017	EV_HC1	E102682		< 0.010	0.831	< 0.050	0.511	0.0045	0.0052	23.6	0.00166	0.0177		0.00091		0.00402
5/30/2017	EV_HC1	E102682		< 0.010	0.432	< 0.050	0.261	0.0044	0.0038	22.1	0.00161	0.00967		0.00081		0.00255
6/6/2017	EV_HC1	E102682		< 0.010	0.101	< 0.050	0.064	0.0039	0.0039	23.3	0.0009	0.00335		< 0.00050		0.00118
6/13/2017	EV_HC1	E102682		< 0.010	0.032	< 0.050	< 0.050	0.005	0.0052	27.6	0.00164	0.00286		< 0.0005000000		0.0006
6/20/2017	EV_HC1	E102682		< 0.010	0.028	< 0.050	< 0.050	0.0056	0.0054	30.9	0.00199	0.00327		< 0.00050		0.00061
6/27/2017	EV_HC1	E102682		< 0.010	< 0.010	< 0.050	< 0.050	0.0056	0.0061	33.3	0.00289	0.0036		< 0.00050		0.00051
7/4/2017	EV_HC1	E102682		< 0.010	< 0.010	< 0.050	< 0.050	0.0056	0.0055	39	0.00296	0.00379		< 0.00050		< 0.00050
7/10/2017	EV_HC1	E102682		< 0.010	< 0.010	< 0.050	< 0.050	0.0061	0.0059	34.9	0.00394	0.00406		< 0.00050		< 0.00050
7/25/2017	EV_HC1	E102682		< 0.010	0.011	< 0.050	< 0.050	0.0071	0.0066	45.9	0.00541	0.00567		0.0006		0.0012
8/1/2017	EV_HC1	E102682		< 0.010	0.013	< 0.050	< 0.050	0.0066	0.0062	41.7	0.00044	0.00565		< 0.00050		< 0.00050
8/10/2017	EV_HC1	E102682														
9/11/2017	EV_HC1	E102682		< 0.010	0.011	< 0.050	< 0.050	0.0067	0.0072	38.6	0.00903	0.0115		< 0.00050		< 0.00050
10/2/2017	EV_HC1	E102682		< 0.010	0.012	< 0.050	< 0.050	0.0065	0.0072	44.3	< 0.00010	0.00566	< 0.0050			< 0.00050
10/10/2017	EV_HC1	E102682		< 0.010	< 0.010	< 0.050	< 0.050	0.0072	0.0074	46.2	0.00379	0.00438		< 0.00050		< 0.00050
10/17/2017	EV_HC1	E102682		< 0.010	0.011	< 0.050	< 0.050	0.0068	0.0068	46.4	0.00255	0.0042		< 0.00050		< 0.00050
10/24/2017	EV_HC1	E102682		< 0.010	0.013	< 0.050	< 0.050	0.0078	0.0087	50.5	0.00261	0.00422		0.00068		< 0.00050
10/31/2017	EV_HC1	E102682														
10/31/2017	EV_HC1	E102682		< 0.010	< 0.010	< 0.050	< 0.050	0.0065	0.007	49	0.0032	0.00347		0.00087		0.00471
11/14/2017	EV_HC1	E102682		< 0.050	< 0.050	< 0.25	< 0.25	0.0065	0.0058	45.8	0.00297	0.00392	< 0.0050			0.00153
12/1/2017	EV_HC1	E102682		< 0.010	< 0.010	< 0.050	< 0.050	0.007	0.0073	50.5	0.00527	0.00616	< 0.0050			< 0.00050
1/19/2017	EV_LC1	E258135		0.015	0.206	< 0.050	< 0.050	0.0591	0.0577	69.9	0.0345	0.0379		< 0.00050		< 0.00050
2/20/2017	EV_LC1	E258135		< 0.010	0.1	< 0.050	0.08	0.0568	0.059	67.6	0.0474	0.0549		< 0.00050		0.00074
3/7/2017	EV_LC1	E258135		< 0.010	0.347	< 0.050	0.243	0.0585	0.057	63.9	0.00892	0.0402		< 0.00050		0.0012
3/15/2017	EV_LC1	E258135														
3/16/2017	EV_LC1	E258135														
3/17/2017	EV_LC1	E258135														
3/20/2017	EV_LC1	E258135														
3/28/2017	EV_LC1	E258135		< 0.010	0.183	< 0.050	0.108	0.0573	0.0637	80.9	0.0349	0.0409		< 0.00050		0.00129
4/5/2017	EV_LC1	E258135		< 0.010	0.211	< 0.050	< 0.050	0.0649	0.0644	79.5	0.0305	0.05		< 0.00050		0.00085
4/11/2017	EV_LC1	E258135														
4/19/2017	EV_LC1	E258135														
4/24/2017	EV_LC1	E258135														
5/2/2017	EV_LC1	E258135		< 0.010	0.132	< 0.050	< 0.050	0.068	0.0668	87.1	0.00515	0.0368		< 0.00050		< 0.00050
5/7/2017	EV_LC1	E258135														
5/11/2017	EV_LC1	E258135														
5/18/2017	EV_LC1	E258135														
5/23/2017	EV_LC1	E258135														
5/30/2017	EV_LC1	E258135														
6/6/2017	EV_LC1	E258135		< 0.010	0.047	< 0.050	0.052	0.0585	0.0581	81.1	0.0154	0.0328		< 0.00050		< 0.00050
6/13/2017	EV_LC1	E258135														
6/20/2017	EV_LC1	E258135														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
6/27/2017	EV_LC1	E258135														
7/4/2017	EV_LC1	E258135														
7/12/2017	EV_LC1	E258135		< 0.010	0.055	< 0.050	0.096	0.0586	0.0581	78.4	0.0613	0.101		< 0.00050		0.0016
8/3/2017	EV_LC1	E258135		< 0.010	0.097	< 0.050	< 0.050	0.0673	0.067	83.3	0.00506	0.0287	< 0.0050		< 0.0050	
8/3/2017	EV_LC1	E258135												< 0.00050		< 0.00050
8/9/2017	EV_LC1	E258135												0.0008		0.00518
9/11/2017	EV_LC1	E258135		0.012	0.077	< 0.050	< 0.050	0.0583	0.0622	73.7	0.0146	0.0215		< 0.00050		< 0.00050
10/2/2017	EV_LC1	E258135		< 0.010	0.086	< 0.050	< 0.050	0.052	0.0601	78.8	< 0.00010	0.0216	< 0.0050			< 0.00050
11/14/2017	EV_LC1	E258135		< 0.050	0.092	< 0.25	< 0.25	0.0568	0.0526	68.1	0.0155	0.0169	< 0.0050			< 0.00050
12/6/2017	EV_LC1	E258135		< 0.010	0.07	< 0.050	< 0.050	0.064	0.0552	73.1	0.0108	0.0107	< 0.0050			< 0.00050
1/10/2017	EV_MC2	E300091		< 0.010	0.019	< 0.050	< 0.050	0.0162	0.016	31.1	0.00086	0.00135		< 0.00050		< 0.00050
1/31/2017	EV_MC2	E300091														
2/7/2017	EV_MC2	E300091		< 0.010	0.017	< 0.050	< 0.050	0.018	0.0188	35.4	0.00112	0.00164		< 0.00050		< 0.00050
2/21/2017	EV_MC2	E300091		< 0.010	0.029	< 0.050	< 0.050	0.0182	0.0167	32.3	0.00068	0.00199		< 0.00050		< 0.00050
3/7/2017	EV_MC2	E300091		< 0.010	< 0.010	< 0.050	< 0.050	0.0196	0.0207	33.7	0.00096	0.00136		< 0.00050		< 0.00050
3/16/2017	EV_MC2	E300091		0.01	0.248	< 0.050	0.204	0.0152	0.0152	27.2	0.00085	0.00826		< 0.00050		0.00167
3/17/2017	EV_MC2	E300091														
3/18/2017	EV_MC2	E300091														
3/19/2017	EV_MC2	E300091														
3/20/2017	EV_MC2	E300091		0.027	0.17	< 0.050	0.133	0.0094	0.0093	19.6	0.00191	0.00646		0.00124		0.00247
3/22/2017	EV_MC2	E300091														
3/23/2017	EV_MC2	E300091														
3/24/2017	EV_MC2	E300091														
3/29/2017	EV_MC2	E300091		< 0.010	0.099	< 0.050	0.093	0.011	0.0119	25.3	0.00112	0.00277		< 0.00050		0.00103
4/5/2017	EV_MC2	E300091		< 0.010	0.054	< 0.050	< 0.050	0.0105	0.0103	24.3	0.00119	0.00243		< 0.00050		0.001
4/12/2017	EV_MC2	E300091		< 0.010	0.043	< 0.050	0.05	0.0102	0.0094	20.9	0.00123	0.00253		0.00057		0.00115
4/20/2017	EV_MC2	E300091		0.015	0.125	< 0.050	0.125	0.0086	0.0085	19.3	0.00126	0.00654		0.0009		0.00239
4/24/2017	EV_MC2	E300091		0.021	0.151	< 0.050	0.156	0.0082	0.0077	16.9	0.00187	0.00847		0.0012		0.00321
5/2/2017	EV_MC2	E300091		< 0.010	0.147	< 0.050	0.092	0.0086	0.0087	21.1	0.00042	0.00443		0.00094		0.00186
5/9/2017	EV_MC2	E300091		0.02	0.728	< 0.050	0.46	0.0058	0.0058	14.3	0.00083	0.0186		0.00179		0.00515
5/16/2017	EV_MC2	E300091		0.013	0.304	< 0.050	0.201	0.007	0.0067	16.4	0.00125	0.00846		0.00142		0.00309
5/23/2017	EV_MC2	E300091		0.035	2.08	< 0.050	1.39	0.0028	0.0049	11.4	0.00126	0.0568		0.00197		0.00974
5/30/2017	EV_MC2	E300091		0.034	2.24	< 0.050	1.53	0.0044	0.0049	11.1	0.00375	0.0653		0.00169		0.00898
6/6/2017	EV_MC2	E300091		0.017	0.604	< 0.050	0.422	0.0048	0.0052	11.1	0.00209	0.0176		0.00114		0.00373
6/14/2017	EV_MC2	E300091		< 0.010	0.612	< 0.050	0.397	0.0078	0.0082	14.6	0.00107	0.0171		0.0011		0.0041
6/21/2017	EV_MC2	E300091		< 0.010	0.141	< 0.050	0.097	0.0082	0.0081	15.2	0.00087	0.00566		0.00075		0.00182
6/28/2017	EV_MC2	E300091		< 0.010	0.037	< 0.050	< 0.050	0.0093	0.0112	18.7	0.00039	0.0024		0.00053		0.00084
7/5/2017	EV_MC2	E300091		< 0.010	0.02	< 0.050	< 0.050	0.0119	0.0129	22.1	0.00033	0.00213		< 0.00050		0.00062
7/12/2017	EV_MC2	E300091		< 0.010	0.016	< 0.050	< 0.050	0.015	0.0147	24.6	0.00154	0.00794		< 0.00050		0.001
7/25/2017	EV_MC2	E300091		< 0.010	0.012	< 0.050	< 0.050	0.0161	0.0147	31.1	0.00176	0.00224		< 0.00050		0.0008
8/3/2017	EV_MC2	E300091		< 0.010	< 0.010	< 0.050	< 0.050	0.0176	0.0176	31.8	0.00017	0.00179	< 0.0050		< 0.0050	
8/3/2017	EV_MC2	E300091												< 0.00050		< 0.00050
9/12/2017	EV_MC2	E300091		< 0.010	0.014	< 0.050	< 0.050	0.0219	0.024	41.1	0.00114	0.00225		< 0.00050		< 0.00050
10/2/2017	EV_MC2	E300091		< 0.010	0.016	< 0.050	< 0.050	0.016	0.0158	32.2	< 0.00010	0.00196	< 0.0050			< 0.00050
10/10/2017	EV_MC2	E300091		< 0.010	< 0.010	< 0.050	< 0.050	0.0128	0.013	29.6	0.00144	0.0018		< 0.00050		< 0.00050
10/16/2017	EV_MC2	E300091														
10/17/2017	EV_MC2	E300091		< 0.010	0.015	< 0.050	< 0.050	0.024	0.0241	39.9	0.00061	0.0015		< 0.00050		< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
10/24/2017	EV_MC2	E300091		< 0.010	0.029	< 0.050	< 0.050	0.0127	0.0127	26.3	0.00058	0.00175		0.0092		0.0129
10/31/2017	EV_MC2	E300091														
10/31/2017	EV_MC2	E300091		< 0.010	0.011	< 0.050	< 0.050	0.011	0.012	27.4	0.00093	0.00146		< 0.00050		0.00143
11/15/2017	EV_MC2	E300091		< 0.010	< 0.010	< 0.050	< 0.050	0.0203	0.02	33.6	0.00107	0.00126	< 0.0050			< 0.00050
12/6/2017	EV_MC2	E300091		< 0.010	0.017	< 0.050	< 0.050	0.0204	0.0164	29.2	0.00092	0.00127	< 0.0050			0.00055
1/10/2017	EV_MC2A	E310168		< 0.010	0.04	< 0.050	< 0.050	0.0069	0.0082	23.4	0.0008	0.00205	< 0.0050		< 0.0050	
1/31/2017	EV_MC2A	E310168														
2/7/2017	EV_MC2A	E310168		< 0.010	0.018	< 0.050	< 0.050	0.0071	0.0075	26.5	0.0012	0.00171	< 0.0050		< 0.0050	
3/7/2017	EV_MC2A	E310168		< 0.010	0.012	< 0.050	< 0.050	0.0072	0.0078	25.3	0.00129	0.00182	< 0.0050		< 0.0050	
3/16/2017	EV_MC2A	E310168														
3/17/2017	EV_MC2A	E310168														
3/18/2017	EV_MC2A	E310168														
3/19/2017	EV_MC2A	E310168														
3/20/2017	EV_MC2A	E310168														
3/29/2017	EV_MC2A	E310168		< 0.010	0.12	< 0.050	0.089	0.0066	0.0067	19.9	0.00146	0.00341				
4/5/2017	EV_MC2A	E310168		< 0.010	0.064	< 0.050	0.061	0.0063	0.0064	20.9	0.00107	0.00317	< 0.0050		< 0.0050	
5/2/2017	EV_MC2A	E310168		< 0.010	0.13	< 0.050	0.093	0.005	0.0052	17.8	0.00047	0.00447	< 0.0050		< 0.0050	
6/6/2017	EV_MC2A	E310168		< 0.010	0.767	< 0.050	0.513	0.0025	0.003	9.03	0.00055	0.0211	< 0.0050		< 0.010	
7/12/2017	EV_MC2A	E310168		< 0.010	0.025	< 0.050	< 0.050	0.0057	0.0055	17.7	0.00172	0.00315	< 0.0050		< 0.0050	
8/3/2017	EV_MC2A	E310168		< 0.010	0.012	< 0.050	< 0.050	0.0078	0.0077	23.4	0.00031	0.00248	< 0.0050		< 0.0050	
8/3/2017	EV_MC2A	E310168														
9/12/2017	EV_MC2A	E310168		< 0.010	0.013	< 0.050	< 0.050	0.0086	0.0084	29	0.002	0.00335	< 0.0050		< 0.0050	
10/2/2017	EV_MC2A	E310168		< 0.010	0.014	< 0.050	< 0.050	0.008	0.0089	25.3	< 0.00010	0.00259	< 0.0050		< 0.0050	
11/15/2017	EV_MC2A	E310168														
11/15/2017	EV_MC2A	E310168		< 0.010	< 0.010	< 0.050	< 0.050	0.0085	0.0087	22.3	0.00151	0.00177	< 0.0050		< 0.0050	
12/6/2017	EV_MC2A	E310168		< 0.010	0.024	< 0.050	< 0.050	0.0067	0.0065	19.2	0.00101	0.00159	< 0.0050			0.0006
1/20/2017	EV_MC3	200203		< 0.010	0.028	< 0.050	< 0.050	0.0052	0.0056	16.4	0.00049	0.00128		< 0.00050		< 0.00050
2/7/2017	EV_MC3	200203		< 0.010	0.056	< 0.050	0.084	0.0051	0.0052	17	0.0007	0.0016		< 0.00050		0.00069
3/7/2017	EV_MC3	200203		< 0.010	0.022	< 0.050	< 0.050	0.0053	0.0054	15.9	0.00033	0.00117		< 0.00050		< 0.00050
3/16/2017	EV_MC3	200203		0.02	1.7	< 0.050	1.07	0.0047	0.0056	14.8	0.00157	0.0598		0.00054		0.00621
3/19/2017	EV_MC3	200203														
3/20/2017	EV_MC3	200203		0.037	0.412	< 0.050	0.295	0.0041	0.0045	12.6	0.00188	0.0124		0.00155		0.00373
3/29/2017	EV_MC3	200203		< 0.010	0.125	< 0.050	0.097	0.0051	0.0053	15.5	0.00095	0.00307		0.00057		0.0012
4/4/2017	EV_MC3	200203		< 0.010	0.432	< 0.050	0.32	0.005	0.0063	17.2	0.00132	0.00729		0.0006		0.00278
4/12/2017	EV_MC3	200203		< 0.010	0.076	< 0.050	0.081	0.0053	0.0052	14.1	0.00093	0.0031		0.00066		0.00144
4/20/2017	EV_MC3	200203		0.016	0.209	< 0.050	0.163	0.0047	0.0047	13.3	0.00132	0.00712		0.00111		0.00268
4/26/2017	EV_MC3	200203		0.013	0.312	< 0.050	0.232	0.0039	0.0044	13.1	0.0011	0.0088		0.00143		0.00323
5/3/2017	EV_MC3	200203		0.01	0.16	< 0.050	0.109	0.0041	0.0038	12.8	0.00056	0.00461		0.00106		0.00251
5/10/2017	EV_MC3	200203		0.026	0.602	< 0.050	0.345	0.0031	0.0034	10.2	0.00132	0.0144		0.00239		0.00483
5/17/2017	EV_MC3	200203		0.028	1.01	< 0.050	0.709	0.003	0.0035	10.5	0.00268	0.0217		0.00207		0.0071
5/24/2017	EV_MC3	200203		0.043	7.65	< 0.050	5.8	0.0025	0.0071	9.81	0.0017	0.232		0.00208		0.0336
5/30/2017	EV_MC3	200203		0.041	1.91	< 0.050	1.48	0.0016	0.0036	8.28	0.00429	0.0599		0.002		0.00951
6/6/2017	EV_MC3	200203		0.019	0.84	< 0.050	1.03	0.0018	0.0025	7.02	0.00212	0.0241		0.00155		0.0056
6/13/2017	EV_MC3	200203		< 0.010	0.227	< 0.050	0.152	0.0032	0.0031	8.57	0.00165	0.00773		0.0015		0.0034
6/21/2017	EV_MC3	200203		< 0.010	0.203	< 0.050	0.147	0.0027	0.0029	8.28	0.00094	0.00769		0.00114		0.0025
6/28/2017	EV_MC3	200203		< 0.010	0.242	< 0.050	0.267	0.0037	0.0032	10.2	0.00111	0.00844		0.00056		0.00113
7/5/2017	EV_MC3	200203		< 0.010	0.031	< 0.050	< 0.050	0.0038	0.0037	11.5	0.00015	0.00196		< 0.00050		0.00079

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
7/11/2017	EV_MC3	200203		< 0.010	0.028	< 0.050	< 0.050	0.0045	0.0044	12.9	0.00086	0.00193		< 0.00050		0.0008
8/2/2017	EV_MC3	200203		< 0.010	0.011	< 0.050	< 0.050	0.0047	0.0053	15.5	0.00023	0.00135	< 0.0050		< 0.0050	
8/2/2017	EV_MC3	200203												< 0.00050		0.00052
9/12/2017	EV_MC3	200203		< 0.010	0.012	< 0.050	< 0.050	0.0062	0.0054	16.6	0.00047	0.00143		< 0.00050		< 0.00050
10/2/2017	EV_MC3	200203		< 0.010	0.015	< 0.050	< 0.050	0.006	0.0063	15.5	< 0.00010	0.00123	< 0.0050			0.0007
11/15/2017	EV_MC3	200203		< 0.010	< 0.010	< 0.050	< 0.050	0.0061	0.0063	14.8	0.00043	0.00071	< 0.0050			< 0.00050
12/6/2017	EV_MC3	200203		< 0.010	0.016	< 0.050	< 0.050	0.0048	0.0047	13.5	0.00055	0.00081	< 0.0050			0.00069
1/18/2017	EV_MG1	E208057		< 0.010	< 0.010	< 0.050	< 0.050	0.0053	0.0063	101	0.00273	0.00346		< 0.00050		< 0.00050
2/23/2017	EV_MG1	E208057		< 0.010	< 0.010	< 0.050	< 0.050	0.005	0.0052	95.3	0.00126	0.00155				< 0.00050
3/8/2017	EV_MG1	E208057		< 0.010	< 0.010	< 0.050	< 0.050	0.0034	0.0046	78.9	0.00081	0.00089		< 0.00050		< 0.00050
3/16/2017	EV_MG1	E208057														
3/19/2017	EV_MG1	E208057														
3/29/2017	EV_MG1	E208057														
4/4/2017	EV_MG1	E208057		< 0.010	0.046	< 0.050	< 0.050	0.0033	0.0037	57.3	0.00078	0.0017		0.00064		0.00161
4/12/2017	EV_MG1	E208057														
4/19/2017	EV_MG1	E208057														
4/26/2017	EV_MG1	E208057														
5/2/2017	EV_MG1	E208057														
5/3/2017	EV_MG1	E208057		< 0.010	0.04	< 0.050	< 0.050	0.0044	0.0037	63.4	0.00081	0.00194		< 0.00050		0.00168
5/10/2017	EV_MG1	E208057														
5/17/2017	EV_MG1	E208057														
5/24/2017	EV_MG1	E208057														
5/31/2017	EV_MG1	E208057														
6/7/2017	EV_MG1	E208057														
6/14/2017	EV_MG1	E208057		< 0.010	0.014	< 0.050	< 0.050	0.0061	0.0056	67.6	0.00093	0.00696		0.00094		0.00143
6/21/2017	EV_MG1	E208057														
6/28/2017	EV_MG1	E208057														
7/5/2017	EV_MG1	E208057														
7/11/2017	EV_MG1	E208057		0.039	0.096	< 0.050	< 0.050	0.0059	0.006	77.2	0.0051	0.0311		< 0.00050		0.00128
8/2/2017	EV_MG1	E208057		< 0.010	0.07	< 0.050	< 0.050	0.0067	0.0067	90.7	0.00042	0.00976	< 0.0050		< 0.0050	
8/2/2017	EV_MG1	E208057												< 0.00050		0.00055
8/10/2017	EV_MG1	E208057												0.00126		0.00803
9/12/2017	EV_MG1	E208057		< 0.010	0.022	< 0.050	< 0.050	0.0078	0.0072	112	0.00075	0.00312		< 0.00050		< 0.00050
10/3/2017	EV_MG1	E208057		< 0.010	< 0.010	< 0.050	< 0.050	0.0073	0.0078	103	0.0002	0.00039	< 0.0050			< 0.00050
10/17/2017	EV_MG1	E208057														
10/18/2017	EV_MG1	E208057														
11/15/2017	EV_MG1	E208057		< 0.010	< 0.010	< 0.050	< 0.050	0.0076	0.0084	105	0.00066	0.00086	< 0.0050			0.00059
11/23/2017	EV_MG1	E208057														
12/6/2017	EV_MG1	E208057		< 0.010	< 0.010	< 0.050	< 0.050	0.0063	0.0061	88.2	0.00022	0.00034	< 0.0050			< 0.00050
1/10/2017	EV_OC1	E102679		< 0.010	0.231	< 0.050	< 0.050	0.0299	0.0359	37.7	0.13	0.135		< 0.00050		< 0.00050
2/8/2017	EV_OC1	E102679		< 0.010	0.694	< 0.050	< 0.050	0.0356	0.0357	37.5	0.346	0.367		< 0.00050		< 0.00050
2/20/2017	EV_OC1	E102679		< 0.010	1.27	< 0.050	0.625	0.0343	0.0359	29.5	0.222	0.271		< 0.00050		0.00347
2/21/2017	EV_OC1	E102679														
3/6/2017	EV_OC1	E102679		< 0.010	0.633	< 0.050	0.161	0.0442	0.0425	32.4	0.383	0.397		< 0.00050		< 0.0025
3/14/2017	EV_OC1	E102679														
3/15/2017	EV_OC1	E102679														
3/15/2017	EV_OC1	E102679														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
3/16/2017	EV_OC1	E102679														
3/17/2017	EV_OC1	E102679		< 0.010	2.12	< 0.050	2.03	0.0266	0.0274	18.7	0.103	0.136		< 0.00050		0.0105
3/18/2017	EV_OC1	E102679														
3/19/2017	EV_OC1	E102679														
3/20/2017	EV_OC1	E102679														
3/21/2017	EV_OC1	E102679														
3/22/2017	EV_OC1	E102679														
3/28/2017	EV_OC1	E102679														
4/3/2017	EV_OC1	E102679		0.01	0.718	< 0.050	0.246	0.0342	0.0343	31.5	0.11	0.152		< 0.00050		0.0012
4/11/2017	EV_OC1	E102679														
4/20/2017	EV_OC1	E102679														
4/25/2017	EV_OC1	E102679														
5/4/2017	EV_OC1	E102679		0.023	0.334	< 0.050	< 0.050	0.0316	0.0353	31.8	0.0622	0.0837		< 0.00050		0.0006
5/7/2017	EV_OC1	E102679														
5/9/2017	EV_OC1	E102679														
5/16/2017	EV_OC1	E102679														
5/23/2017	EV_OC1	E102679														
5/31/2017	EV_OC1	E102679														
6/5/2017	EV_OC1	E102679		0.019	0.346	< 0.050	0.052	0.0305	0.031	36.6	0.0272	0.085		< 0.00050		< 0.00050
6/13/2017	EV_OC1	E102679														
6/20/2017	EV_OC1	E102679														
6/27/2017	EV_OC1	E102679														
7/4/2017	EV_OC1	E102679														
7/10/2017	EV_OC1	E102679		0.149	0.464	< 0.050	< 0.050	0.0293	0.0282	33.5	0.0497	0.0867		< 0.00050		< 0.00050
8/1/2017	EV_OC1	E102679		0.021	0.55	< 0.050	< 0.050	0.0286	0.0261	35.7	0.00019	0.0662		< 0.00050		< 0.00050
9/11/2017	EV_OC1	E102679		0.039	0.657	< 0.050	0.063	0.0231	0.0243	38.1	0.0279	0.0691		< 0.00050		< 0.00050
10/2/2017	EV_OC1	E102679		< 0.010	0.47	< 0.050	< 0.050	0.0213	0.0247	33	< 0.00010	0.0804	< 0.0050			< 0.00050
11/14/2017	EV_OC1	E102679		< 0.050	0.253	< 0.25	< 0.25	0.0386	0.0351	34	0.13	0.133	< 0.0050			< 0.00050
12/7/2017	EV_OC1	E102679		0.032	0.583	< 0.050	< 0.050	0.0422	0.0452	38.5	0.211	0.23	< 0.0050			< 0.00050
1/9/2017	EV_SM1	E102681		< 0.010	0.107	< 0.050	0.088	0.0341	0.0369	26.2	0.00015	0.00281		< 0.00050		0.00133
2/23/2017	EV_SM1	E102681		< 0.010	0.088	< 0.050	0.055	0.0447	0.0409	24	0.00035	0.00162				0.00098
3/6/2017	EV_SM1	E102681		< 0.010	0.063	< 0.050	< 0.050	0.0464	0.0494	27.6	0.00051	0.00141		< 0.00050		0.0007
3/15/2017	EV_SM1	E102681														
3/19/2017	EV_SM1	E102681														
3/20/2017	EV_SM1	E102681														
3/21/2017	EV_SM1	E102681														
3/22/2017	EV_SM1	E102681														
3/23/2017	EV_SM1	E102681														
3/28/2017	EV_SM1	E102681														
3/29/2017	EV_SM1	E102681														
4/3/2017	EV_SM1	E102681		< 0.010	0.451	< 0.050	0.256	0.0359	0.0377	22.4	0.00157	0.00823		0.00074		0.00251
4/11/2017	EV_SM1	E102681														
4/19/2017	EV_SM1	E102681														
4/25/2017	EV_SM1	E102681														
5/2/2017	EV_SM1	E102681		< 0.010	0.977	< 0.050	0.518	0.0352	0.0364	25.2	0.00318	0.0159		0.00083		0.00413
5/7/2017	EV_SM1	E102681														
5/8/2017	EV_SM1	E102681														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
5/9/2017	EV_SM1	E102681														
5/10/2017	EV_SM1	E102681														
5/11/2017	EV_SM1	E102681														
5/12/2017	EV_SM1	E102681														
5/13/2017	EV_SM1	E102681														
5/14/2017	EV_SM1	E102681														
5/15/2017	EV_SM1	E102681														
5/16/2017	EV_SM1	E102681														
5/17/2017	EV_SM1	E102681														
5/18/2017	EV_SM1	E102681														
5/19/2017	EV_SM1	E102681														
5/20/2017	EV_SM1	E102681														
5/23/2017	EV_SM1	E102681														
5/24/2017	EV_SM1	E102681														
5/25/2017	EV_SM1	E102681														
5/26/2017	EV_SM1	E102681														
5/27/2017	EV_SM1	E102681														
5/28/2017	EV_SM1	E102681														
5/29/2017	EV_SM1	E102681														
5/30/2017	EV_SM1	E102681														
6/5/2017	EV_SM1	E102681		< 0.010	0.73	< 0.050	0.537	0.0225	0.0219	21.2	0.00403	0.0172		0.00053		0.00534
6/13/2017	EV_SM1	E102681														
6/20/2017	EV_SM1	E102681														
6/27/2017	EV_SM1	E102681														
7/4/2017	EV_SM1	E102681														
7/10/2017	EV_SM1	E102681		< 0.010	0.035	< 0.050	< 0.050	0.0379	0.0369	24.8	0.00033	0.00359		< 0.00050		0.00085
8/1/2017	EV_SM1	E102681		< 0.010	0.05	< 0.050	< 0.050	0.042	0.0391	27.9	< 0.00010	0.00279		< 0.00050		0.00081
9/11/2017	EV_SM1	E102681		< 0.010	0.051	< 0.050	< 0.050	0.0539	0.0442	24.6	< 0.00010	0.00535		< 0.00050		0.0007
10/2/2017	EV_SM1	E102681		< 0.010	0.039	< 0.050	0.053	0.0462	0.0484	27.6	< 0.00010	0.00205	< 0.0050			0.0007
10/4/2017	EV_SM1	E102681														
10/6/2017	EV_SM1	E102681														
10/10/2017	EV_SM1	E102681														
11/14/2017	EV_SM1	E102681		< 0.050	< 0.050	< 0.25	< 0.25	0.0492	0.0441	28	< 0.00050	0.0014	< 0.0050			0.00091
11/23/2017	EV_SM1	E102681														
12/1/2017	EV_SM1	E102681		< 0.010	0.123	< 0.050	0.1	0.0439	0.0438	26.7	0.00038	0.0028	< 0.0050			0.00169
1/18/2017	EV_SP1	E296311		< 0.010	< 0.010	< 0.050	< 0.050	0.0358	0.0431	129	0.00013	0.00016		< 0.00050		< 0.00050
2/23/2017	EV_SP1	E296311		< 0.010	< 0.010	< 0.050	< 0.050	0.0424	0.0404	128	0.00016	0.0002				< 0.00050
3/8/2017	EV_SP1	E296311		< 0.010	0.09	< 0.050	0.082	0.0276	0.0348	122	0.006	0.0137		< 0.00050		0.0009
3/16/2017	EV_SP1	E296311														
3/19/2017	EV_SP1	E296311														
3/29/2017	EV_SP1	E296311														
4/4/2017	EV_SP1	E296311		< 0.010	0.075	< 0.050	0.076	0.0397	0.0443	123	0.00107	0.00336		< 0.00050		0.00091
4/12/2017	EV_SP1	E296311														
4/19/2017	EV_SP1	E296311														
4/26/2017	EV_SP1	E296311														
5/3/2017	EV_SP1	E296311		< 0.010	0.04	< 0.050	< 0.050	0.041	0.0379	131	0.0004	0.00184		< 0.00050		0.00061
5/10/2017	EV_SP1	E296311														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
5/17/2017	EV_SP1	E296311														
5/24/2017	EV_SP1	E296311														
5/31/2017	EV_SP1	E296311														
6/7/2017	EV_SP1	E296311														
6/14/2017	EV_SP1	E296311		< 0.010	0.052	< 0.050	0.067	0.0398	0.0391	134	0.00035	0.00224		< 0.00050		0.00088
6/21/2017	EV_SP1	E296311														
6/28/2017	EV_SP1	E296311														
7/5/2017	EV_SP1	E296311														
7/11/2017	EV_SP1	E296311		< 0.010	< 0.010	< 0.050	< 0.050	0.0442	0.0428	132	0.00079	0.00087		0.00062		0.00055
8/2/2017	EV_SP1	E296311		< 0.010	< 0.010	< 0.050	< 0.050	0.0444	0.0469	151	0.0002	0.00049	< 0.0050		< 0.0050	
8/2/2017	EV_SP1	E296311												< 0.00050		< 0.00050
9/12/2017	EV_SP1	E296311		< 0.010	< 0.010	< 0.050	< 0.050	0.049	0.0527	180	0.00046	0.00171		< 0.00050		< 0.00050
10/3/2017	EV_SP1	E296311		< 0.010	0.013	< 0.050	< 0.050	0.0473	0.052	179	0.00038	0.00092	< 0.0050			0.00056
10/3/2017	EV_SP1	E296311														
10/17/2017	EV_SP1	E296311		< 0.010	0.016	< 0.050	< 0.050	0.0442	0.0441	159	0.00031	0.00087		< 0.00050		< 0.00050
11/15/2017	EV_SP1	E296311		< 0.010	< 0.010	< 0.050	< 0.050	0.0463	0.0526	162	0.00074	0.00077	< 0.0050			< 0.00050
12/6/2017	EV_SP1	E296311		< 0.010	0.012	< 0.050	< 0.050	0.0488	0.0451	147	0.00121	0.00112	< 0.0050			< 0.00050
1/10/2017	EV_SPR2	E298594		< 0.010	0.028	< 0.050	< 0.050	0.0209	0.0257	35.7	0.0018	0.00233		< 0.00050		< 0.00050
2/8/2017	EV_SPR2	E298594		< 0.010	0.015	< 0.050	< 0.050	0.0215	0.0226	35.3	0.00133	0.00166		< 0.00050		< 0.00050
2/23/2017	EV_SPR2	E298594		< 0.010	< 0.010	< 0.050	< 0.050	0.0228	0.023	36.7	0.00911	0.00893				< 0.00050
3/7/2017	EV_SPR2	E298594		< 0.010	< 0.010	< 0.050	< 0.050	0.0239	0.0242	32.8	0.0218	0.0402		< 0.00050		< 0.00050
3/15/2017	EV_SPR2	E298594														
3/22/2017	EV_SPR2	E298594														
3/28/2017	EV_SPR2	E298594		< 0.010	0.045	< 0.050	< 0.050	0.018	0.0191	31.8	0.0177	0.0248		< 0.00050		0.00071
4/4/2017	EV_SPR2	E298594		< 0.010	0.059	< 0.050	< 0.050	0.0192	0.0198	34.2	0.0133	0.0202		< 0.00050		0.00089
5/3/2017	EV_SPR2	E298594		< 0.010	0.03	< 0.050	< 0.050	0.021	0.0182	34.5	0.00597	0.0107		< 0.00050		0.00063
6/5/2017	EV_SPR2	E298594		< 0.010	0.034	< 0.050	< 0.050	0.0202	0.0202	33.6	0.0151	0.0176		< 0.00050		< 0.00050
7/11/2017	EV_SPR2	E298594		< 0.010	0.035	< 0.050	< 0.050	0.0207	0.0209	30.2	0.0103	0.0114		< 0.00050		< 0.00050
8/2/2017	EV_SPR2	E298594		< 0.010	0.045	< 0.050	< 0.050	0.0224	0.0233	33	0.00158	0.00342	< 0.0050		< 0.0050	
8/2/2017	EV_SPR2	E298594												< 0.00050		0.00055
9/12/2017	EV_SPR2	E298594		< 0.010	< 0.010	< 0.050	< 0.050	0.023	0.0249	35.6	0.00251	0.00231		< 0.00050		< 0.00050
10/3/2017	EV_SPR2	E298594		< 0.010	0.029	< 0.050	< 0.050	0.0236	0.0231	37.2	0.0102	0.0114	< 0.0050			< 0.00050
11/15/2017	EV_SPR2	E298594		< 0.010	< 0.010	< 0.050	< 0.050	0.0227	0.0234	31.1	0.0031	0.00322	< 0.0050			< 0.00050
12/6/2017	EV_SPR2	E298594		< 0.010	< 0.010	< 0.050	< 0.050	0.0247	0.0237	32.5	0.00275	0.00305	< 0.0050			< 0.00050
1/18/2017	EV_TC1	E298593														
2/23/2017	EV_TC1	E298593														
3/8/2017	EV_TC1	E298593														
3/16/2017	EV_TC1	E298593		< 0.010	0.012	< 0.050	1.63	0.0012	0.0012	26.1	0.00016	0.00074		0.0011		0.00161
3/19/2017	EV_TC1	E298593														
3/29/2017	EV_TC1	E298593														
4/4/2017	EV_TC1	E298593		< 0.010	< 0.010	< 0.050	< 0.050	< 0.0010	0.0013	24.6	< 0.00010	0.00017		0.00183		0.00221
4/12/2017	EV_TC1	E298593														
4/19/2017	EV_TC1	E298593														
4/26/2017	EV_TC1	E298593														
5/3/2017	EV_TC1	E298593		< 0.010	0.02	< 0.050	< 0.050	< 0.0010	< 0.0010	21.9	< 0.00010	0.00059		0.00154		0.00257
5/10/2017	EV_TC1	E298593														
5/17/2017	EV_TC1	E298593														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
5/24/2017	EV_TC1	E298593														
5/31/2017	EV_TC1	E298593														
6/7/2017	EV_TC1	E298593														
6/14/2017	EV_TC1	E298593		< 0.010	< 0.010	< 0.050	< 0.050	0.0017	0.0018	27.9	< 0.00010	0.00031		0.00091		0.00134
6/21/2017	EV_TC1	E298593														
6/28/2017	EV_TC1	E298593														
7/5/2017	EV_TC1	E298593														
7/11/2017	EV_TC1	E298593														
8/2/2017	EV_TC1	E298593														
9/12/2017	EV_TC1	E298593														
10/3/2017	EV_TC1	E298593														
11/15/2017	EV_TC1	E298593														
12/6/2017	EV_TC1	E298593														
1/31/2017	FR_3PIT	E217403														
2/28/2017	FR_3PIT	E217403	0													
3/7/2017	FR_3PIT	E217403	0													
3/16/2017	FR_3PIT	E217403	0													
3/23/2017	FR_3PIT	E217403	0													
3/31/2017	FR_3PIT	E217403	0													
4/3/2017	FR_3PIT	E217403	0													
4/10/2017	FR_3PIT	E217403	0													
4/18/2017	FR_3PIT	E217403	0													
4/24/2017	FR_3PIT	E217403	0													
5/1/2017	FR_3PIT	E217403														
5/8/2017	FR_3PIT	E217403														
5/15/2017	FR_3PIT	E217403														
5/23/2017	FR_3PIT	E217403														
5/29/2017	FR_3PIT	E217403														
6/6/2017	FR_3PIT	E217403														
6/16/2017	FR_3PIT	E217403														
6/22/2017	FR_3PIT	E217403														
6/29/2017	FR_3PIT	E217403														
7/3/2017	FR_3PIT	E217403														
7/10/2017	FR_3PIT	E217403	0													
8/7/2017	FR_3PIT	E217403														
9/4/2017	FR_3PIT	E217403	0													
10/2/2017	FR_3PIT	E217403														
11/6/2017	FR_3PIT	E217403														
12/4/2017	FR_3PIT	E217403														
1/23/2017	FR_CC1	E102481	0.035	< 0.010	< 0.010	< 0.050	< 0.050	0.26	0.307	105	0.00159	0.00188	< 0.0050			< 0.00050
2/2/2017	FR_CC1	E102481	0.033	< 0.010	< 0.010	< 0.050	< 0.050	0.246	0.214	91.2	0.00159	0.00155	< 0.0050			< 0.00050
3/9/2017	FR_CC1	E102481	0.038	< 0.010	< 0.010	< 0.050	< 0.050	0.29	0.287	94.4	0.00111	0.00114	< 0.0050			< 0.00050
3/14/2017	FR_CC1	E102481	0.036	< 0.010	< 0.010	< 0.050	< 0.050	0.254	0.25	95.8	0.0011	0.00118	< 0.0050			< 0.00050
3/23/2017	FR_CC1	E102481	0.058													
3/28/2017	FR_CC1	E102481	0.066													
4/3/2017	FR_CC1	E102481	0.086	< 0.010	0.013	< 0.050	< 0.050	0.291	0.298	115	0.00157	0.00208	< 0.0050			< 0.00050
4/11/2017	FR_CC1	E102481	0.094													

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
4/20/2017	FR_CC1	E102481	0.117													
4/26/2017	FR_CC1	E102481	0.148													
5/1/2017	FR_CC1	E102481	0.162	< 0.010	0.01	< 0.050	< 0.050	0.29	0.282	114	0.00084	0.00158	< 0.0050			< 0.00050
5/3/2017	FR_CC1	E102481														
5/6/2017	FR_CC1	E102481														
5/10/2017	FR_CC1	E102481	0.187													
5/15/2017	FR_CC1	E102481	0.208													
5/23/2017	FR_CC1	E102481	0.186													
5/29/2017	FR_CC1	E102481	0.184													
6/5/2017	FR_CC1	E102481	0.15	< 0.010	< 0.010	< 0.050	< 0.050	0.141	0.159	88.1	0.00136	0.00207	< 0.0050			< 0.00050
6/15/2017	FR_CC1	E102481	0.12													
6/20/2017	FR_CC1	E102481	0.101													
6/27/2017	FR_CC1	E102481	0.092													
7/3/2017	FR_CC1	E102481	0.085	< 0.010	< 0.010	< 0.050	< 0.050	0.188	0.19	99	0.00092	0.00165	< 0.0050			< 0.00050
7/10/2017	FR_CC1	E102481	0.07													
8/8/2017	FR_CC1	E102481	0.044	< 0.010	< 0.010	< 0.050	< 0.050	0.182	0.177	97.8	0.00051	0.00147	< 0.0050			< 0.00050
9/5/2017	FR_CC1	E102481	0.064	< 0.010	0.039	< 0.050	< 0.050	0.119	0.128	81.3	0.00152	0.00594	< 0.0050			< 0.00050
10/11/2017	FR_CC1	E102481	0.031	< 0.010	0.056	< 0.050	0.072	0.0976	0.0947	65.8	0.00609	0.0156	< 0.0050			0.00092
11/20/2017	FR_CC1	E102481	0.028	< 0.010	< 0.010	< 0.050	< 0.050	0.141	0.151	94.5	0.00234	0.00258	< 0.0050			< 0.00050
12/6/2017	FR_CC1	E102481	0.027	< 0.010	< 0.010	< 0.050	< 0.050	0.178	0.139	83.8	0.00269	0.00295	< 0.0050			< 0.00050
1/30/2017	FR_EC1	E102480	0													
2/28/2017	FR_EC1	E102480	0													
3/8/2017	FR_EC1	E102480	0													
3/16/2017	FR_EC1	E102480	0													
3/22/2017	FR_EC1	E102480	0.017	< 0.010	0.109	< 0.050	0.174	0.0549	0.0573	101	0.0132	0.0157	< 0.0050			0.0012
3/23/2017	FR_EC1	E102480	0													
3/27/2017	FR_EC1	E102480	0.02													
4/3/2017	FR_EC1	E102480	0.013	< 0.010	0.085	< 0.050	0.127	0.0493	0.0516	92.7	0.0229	0.0272	< 0.0050			0.00103
4/10/2017	FR_EC1	E102480	0.0081													
4/19/2017	FR_EC1	E102480	0.0052													
4/26/2017	FR_EC1	E102480	0.012													
5/1/2017	FR_EC1	E102480	0.0101	< 0.010	0.042	< 0.050	< 0.050	0.0848	0.0857	186	0.0219	0.0306	< 0.0050			0.00064
5/3/2017	FR_EC1	E102480														
5/6/2017	FR_EC1	E102480														
5/10/2017	FR_EC1	E102480	0.0078													
5/15/2017	FR_EC1	E102480	0.00865													
5/23/2017	FR_EC1	E102480	0.00895													
5/29/2017	FR_EC1	E102480	0.0056													
6/5/2017	FR_EC1	E102480	0.0052	< 0.010	0.013	< 0.050	< 0.050	0.103	0.101	234	0.00139	0.00086	< 0.0050			< 0.00050
6/13/2017	FR_EC1	E102480	0.00598													
6/19/2017	FR_EC1	E102480	0.0048													
6/26/2017	FR_EC1	E102480	0.003													
7/3/2017	FR_EC1	E102480	0.00742	< 0.010	< 0.010	< 0.050	< 0.050	0.107	0.108	287	0.00146	0.00267	< 0.0050			0.00057
7/10/2017	FR_EC1	E102480	0.00233													
8/7/2017	FR_EC1	E102480	0													
9/25/2017	FR_EC1	E102480	0													
10/31/2017	FR_EC1	E102480	0													

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
11/28/2017	FR_EC1	E102480	0.0000309	< 0.020	0.026	< 0.10	< 0.050	0.12	0.109	318	0.00887	0.0111	< 0.0050			0.00053
12/31/2017	FR_EC1	E102480	0													
8/31/2017	FR_EC1H	E310047		< 0.020	< 0.020	0.63	< 0.10	0.118	0.122	361	0.00093	0.00145	< 0.0050			< 0.00050
9/25/2017	FR_EC1H	E310047	0	< 0.010	< 0.010	< 0.050	< 0.050	0.124	0.132	352	0.00011	0.0006	< 0.0050			< 0.00050
10/30/2017	FR_EC1H	E310047		< 0.020	< 0.020	< 0.10	< 0.10	0.0937	0.104	305	0.00078	0.00152	< 0.0050			< 0.00050
11/23/2017	FR_EC1H	E310047		< 0.010	< 0.020	< 0.050	< 0.10	0.11	0.127	404	0.00228	0.00365	< 0.0050			< 0.00050
12/11/2017	FR_EC1H	E310047		< 0.020	0.021	< 0.10	< 0.050	0.119	0.117	320	0.0102	0.0132	< 0.0050			< 0.00050
1/17/2017	FR_FR1	200251	0													
2/28/2017	FR_FR1	200251	0													
3/8/2017	FR_FR1	200251	0													
3/14/2017	FR_FR1	200251	0													
3/22/2017	FR_FR1	200251	0													
3/27/2017	FR_FR1	200251		< 0.010	< 0.010	< 0.050	< 0.050	0.0075	0.0081	26.3	0.00808	0.0106	< 0.0050			< 0.00050
4/4/2017	FR_FR1	200251		< 0.010	0.013	< 0.050	< 0.050	0.0099	0.0089	32.2	0.004	0.0063	< 0.0050			< 0.00050
4/11/2017	FR_FR1	200251														
4/18/2017	FR_FR1	200251														
4/26/2017	FR_FR1	200251														
5/1/2017	FR_FR1	200251		< 0.010	0.025	< 0.050	< 0.050	0.0061	0.0064	23.1	0.00256	0.00314	< 0.0050			0.0009
5/5/2017	FR_FR1	200251														
5/6/2017	FR_FR1	200251														
5/7/2017	FR_FR1	200251														
5/10/2017	FR_FR1	200251	3.209													
5/15/2017	FR_FR1	200251	3.814													
5/23/2017	FR_FR1	200251														
5/29/2017	FR_FR1	200251														
6/5/2017	FR_FR1	200251		< 0.010	0.058	< 0.050	< 0.050	0.0022	0.0025	10.1	0.0019	0.00383	< 0.0050			0.00124
6/14/2017	FR_FR1	200251														
6/20/2017	FR_FR1	200251	3.27													
6/28/2017	FR_FR1	200251	2.473													
7/3/2017	FR_FR1	200251	1.96	< 0.010	0.011	< 0.050	< 0.050	0.0032	0.0033	11.9	0.00157	0.00205	< 0.0050			< 0.00050
7/11/2017	FR_FR1	200251	1.208													
8/9/2017	FR_FR1	200251	0.261	< 0.010	0.012	< 0.050	< 0.050	0.0059	0.0059	19.9	0.00029	0.00296	< 0.0050			< 0.00050
8/28/2017	FR_FR1	200251	0.095	< 0.010	< 0.010	< 0.050	< 0.050	0.0072	0.0068	25	0.00017	0.00288	< 0.0050			< 0.00050
9/11/2017	FR_FR1	200251	0.045	< 0.010	< 0.010	< 0.050	< 0.050	0.0074	0.0075	26.5	0.00019	0.00314	< 0.0050			< 0.00050
10/11/2017	FR_FR1	200251	0.051	< 0.010	< 0.010	< 0.050	< 0.050	0.0064	0.0068	25.4	0.00061	0.00187	< 0.0050			< 0.00050
11/29/2017	FR_FR1	200251	0.718	< 0.010	< 0.010	< 0.050	< 0.050	0.0086	0.0073	26.8	0.00098	0.002	< 0.0050			< 0.00050
12/4/2017	FR_FR1	200251	0													
1/16/2017	FR_FR2	200201		< 0.010	0.03	< 0.050	< 0.050	0.0484	0.0522	47.9	0.0159	0.019	< 0.0050			< 0.00050
2/1/2017	FR_FR2	200201		0.014	0.045	< 0.050	< 0.050	0.0555	0.0566	53.4	0.0224	0.0283	< 0.0050			< 0.00050
3/9/2017	FR_FR2	200201		0.04	0.049	< 0.050	< 0.050	0.0508	0.0635	51.6	0.0217	0.0266	< 0.0050			< 0.00050
3/15/2017	FR_FR2	200201	0.662	< 0.010	0.101	< 0.050	0.064	0.0613	0.0622	57.1	0.0201	0.0284	< 0.0050			0.00074
3/22/2017	FR_FR2	200201	0.754	< 0.010	0.072	< 0.050	< 0.050	0.0525	0.0605	57	0.015	0.0198	< 0.0050			< 0.00050
3/29/2017	FR_FR2	200201	0.82	< 0.010	0.079	< 0.050	< 0.050	0.052	0.0473	45.6	0.0148	0.0161	< 0.0050			0.00081
4/5/2017	FR_FR2	200201	0.85	< 0.010	0.066	< 0.050	< 0.050	0.0569	0.0495	47.8	0.013	0.0181	< 0.0050			0.0008
4/5/2017	FR_FR2	200201		< 0.010	0.076	< 0.050	< 0.050	0.0534	0.0495	50.9	0.0138	0.0164	< 0.0050			0.00077
4/12/2017	FR_FR2	200201	1.02	< 0.010	0.057	< 0.050	< 0.050	0.052	0.048	45.7	0.0125	0.014	< 0.0050			0.00096
4/20/2017	FR_FR2	200201	2.437	0.014	2.3	< 0.050	1.72	0.0304	0.0322	37.4	0.00716	0.274	< 0.0050			0.0107

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
4/25/2017	FR_FR2	200201	2.729	0.018	0.28	< 0.050	0.276	0.0321	0.0314	33.6	0.00637	0.0169	< 0.0050			0.00516
5/2/2017	FR_FR2	200201	1.765	< 0.010	0.125	< 0.050	0.079	0.045	0.0452	48.8	0.00822	0.0113	< 0.0050			0.00122
5/8/2017	FR_FR2	200201		< 0.010	0.163	< 0.050	0.117	0.0184	0.0172	25.7	0.00477	0.0117	< 0.0050			0.00191
5/16/2017	FR_FR2	200201		< 0.010	0.066	< 0.050	0.053	0.018	0.0159	23.3	0.00393	0.0062	< 0.0050			0.0012
5/23/2017	FR_FR2	200201		< 0.010	0.23	< 0.050	0.175	0.0102	0.0113	16.7	0.00185	0.0131	< 0.0050			0.00199
5/30/2017	FR_FR2	200201		< 0.010	0.683	< 0.050	0.465	0.0087	0.0096	15.8	0.00272	0.0343	< 0.0050			0.00366
6/6/2017	FR_FR2	200201		< 0.010	0.084	< 0.050	0.063	0.0102	0.0104	17	0.00287	0.00583	< 0.0050			0.00104
6/6/2017	FR_FR2	200201		< 0.010	0.092	< 0.050	0.071	0.0102	0.0103	16.4	0.0028	0.00666	< 0.0050			0.00109
6/13/2017	FR_FR2	200201		< 0.010	0.044	< 0.050	< 0.050	0.011	0.0109	18.3	0.00355	0.00585	< 0.0050			0.0006
6/20/2017	FR_FR2	200201	4.798	< 0.010	0.022	< 0.050	< 0.050	0.0133	0.014	20.7	0.00426	0.0055	< 0.0050			0.0007
6/26/2017	FR_FR2	200201	3.918	< 0.010	0.019	< 0.050	< 0.050	0.0147	0.0152	19.8	0.00492	0.00605	< 0.0050			0.00051
7/5/2017	FR_FR2	200201	2.849	< 0.010	0.018	< 0.050	< 0.050	0.0189	0.0192	23	0.0068	0.00747	< 0.0050			< 0.00050
7/5/2017	FR_FR2	200201		< 0.010	0.02	< 0.050	< 0.050	0.0189	0.0194	23.5	0.00643	0.00764	< 0.0050			< 0.00050
7/11/2017	FR_FR2	200201	2.366	< 0.010	0.019	< 0.050	< 0.050	0.0204	0.0205	26.1	0.00776	0.00921	< 0.0050			< 0.00050
7/17/2017	FR_FR2	200201	1.632													
8/10/2017	FR_FR2	200201	0.968	< 0.010	0.028	< 0.050	< 0.050	0.0369	0.0364	38.6	0.0102	0.0175	< 0.0050			< 0.00050
8/28/2017	FR_FR2	200201	0.807	< 0.010	0.034	< 0.050	< 0.050	0.0425	0.0427	47.1	0.0164	0.0221	< 0.0050			< 0.00050
9/6/2017	FR_FR2	200201	0.657	0.011	0.095	< 0.050	< 0.050	0.0439	0.0435	48.1	0.0189	0.0218	< 0.0050			< 0.00050
9/20/2017	FR_FR2	200201	0.613													
10/4/2017	FR_FR2	200201	0.551	0.012	0.048	< 0.050	< 0.050	0.0443	0.0432	49.8	0.0219	0.0296	< 0.0050			< 0.00050
10/19/2017	FR_FR2	200201	0.64	0.016	0.052	< 0.050	< 0.050	0.0378	0.0373	46.2	0.0213	0.0269	< 0.0050			< 0.00050
10/31/2017	FR_FR2	200201		< 0.010	0.04	< 0.050	< 0.050	0.0363	0.0358	44.2	0.0232	0.0254	< 0.0050	< 0.0050		
11/1/2017	FR_FR2	200201	0.476	< 0.050	0.045	< 0.25	< 0.050	0.0353	0.0369	47.2	0.0201	0.0249	< 0.0050			< 0.00050
11/2/2017	FR_FR2	200201		< 0.010	< 0.050	< 0.050	< 0.25	0.0366	0.0367	44.7	0.0194	0.0244	< 0.0050	< 0.0050		
11/16/2017	FR_FR2	200201	0.542													
12/5/2017	FR_FR2	200201	0.593	< 0.010	0.05	< 0.050	< 0.050	0.0386	0.0389	50.4	0.0218	0.029	< 0.0050			< 0.00050
1/19/2017	FR_FRCP1	E300071	0													
2/21/2017	FR_FRCP1	E300071		< 0.010	0.03	< 0.050	< 0.050	0.0558	0.0564	106	0.008	0.0101	< 0.0050			< 0.00050
2/28/2017	FR_FRCP1	E300071		< 0.010	0.023	< 0.050	< 0.050	0.0629	0.066	105	0.00714	0.00829	< 0.0050			< 0.00050
3/7/2017	FR_FRCP1	E300071		< 0.010	0.015	< 0.050	< 0.050	0.0681	0.0659	183	0.00434	0.00461	< 0.0050			< 0.00050
3/14/2017	FR_FRCP1	E300071		< 0.010	0.022	< 0.050	< 0.050	0.0608	0.0527	94.3	0.0062	0.00753	< 0.0050			< 0.00050
3/21/2017	FR_FRCP1	E300071	0.303	< 0.010	0.07	< 0.050	0.052	0.0495	0.0548	77.3	0.00963	0.0142	< 0.0050			0.00076
3/28/2017	FR_FRCP1	E300071	0.449	< 0.010	0.086	< 0.050	< 0.050	0.0496	0.0478	60.8	0.00861	0.0108	< 0.0050			0.00096
4/5/2017	FR_FRCP1	E300071	0.455	< 0.010	0.057	< 0.050	< 0.050	0.0544	0.0489	66	0.00864	0.0109	< 0.0050			0.00086
4/10/2017	FR_FRCP1	E300071	0.457	< 0.010	0.168	< 0.050	0.111	0.0515	0.0475	62.6	0.007	0.0122	< 0.0050			0.00135
4/20/2017	FR_FRCP1	E300071	1.118	0.014	1.05	< 0.050	0.813	0.0315	0.0301	38.6	0.00664	0.0433	< 0.0050			0.0107
4/24/2017	FR_FRCP1	E300071	1.346	0.018	0.491	< 0.050	0.345	0.0315	0.0302	38.5	0.00573	0.022	< 0.0050			0.00378
5/2/2017	FR_FRCP1	E300071	0.871	< 0.010	0.122	< 0.050	0.097	0.0436	0.044	58.3	0.00548	0.00869	< 0.0050			0.00122
5/9/2017	FR_FRCP1	E300071	4.774	< 0.010	0.29	< 0.050	0.224	0.0201	0.0196	30.6	0.00368	0.0189	< 0.0050			0.00222
5/16/2017	FR_FRCP1	E300071	6.606	< 0.010	0.102	< 0.050	0.075	0.0234	0.0218	33.1	0.00256	0.00734	< 0.0050			0.00133
5/23/2017	FR_FRCP1	E300071		< 0.010	0.541	< 0.050	0.397	0.0158	0.0175	25.1	0.00169	0.0331	< 0.0050			0.00371
5/30/2017	FR_FRCP1	E300071		< 0.010	0.861	< 0.050	0.604	0.0173	0.0178	25.1	0.00144	0.0461	< 0.0050			0.00402
6/6/2017	FR_FRCP1	E300071		< 0.010	0.156	< 0.050	0.106	0.02	0.0202	27	0.00218	0.00882	< 0.0050			0.0026
6/13/2017	FR_FRCP1	E300071		< 0.010	0.086	< 0.050	0.063	0.019	0.02	28.4	0.00181	0.00534	< 0.0050			0.0007
6/20/2017	FR_FRCP1	E300071	5.575	< 0.010	0.034	< 0.050	< 0.050	0.0204	0.0215	30.3	0.00199	0.00378	< 0.0050			0.0008
6/26/2017	FR_FRCP1	E300071	4.543	< 0.010	0.023	< 0.050	< 0.050	0.0208	0.0204	28.1	0.00226	0.00345	< 0.0050			0.00065
7/5/2017	FR_FRCP1	E300071	2.593	< 0.010	0.037	< 0.050	< 0.050	0.0254	0.0253	35	0.00331	0.00479	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
7/11/2017	FR_FRCP1	E300071	2.263	< 0.010	0.022	< 0.050	< 0.050	0.0261	0.0255	40	0.00343	0.00437	< 0.0050			< 0.00050
7/25/2017	FR_FRCP1	E300071	0.938	< 0.010	0.022	< 0.050	< 0.050	0.0294	0.0293	53.7	0.00543	0.00746	< 0.0050			< 0.00050
8/1/2017	FR_FRCP1	E300071	0.542	< 0.010	0.022	< 0.050	< 0.050	0.0384	0.0362	69	0.00638	0.00903	< 0.0050			< 0.00050
8/8/2017	FR_FRCP1	E300071	0.402	< 0.010	0.02	< 0.050	< 0.050	0.04	0.0354	73	0.00278	0.00947	< 0.0050			< 0.00050
8/15/2017	FR_FRCP1	E300071	0.447	< 0.010	0.021	< 0.050	< 0.050	0.0386	0.0364	74.7	0.00592	0.00934	< 0.0050			< 0.00050
8/22/2017	FR_FRCP1	E300071	0.289	< 0.020	0.031	< 0.10	< 0.050	0.0393	0.0395	78.5	0.00497	0.00867	< 0.0050			< 0.00050
9/11/2017	FR_FRCP1	E300071	0.274	< 0.010	0.024	< 0.050	< 0.050	0.0542	0.0464	98.7	0.00451	0.00968	< 0.0050			< 0.00050
10/2/2017	FR_FRCP1	E300071	0.316	0.01	0.027	< 0.050	< 0.050	0.0415	0.0421	90.2	0.0073	0.0105	< 0.0050			< 0.00050
10/10/2017	FR_FRCP1	E300071	0.304	< 0.010	0.138	< 0.050	0.085	0.042	0.0414	90.8	0.00964	0.0196	< 0.0050			< 0.00050
10/17/2017	FR_FRCP1	E300071	0.278	< 0.010	0.029	< 0.050	< 0.050	0.0411	0.0407	93.7	0.00478	0.0103	< 0.0050			< 0.00050
10/24/2017	FR_FRCP1	E300071	0.321	< 0.010	0.026	< 0.050	< 0.050	0.0387	0.0378	89.7	0.00693	0.0116	< 0.0050			< 0.00050
10/31/2017	FR_FRCP1	E300071	0.3344	< 0.010	0.025	< 0.050	< 0.050	0.0441	0.0393	104	0.00884	0.0119	< 0.0050			< 0.00050
11/15/2017	FR_FRCP1	E300071	0.269	< 0.010	0.026	< 0.050	< 0.050	0.047	0.0385	118	0.00668	0.013	< 0.0050			< 0.00050
12/5/2017	FR_FRCP1	E300071		< 0.010	0.024	< 0.050	< 0.050	0.0525	0.0492	115	0.00809	0.0112	< 0.0050			< 0.00050
12/6/2017	FR_FRCP1	E300071		< 0.010	0.024	< 0.050	< 0.050	0.0526	0.0453	119	0.00803	0.00976	< 0.0050			< 0.00050
12/12/2017	FR_FRCP1	E300071		< 0.010	0.02	< 0.050	< 0.050	0.0502	0.053	153	0.00726	0.00862	< 0.0050			< 0.00050
12/28/2017	FR_FRCP1	E300071		< 0.010	0.014	< 0.050	< 0.050	0.061	0.0562	141	0.00878	0.0107	< 0.0050			< 0.00050
1/19/2017	FR_FRRD	E300097	0.221	< 0.010	< 0.010	< 0.050	< 0.050	0.0406	0.0419	63.9	0.0003	0.00038	< 0.0050			< 0.00050
2/22/2017	FR_FRRD	E300097	0.08	< 0.010	< 0.010	< 0.050	< 0.050	0.0376	0.0392	66.6	0.0005	0.00068	< 0.0050			< 0.00050
3/15/2017	FR_FRRD	E300097	0.067	< 0.010	< 0.010	< 0.050	< 0.050	0.0363	0.0369	70.4	0.001	0.00113	< 0.0050			< 0.00050
4/25/2017	FR_FRRD	E300097	2.365	0.015	0.415	< 0.050	0.304	0.0332	0.0331	46.7	0.00419	0.0138	< 0.0050			0.00399
5/3/2017	FR_FRRD	E300097	1.509	< 0.010	0.105	< 0.050	0.055	0.0388	0.042	57.5	0.00356	0.00593	< 0.0050			0.00129
5/3/2017	FR_FRRD	E300097		0.047	0.094	0.052	0.062	0.0421	0.0418	59.5	0.00471	0.00566	< 0.0050			0.00099
5/18/2017	FR_FRRD	E300097		< 0.010	0.084	< 0.050	0.053	0.0285	0.0291	42.2	0.0015	0.00563	< 0.0050			0.00106
6/13/2017	FR_FRRD	E300097		< 0.010	0.096	< 0.050	0.062	0.0217	0.0226	34.3	0.00138	0.00534	< 0.0050			0.0013
7/13/2017	FR_FRRD	E300097	2.294	< 0.010	0.022	< 0.050	< 0.050	0.03	0.0292	44.2	0.00194	0.00388	< 0.0050			0.0008
7/13/2017	FR_FRRD	E300097		< 0.010	0.021	< 0.050	< 0.050	0.0275	0.028	46.4	0.00138	0.0034	< 0.0050			0.0005
8/10/2017	FR_FRRD	E300097	0.686	< 0.010	< 0.010	< 0.050	< 0.050	0.0454	0.0431	65	0.00131	0.00262	< 0.0050			< 0.00050
9/13/2017	FR_FRRD	E300097	0.277	< 0.010	0.101	< 0.050	0.089	0.0414	0.0425	72.9	0.00169	0.0108	< 0.0050			< 0.00050
10/18/2017	FR_FRRD	E300097	0.186	< 0.010	0.017	< 0.050	< 0.050	0.044	0.0437	87.5	0.00668	0.00674	< 0.0050			< 0.00050
11/6/2017	FR_FRRD	E300097	0.065	< 0.050	< 0.010	< 0.25	< 0.050	0.0407	0.0416	82.6	0.00195	0.00337	< 0.0050			< 0.00050
12/5/2017	FR_FRRD	E300097	0.099	< 0.010	< 0.010	< 0.050	< 0.050	0.0505	0.0473	70.2	0.00089	0.00182	< 0.0050			< 0.00050
1/9/2017	FR_HC1	E216778		< 0.010	0.013	< 0.050	< 0.050	0.0091	0.0092	31.3	0.00604	0.00906	< 0.0050			< 0.00050
2/14/2017	FR_HC1	E216778		< 0.010	< 0.010	< 0.050	< 0.050	0.0086	0.0089	35.3	0.00847	0.0109	< 0.0050			< 0.00050
3/7/2017	FR_HC1	E216778		< 0.010	< 0.010	< 0.050	< 0.050	0.0096	0.0099	37.1	0.00565	0.0121	< 0.0050			< 0.00050
3/14/2017	FR_HC1	E216778		< 0.010	0.021	< 0.050	< 0.050	0.0105	0.0099	31.1	0.00742	0.0114	< 0.0050			< 0.00050
3/22/2017	FR_HC1	E216778	0.223	< 0.010	0.02	< 0.050	< 0.050	0.0107	0.0117	38.9	0.012	0.0159	0.0617			< 0.00050
3/28/2017	FR_HC1	E216778	0.277	< 0.010	0.025	< 0.050	< 0.050	0.0113	0.0107	31.5	0.0143	0.0149	< 0.0050			< 0.00050
4/4/2017	FR_HC1	E216778	0.26	< 0.010	0.013	< 0.050	< 0.050	0.0115	0.0101	35.8	0.0139	0.014	< 0.0050			< 0.00050
4/11/2017	FR_HC1	E216778	0.321	< 0.010	0.012	< 0.050	< 0.050	0.0125	0.0112	34.2	0.014	0.0131	< 0.0050			< 0.00050
4/18/2017	FR_HC1	E216778	0.238	< 0.010	0.02	< 0.050	< 0.050	0.0123	0.0114	39.9	0.0146	0.0149	< 0.0050			< 0.00050
4/26/2017	FR_HC1	E216778	0.4714	< 0.010	0.015	< 0.050	< 0.050	0.0119	0.0118	36.7	0.0127	0.0139	< 0.0050			< 0.00050
5/1/2017	FR_HC1	E216778	0.41	< 0.010	0.012	< 0.050	< 0.050	0.0117	0.0113	35.8	0.0116	0.0118	< 0.0050			< 0.00050
5/5/2017	FR_HC1	E216778														
5/6/2017	FR_HC1	E216778														
5/7/2017	FR_HC1	E216778														
5/9/2017	FR_HC1	E216778	1.807	< 0.010	0.016	< 0.050	< 0.050	0.0054	0.0053	20.2	0.00353	0.00429	< 0.0050			0.00062

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
5/15/2017	FR_HC1	E216778	2.382	< 0.010	0.028	< 0.050	< 0.050	0.0042	0.0037	16.6	0.00297	0.00389	< 0.0050			0.00109
5/23/2017	FR_HC1	E216778	1.783	< 0.010	0.291	< 0.050	0.222	0.0021	0.0017	8.95	0.00071	0.0151	< 0.0050			0.00138
5/29/2017	FR_HC1	E216778	7.091	< 0.010	0.261	< 0.050	0.203	0.0026	0.0032	10.5	0.00116	0.012	< 0.0050			0.00176
6/5/2017	FR_HC1	E216778	4.723	< 0.010	0.063	< 0.050	0.077	0.003	0.0031	11.1	0.00307	0.00567	< 0.0050			0.00093
6/14/2017	FR_HC1	E216778	5.18	< 0.010	0.068	< 0.050	< 0.050	0.0025	0.0025	9.52	0.00142	0.0042	< 0.0050			0.00077
6/20/2017	FR_HC1	E216778	3.063	< 0.010	0.011	< 0.050	< 0.050	0.0036	0.0041	12.8	0.0032	0.0037	< 0.0050			0.0006
6/27/2017	FR_HC1	E216778	2.587	< 0.010	0.014	< 0.050	< 0.050	0.0034	0.0034	11.1	0.00287	0.00311	< 0.0050			< 0.00050
7/3/2017	FR_HC1	E216778	1.746	< 0.010	< 0.010	< 0.050	< 0.050	0.0037	0.0037	12	0.00286	0.003	< 0.0050			< 0.00050
7/11/2017	FR_HC1	E216778	1.272	< 0.010	0.011	< 0.050	< 0.050	0.0042	0.0042	14.3	0.00356	0.00403	< 0.0050			< 0.00050
8/8/2017	FR_HC1	E216778	1.773	< 0.010	0.011	< 0.050	< 0.050	0.0075	0.0067	22.7	0.00192	0.00579	< 0.0050			< 0.00050
9/5/2017	FR_HC1	E216778	0.311	< 0.010	0.013	< 0.050	< 0.050	0.0089	0.0097	30.3	0.00021	0.00784	< 0.0050			< 0.00050
10/11/2017	FR_HC1	E216778	0.332	< 0.010	0.033	< 0.050	< 0.050	0.0078	0.008	28.7	0.0023	0.00505	< 0.0050			< 0.00050
10/30/2017	FR_HC1	E216778	0.299													
11/7/2017	FR_HC1	E216778	0.263	< 0.010	< 0.010	< 0.050	< 0.050	0.0081	0.0076	30.8	0.00264	0.00312	< 0.0050			< 0.00050
11/14/2017	FR_HC1	E216778	0.275													
12/6/2017	FR_HC1	E216778	0.239	< 0.010	< 0.010	< 0.050	< 0.050	0.0102	0.0074	30.5	0.00239	0.00348	< 0.0050			< 0.00050
1/17/2017	FR_HC3	E300096		< 0.010	< 0.010	< 0.050	< 0.050	< 0.0010	< 0.0010	13.1	< 0.00010	< 0.00010	< 0.0050			< 0.00050
2/14/2017	FR_HC3	E300096		< 0.010	< 0.010	< 0.050	< 0.050	< 0.0010	0.0012	13.8	< 0.00010	< 0.00010	< 0.0050			< 0.00050
3/1/2017	FR_HC3	E300096		< 0.010	< 0.010	< 0.050	< 0.050	0.0011	< 0.0010	12.4	< 0.00010	< 0.00010	< 0.0050			< 0.00050
3/16/2017	FR_HC3	E300096														
3/23/2017	FR_HC3	E300096	0.119													
3/27/2017	FR_HC3	E300096	0.097													
4/4/2017	FR_HC3	E300096	0.077	< 0.010	< 0.010	< 0.050	< 0.050	0.0011	0.001	12.8	< 0.00010	< 0.00010	< 0.0050			< 0.00050
4/4/2017	FR_HC3	E300096		< 0.010	< 0.010	< 0.050	< 0.050	< 0.0010	< 0.0010	13.8	< 0.00010	< 0.00010	< 0.0050			< 0.00050
4/11/2017	FR_HC3	E300096	0.132													
4/18/2017	FR_HC3	E300096	0.138													
4/26/2017	FR_HC3	E300096	0.228													
5/1/2017	FR_HC3	E300096	0.16	< 0.010	< 0.010	< 0.050	< 0.050	< 0.0010	< 0.0010	11.9	< 0.00010	< 0.00010	< 0.0050			< 0.00050
5/1/2017	FR_HC3	E300096		< 0.010	< 0.010	< 0.050	< 0.050	< 0.0010	< 0.0010	14.4	< 0.00010	< 0.00010	< 0.0050			< 0.00050
5/10/2017	FR_HC3	E300096	1.141													
5/15/2017	FR_HC3	E300096	1.204													
5/24/2017	FR_HC3	E300096														
5/29/2017	FR_HC3	E300096														
6/5/2017	FR_HC3	E300096	3.045	< 0.010	0.02	< 0.050	< 0.050	< 0.0010	< 0.0010	5.31	< 0.00010	0.00076	< 0.0050			< 0.00050
6/5/2017	FR_HC3	E300096		< 0.010	0.022	< 0.050	< 0.050	< 0.0010	< 0.0010	5.73	0.00011	0.00083	< 0.0050			< 0.00050
6/14/2017	FR_HC3	E300096														
6/21/2017	FR_HC3	E300096	1.949													
6/27/2017	FR_HC3	E300096	2.174													
7/3/2017	FR_HC3	E300096		< 0.010	< 0.010	< 0.050	< 0.050	< 0.0010	< 0.0010	6.35	< 0.00010	0.0003	< 0.0050			< 0.00050
7/3/2017	FR_HC3	E300096	1.562	< 0.010	< 0.010	< 0.050	< 0.050	< 0.0010	< 0.0010	6.22	< 0.00010	0.00011	< 0.0050			< 0.00050
7/11/2017	FR_HC3	E300096	1.145													
8/9/2017	FR_HC3	E300096	0.434	< 0.010	< 0.010	< 0.050	0.096	< 0.0010	< 0.0010	9.57	< 0.00010	< 0.00010	< 0.0050			< 0.00050
9/5/2017	FR_HC3	E300096	0.296	< 0.010	< 0.010	< 0.050	< 0.050	< 0.0010	0.0011	12.1	0.00012	0.00034	< 0.0050			< 0.00050
10/11/2017	FR_HC3	E300096	0.181	< 0.010	< 0.010	< 0.050	< 0.050	< 0.0010	< 0.0010	11.9	< 0.00010	0.00012	< 0.0050			< 0.00050
11/14/2017	FR_HC3	E300096	0.136	< 0.010	< 0.010	< 0.050	< 0.050	0.0012	< 0.0010	13.6	< 0.00010	< 0.00010	< 0.0050			< 0.00050
12/21/2017	FR_HC3	E300096		< 0.010	< 0.010	< 0.050	< 0.050	< 0.0010	< 0.0010	14.5	< 0.00010	0.0001	< 0.0050			< 0.00050
1/31/2017	FR_HP1	E216781														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
2/28/2017	FR_HP1	E216781	0													
3/8/2017	FR_HP1	E216781	0													
3/15/2017	FR_HP1	E216781	0													
3/22/2017	FR_HP1	E216781	0													
3/31/2017	FR_HP1	E216781	0													
4/3/2017	FR_HP1	E216781	0													
4/10/2017	FR_HP1	E216781	0													
4/17/2017	FR_HP1	E216781	0													
4/24/2017	FR_HP1	E216781	0													
5/1/2017	FR_HP1	E216781														
5/8/2017	FR_HP1	E216781														
5/15/2017	FR_HP1	E216781	0													
5/22/2017	FR_HP1	E216781	0													
5/29/2017	FR_HP1	E216781														
6/5/2017	FR_HP1	E216781														
6/15/2017	FR_HP1	E216781														
6/22/2017	FR_HP1	E216781														
6/29/2017	FR_HP1	E216781														
7/3/2017	FR_HP1	E216781														
7/10/2017	FR_HP1	E216781														
8/7/2017	FR_HP1	E216781														
9/4/2017	FR_HP1	E216781														
10/2/2017	FR_HP1	E216781														
11/6/2017	FR_HP1	E216781														
12/4/2017	FR_HP1	E216781														
1/19/2017	FR_KC1	200252	0.11	< 0.010	< 0.010	< 0.050	< 0.050	0.0951	0.0849	112	< 0.00010	0.00017	< 0.0050			< 0.00050
2/1/2017	FR_KC1	200252	0.102	< 0.010	< 0.010	< 0.050	< 0.050	0.0959	0.0887	119	< 0.00010	0.00013	< 0.0050			< 0.00050
3/6/2017	FR_KC1	200252	0.081	< 0.010	< 0.010	< 0.050	< 0.050	0.0951	0.0959	135	0.00013	0.0002	< 0.0050			< 0.00050
3/15/2017	FR_KC1	200252	0.077													
3/22/2017	FR_KC1	200252	0.087													
3/29/2017	FR_KC1	200252	0.078													
4/5/2017	FR_KC1	200252	0.099	< 0.010	< 0.010	< 0.050	< 0.050	0.104	0.0914	125	0.00029	0.00033	< 0.0050			< 0.00050
4/12/2017	FR_KC1	200252	0.144													
4/20/2017	FR_KC1	200252	0.158													
4/25/2017	FR_KC1	200252	0.198													
5/2/2017	FR_KC1	200252	0.186	< 0.010	< 0.010	< 0.050	< 0.050	0.106	0.104	132	0.00047	0.00047	< 0.0050			< 0.00050
5/7/2017	FR_KC1	200252	0.357													
5/8/2017	FR_KC1	200252	0.37													
5/16/2017	FR_KC1	200252	1.412													
5/23/2017	FR_KC1	200252	2.067													
5/30/2017	FR_KC1	200252	2.781													
6/6/2017	FR_KC1	200252	3.363	< 0.010	0.019	< 0.050	< 0.050	0.0442	0.0453	47.7	0.00224	0.0029	< 0.0050			0.00075
6/13/2017	FR_KC1	200252	2.509													
6/19/2017	FR_KC1	200252	2.193													
6/26/2017	FR_KC1	200252	1.329													
7/5/2017	FR_KC1	200252	1.227	< 0.010	< 0.010	< 0.050	< 0.050	0.0489	0.0492	56.9	0.00065	0.00065	< 0.0050			0.00056
7/10/2017	FR_KC1	200252	1.344													

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
8/8/2017	FR_KC1	200252	0.26	< 0.010	< 0.010	< 0.050	< 0.050	0.061	0.0574	81.7	0.00027	0.00031	< 0.0050			< 0.00050
9/6/2017	FR_KC1	200252	0.191	< 0.010	< 0.010	< 0.050	< 0.050	0.066	0.0667	102	0.00033	0.00038	< 0.0050			< 0.00050
9/20/2017	FR_KC1	200252	0.15													
10/4/2017	FR_KC1	200252	0.551	< 0.010	< 0.010	< 0.050	< 0.050	0.0715	0.0695	111	0.00017	0.00029	< 0.0050			< 0.00050
10/19/2017	FR_KC1	200252	0.363	< 0.010	< 0.010	< 0.050	< 0.050	0.0712	0.0729	118	0.00014	0.00035	< 0.0050			< 0.00050
11/1/2017	FR_KC1	200252	0.337	< 0.010	< 0.010	< 0.050	< 0.050	0.0763	0.0736	120	< 0.00010	0.00022	< 0.0050			< 0.00050
11/16/2017	FR_KC1	200252	0.094													
12/12/2017	FR_KC1	200252	0.325	< 0.010	< 0.010	< 0.050	< 0.050	0.0869	0.0838	109	0.00015	0.00021	< 0.0050			< 0.00050
1/10/2017	FR_LMP1	E306924	0.024	0.012	0.047	< 0.050	< 0.050	0.0171	0.0167	28.9	0.0111	0.0126	< 0.0050			< 0.00050
1/10/2017	FR_LMP1	E306924			0.036		< 0.050		0.0175	26.6		0.0118				
1/11/2017	FR_LMP1	E306924	0.05	0.013	0.046	< 0.050	< 0.050	0.0161	0.0167	27.1	0.0124	0.0141	< 0.0050			0.00056
1/12/2017	FR_LMP1	E306924	0.071	0.014	0.052	< 0.050	< 0.050	0.0163	0.0177	27.2	0.0147	0.0168	< 0.0050			0.00053
1/13/2017	FR_LMP1	E306924	0.08	0.011	0.052	< 0.050	< 0.050	0.0167	0.0169	27.6	0.0142	0.0164	< 0.0050			0.00051
1/14/2017	FR_LMP1	E306924	0.089	< 0.010	0.05	< 0.050	< 0.050	0.0172	0.0189	24.7	0.0148	0.017	< 0.0050			< 0.00050
1/15/2017	FR_LMP1	E306924	0.088	0.01	0.053	< 0.050	< 0.050	0.021	0.0223	25.8	0.0256	0.0286	< 0.0050			0.00052
1/16/2017	FR_LMP1	E306924	0.116	< 0.010	0.071	< 0.050	< 0.050	0.0282	0.03	27.1	0.044	0.0501	< 0.0050			0.0005
1/17/2017	FR_LMP1	E306924	0.121	< 0.010	0.063	< 0.050	< 0.050	0.0397	0.0393	31.5	0.0483	0.0583	< 0.0050			0.00056
1/24/2017	FR_LMP1	E306924	0.107	< 0.010	0.039	< 0.050	< 0.050	0.0317	0.031	34.3	0.0284	0.029	< 0.0050			0.00108
2/15/2017	FR_LMP1	E306924	0.036	< 0.010	0.049	< 0.050	< 0.050	0.0191	0.019	35.7	0.00848	0.0104	< 0.0050			0.00054
3/2/2017	FR_LMP1	E306924	0.024	< 0.010	0.045	< 0.050	< 0.050	0.017	0.0181	33.3	0.00716	0.00829	< 0.0050			0.00056
3/14/2017	FR_LMP1	E306924	0.026													
3/18/2017	FR_LMP1	E306924														
3/19/2017	FR_LMP1	E306924														
3/22/2017	FR_LMP1	E306924	0.094													
3/27/2017	FR_LMP1	E306924	0.104													
4/3/2017	FR_LMP1	E306924	0.131	0.012	0.553	< 0.050	0.42	0.0114	0.0105	25.6	0.00843	0.0159	< 0.0050			0.00503
4/3/2017	FR_LMP1	E306924		0.021	0.665	< 0.050	0.44	0.01	0.0099	26.4	0.00703	0.0156	< 0.0050			0.00493
4/8/2017	FR_LMP1	E306924														
4/8/2017	FR_LMP1	E306924														
4/9/2017	FR_LMP1	E306924	0.217													
4/10/2017	FR_LMP1	E306924	0.191													
4/11/2017	FR_LMP1	E306924														
4/14/2017	FR_LMP1	E306924														
4/17/2017	FR_LMP1	E306924														
4/18/2017	FR_LMP1	E306924	0.31													
4/19/2017	FR_LMP1	E306924	0.497	0.031	3.17	< 0.050	2.25	0.0084	0.0104	20.2	0.00801	0.0518	< 0.0050			0.0226
4/19/2017	FR_LMP1	E306924														
4/20/2017	FR_LMP1	E306924	0.354													
4/20/2017	FR_LMP1	E306924	0.354	0.039	6.55	< 0.050	4.44	0.0081	0.0128	20.6	0.00722	0.0804	< 0.0050			0.046
4/20/2017	FR_LMP1	E306924														
4/21/2017	FR_LMP1	E306924														
4/21/2017	FR_LMP1	E306924		0.039	3.27	< 0.050	2.48	0.0099	0.0115	16.5	0.00584	0.0427	< 0.0050			0.0297
4/21/2017	FR_LMP1	E306924														
4/22/2017	FR_LMP1	E306924														
4/22/2017	FR_LMP1	E306924														
4/23/2017	FR_LMP1	E306924	0.476	0.047	1.45	< 0.050	1.07	0.0132	0.0133	19	0.00526	0.0182	< 0.0050			0.0116
4/25/2017	FR_LMP1	E306924	0.669													

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
4/27/2017	FR_LMP1	E306924	0.434	0.035	1.69	< 0.050	1.16	0.0124	0.0131	24.5	0.00584	0.0198	< 0.0050			0.0121
4/27/2017	FR_LMP1	E306924														
5/1/2017	FR_LMP1	E306924	0.333	0.041	0.737	< 0.050	0.465	0.0108	0.0107	20.6	0.00496	0.0111	< 0.0050			0.0052
5/1/2017	FR_LMP1	E306924		0.055	0.802	< 0.050	0.533	0.0105	0.0113	26.3	0.00495	0.0122	< 0.0050			0.00575
5/2/2017	FR_LMP1	E306924														
5/3/2017	FR_LMP1	E306924														
5/4/2017	FR_LMP1	E306924														
5/5/2017	FR_LMP1	E306924														
5/5/2017	FR_LMP1	E306924		0.054	3.09	< 0.050	2.36	0.0062	0.0072	13	0.00255	0.0435	< 0.0050			0.0264
5/5/2017	FR_LMP1	E306924														
5/5/2017	FR_LMP1	E306924														
5/6/2017	FR_LMP1	E306924														
5/6/2017	FR_LMP1	E306924		0.018	0.567	< 0.050	0.495	0.0116	0.012	18.6	0.00675	0.0181	< 0.0050			0.00591
5/6/2017	FR_LMP1	E306924														
5/7/2017	FR_LMP1	E306924														
5/7/2017	FR_LMP1	E306924														
5/8/2017	FR_LMP1	E306924														
5/9/2017	FR_LMP1	E306924														
5/10/2017	FR_LMP1	E306924	0.92	< 0.010	0.429	< 0.050	0.423	0.0126	0.0134	21.2	0.00816	0.0137	< 0.0050			0.00456
5/15/2017	FR_LMP1	E306924	1.022													
5/23/2017	FR_LMP1	E306924	0.768													
5/29/2017	FR_LMP1	E306924	0.909													
6/5/2017	FR_LMP1	E306924	0.741	0.017	0.243	< 0.050	0.207	0.0061	0.0064	15.9	0.00228	0.00452	< 0.0050			0.00309
6/5/2017	FR_LMP1	E306924		0.023	0.269	< 0.050	0.229	0.0068	0.0072	16.6	0.00224	0.00464	< 0.0050			0.00315
6/15/2017	FR_LMP1	E306924	0.374													
6/20/2017	FR_LMP1	E306924	0.269													
6/26/2017	FR_LMP1	E306924	0.172													
7/3/2017	FR_LMP1	E306924	0.109	0.016	0.105	< 0.050	0.056	0.0086	0.0087	21.7	0.00638	0.00967	< 0.0050			0.0012
7/3/2017	FR_LMP1	E306924		< 0.010	0.085	< 0.050	< 0.050	0.0085	0.0082	21.6	0.00549	0.0095	< 0.0050			0.00125
7/10/2017	FR_LMP1	E306924	0.076													
8/8/2017	FR_LMP1	E306924	0.036	< 0.010	0.079	< 0.050	< 0.050	0.0116	0.0096	28.1	0.00048	0.0273	< 0.0050			0.00073
9/4/2017	FR_LMP1	E306924	0													
10/2/2017	FR_LMP1	E306924	0													
11/20/2017	FR_LMP1	E306924	0.03	< 0.010	0.068	< 0.050	< 0.050	0.01	0.01	38.6	0.00152	0.00563	< 0.0050			0.00055
12/11/2017	FR_LMP1	E306924	0.039	< 0.010	0.101	< 0.050	< 0.050	0.0087	0.009	29.5	0.00491	0.00723	< 0.0050			0.00088
12/14/2017	FR_LMP1	E306924	0.036													
1/11/2017	FR_LP1	E304835														
1/11/2017	FR_LP1	E304835														
1/12/2017	FR_LP1	E304835														
1/16/2017	FR_LP1	E304835	0.003	< 0.010	0.109	< 0.050	0.155	0.0387	0.0428	122	0.0137	0.0194	< 0.0050			0.0017
2/16/2017	FR_LP1	E304835	0.006	< 0.010	0.48	< 0.030	0.391	0.0316	0.0306	86.6	0.0102	0.0217	< 0.0050			0.0035
3/2/2017	FR_LP1	E304835	0.00375	< 0.010	0.025	< 0.050	< 0.050	0.038	0.0389	130	0.015	0.0198	< 0.0050			0.00065
3/9/2017	FR_LP1	E304835														
3/14/2017	FR_LP1	E304835	0.005	< 0.010	0.025	< 0.050	< 0.050	0.0421	0.0345	98.4	0.0129	0.0141	< 0.0050			0.00053
3/18/2017	FR_LP1	E304835														
3/19/2017	FR_LP1	E304835														
3/20/2017	FR_LP1	E304835	0.006													

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
3/29/2017	FR_LP1	E304835	0.006													
4/3/2017	FR_LP1	E304835	0.014	< 0.010	0.133	< 0.050	0.179	0.0353	0.0325	88.7	0.0278	0.0311	< 0.0050			0.00144
4/3/2017	FR_LP1	E304835		< 0.010	0.074	< 0.050	0.111	0.035	0.0331	95.2	0.026	0.0315	< 0.0050			0.00159
4/10/2017	FR_LP1	E304835	0.015													
4/19/2017	FR_LP1	E304835	0.014													
4/26/2017	FR_LP1	E304835	0.015													
5/1/2017	FR_LP1	E304835	0.011	< 0.010	0.023	< 0.050	< 0.050	0.0395	0.0384	97.3	0.00159	0.00505	< 0.0050			0.0007
5/1/2017	FR_LP1	E304835		< 0.010	0.027	< 0.050	< 0.050	0.0391	0.0415	118	0.00152	0.00611	< 0.0050			0.00076
5/7/2017	FR_LP1	E304835														
5/10/2017	FR_LP1	E304835	0.03													
5/15/2017	FR_LP1	E304835	0.0479													
5/23/2017	FR_LP1	E304835	0.0295													
5/29/2017	FR_LP1	E304835	0.056													
6/5/2017	FR_LP1	E304835	0.00028	< 0.010	0.012	< 0.050	< 0.050	0.0213	0.0228	65.5	0.00064	0.00126	< 0.0050			0.00077
6/5/2017	FR_LP1	E304835		< 0.010	0.011	< 0.050	< 0.050	0.0256	0.0244	69.5	0.00056	0.00131	< 0.0050			0.00062
6/13/2017	FR_LP1	E304835	0.0002489													
6/19/2017	FR_LP1	E304835	0.000144													
6/26/2017	FR_LP1	E304835	0													
7/3/2017	FR_LP1	E304835	0													
7/10/2017	FR_LP1	E304835	0													
8/7/2017	FR_LP1	E304835	0													
9/25/2017	FR_LP1	E304835	0.00123	< 0.010	< 0.010	< 0.050	< 0.050	0.0554	0.0564	158	0.00051	0.00258	< 0.0050			0.00056
10/2/2017	FR_LP1	E304835	0													
11/20/2017	FR_LP1	E304835	0.0048772	< 0.010	0.011	< 0.050	< 0.050	0.0642	0.0647	152	0.00258	0.0395	< 0.0050			0.00055
12/11/2017	FR_LP1	E304835	0.00533	< 0.010	0.043	< 0.050	0.053	0.0571	0.0599	134	0.0114	0.0181	< 0.0050			0.00068
12/14/2017	FR_LP1	E304835	0.005268													
12/18/2017	FR_LP1	E304835	0.105	< 0.010	0.607	< 0.050	0.847	0.0541	0.0581	155	0.0106	0.0344	< 0.0050			0.0032
12/19/2017	FR_LP1	E304835	0.074	< 0.010	0.059	< 0.050	0.079	0.0623	0.0726	135	0.0825	0.0915	< 0.0050			0.0009
12/20/2017	FR_LP1	E304835	0.18	< 0.010	0.068	< 0.050	0.1	0.0852	0.086	138	0.044	0.191	< 0.0050			0.00105
12/21/2017	FR_LP1	E304835	0.028	< 0.010	0.062	< 0.050	0.102	0.0955	0.0944	121	0.0298	0.212	< 0.0050			0.00085
7/26/2017	FR_LP1H	E310052		0.073	0.379	< 0.050	0.164	0.0454	0.0443	107	0.163	0.183	< 0.0050			0.00188
8/28/2017	FR_LP1H	E310052		< 0.010	0.097	< 0.050	0.068	0.0554	0.0573	159	0.00047	0.0419	< 0.0050			0.00068
10/30/2017	FR_LP1H	E310052		< 0.010	0.044	< 0.050	0.064	0.0548	0.0488	144	0.00223	0.00556	< 0.0050			0.0008
1/31/2017	FR_MS1	E102478	0													
2/28/2017	FR_MS1	E102478	0													
3/7/2017	FR_MS1	E102478	0													
3/16/2017	FR_MS1	E102478	0													
3/23/2017	FR_MS1	E102478	0													
3/31/2017	FR_MS1	E102478	0													
4/4/2017	FR_MS1	E102478	0													
4/10/2017	FR_MS1	E102478	0													
4/17/2017	FR_MS1	E102478	0													
4/24/2017	FR_MS1	E102478	0													
5/1/2017	FR_MS1	E102478	0													
5/8/2017	FR_MS1	E102478	0													
5/15/2017	FR_MS1	E102478	0													
5/25/2017	FR_MS1	E102478	0													

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
5/29/2017	FR_MS1	E102478	0													
6/5/2017	FR_MS1	E102478	0													
6/16/2017	FR_MS1	E102478	0													
6/22/2017	FR_MS1	E102478	0													
6/27/2017	FR_MS1	E102478	0													
7/3/2017	FR_MS1	E102478	0													
7/10/2017	FR_MS1	E102478	0													
8/7/2017	FR_MS1	E102478	0													
9/4/2017	FR_MS1	E102478	0													
10/2/2017	FR_MS1	E102478	0													
11/6/2017	FR_MS1	E102478	0													
12/4/2017	FR_MS1	E102478	0													
1/31/2017	FR_NL1	E102476	0													
2/28/2017	FR_NL1	E102476	0													
3/7/2017	FR_NL1	E102476	0													
3/11/2017	FR_NL1	E102476	0													
3/21/2017	FR_NL1	E102476	0													
3/28/2017	FR_NL1	E102476	0.0028	< 0.010	1.3	< 0.050	0.481	0.009	0.0087	22.2	0.394	0.393	< 0.0050			0.00103
4/4/2017	FR_NL1	E102476	0.000016	0.025	0.723	< 0.050	0.12	0.0092	0.0083	26.7	0.598	0.578	< 0.0050			< 0.00050
4/11/2017	FR_NL1	E102476	0.0001													
4/18/2017	FR_NL1	E102476	0													
4/25/2017	FR_NL1	E102476	0													
5/1/2017	FR_NL1	E102476	0													
5/8/2017	FR_NL1	E102476	0													
5/17/2017	FR_NL1	E102476	0													
5/25/2017	FR_NL1	E102476	0													
5/29/2017	FR_NL1	E102476	0													
6/5/2017	FR_NL1	E102476	0													
6/16/2017	FR_NL1	E102476	0													
6/22/2017	FR_NL1	E102476	0													
6/26/2017	FR_NL1	E102476	0													
7/3/2017	FR_NL1	E102476	0													
7/10/2017	FR_NL1	E102476	0													
8/7/2017	FR_NL1	E102476	0													
9/4/2017	FR_NL1	E102476	0													
10/2/2017	FR_NL1	E102476	0													
11/27/2017	FR_NL1	E102476	0.077	< 0.010	0.058	0.213	0.29	0.0572	0.0566	53.1	0.0369	0.0374	< 0.0050			0.00057
12/4/2017	FR_NL1	E102476	0.000033	< 0.010	0.351	0.054	0.201	0.0309	0.0351	43	0.13	0.133	< 0.0050			< 0.00050
7/26/2017	FR_NL1H	E310046		< 0.010	0.084	< 0.050	0.195	0.0236	0.0228	30.1	0.00072	0.00502	< 0.0050			0.00105
8/28/2017	FR_NL1H	E310046		< 0.010	< 0.010	< 0.050	< 0.050	0.0185	0.0188	32.4	< 0.00010	0.00093	< 0.0050			< 0.00050
9/25/2017	FR_NL1H	E310046		< 0.010	< 0.010	< 0.050	< 0.050	0.0222	0.022	27.4	0.00031	0.00155	< 0.0050			< 0.00050
10/23/2017	FR_NL1H	E310046		< 0.010	0.04	< 0.050	0.113	0.0346	0.0349	30.4	0.0064	0.00824	< 0.0050			0.00067
9/4/2017	FR_PP1	E304750	0													
1/31/2017	FR_SKP1	E208394	0													
2/28/2017	FR_SKP1	E208394	0													
3/6/2017	FR_SKP1	E208394	0													
3/15/2017	FR_SKP1	E208394	0													

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
3/21/2017	FR_SKP1	E208394	0													
3/28/2017	FR_SKP1	E208394	0													
4/3/2017	FR_SKP1	E208394	0													
4/10/2017	FR_SKP1	E208394	0													
4/17/2017	FR_SKP1	E208394	0													
4/24/2017	FR_SKP1	E208394	0													
5/1/2017	FR_SKP1	E208394	0													
5/9/2017	FR_SKP1	E208394	0													
5/17/2017	FR_SKP1	E208394	0													
5/23/2017	FR_SKP1	E208394	0													
5/31/2017	FR_SKP1	E208394	0													
6/5/2017	FR_SKP1	E208394	0													
6/16/2017	FR_SKP1	E208394	0													
6/19/2017	FR_SKP1	E208394	0													
6/27/2017	FR_SKP1	E208394	0													
7/3/2017	FR_SKP1	E208394	0													
7/10/2017	FR_SKP1	E208394	0													
8/7/2017	FR_SKP1	E208394	0													
9/4/2017	FR_SKP1	E208394	0													
10/2/2017	FR_SKP1	E208394	0													
11/6/2017	FR_SKP1	E208394	0													
12/4/2017	FR_SKP1	E208394	0													
7/26/2017	FR_SKP1H	E310049		< 0.010	0.019	< 0.050	< 0.050	0.0532	0.055	57.3	0.00044	0.00098	< 0.0050			0.00104
8/28/2017	FR_SKP1H	E310049		< 0.010	< 0.010	< 0.050	< 0.050	0.0538	0.0673	88.8	0.00026	0.00104	< 0.0050			0.00083
9/25/2017	FR_SKP1H	E310049		< 0.010	< 0.010	< 0.050	< 0.050	0.0705	0.0719	103	0.00151	0.00133	< 0.0050			< 0.00050
10/23/2017	FR_SKP1H	E310049		< 0.010	< 0.010	< 0.050	< 0.050	0.0705	0.0699	117	0.00065	0.00034	< 0.0050			0.00058
11/22/2017	FR_SKP1H	E310049		< 0.010	0.013	< 0.050	< 0.050	0.08	0.084	124	0.00034	0.00075	< 0.0050			0.00057
12/12/2017	FR_SKP1H	E310049		< 0.010	< 0.010	< 0.050	< 0.050	0.0907	0.0893	122	0.00039	0.0007	< 0.0050			0.00064
1/31/2017	FR_SKP2	E208395	0													
2/28/2017	FR_SKP2	E208395	0													
3/6/2017	FR_SKP2	E208395	0													
3/15/2017	FR_SKP2	E208395	0													
3/21/2017	FR_SKP2	E208395	0													
3/28/2017	FR_SKP2	E208395	0													
4/3/2017	FR_SKP2	E208395	0													
4/10/2017	FR_SKP2	E208395	0													
4/17/2017	FR_SKP2	E208395	0													
4/24/2017	FR_SKP2	E208395	0													
5/2/2017	FR_SKP2	E208395	0													
5/9/2017	FR_SKP2	E208395	0													
5/16/2017	FR_SKP2	E208395	0													
5/23/2017	FR_SKP2	E208395	0													
5/30/2017	FR_SKP2	E208395	0.618	< 0.010	0.014	< 0.050	< 0.050	0.0524	0.0536	60.3	0.00156	0.0019	< 0.0050			0.00086
6/6/2017	FR_SKP2	E208395		< 0.010	< 0.010	< 0.050	< 0.050	0.0457	0.0465	49.7	0.00279	0.00257	< 0.0050			0.00069
6/13/2017	FR_SKP2	E208395	0.805													
6/19/2017	FR_SKP2	E208395	0.063													
6/27/2017	FR_SKP2	E208395	0													

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
7/3/2017	FR_SKP2	E208395	0													
7/10/2017	FR_SKP2	E208395	0													
8/7/2017	FR_SKP2	E208395	0													
9/4/2017	FR_SKP2	E208395	0													
10/2/2017	FR_SKP2	E208395	0													
11/6/2017	FR_SKP2	E208395	0													
12/4/2017	FR_SKP2	E208395	0													
7/26/2017	FR_SKP2H	E310050		< 0.010	< 0.010	< 0.050	< 0.050	0.0543	0.0546	60.7	0.00024	0.00057	< 0.0050			< 0.00050
8/28/2017	FR_SKP2H	E310050		< 0.010	< 0.010	< 0.050	< 0.050	0.0677	0.0698	94.7	< 0.00010	0.00044	< 0.0050			< 0.00050
9/25/2017	FR_SKP2H	E310050		< 0.010	< 0.010	< 0.050	< 0.050	0.0753	0.074	105	< 0.00010	0.00091	< 0.0050			< 0.00050
10/23/2017	FR_SKP2H	E310050		< 0.010	< 0.010	< 0.050	< 0.050	0.0728	0.0702	128	< 0.00010	< 0.00010	< 0.0050			< 0.00050
11/22/2017	FR_SKP2H	E310050		< 0.010	< 0.010	< 0.050	< 0.050	0.0786	0.0776	127	< 0.00010	0.00017	< 0.0050			< 0.00050
12/12/2017	FR_SKP2H	E310050		< 0.010	< 0.010	< 0.050	< 0.050	0.0791	0.0799	123	< 0.00010	0.00013	< 0.0050			< 0.00050
1/18/2017	FR_SP1	E261897	0.035	< 0.010	0.017	< 0.050	< 0.050	0.0564	0.0537	93.1	0.00091	0.00089	< 0.0050			< 0.00050
2/15/2017	FR_SP1	E261897	0.0117	< 0.010	0.013	< 0.050	< 0.050	0.0601	0.0597	98.6	0.00074	0.00082	< 0.0050			< 0.00050
3/2/2017	FR_SP1	E261897	0.02475	< 0.010	< 0.010	< 0.050	< 0.050	0.0581	0.0594	97.6	0.00064	0.00067	< 0.0050			< 0.00050
3/16/2017	FR_SP1	E261897	0.023													
3/22/2017	FR_SP1	E261897	0.029	< 0.010	0.025	< 0.050	< 0.050	0.059	0.0648	109	0.00206	0.00246	< 0.0050			< 0.00050
3/27/2017	FR_SP1	E261897	0.031													
4/3/2017	FR_SP1	E261897	0.04	< 0.010	0.014	< 0.050	< 0.050	0.0646	0.0595	99.3	0.00169	0.00173	< 0.0050			< 0.00050
4/10/2017	FR_SP1	E261897	0.042													
4/20/2017	FR_SP1	E261897	0.059													
4/26/2017	FR_SP1	E261897	0.036													
5/1/2017	FR_SP1	E261897	0.067	< 0.010	< 0.010	< 0.050	< 0.050	0.0601	0.058	85.9	0.00074	0.00085	< 0.0050			< 0.00050
5/2/2017	FR_SP1	E261897														
5/7/2017	FR_SP1	E261897														
5/8/2017	FR_SP1	E261897	0.113													
5/15/2017	FR_SP1	E261897	0.10001													
5/24/2017	FR_SP1	E261897	0.154													
5/29/2017	FR_SP1	E261897	0.1303													
6/5/2017	FR_SP1	E261897	0.2	< 0.010	< 0.010	< 0.050	< 0.050	0.0426	0.0467	72.1	0.00075	0.00074	< 0.0050			< 0.00050
6/13/2017	FR_SP1	E261897	0.11428													
6/19/2017	FR_SP1	E261897	0.1149													
6/26/2017	FR_SP1	E261897	0.0938													
7/3/2017	FR_SP1	E261897	0.0507	< 0.010	< 0.010	< 0.050	< 0.050	0.0509	0.0508	79.1	0.00061	0.00064	< 0.0050			< 0.00050
7/10/2017	FR_SP1	E261897	0.0733													
8/8/2017	FR_SP1	E261897	0.047098	< 0.010	< 0.010	< 0.050	< 0.050	0.0594	0.0519	91.2	0.00076	0.00067	< 0.0050			< 0.00050
9/6/2017	FR_SP1	E261897	0.031885	< 0.010	< 0.010	< 0.050	< 0.050	0.0541	0.0531	93.4	0.00158	0.00189	< 0.0050			< 0.00050
10/11/2017	FR_SP1	E261897	0.0284	< 0.010	< 0.010	< 0.050	< 0.050	0.0525	0.0532	89.3	0.00081	0.00096	< 0.0050			< 0.00050
11/20/2017	FR_SP1	E261897	0.02366	< 0.010	0.011	< 0.050	< 0.050	0.0514	0.0545	95.6	0.00223	0.00246	< 0.0050			< 0.00050
12/11/2017	FR_SP1	E261897	0.02759	< 0.010	< 0.010	< 0.050	< 0.050	0.0501	0.05	75.9	0.00086	0.00101	< 0.0050			< 0.00050
1/31/2017	FR_TP1	E102475														
3/31/2017	FR_TP1	E102475														
10/2/2017	FR_TP1	E102475														
1/31/2017	FR_TP3	E206660														
3/31/2017	FR_TP3	E206660														
1/9/2017	FR_UFR1	E216777		< 0.010	< 0.010	< 0.050	< 0.050	0.0016	0.0017	14.5	< 0.00010	0.00028	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
2/21/2017	FR_UFR1	E216777		< 0.010	< 0.010	< 0.050	< 0.050	0.0013	0.0014	14	< 0.00010	0.00027	< 0.0050			< 0.00050
2/28/2017	FR_UFR1	E216777		< 0.010	< 0.010	< 0.050	< 0.050	0.0016	0.0015	13.7	< 0.00010	0.00027	< 0.0050			< 0.00050
3/7/2017	FR_UFR1	E216777		< 0.010	< 0.010	< 0.050	< 0.050	0.0016	0.0015	15	< 0.00010	0.00025	< 0.0050			< 0.00050
3/14/2017	FR_UFR1	E216777		< 0.010	< 0.010	< 0.050	< 0.050	0.0019	0.0017	15.8	< 0.00010	0.00029	< 0.0050			< 0.00050
3/21/2017	FR_UFR1	E216777		< 0.010	0.015	< 0.050	< 0.050	0.0016	0.002	15.5	< 0.00010	0.0006	< 0.0050			< 0.00050
3/27/2017	FR_UFR1	E216777														
4/4/2017	FR_UFR1	E216777		< 0.010	0.016	< 0.050	< 0.050	0.0017	0.0015	11.3	0.00019	0.00063	< 0.0050			0.00059
4/11/2017	FR_UFR1	E216777														
4/18/2017	FR_UFR1	E216777														
4/24/2017	FR_UFR1	E216777	0.67	0.054	0.131	< 0.050	0.092	0.0011	0.0012	8.74	0.00123	0.00348	< 0.0050			0.00314
5/2/2017	FR_UFR1	E216777	0.408	0.016	0.04	< 0.050	< 0.050	0.0012	0.0014	10.4	0.00028	0.00076	< 0.0050			0.00173
5/5/2017	FR_UFR1	E216777														
5/6/2017	FR_UFR1	E216777														
5/7/2017	FR_UFR1	E216777														
5/9/2017	FR_UFR1	E216777	1.72	< 0.010	0.101	< 0.050	0.068	0.0011	0.0013	9.53	0.00061	0.00389	< 0.0050			0.00236
5/16/2017	FR_UFR1	E216777	2.061	< 0.010	0.057	< 0.050	< 0.050	< 0.0010	< 0.0010	8.84	0.00039	0.00244	< 0.0050			0.00168
5/23/2017	FR_UFR1	E216777	3.834	< 0.010	0.378	< 0.050	0.266	< 0.0010	0.0012	7.98	0.00068	0.0165	< 0.0050			0.00305
5/30/2017	FR_UFR1	E216777		< 0.010	0.381	< 0.050	0.284	< 0.0010	0.0014	7.85	0.0005	0.0175	< 0.0050			0.00287
6/6/2017	FR_UFR1	E216777	2.605	< 0.010	0.076	< 0.050	< 0.050	0.0011	0.0011	8.55	0.0005	0.00323	< 0.0050			0.00109
6/14/2017	FR_UFR1	E216777	2.253													
6/20/2017	FR_UFR1	E216777	1.224													
6/27/2017	FR_UFR1	E216777	0.943													
7/3/2017	FR_UFR1	E216777	0.712	< 0.010	0.012	< 0.050	< 0.050	0.0015	0.0014	10.9	0.00046	0.00108	< 0.0050			0.00061
7/11/2017	FR_UFR1	E216777	0.477													
7/25/2017	FR_UFR1	E216777	0.324	< 0.010	0.011	< 0.050	< 0.050	0.0015	0.0015	12.8	0.00036	0.00107	< 0.0050			< 0.00050
8/1/2017	FR_UFR1	E216777	0.273	< 0.010	< 0.010	< 0.050	< 0.050	0.0017	0.0016	13.6	0.00022	0.00083	< 0.0050			< 0.00050
8/8/2017	FR_UFR1	E216777	0.247	< 0.010	< 0.010	< 0.050	< 0.050	0.0021	0.0018	13	< 0.00010	0.00062	< 0.0050			< 0.00050
8/15/2017	FR_UFR1	E216777	0.225	< 0.010	< 0.010	< 0.050	< 0.050	0.0018	0.0018	13.7	0.00017	0.00046	< 0.0050			< 0.00050
8/22/2017	FR_UFR1	E216777	0.167	< 0.010	< 0.010	< 0.050	< 0.050	0.002	0.002	13.4	0.00032	0.00057	< 0.0050			< 0.00050
9/5/2017	FR_UFR1	E216777	0.148	< 0.010	< 0.010	< 0.050	< 0.050	0.0018	0.0021	15.2	< 0.00010	0.00101	< 0.0050			< 0.00050
10/2/2017	FR_UFR1	E216777	0.127	< 0.010	< 0.010	< 0.050	< 0.050	0.0019	0.0017	14.2	< 0.00010	0.00056	< 0.0050			< 0.00050
10/10/2017	FR_UFR1	E216777	0.121	< 0.010	< 0.010	< 0.050	< 0.050	0.0018	0.002	14.6	0.0002	0.0006	< 0.0050			< 0.00050
10/17/2017	FR_UFR1	E216777	0.118	< 0.010	< 0.010	< 0.050	< 0.050	0.0018	0.0018	13.7	< 0.00010	0.00043	< 0.0050			< 0.00050
10/24/2017	FR_UFR1	E216777	0.135	< 0.010	< 0.010	< 0.050	< 0.050	0.0013	0.0013	14.5	< 0.00010	0.00041	< 0.0050			< 0.00050
10/31/2017	FR_UFR1	E216777	0.102	< 0.010	< 0.010	< 0.050	< 0.050	0.0016	0.0018	14.9	0.00011	0.00035	< 0.0050			< 0.00050
11/7/2017	FR_UFR1	E216777		< 0.010	< 0.010	< 0.050	< 0.050	0.0022	0.0014	15.5	0.00046	0.00079	< 0.0050			< 0.00050
12/21/2017	FR_UFR1	E216777		< 0.010	< 0.010	< 0.050	< 0.050	0.0015	0.0015	15	0.00014	0.00045	< 0.0050			< 0.00050
1/16/2017	GH_BR_F	E287437	0													
2/14/2017	GH_BR_F	E287437	0													
3/6/2017	GH_BR_F	E287437	0													
3/16/2017	GH_BR_F	E287437	0													
3/21/2017	GH_BR_F	E287437	0.002	0.019	0.038	< 0.050	< 0.050	0.0086	0.0079	12.1	0.00105	0.00414	< 0.0050			0.00318
3/27/2017	GH_BR_F	E287437	0.003													
4/4/2017	GH_BR_F	E287437	0.01511													
4/10/2017	GH_BR_F	E287437	0.00772													
4/18/2017	GH_BR_F	E287437	0.00985365	0.037	0.139	< 0.050	0.09	0.0054	0.0053	10.6	0.0003	0.00242	< 0.0050			0.00599
4/25/2017	GH_BR_F	E287437	0.02019816													

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
5/1/2017	GH_BR_F	E287437	0.01944	0.043	0.133	< 0.050	0.088	0.0037	0.0046	10.8	0.00036	0.0018	< 0.0050		< 0.0050	
5/8/2017	GH_BR_F	E287437	0.0535382													
5/15/2017	GH_BR_F	E287437	0.00071928													
5/24/2017	GH_BR_F	E287437	0.307395													
5/29/2017	GH_BR_F	E287437	0.010775835													
6/5/2017	GH_BR_F	E287437	0.0038698	< 0.010	0.042	< 0.050	0.068	0.0073	0.0071	11.9	< 0.00010	0.00084	< 0.0050		< 0.0050	
6/12/2017	GH_BR_F	E287437	0.000987188													
6/20/2017	GH_BR_F	E287437	0													
6/27/2017	GH_BR_F	E287437	0													
7/4/2017	GH_BR_F	E287437	0													
7/10/2017	GH_BR_F	E287437	0													
8/1/2017	GH_BR_F	E287437	0													
9/12/2017	GH_BR_F	E287437	0													
10/3/2017	GH_BR_F	E287437	0													
11/6/2017	GH_BR_F	E287437	0													
12/6/2017	GH_BR_F	E287437	0													
1/10/2017	GH_CC1	E0200384	0.034	< 0.020	< 0.020	< 0.10	< 0.10	0.0661	0.0722	330	0.00045	0.00044	< 0.0050			< 0.00050
2/9/2017	GH_CC1	E0200384	0.03	< 0.010	< 0.010	< 0.050	< 0.050	0.073	0.0716	337	0.00038	0.0004	< 0.0050			< 0.00050
3/6/2017	GH_CC1	E0200384	0.024	< 0.010	< 0.010	< 0.050	< 0.050	0.0664	0.0648	343	0.00046	0.00065	< 0.0050			< 0.00050
3/15/2017	GH_CC1	E0200384	0.024													
3/21/2017	GH_CC1	E0200384	0.031	< 0.010	< 0.010	< 0.050	< 0.050	0.061	0.065	319	0.00091	0.00132	< 0.0050			< 0.00050
3/29/2017	GH_CC1	E0200384	0.028													
4/5/2017	GH_CC1	E0200384	0.021	< 0.010	< 0.010	< 0.050	< 0.050	0.0651	0.0555	255	0.0008	0.00125	< 0.0050			< 0.00050
4/5/2017	GH_CC1	E0200384		< 0.020	< 0.020	< 0.10	< 0.10	0.0608	0.0569	272	0.00097	0.00222	< 0.0050			< 0.00050
4/12/2017	GH_CC1	E0200384	0.03													
4/20/2017	GH_CC1	E0200384	0.033													
4/25/2017	GH_CC1	E0200384	0.043													
5/2/2017	GH_CC1	E0200384														
5/3/2017	GH_CC1	E0200384	0.038	< 0.010	< 0.010	< 0.050	< 0.050	0.0634	0.0652	263	0.00069	0.00079	< 0.0050			0.00078
5/3/2017	GH_CC1	E0200384		< 0.020	< 0.020	< 0.10	< 0.10	0.0644	0.0642	286	0.00071	0.0008	< 0.0050			< 0.00050
5/7/2017	GH_CC1	E0200384														
5/8/2017	GH_CC1	E0200384	0.047	< 0.010	0.022	< 0.050	< 0.050	0.0562	0.053	226	0.00132	0.00204	< 0.0050			0.00069
5/17/2017	GH_CC1	E0200384	0.052													
5/23/2017	GH_CC1	E0200384	0.046													
5/31/2017	GH_CC1	E0200384	0.048													
6/6/2017	GH_CC1	E0200384	0.049	< 0.010	< 0.010	< 0.050	< 0.050	0.0701	0.0727	321	0.001	0.00108	< 0.0050			< 0.00050
6/6/2017	GH_CC1	E0200384		< 0.020	< 0.020	< 0.10	< 0.10	0.0694	0.0681	313	0.00097	0.00102	< 0.0050			< 0.00050
6/13/2017	GH_CC1	E0200384	0.042													
6/19/2017	GH_CC1	E0200384	0.046													
6/27/2017	GH_CC1	E0200384	0.045													
7/5/2017	GH_CC1	E0200384	0.049	< 0.010	< 0.010	< 0.050	< 0.050	0.0736	0.0763	308	0.00071	0.00079	< 0.0050			< 0.00050
7/5/2017	GH_CC1	E0200384		< 0.020	< 0.020	< 0.10	< 0.10	0.0667	0.0758	338	0.00062	0.00108	< 0.0050			< 0.00050
7/10/2017	GH_CC1	E0200384	0.036													
8/8/2017	GH_CC1	E0200384	0.033	< 0.020	< 0.020	< 0.10	< 0.10	0.0824	0.0765	354	0.00073	0.00098	< 0.0050			0.0005
9/6/2017	GH_CC1	E0200384	0.044	< 0.010	< 0.020	< 0.050	< 0.10	0.0723	0.0827	375	0.0008	0.00101	< 0.0050			< 0.00050
9/20/2017	GH_CC1	E0200384	0.038													
10/4/2017	GH_CC1	E0200384	0.032	< 0.010	< 0.010	< 0.050	< 0.050	0.0783	0.0771	350	0.00045	0.0007	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
10/19/2017	GH_CC1	E0200384	0.033	< 0.020	< 0.020	< 0.10	< 0.10	0.0689	0.072	354	0.00061	0.00085	< 0.0050			< 0.00050
11/1/2017	GH_CC1	E0200384	0.028	< 0.020	< 0.010	< 0.10	< 0.050	0.0758	0.0713	354	0.00034	0.00054	< 0.0050			< 0.00050
11/16/2017	GH_CC1	E0200384	0.031													
12/5/2017	GH_CC1	E0200384	0.036	< 0.010	< 0.020	< 0.050	< 0.10	0.0904	0.0862	363	0.00043	0.00046	< 0.0050			< 0.00050
1/16/2017	GH_COUGAR	E287432	0													
2/15/2017	GH_COUGAR	E287432	0													
3/6/2017	GH_COUGAR	E287432	0													
3/16/2017	GH_COUGAR	E287432	0.00012	0.013	0.082	< 0.050	0.056	0.0055	0.0047	12.6	0.00089	0.00262	< 0.0050			0.00196
3/22/2017	GH_COUGAR	E287432	0.001													
3/27/2017	GH_COUGAR	E287432	0.0031													
4/4/2017	GH_COUGAR	E287432	0.00987													
4/10/2017	GH_COUGAR	E287432	0.03355													
4/18/2017	GH_COUGAR	E287432	0.02179	0.02	0.405	< 0.050	0.309	0.0036	0.0037	13.6	0.00049	0.0108	< 0.0050			0.00482
4/25/2017	GH_COUGAR	E287432	0.0156114													
5/1/2017	GH_COUGAR	E287432	0.0205029	0.015	0.386	< 0.050	0.35	0.0032	0.0037	14.7	0.00043	0.0106	< 0.0050		< 0.0050	
5/8/2017	GH_COUGAR	E287432	0.0197215													
5/15/2017	GH_COUGAR	E287432	0.01138													
5/24/2017	GH_COUGAR	E287432	0.00671													
5/29/2017	GH_COUGAR	E287432	0.00444													
6/5/2017	GH_COUGAR	E287432	0.000912384	< 0.010	0.048	< 0.050	0.066	0.0048	0.0052	17.2	0.00012	0.00095	< 0.0050		< 0.0050	
6/12/2017	GH_COUGAR	E287432	0.0015435													
6/20/2017	GH_COUGAR	E287432	0													
6/27/2017	GH_COUGAR	E287432	0													
7/4/2017	GH_COUGAR	E287432	0													
7/10/2017	GH_COUGAR	E287432	0													
8/2/2017	GH_COUGAR	E287432	0													
9/12/2017	GH_COUGAR	E287432	0													
10/3/2017	GH_COUGAR	E287432	0													
11/6/2017	GH_COUGAR	E287432	0													
12/6/2017	GH_COUGAR	E287432	0													
1/16/2017	GH_ER1	206661		< 0.010	< 0.010	< 0.050	< 0.050	0.0033	0.003	14.3	0.00029	0.00041	< 0.0050			< 0.00050
2/14/2017	GH_ER1	206661		< 0.010	< 0.010	< 0.050	< 0.050	0.0028	0.0027	13.3	0.00021	0.0003	< 0.0050			< 0.00050
2/21/2017	GH_ER1	206661														
3/6/2017	GH_ER1	206661		< 0.010	< 0.010	< 0.050	< 0.050	0.0021	0.0024	14.4	0.00029	0.00034	< 0.0050			< 0.00050
3/16/2017	GH_ER1	206661		< 0.010	0.031	< 0.050	< 0.050	0.0027	0.0028	13.6	0.0005	0.00206	< 0.0050			< 0.00050
3/21/2017	GH_ER1	206661		< 0.010	0.011	< 0.050	< 0.050	0.0026	0.0024	14.3	0.00054	0.00115	< 0.0050			< 0.00050
3/27/2017	GH_ER1	206661		< 0.010	< 0.010	< 0.050	< 0.050	0.003	0.0031	13.9	0.00042	0.00083	< 0.0050			0.00125
4/4/2017	GH_ER1	206661		< 0.010	0.013	< 0.050	< 0.050	0.003	0.0031	14.6	0.00066	0.00112	< 0.0050			< 0.00050
4/10/2017	GH_ER1	206661		< 0.010	0.011	< 0.050	< 0.050	0.0033	0.0032	14.8	0.00071	0.0013	< 0.0050			< 0.00050
4/20/2017	GH_ER1	206661		< 0.010	0.013	< 0.050	< 0.050	0.0035	0.003	12.2	0.00064	0.00135	< 0.0050			< 0.00050
4/25/2017	GH_ER1	206661		< 0.010	0.047	< 0.050	< 0.050	0.0028	0.0029	14.1	0.00104	0.00374	< 0.0050			0.00064
5/1/2017	GH_ER1	206661		< 0.010	0.027	< 0.050	< 0.050	0.0034	0.0031	14.5	0.001	0.00232	< 0.0050			< 0.00050
5/8/2017	GH_ER1	206661		< 0.010	0.796	< 0.050	0.487	0.0026	0.0035	14.6	0.00144	0.0372	< 0.0050			0.00322
5/15/2017	GH_ER1	206661		< 0.010	0.512	< 0.050	0.344	0.0023	0.0029	13.1	0.00147	0.0271	< 0.0050			0.00199
5/24/2017	GH_ER1	206661		< 0.010	6.01	< 0.050	4.23	0.0016	0.0096	16.9	0.00031	0.364	< 0.0050			0.0205
5/29/2017	GH_ER1	206661		< 0.010	2.03	< 0.050	1.21	0.0015	0.0036	12.9	0.00133	0.12	< 0.0050			0.00659
6/6/2017	GH_ER1	206661		< 0.010	1.46	< 0.050	0.851	0.0019	0.0035	12.4	0.00072	0.084	< 0.0050			0.00501

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
6/12/2017	GH_ER1	206661		< 0.010	1.01	< 0.050	0.602	0.0016	0.0029	11.5	0.00437	0.0584	< 0.0050			0.004
6/20/2017	GH_ER1	206661		< 0.010	0.241	< 0.050	0.158	0.0016	0.0023	11	0.00262	0.017	< 0.0050			0.0016
6/27/2017	GH_ER1	206661		< 0.010	0.366	< 0.050	0.207	0.0018	0.0022	10.4	0.00161	0.0197	< 0.0050			0.0023
7/4/2017	GH_ER1	206661		< 0.010	0.239	< 0.050	0.155	0.0019	0.0022	10.4	0.00212	0.0118	< 0.0050			< 0.0025
7/11/2017	GH_ER1	206661		< 0.010	0.146	< 0.050	0.088	0.0021	0.0022	9.39	0.00139	0.00754	< 0.0050			0.00128
8/2/2017	GH_ER1	206661		< 0.010	0.032	< 0.050	< 0.050	0.0018	0.002	12.4	0.00034	0.00324	< 0.0050			< 0.00050
9/5/2017	GH_ER1	206661		< 0.010	< 0.010	< 0.050	< 0.050	0.0026	0.0027	11.3	0.00074	0.00141	< 0.0050			< 0.00050
9/11/2017	GH_ER1	206661		< 0.010	0.012	< 0.050	< 0.050	0.002	0.0024	10.6	0.0005	0.0017	< 0.0050			< 0.00050
10/4/2017	GH_ER1	206661		< 0.010	< 0.010	< 0.050	< 0.050	0.0025	0.0022	13	0.0005	0.00102	< 0.0050			< 0.00050
11/6/2017	GH_ER1	206661		< 0.010	< 0.050	< 0.050	< 0.25	0.0026	< 0.0050	11.4	0.001	0.00097	< 0.0050			< 0.00050
12/5/2017	GH_ER1	206661		< 0.010	< 0.010	< 0.050	< 0.050	0.0026	0.003	12.1	0.0009	0.0008	< 0.0050			< 0.00050
1/16/2017	GH_ER1A	E305876		< 0.010	< 0.010	< 0.050	< 0.050	0.0019	0.0014	12.4	0.00046	0.00068	< 0.0050			< 0.00050
2/15/2017	GH_ER1A	E305876		< 0.010	< 0.010	< 0.050	< 0.050	< 0.0010	0.0011	11.9	0.00027	0.00074	< 0.0050			< 0.00050
3/6/2017	GH_ER1A	E305876	0													
3/16/2017	GH_ER1A	E305876	0													
3/21/2017	GH_ER1A	E305876	0													
3/27/2017	GH_ER1A	E305876	0													
4/4/2017	GH_ER1A	E305876														
4/10/2017	GH_ER1A	E305876														
4/18/2017	GH_ER1A	E305876	0.144	< 0.010	0.029	< 0.050	< 0.050	0.0128	0.0103	22.9	0.00017	0.00122	< 0.0050			0.00057
4/25/2017	GH_ER1A	E305876	0.527													
5/1/2017	GH_ER1A	E305876	0.383	< 0.010	0.055	< 0.050	< 0.050	0.0106	0.0109	20.6	0.00051	0.00372	< 0.0050			0.00067
5/8/2017	GH_ER1A	E305876	0.383													
5/15/2017	GH_ER1A	E305876														
5/24/2017	GH_ER1A	E305876														
5/29/2017	GH_ER1A	E305876														
6/6/2017	GH_ER1A	E305876		< 0.010	1.13	< 0.050	0.689	0.0029	0.0041	11.2	0.00018	0.0607	< 0.0050			0.0046
6/12/2017	GH_ER1A	E305876														
6/19/2017	GH_ER1A	E305876		< 0.010	0.37	< 0.050	0.225	0.0022	0.0028	11.5	0.00177	0.0214	< 0.0050			0.0012
6/27/2017	GH_ER1A	E305876														
7/11/2017	GH_ER1A	E305876		< 0.010	0.186	< 0.050	0.11	0.0022	0.0024	8.92	0.00088	0.0087	< 0.0050			0.00092
8/2/2017	GH_ER1A	E305876	0.983	< 0.010	0.048	< 0.050	< 0.050	0.0017	0.0018	9.8	< 0.00010	0.00399	< 0.0050			< 0.00050
9/8/2017	GH_ER1A	E305876		< 0.010	0.016	< 0.050	< 0.050	0.0019	0.0018	9.98	0.00091	0.00196	< 0.0050			< 0.00050
9/12/2017	GH_ER1A	E305876	0.237	< 0.010	0.013	< 0.050	< 0.050	0.0015	0.0013	10.8	0.00062	0.00275	< 0.0050			< 0.00050
10/3/2017	GH_ER1A	E305876	0.027	< 0.010	0.014	< 0.050	< 0.050	0.0019	0.0018	11.5	0.00063	0.00142	< 0.0050			< 0.00050
11/28/2017	GH_ER1A	E305876		< 0.010	< 0.010	< 0.050	< 0.050	0.0016	0.0018	11.9	0.00227	0.00304	< 0.0050			< 0.00050
12/12/2017	GH_ER1A	E305876	0													
1/16/2017	GH_ER2	200389		< 0.010	< 0.010	< 0.050	0.277	0.0017	0.0013	11.9	0.00083	0.00129	< 0.0050			< 0.00050
2/14/2017	GH_ER2	200389		< 0.010	< 0.010	< 0.050	< 0.050	0.0017	0.0017	11.5	0.0007	0.0011	< 0.0050			< 0.00050
2/21/2017	GH_ER2	200389														
3/6/2017	GH_ER2	200389		< 0.010	0.011	< 0.050	< 0.050	0.0015	0.0015	12.8	0.00082	0.00097	< 0.0050			< 0.00050
3/16/2017	GH_ER2	200389		< 0.010	0.041	< 0.050	< 0.050	0.0017	0.0014	9.95	0.00103	0.00286	< 0.0050			< 0.00050
3/21/2017	GH_ER2	200389														
3/27/2017	GH_ER2	200389														
4/4/2017	GH_ER2	200389														
4/10/2017	GH_ER2	200389														
4/18/2017	GH_ER2	200389		< 0.010	0.02	< 0.050	< 0.050	0.0018	0.0019	12.3	0.00086	0.00181	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
4/24/2017	GH_ER2	200389														
4/25/2017	GH_ER2	200389		< 0.010	0.074	< 0.050	0.061	0.0019	0.002	12.2	0.00095	0.00535	< 0.0050			0.00082
5/2/2017	GH_ER2	200389		< 0.010	0.037	< 0.050	< 0.050	0.0016	0.0014	12.7	0.0007	0.00268	< 0.0050			< 0.00050
5/9/2017	GH_ER2	200389		< 0.010	0.278	< 0.050	0.19	0.0018	0.0021	12	0.00052	0.0149	< 0.0050			0.00166
5/16/2017	GH_ER2	200389		< 0.010	0.221	< 0.050	0.138	0.0014	0.0021	11.7	0.00096	0.0121	< 0.0050			0.00142
5/23/2017	GH_ER2	200389		< 0.010	1.1	< 0.050	0.729	0.0015	0.0031	11.9	0.00077	0.0678	< 0.0050			0.00461
5/30/2017	GH_ER2	200389		< 0.010	2.61	< 0.050	1.71	0.001	0.0037	13	0.00173	0.18	< 0.0050			0.00964
6/11/2017	GH_ER2	200389		< 0.010	1.12	< 0.050	0.669	< 0.0010	0.0022	10.3	0.00308	0.0693	< 0.0050			0.004
6/13/2017	GH_ER2	200389		< 0.010	0.416	< 0.050	0.264	0.0011	0.0015	10.1	0.00211	0.0288	< 0.0050			0.0018
6/20/2017	GH_ER2	200389														
6/27/2017	GH_ER2	200389														
7/4/2017	GH_ER2	200389														
7/10/2017	GH_ER2	200389		< 0.010	0.049	< 0.050	< 0.050	0.0012	0.0013	7.92	0.00119	0.00406	< 0.0050			< 0.0025
7/25/2017	GH_ER2	200389		< 0.010	0.02	< 0.050	< 0.050	0.0017	0.0015	9.62	0.00212	0.00309	< 0.0050			0.0006
8/1/2017	GH_ER2	200389		< 0.010	0.02	< 0.050	< 0.050	0.0018	0.0021	10.2	0.00238	0.00372	< 0.0050			< 0.00050
8/8/2017	GH_ER2	200389		< 0.010	0.027	< 0.050	< 0.050	0.0016	0.0016	9.81	0.00142	0.00458	< 0.0050			< 0.00050
8/15/2017	GH_ER2	200389		< 0.010	0.012	< 0.050	< 0.050	0.0013	0.0018	10.6	0.00236	0.00346	< 0.0050			< 0.00050
8/22/2017	GH_ER2	200389		< 0.010	0.015	< 0.050	< 0.050	0.0019	0.002	10.6	0.00288	0.00399	< 0.0050			< 0.00050
9/10/2017	GH_ER2	200389		< 0.010	0.014	< 0.050	< 0.050	0.0014	0.0016	10.2	0.00087	0.00244	< 0.0050			< 0.00050
9/12/2017	GH_ER2	200389		< 0.010	0.023	< 0.050	< 0.050	0.0015	0.0012	10.4	0.00102	0.0036	< 0.0050			< 0.00050
10/2/2017	GH_ER2	200389		< 0.010	< 0.010	< 0.050	< 0.050	0.0021	0.002	11.1	0.00061	0.00161	< 0.0050			< 0.00050
10/10/2017	GH_ER2	200389		< 0.010	0.012	< 0.050	< 0.050	0.0019	0.0018	12	0.00092	0.00166	< 0.0050			< 0.00050
10/16/2017	GH_ER2	200389		< 0.010	0.012	< 0.050	< 0.050	0.0021	0.0024	11.9	0.00065	0.00222	< 0.0050		< 0.0050	
10/17/2017	GH_ER2	200389		< 0.010	0.013	< 0.050	< 0.050	0.0018	0.0016	10.6	0.00011	0.00158	< 0.0050			< 0.00050
10/24/2017	GH_ER2	200389		< 0.010	< 0.010	< 0.050	< 0.050	0.0014	0.0014	11.2	0.00014	0.00137	< 0.0050			< 0.00050
10/31/2017	GH_ER2	200389		< 0.010	< 0.010	< 0.050	< 0.050	0.0021	0.0017	10.8	0.00042	0.00107	< 0.0050			< 0.00050
11/6/2017	GH_ER2	200389		< 0.010	< 0.050	< 0.050	< 0.25	0.0017	< 0.0050	10.5	0.00082	0.00135	< 0.0050			< 0.00050
12/6/2017	GH_ER2	200389		< 0.010	< 0.010	< 0.050	< 0.050	0.0016	0.0018	9.73	< 0.00010	0.00085	< 0.0050			< 0.00050
1/16/2017	GH_ERC	E300090		< 0.010	< 0.010	< 0.050	< 0.050	0.0035	0.0032	14.6	< 0.00010	0.00024	< 0.0050			< 0.00050
2/1/2017	GH_ERC	E300090		< 0.010	0.012	< 0.050	< 0.050	0.0038	0.0045	14.7	0.00013	0.0013	< 0.0050			< 0.00050
2/14/2017	GH_ERC	E300090		< 0.010	< 0.010	< 0.050	< 0.050	0.0038	0.004	14.1	0.00011	0.00025	< 0.0050			< 0.00050
2/21/2017	GH_ERC	E300090		< 0.010	< 0.010	< 0.050	< 0.050	0.0031	0.0035	14.2	0.00012	0.00032	< 0.0050			< 0.00050
3/6/2017	GH_ERC	E300090		< 0.010	< 0.010	< 0.050	< 0.050	0.0027	0.0028	14.5	0.00011	0.00036	< 0.0050			< 0.00050
3/16/2017	GH_ERC	E300090		< 0.010	0.255	< 0.050	0.116	0.0027	0.0029	12.4	0.00089	0.0177	< 0.0050			0.00126
3/21/2017	GH_ERC	E300090		< 0.010	0.012	< 0.050	< 0.050	0.0027	0.0023	13.2	0.00038	0.00084	< 0.0050			< 0.00050
3/28/2017	GH_ERC	E300090		< 0.010	0.065	< 0.050	0.051	0.0039	0.0038	15.7	0.00034	0.00506	< 0.0050			0.00053
4/4/2017	GH_ERC	E300090		< 0.010	0.027	< 0.050	< 0.050	0.003	0.0025	14.7	0.00043	0.00198	< 0.0050			< 0.00050
4/10/2017	GH_ERC	E300090		< 0.010	0.028	< 0.050	< 0.050	0.0038	0.0034	15.4	0.00056	0.00227	< 0.0050			< 0.00050
4/20/2017	GH_ERC	E300090		< 0.010	0.023	< 0.050	< 0.050	0.0031	0.0035	14.1	0.00054	0.00203	< 0.0050			< 0.00050
4/24/2017	GH_ERC	E300090		< 0.010	0.125	< 0.050	0.08	0.0029	0.0032	14.8	0.00083	0.00616	< 0.0050			0.00073
5/2/2017	GH_ERC	E300090		< 0.010	0.056	< 0.050	< 0.050	0.0035	0.003	15.5	0.00028	0.00325	< 0.0050			0.00055
5/9/2017	GH_ERC	E300090		< 0.010	0.562	< 0.050	0.398	0.0034	0.0037	14.3	0.00026	0.0291	< 0.0050			0.00266
5/16/2017	GH_ERC	E300090		< 0.010	0.384	< 0.050	0.219	0.0028	0.0032	14.4	0.00072	0.0183	< 0.0050			0.00185
5/23/2017	GH_ERC	E300090		< 0.010	1.35	< 0.050	20.8	0.0019	0.0041	13.6	0.00086	0.0852	< 0.0050			0.00615
5/30/2017	GH_ERC	E300090		< 0.010	2.81	< 0.050	1.92	0.002	0.0046	14.7	0.00132	0.193	< 0.0050			0.0102
6/11/2017	GH_ERC	E300090		< 0.010	1.39	< 0.050	0.913	0.002	0.0034	11.9	0.00247	0.0801	< 0.0050			0.0055
6/13/2017	GH_ERC	E300090		< 0.010	0.988	< 0.050	0.578	0.0017	0.0027	11.5	0.00298	0.0472	< 0.0050			0.0042

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
6/19/2017	GH_ERC	E300090		< 0.010	0.284	< 0.050	0.175	0.0018	0.0025	11	0.00202	0.0179	< 0.0050			0.0019
6/27/2017	GH_ERC	E300090		< 0.010	0.423	< 0.050	0.242	0.0019	0.0022	10.3	0.00087	0.022	< 0.0050			0.0021
7/4/2017	GH_ERC	E300090		< 0.010	0.289	< 0.050	0.173	0.0019	0.0022	10.3	0.00108	0.0136	< 0.0050			< 0.0025
7/11/2017	GH_ERC	E300090		< 0.010	0.127	< 0.050	0.086	0.0021	0.0023	9.18	0.00111	0.00697	< 0.0050			0.00093
7/25/2017	GH_ERC	E300090		< 0.010	0.061	< 0.050	< 0.050	0.0025	0.0024	11	0.00114	0.004	< 0.0050			0.0007
8/1/2017	GH_ERC	E300090		< 0.010	0.032	< 0.050	< 0.050	0.0027	0.003	11.4	0.00086	0.00274	< 0.0050			< 0.00050
9/5/2017	GH_ERC	E300090		< 0.010	0.012	< 0.050	< 0.050	0.0026	0.0027	10.9	0.00063	0.0019	< 0.0050			< 0.00050
9/11/2017	GH_ERC	E300090		< 0.010	0.011	< 0.050	< 0.050	0.0022	0.0025	10.2	0.00053	0.00148	< 0.0050			< 0.00050
10/2/2017	GH_ERC	E300090		< 0.010	< 0.010	< 0.050	< 0.050	0.0027	0.0025	12	0.00044	0.00107	< 0.0050			< 0.00050
10/10/2017	GH_ERC	E300090		< 0.010	< 0.010	< 0.050	< 0.050	0.0028	0.0028	13.2	0.00058	0.00098	< 0.0050			< 0.00050
10/17/2017	GH_ERC	E300090		< 0.010	< 0.010	< 0.050	< 0.050	0.0026	0.0026	11.9	< 0.00010	0.00093	< 0.0050			< 0.00050
10/24/2017	GH_ERC	E300090		< 0.010	< 0.010	< 0.050	< 0.050	0.0022	0.002	12.2	< 0.00010	0.00102	< 0.0050			< 0.00050
10/31/2017	GH_ERC	E300090		< 0.010	< 0.010	< 0.050	0.074	0.003	0.0029	12	0.00046	0.00087	< 0.0050			< 0.00050
11/14/2017	GH_ERC	E300090		< 0.010	0.012	< 0.050	< 0.050	0.0023	0.0023	14.4	< 0.00010	0.00134	< 0.0050			< 0.00050
12/5/2017	GH_ERC	E300090		< 0.010	< 0.010	< 0.050	< 0.050	0.0027	0.0034	12.1	0.00029	0.00055	< 0.0050			< 0.00050
1/16/2017	GH_ERSC2	E305877	0													
2/15/2017	GH_ERSC2	E305877	0													
3/6/2017	GH_ERSC2	E305877	0													
3/16/2017	GH_ERSC2	E305877	0													
3/22/2017	GH_ERSC2	E305877	0													
3/29/2017	GH_ERSC2	E305877	0													
4/5/2017	GH_ERSC2	E305877	0													
4/10/2017	GH_ERSC2	E305877	0													
4/20/2017	GH_ERSC2	E305877	0													
4/25/2017	GH_ERSC2	E305877	0.04086	< 0.010	0.343	< 0.050	0.223	0.0104	0.0107	37.3	0.00218	0.0127	< 0.0050			0.00278
5/3/2017	GH_ERSC2	E305877	0.025	< 0.010	0.13	< 0.050	0.073	0.0117	0.0094	38.4	0.00211	0.00581	< 0.0050			0.00168
5/10/2017	GH_ERSC2	E305877	1.417													
5/15/2017	GH_ERSC2	E305877	1.893													
5/24/2017	GH_ERSC2	E305877														
5/29/2017	GH_ERSC2	E305877														
6/7/2017	GH_ERSC2	E305877		0.231	0.664	0.361	0.4	0.0035	0.0042	15.1	0.043	0.0368	< 0.0050			0.0032
6/12/2017	GH_ERSC2	E305877														
6/19/2017	GH_ERSC2	E305877		< 0.010	0.467	< 0.050	0.268	0.0027	0.0031	14	0.00217	0.025	< 0.0050			0.0021
6/27/2017	GH_ERSC2	E305877	1.458													
7/4/2017	GH_ERSC2	E305877	1.151													
7/11/2017	GH_ERSC2	E305877	0.846	< 0.010	0.421	< 0.050	0.277	0.0025	0.0031	11.1	0.0004	0.0205	< 0.0050			0.00148
8/2/2017	GH_ERSC2	E305877	0.273	< 0.010	0.228	< 0.050	0.169	0.0023	0.0026	13.5	< 0.00010	0.0105	< 0.0050			0.00198
9/13/2017	GH_ERSC2	E305877	0													
10/3/2017	GH_ERSC2	E305877	0													
11/14/2017	GH_ERSC2	E305877	0													
12/18/2017	GH_ERSC2	E305877	0													
1/16/2017	GH_ERSC4	E305878		< 0.010	< 0.010	< 0.050	< 0.050	0.0034	0.0029	21.9	0.00189	0.00207	< 0.0050			< 0.00050
2/15/2017	GH_ERSC4	E305878		< 0.010	0.014	< 0.050	< 0.050	0.0018	0.0018	13	0.0004	0.0023	< 0.0050			< 0.00050
3/6/2017	GH_ERSC4	E305878	0													
3/16/2017	GH_ERSC4	E305878	0													
3/21/2017	GH_ERSC4	E305878	0													
3/29/2017	GH_ERSC4	E305878	0													

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
4/4/2017	GH_ERSC4	E305878	0													
4/10/2017	GH_ERSC4	E305878	0													
4/20/2017	GH_ERSC4	E305878		< 0.010	0.035	< 0.050	< 0.050	0.0032	0.0036	12.5	0.00112	0.00285	< 0.0050			0.00056
4/25/2017	GH_ERSC4	E305878	0.586													
5/1/2017	GH_ERSC4	E305878	0.466	< 0.010	0.051	< 0.050	< 0.050	0.0033	0.0035	13.4	0.00076	0.0033	< 0.0050			0.00051
5/10/2017	GH_ERSC4	E305878														
5/15/2017	GH_ERSC4	E305878														
5/24/2017	GH_ERSC4	E305878														
5/29/2017	GH_ERSC4	E305878														
6/5/2017	GH_ERSC4	E305878		< 0.010	1.65	< 0.050	0.998	< 0.0010	0.003	12	0.00085	0.0921	< 0.0050			0.00571
6/12/2017	GH_ERSC4	E305878														
6/19/2017	GH_ERSC4	E305878														
6/27/2017	GH_ERSC4	E305878														
7/10/2017	GH_ERSC4	E305878		< 0.010	0.111	< 0.050	0.076	0.0015	0.0016	8.27	0.00171	0.00718	< 0.0050			0.00072
8/2/2017	GH_ERSC4	E305878	0.98	< 0.010	0.046	< 0.050	< 0.050	0.0016	0.0017	10.3	0.00026	0.00434	< 0.0050			< 0.00050
9/8/2017	GH_ERSC4	E305878		< 0.010	0.011	< 0.050	< 0.050	0.0023	0.0018	9.91	0.00155	0.00221	< 0.0050			< 0.00050
9/12/2017	GH_ERSC4	E305878	0.275	< 0.010	0.182	< 0.050	0.137	0.0015	0.0014	11	< 0.00010	0.0137	< 0.0050			< 0.00050
10/3/2017	GH_ERSC4	E305878	0.049	< 0.010	< 0.010	< 0.050	< 0.050	0.0018	0.0018	11.4	0.00102	0.00173	< 0.0050			< 0.00050
11/14/2017	GH_ERSC4	E305878	0.041	< 0.010	0.012	< 0.050	< 0.050	0.0015	0.0016	13	< 0.00010	0.00139	< 0.0050			< 0.00050
12/12/2017	GH_ERSC4	E305878		< 0.010	< 0.010	< 0.050	< 0.050	0.0015	0.0013	12.6	0.00023	0.00171	< 0.0050			< 0.00050
1/9/2017	GH_FR1	200378		< 0.010	0.014	< 0.050	< 0.050	0.0164	0.019	51.1	0.0009	0.00145	< 0.0050			< 0.00050
2/1/2017	GH_FR1	200378		< 0.010	< 0.010	< 0.050	< 0.050	0.018	0.0204	51.9	0.00103	0.00149	< 0.0050			< 0.00050
2/14/2017	GH_FR1	200378		< 0.010	0.012	< 0.050	< 0.050	0.0181	0.0207	48.5	0.00077	0.00123	< 0.0050			< 0.00050
2/21/2017	GH_FR1	200378		< 0.010	0.011	< 0.050	< 0.050	0.0161	0.0158	48.5	0.00118	0.00151	< 0.0050			< 0.00050
2/28/2017	GH_FR1	200378		< 0.010	0.011	< 0.050	< 0.050	0.0184	0.0184	49.5	0.00119	0.00151	< 0.0050			< 0.00050
3/7/2017	GH_FR1	200378		< 0.010	< 0.010	< 0.050	< 0.050	0.0149	0.0178	49.8	0.00116	0.00135	< 0.0050			< 0.00050
3/14/2017	GH_FR1	200378		< 0.010	< 0.010	< 0.050	< 0.050	0.0173	0.017	48.8	0.00133	0.00174	< 0.0050			< 0.00050
3/16/2017	GH_FR1	200378		< 0.010	0.04	< 0.050	< 0.050	0.0162	0.0163	60	0.00152	0.00388	< 0.0050			0.00105
3/21/2017	GH_FR1	200378		< 0.010	0.034	< 0.050	< 0.050	0.0179	0.0174	53.9	0.00232	0.00315	< 0.0050			0.0006
3/27/2017	GH_FR1	200378		< 0.010	0.026	< 0.050	< 0.050	0.0203	0.0212	51.2	0.0021	0.00278	< 0.0050			0.0008
4/4/2017	GH_FR1	200378		< 0.010	0.039	< 0.050	< 0.050	0.0169	0.017	52.7	0.00274	0.00455	< 0.0050			< 0.00050
4/11/2017	GH_FR1	200378		< 0.010	0.035	< 0.050	< 0.050	0.019	0.0193	50.7	0.002	0.00361	< 0.0050			0.00058
4/18/2017	GH_FR1	200378		< 0.010	0.033	< 0.050	< 0.050	0.0182	0.0185	52.7	0.00235	0.00324	< 0.0050			0.00074
4/24/2017	GH_FR1	200378		0.013	0.554	< 0.050	0.426	0.0145	0.0151	44.2	0.00321	0.0139	< 0.0050			0.00472
5/2/2017	GH_FR1	200378		< 0.010	0.108	< 0.050	0.083	0.0174	0.0154	43	0.00161	0.00475	< 0.0050			0.00154
5/9/2017	GH_FR1	200378		< 0.010	0.435	< 0.050	0.38	0.0146	0.0124	29.5	0.00085	0.0156	< 0.0050		< 0.010	
5/16/2017	GH_FR1	200378		< 0.010	0.252	< 0.050	0.151	0.0142	0.0135	29.5	0.0016	0.00896	< 0.0050		< 0.0050	
5/23/2017	GH_FR1	200378		< 0.010	0.693	< 0.050	0.593	0.0114	0.0135	27.3	0.00022	0.0345	< 0.0050		< 0.010	
5/30/2017	GH_FR1	200378		< 0.010	0.976	< 0.050	0.643	0.0102	0.0114	23.7	0.00078	0.0406	< 0.0050		< 0.010	
6/11/2017	GH_FR1	200378		< 0.010	0.169	< 0.050	0.133	0.0144	0.0143	28.3	0.00319	0.00935	< 0.0050		< 0.0050	
6/13/2017	GH_FR1	200378		< 0.010	0.139	< 0.050	0.087	0.0142	0.0141	29.3	0.00169	0.00713	< 0.0050			0.0014
6/19/2017	GH_FR1	200378		< 0.010	0.052	< 0.050	< 0.050	0.0154	0.0151	30.9	0.00187	0.00422	< 0.0050			0.0008
6/27/2017	GH_FR1	200378		< 0.010	0.043	< 0.050	< 0.050	0.0161	0.0158	32.3	0.00086	0.00364	< 0.0050			0.0014
7/4/2017	GH_FR1	200378		< 0.010	0.025	< 0.050	< 0.050	0.0163	0.0162	34.7	0.00208	0.00345	< 0.0050			< 0.0025
7/11/2017	GH_FR1	200378		< 0.010	0.019	< 0.050	< 0.050	0.0181	0.0179	35.6	0.00237	0.00291	< 0.0050			0.00113
7/25/2017	GH_FR1	200378		< 0.010	0.013	< 0.050	< 0.050	0.0186	0.0177	42.9	0.0017	0.00232	< 0.0050			0.0005
8/1/2017	GH_FR1	200378		< 0.010	0.012	< 0.050	< 0.050	0.0192	0.0206	46.2	0.00134	0.00246	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
8/8/2017	GH_FR1	200378		< 0.010	0.011	< 0.050	< 0.050	0.0179	0.0193	42.8	0.00046	0.00222	< 0.0050			< 0.00050
8/15/2017	GH_FR1	200378		< 0.010	< 0.010	< 0.050	< 0.050	0.0201	0.0192	49.3	0.00056	0.00187	< 0.0050			< 0.00050
8/22/2017	GH_FR1	200378		< 0.010	0.01	< 0.050	< 0.050	0.0194	0.019	45.9	0.00115	0.00184	< 0.0050			< 0.00050
9/5/2017	GH_FR1	200378		< 0.010	< 0.010	< 0.050	< 0.050	0.0187	0.0198	45.9	0.00105	0.00199	< 0.0050			< 0.00050
9/11/2017	GH_FR1	200378		< 0.010	0.011	< 0.050	< 0.050	0.0178	0.0173	42.3	0.00098	0.00187	< 0.0050			< 0.00050
10/2/2017	GH_FR1	200378		< 0.010	< 0.010	< 0.050	< 0.050	0.0181	0.0176	50.7		0.00144	< 0.0050			< 0.00050
10/10/2017	GH_FR1	200378		< 0.010	0.013	< 0.050	< 0.050	0.0172	0.0173	74	0.00131	0.00197	< 0.0050			< 0.00050
10/17/2017	GH_FR1	200378		< 0.010	0.014	< 0.050	< 0.050	0.0166	0.0161	56	0.00095	0.00191	< 0.0050			< 0.00050
10/24/2017	GH_FR1	200378		< 0.010	< 0.010	< 0.050	< 0.050	0.0151	0.0152	57.8	0.00232	0.00224	< 0.0050			< 0.00050
10/31/2017	GH_FR1	200378		< 0.010	0.016	< 0.050	< 0.050	0.0178	0.0186	48.5	0.00175	0.00232	< 0.0050			0.00342
11/7/2017	GH_FR1	200378		< 0.010	< 0.010	< 0.050	< 0.050	0.0188	0.0184	61.3	0.00156	0.00168	< 0.0050			< 0.00050
11/14/2017	GH_FR1	200378		< 0.010	< 0.010	< 0.050	< 0.050	0.016	0.0167	59.9	< 0.00080	0.00148	< 0.0050			< 0.00050
11/21/2017	GH_FR1	200378		< 0.010	< 0.010	< 0.050	< 0.050	0.0173	0.0176	56.7	0.00088	0.00131	< 0.0050			< 0.00050
12/5/2017	GH_FR1	200378		< 0.010	< 0.010	< 0.050	< 0.050	0.0161	0.0206	48.1	0.00227	0.00231	< 0.0050			< 0.00050
1/9/2017	GH_GH1	E102709	0.031	< 0.010	0.013	< 0.050	< 0.050	0.0128	0.0148	141	0.00058	0.00218	< 0.0050			0.00066
2/15/2017	GH_GH1	E102709	0.014	< 0.010	< 0.010	< 0.050	< 0.050	0.0139	0.0148	155	0.00057	0.00142	< 0.0050			< 0.00050
3/7/2017	GH_GH1	E102709	0.017	< 0.010	< 0.010	< 0.050	< 0.050	0.0129	0.0137	133	0.00099	0.00131	< 0.0050			< 0.00050
3/14/2017	GH_GH1	E102709		< 0.010	< 0.010	< 0.050	< 0.050	0.0134	0.0127	139	0.00247	0.00287	< 0.0050			< 0.00050
3/16/2017	GH_GH1	E102709	0.084													
3/21/2017	GH_GH1	E102709	0.055													
3/27/2017	GH_GH1	E102709	0.057													
4/4/2017	GH_GH1	E102709	0.079													
4/11/2017	GH_GH1	E102709	0.099													
4/18/2017	GH_GH1	E102709	0.179	< 0.010	0.084	< 0.050	0.076	0.0089	0.0093	73.4	0.00303	0.00514	< 0.0050			0.00152
4/24/2017	GH_GH1	E102709	0.305													
4/27/2017	GH_GH1	E102709														
5/2/2017	GH_GH1	E102709	0.293	< 0.010	0.325	< 0.050	0.251	0.0063	0.0054	41.8	0.00397	0.00799	< 0.0050			0.00382
5/3/2017	GH_GH1	E102709														
5/9/2017	GH_GH1	E102709		0.032	1.1	< 0.050	1.13	0.0057	0.0059	28.5	0.0038	0.0251	< 0.0050			0.0119
5/10/2017	GH_GH1	E102709														
5/15/2017	GH_GH1	E102709	0.525													
5/24/2017	GH_GH1	E102709	0.365													
5/29/2017	GH_GH1	E102709	0.239													
6/7/2017	GH_GH1	E102709		< 0.010	0.043	< 0.050	< 0.050	0.0123	0.0138	80.7	0.00047	0.0047	< 0.0050		< 0.0050	
6/8/2017	GH_GH1	E102709	0.149	< 0.010	0.054	< 0.050	< 0.050	0.013	0.0133	77.7	0.00176	0.00475	0.0055		< 0.0050	
6/12/2017	GH_GH1	E102709	0.153													
6/19/2017	GH_GH1	E102709	0.149													
6/27/2017	GH_GH1	E102709	0.137													
7/4/2017	GH_GH1	E102709	0.082													
7/11/2017	GH_GH1	E102709	0.061	< 0.010	0.017	< 0.050	< 0.050	0.016	0.0157	123	0.00053	0.00272	< 0.0050			0.00151
8/3/2017	GH_GH1	E102709	0.057	< 0.010	< 0.010	< 0.050	< 0.050	0.016	0.017	162	0.00012	0.00187	< 0.0050			0.00054
9/11/2017	GH_GH1	E102709	0.027	< 0.010	< 0.010	0.108	< 0.050	0.0158	0.0166	161	0.00413	0.0152	< 0.0050			0.00056
10/4/2017	GH_GH1	E102709	0.056	< 0.010	< 0.010	< 0.050	< 0.050	0.0149	0.0157	170	0.00068	0.00152	< 0.0050			< 0.00050
11/7/2017	GH_GH1	E102709	0.025	< 0.010	< 0.010	< 0.050	< 0.050	0.0151	0.0146	188	< 0.00010	0.00154	< 0.0050			< 0.00050
12/11/2017	GH_GH1	E102709	0.017	< 0.010	< 0.010	< 0.050	< 0.050	0.0144	0.0157	161	0.00107	0.00204	< 0.0050			< 0.00050
5/9/2017	GH_GH2	E309911	0.57	0.031	1.08	< 0.050	1.03	0.0057	0.0056	29.8	0.00364	0.0248	< 0.0050		< 0.025	
6/7/2017	GH_GH2	E309911		< 0.010	0.049	< 0.050	< 0.050	0.0119	0.0126	76.4	0.00078	0.00514	< 0.0050		< 0.0050	

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
6/19/2017	GH_GH2	E309911	0.174	< 0.010	0.043	< 0.050	< 0.050	0.0137	0.0138	103	0.00141	0.00546	< 0.0050		< 0.0050	
7/11/2017	GH_GH2	E309911	0.069	< 0.010	0.022	< 0.050	< 0.050	0.016	0.0158	120	0.00157	0.00386	< 0.0050		< 0.0050	
8/3/2017	GH_GH2	E309911	0.041													
8/7/2017	GH_GH2	E309911		< 0.010	0.011	< 0.050	< 0.050	0.0147	0.0152	149	0.00016	0.00291	< 0.0050		< 0.0050	
9/12/2017	GH_GH2	E309911	0.022	< 0.010	0.024	< 0.050	< 0.050	0.0172	0.0178	183	0.00321	0.00735	< 0.0050			< 0.00050
10/25/2017	GH_GH2	E309911		< 0.010	0.02	< 0.050	< 0.050	0.0161	0.0158	148	0.00159	0.00267	< 0.0050		< 0.0050	
11/7/2017	GH_GH2	E309911		< 0.010	< 0.010	< 0.050	< 0.050	0.0156	0.0145	181	0.00016	0.00243	< 0.0050			< 0.00050
12/11/2017	GH_GH2	E309911		< 0.010	0.016	< 0.050	< 0.050	0.0136	0.0152	161	0.00212	0.00301	< 0.0050			< 0.00050
1/16/2017	GH_LC1	E257796	0													
2/14/2017	GH_LC1	E257796	0.016985176	< 0.010	0.032	< 0.050	< 0.050	0.129	0.117	117	0.00105	0.00195	< 0.0050			0.0007
2/21/2017	GH_LC1	E257796		< 0.010	0.045	< 0.050	< 0.050	0.121	0.127	122	0.00131	0.00243	< 0.0050			0.00094
3/6/2017	GH_LC1	E257796	0.028	< 0.010	0.024	< 0.050	< 0.050	0.131	0.145	136	0.001	0.00185	< 0.0050			0.00056
3/16/2017	GH_LC1	E257796	0.025													
3/21/2017	GH_LC1	E257796	0.06													
3/27/2017	GH_LC1	E257796	0.096													
4/4/2017	GH_LC1	E257796	0.08													
4/10/2017	GH_LC1	E257796	0.086													
4/18/2017	GH_LC1	E257796	0.035	< 0.010	0.02	< 0.050	< 0.050	0.124	0.137	155	0.00114	0.00248	< 0.0050			0.00062
4/25/2017	GH_LC1	E257796	0.054													
5/1/2017	GH_LC1	E257796	0.0818273	< 0.010	0.065	< 0.050	0.056	0.132	0.15	132	0.00183	0.00438	< 0.0050			0.00133
5/8/2017	GH_LC1	E257796	0.0783155													
5/15/2017	GH_LC1	E257796	0.0622													
5/24/2017	GH_LC1	E257796	0.0526													
5/29/2017	GH_LC1	E257796	0.0209													
6/5/2017	GH_LC1	E257796	0.056633	< 0.010	0.042	< 0.050	< 0.050	0.151	0.153	146	0.00086	0.00316	< 0.0050			0.00068
6/12/2017	GH_LC1	E257796	0.0586													
6/19/2017	GH_LC1	E257796	0.05623													
6/20/2017	GH_LC1	E257796														
6/27/2017	GH_LC1	E257796	0.036808													
7/4/2017	GH_LC1	E257796	0.035195521													
7/10/2017	GH_LC1	E257796	0.02827967	< 0.010	0.027	< 0.050	< 0.050	0.145	0.141	126	0.00119	0.00229	< 0.0050			< 0.0025
8/2/2017	GH_LC1	E257796	0.026	< 0.020	< 0.020	< 0.10	< 0.10	0.17	0.169	152	0.00077	0.00181	< 0.0050			0.00059
9/11/2017	GH_LC1	E257796	0.0038	< 0.010	< 0.010	< 0.050	< 0.050	0.141	0.161	159	0.00077	0.00204	< 0.0050			< 0.00050
10/3/2017	GH_LC1	E257796	0.0029	< 0.010	< 0.010	< 0.050	< 0.050	0.16	0.164	177	0.00188	0.00113	< 0.0050			0.00073
11/6/2017	GH_LC1	E257796	0													
12/12/2017	GH_LC1	E257796	0													
1/16/2017	GH_MC1	200388	0													
2/15/2017	GH_MC1	200388	0													
3/6/2017	GH_MC1	200388	0													
3/16/2017	GH_MC1	200388	0.0034	< 0.010	0.025	< 0.050	< 0.050	0.0397	0.0357	33.7	0.00264	0.00457	< 0.0050			0.00128
3/22/2017	GH_MC1	200388	0.0042	< 0.010	0.041	< 0.050	< 0.050	0.0375	0.0409	35.9	0.00436	0.00721	< 0.0050			0.00094
3/27/2017	GH_MC1	200388	0.014													
4/4/2017	GH_MC1	200388	0.033													
4/10/2017	GH_MC1	200388	0.02095													
4/18/2017	GH_MC1	200388	0.01937	0.01	0.08	< 0.050	0.052	0.0261	0.0254	29.4	0.00071	0.00235	< 0.0050			0.00186
4/25/2017	GH_MC1	200388	0.0423													
5/1/2017	GH_MC1	200388	0.064703	0.017	0.134	< 0.050	0.088	0.0213	0.0205	23.7	0.00122	0.00491	< 0.0050		< 0.0050	

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
5/8/2017	GH_MC1	200388	0.0771474													
5/15/2017	GH_MC1	200388	0.0394													
5/24/2017	GH_MC1	200388	0.0243													
5/29/2017	GH_MC1	200388	0.0216													
6/5/2017	GH_MC1	200388	0.00799	< 0.010	0.012	< 0.050	< 0.050	0.0291	0.0284	27	0.00022	0.00087	< 0.0050		< 0.0050	
6/12/2017	GH_MC1	200388	0.013													
6/20/2017	GH_MC1	200388	0.0092816													
6/27/2017	GH_MC1	200388	0.006185													
7/4/2017	GH_MC1	200388	0.002499													
7/10/2017	GH_MC1	200388	0.00116851	< 0.010	< 0.010	< 0.050	< 0.050	0.0376	0.0367	29.6	0.00021	0.0004	< 0.0050			< 0.0025
8/2/2017	GH_MC1	200388	0													
9/12/2017	GH_MC1	200388	0													
10/3/2017	GH_MC1	200388	0													
11/28/2017	GH_MC1	200388	0.00365	< 0.010	< 0.010	< 0.050	< 0.050	0.0325	0.031	34.1	0.00025	0.00035	< 0.0050			0.00099
12/6/2017	GH_MC1	200388	0.00018	< 0.010	0.021	< 0.050	< 0.050	0.0372	0.0369	30.4	< 0.00010	0.00026	< 0.0050			0.00119
1/16/2017	GH_NNC	E305875	0.000022	0.022	0.088	< 0.050	< 0.050	0.0051	0.005	18.9	0.00853	0.0111	< 0.0050			0.00077
2/15/2017	GH_NNC	E305875	0													
3/6/2017	GH_NNC	E305875	0.00004	0.014	0.249	< 0.050	0.209	0.0058	0.0066	19	0.00528	0.0165	< 0.0050			0.00104
3/16/2017	GH_NNC	E305875	0.0023													
3/22/2017	GH_NNC	E305875	0.0049													
3/28/2017	GH_NNC	E305875	0.014													
4/4/2017	GH_NNC	E305875	0.03287													
4/10/2017	GH_NNC	E305875	0.02299													
4/20/2017	GH_NNC	E305875	0.00424	< 0.010	0.112	< 0.050	0.124	0.0048	0.0055	11.6	0.00064	0.00705	< 0.0050			0.00225
4/25/2017	GH_NNC	E305875	0.00381													
5/1/2017	GH_NNC	E305875	0.0056769	< 0.010	0.039	< 0.050	< 0.050	0.005	0.0051	13.3	0.00064	0.00123	< 0.0050			0.00219
5/8/2017	GH_NNC	E305875	0.005317													
5/15/2017	GH_NNC	E305875	0.002396													
5/24/2017	GH_NNC	E305875	0.001711													
5/29/2017	GH_NNC	E305875	0.00139356													
6/5/2017	GH_NNC	E305875	0.00086	< 0.010	0.131	< 0.050	0.095	0.0071	0.0071	14.9	0.00069	0.00447	< 0.0050		< 0.0050	
6/12/2017	GH_NNC	E305875	0.0056													
6/19/2017	GH_NNC	E305875	0.0023													
6/26/2017	GH_NNC	E305875	0.0023													
7/4/2017	GH_NNC	E305875	0.0082													
7/10/2017	GH_NNC	E305875	0.0004561	< 0.010	0.061	< 0.050	< 0.050	0.0086	0.0084	14.7	0.00485	0.0065	< 0.0050			< 0.0025
8/2/2017	GH_NNC	E305875	0.00015	< 0.010	0.063	< 0.050	0.051	0.0055	0.0056	17.8	0.00384	0.01	< 0.0050			0.00123
9/12/2017	GH_NNC	E305875	0													
10/3/2017	GH_NNC	E305875	0													
11/28/2017	GH_NNC	E305875	0.00043	0.024	0.036	< 0.050	< 0.050	0.008	0.0085	16.8	0.0153	0.0187	< 0.0050			0.00091
12/6/2017	GH_NNC	E305875	0.00023	< 0.010	0.046	< 0.050	< 0.050	0.0087	0.0086	13.9	0.00381	0.0222	< 0.0050			0.0006
1/9/2017	GH_PC1	200385	0.032	< 0.010	< 0.010	< 0.050	< 0.050	0.0056	0.006	83.1	0.00113	0.00123	< 0.0050			< 0.00050
2/9/2017	GH_PC1	200385	0.031	< 0.010	< 0.010	< 0.050	< 0.050	0.0062	0.0059	84.9	0.00083	0.00097	< 0.0050			< 0.00050
2/9/2017	GH_PC1	200385														
3/6/2017	GH_PC1	200385	0.022	< 0.010	< 0.010	< 0.050	< 0.050	0.0049	0.0058	86.5	0.00058	0.00064	< 0.0050			< 0.00050
3/15/2017	GH_PC1	200385	0.019													
3/21/2017	GH_PC1	200385	0.027	< 0.010	< 0.010	< 0.050	< 0.050	0.0058	0.0066	83.7	0.00045	0.00071	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
3/29/2017	GH_PC1	200385	0.027													
4/5/2017	GH_PC1	200385	0.02	< 0.010	< 0.010	< 0.050	< 0.050	0.005	0.0052	65.7	0.0005	0.00063	< 0.0050			0.00055
4/12/2017	GH_PC1	200385	0.014													
4/20/2017	GH_PC1	200385	0.04542													
4/25/2017	GH_PC1	200385	0.024													
5/3/2017	GH_PC1	200385	0.045	< 0.010	0.015	< 0.050	< 0.050	0.0056	0.006	66.6	0.00052	0.00065	< 0.0050			0.00076
5/8/2017	GH_PC1	200385	0.189	< 0.010	0.394	< 0.050	0.5	0.0066	0.0065	55.6	0.00108	0.00957	< 0.0050			0.00529
5/17/2017	GH_PC1	200385	0.062													
5/23/2017	GH_PC1	200385														
5/31/2017	GH_PC1	200385	0.137													
6/6/2017	GH_PC1	200385	0.0276	< 0.010	0.037	< 0.050	< 0.050	0.0094	0.0095	94.6	0.0006	0.00133	< 0.0050			0.00085
6/13/2017	GH_PC1	200385	0.0873													
6/19/2017	GH_PC1	200385	0.091													
6/27/2017	GH_PC1	200385	0.0276													
7/5/2017	GH_PC1	200385	0.0426	< 0.010	< 0.010	< 0.050	< 0.050	0.0082	0.0085	85.7	0.00037	0.0007	< 0.0050			0.00051
7/10/2017	GH_PC1	200385	0.04													
7/27/2017	GH_PC1	200385	0.0833	< 0.010	< 0.010	< 0.050	< 0.050	0.0078	0.0077	87.7	0.00055	0.00063	< 0.0050			0.0005
8/8/2017	GH_PC1	200385														
8/8/2017	GH_PC1	200385	0.04	< 0.010	< 0.010	< 0.050	< 0.050	0.0081	0.0075	83.4	0.00036	0.00093	< 0.0050		< 0.0050	
12/5/2017	GH_PC1	200385	0.01													
1/9/2017	GH_RLP	E207437	0													
2/7/2017	GH_RLP	E207437	0													
3/16/2017	GH_RLP	E207437	0.0233	0.014	3.99	< 0.050	4.54	0.0132	0.0153	5.93	0.00125	0.0969	< 0.0050			0.0142
3/21/2017	GH_RLP	E207437	0.0016													
3/27/2017	GH_RLP	E207437	0.00033													
4/4/2017	GH_RLP	E207437	0													
4/11/2017	GH_RLP	E207437	0.001													
4/18/2017	GH_RLP	E207437	0.0001	< 0.010	0.049	< 0.050	0.148	0.0203	0.02	14.3	0.00192	0.0279	< 0.0050			0.00092
4/25/2017	GH_RLP	E207437	0.00446													
5/3/2017	GH_RLP	E207437	0.00305932	< 0.010	0.107	< 0.050	0.125	0.0243	0.0205	28.2	0.024	0.038	< 0.0050			< 0.00050
5/10/2017	GH_RLP	E207437	0.01													
5/15/2017	GH_RLP	E207437	0.0025944													
5/24/2017	GH_RLP	E207437	0.00031													
5/29/2017	GH_RLP	E207437	0													
6/7/2017	GH_RLP	E207437	0													
6/12/2017	GH_RLP	E207437	0													
6/22/2017	GH_RLP	E207437	0													
6/27/2017	GH_RLP	E207437	0													
7/4/2017	GH_RLP	E207437	0.0008272													
7/11/2017	GH_RLP	E207437	0													
7/27/2017	GH_RLP	E207437	0	0.017	0.061	< 0.050	0.315	0.0373	0.0352	51.1	0.0263	0.0473	< 0.0050			0.0007
8/3/2017	GH_RLP	E207437	0													
9/27/2017	GH_RLP	E207437														
10/25/2017	GH_RLP	E207437														
11/14/2017	GH_RLP	E207437														
12/7/2017	GH_RLP	E207437		< 0.010	0.017	< 0.050	0.076	0.0566	0.0515	49.8	0.0606	0.0713	< 0.0050			< 0.00050
1/10/2017	GH_SC1	E221329	0.02	< 0.010	< 0.010	< 0.050	< 0.050	0.0596	0.0557	264	0.00364	0.00377	< 0.0050			0.00053

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
2/9/2017	GH_SC1	E221329	0.019	< 0.010	0.012	< 0.050	< 0.050	0.0592	0.0631	275	0.00285	0.00344	< 0.0050			0.00055
3/6/2017	GH_SC1	E221329	0.016	< 0.010	< 0.010	< 0.050	< 0.050	0.06	0.054	279	0.00278	0.00322	< 0.0050			< 0.00050
3/15/2017	GH_SC1	E221329	0.019													
3/21/2017	GH_SC1	E221329	0.034	< 0.010	0.077	< 0.050	0.108	0.0453	0.0513	221	0.0056	0.00817	< 0.0050			0.00115
3/29/2017	GH_SC1	E221329	0.024													
4/5/2017	GH_SC1	E221329	0.031	< 0.010	0.208	< 0.050	0.294	0.0478	0.0418	173	0.00941	0.0139	< 0.0050			0.00251
4/12/2017	GH_SC1	E221329	0.029													
4/20/2017	GH_SC1	E221329	0.048													
4/25/2017	GH_SC1	E221329	0.069													
5/2/2017	GH_SC1	E221329														
5/3/2017	GH_SC1	E221329	0.069	< 0.010	0.128	< 0.050	0.167	0.0461	0.0459	175	0.00383	0.00644	< 0.0050			0.00213
5/8/2017	GH_SC1	E221329	0.156	< 0.010	0.186	< 0.050	0.261	0.0448	0.0424	163	0.00325	0.00935	< 0.0050			0.00306
5/17/2017	GH_SC1	E221329	0.169													
5/17/2017	GH_SC1	E221329														
5/17/2017	GH_SC1	E221329														
5/18/2017	GH_SC1	E221329														
5/23/2017	GH_SC1	E221329	0.128													
5/31/2017	GH_SC1	E221329	0.106													
6/6/2017	GH_SC1	E221329	0.085	< 0.010	0.059	< 0.050	0.072	0.0414	0.0412	154	0.0042	0.00576	< 0.0050			0.00126
6/13/2017	GH_SC1	E221329	0.078													
6/19/2017	GH_SC1	E221329	0.061													
6/27/2017	GH_SC1	E221329	0.06													
7/5/2017	GH_SC1	E221329	0.054	< 0.010	< 0.010	< 0.050	< 0.050	0.0483	0.0495	182	0.00195	0.00317	< 0.0050			0.00084
7/10/2017	GH_SC1	E221329	0.048													
8/8/2017	GH_SC1	E221329	0.039	< 0.020	< 0.020	< 0.10	< 0.10	0.0611	0.0517	231	0.00148	0.00268	< 0.0050			0.00053
9/6/2017	GH_SC1	E221329	0.031	< 0.010	0.025	< 0.050	< 0.050	0.0575	0.0616	269	0.0096	0.0164	< 0.0050			0.00073
9/20/2017	GH_SC1	E221329	0.031													< 0.00050
10/4/2017	GH_SC1	E221329	0.023	< 0.010	0.021	< 0.050	< 0.050	0.0638	0.0658	277	0.0171	0.0194	< 0.0050			0.00061
10/19/2017	GH_SC1	E221329	0.035	< 0.020	< 0.020	< 0.10	< 0.10	0.0607	0.0628	274	0.0111	0.0194	< 0.0050			< 0.00050
11/1/2017	GH_SC1	E221329	0.031	< 0.020	0.015	< 0.10	< 0.050	0.0567	0.0599	270	0.0152	0.0202	< 0.0050			< 0.00050
11/16/2017	GH_SC1	E221329	0.025													
12/5/2017	GH_SC1	E221329	0.028	< 0.010	< 0.020	< 0.050	< 0.10	0.0835	0.0723	278	0.0172	0.0204	< 0.0050			0.00052
1/1/2017	GH_SC2	E105061	0													
2/1/2017	GH_SC2	E105061	0													
3/1/2017	GH_SC2	E105061	0													
4/1/2017	GH_SC2	E105061	0													
5/1/2017	GH_SC2	E105061	0													
6/1/2017	GH_SC2	E105061	0													
7/1/2017	GH_SC2	E105061	0													
8/1/2017	GH_SC2	E105061	0													
9/4/2017	GH_SC2	E105061	0													
10/2/2017	GH_SC2	E105061	0													
11/6/2017	GH_SC2	E105061	0													
12/4/2017	GH_SC2	E105061	0													
1/10/2017	GH_TC1	E102714		< 0.010	0.027	< 0.050	< 0.050	0.0225	0.019	102	0.00228	0.00355	< 0.0050			< 0.00050
2/15/2017	GH_TC1	E102714		< 0.010	0.028	< 0.050	0.052	0.0242	0.0251	99.9	0.00406	0.00632	< 0.0050			0.00132
3/6/2017	GH_TC1	E102714		< 0.010	0.015	< 0.050	< 0.050	0.0204	0.0236	104	0.00178	0.00257	< 0.0050			0.00054

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
3/16/2017	GH_TC1	E102714														
3/21/2017	GH_TC1	E102714														
3/27/2017	GH_TC1	E102714	0.14													
4/4/2017	GH_TC1	E102714	0.14774													
4/10/2017	GH_TC1	E102714	0.18197													
4/20/2017	GH_TC1	E102714	0.36545	0.021	0.308	< 0.050	0.241	0.0104	0.0102	36.2	0.00663	0.0171	< 0.0050			0.0039
4/25/2017	GH_TC1	E102714	0.3302													
5/3/2017	GH_TC1	E102714	0.28853	0.011	0.142	< 0.050	0.094	0.0123	0.0105	42.7	0.00331	0.0087	< 0.0050			0.00207
5/10/2017	GH_TC1	E102714	0.37035													
5/15/2017	GH_TC1	E102714	0.284													
5/24/2017	GH_TC1	E102714	0.226													
5/29/2017	GH_TC1	E102714	0.167													
6/7/2017	GH_TC1	E102714	0.0945828	< 0.010	0.099	< 0.050	0.061	0.0203	0.0215	75.6	0.0003	0.00795	< 0.0050			0.0012
6/12/2017	GH_TC1	E102714	0.128													
6/19/2017	GH_TC1	E102714	0.0873072	< 0.010	0.087	< 0.050	< 0.050	0.0204	0.0207	85.2	0.00061	0.00759	< 0.0050			0.001
6/27/2017	GH_TC1	E102714	0.05143824													
7/4/2017	GH_TC1	E102714	0.026418036													
7/10/2017	GH_TC1	E102714	0.03581	< 0.010	0.075	< 0.050	< 0.050	0.0253	0.0251	106	0.00054	0.00777	< 0.0050			0.00087
8/2/2017	GH_TC1	E102714	0.031	< 0.010	0.045	< 0.050	< 0.050	0.026	0.0282	135	0.00021	0.00524	< 0.0050			0.00066
9/13/2017	GH_TC1	E102714	0.014	< 0.010	0.044	< 0.050	< 0.050	0.0309	0.0303	153	0.00024	0.00428	< 0.0050			< 0.00050
10/4/2017	GH_TC1	E102714	0.006	< 0.010	0.021	< 0.050	< 0.050	0.0251	0.0245	137	0.00037	0.00181	< 0.0050			< 0.00050
11/6/2017	GH_TC1	E102714	0.034	< 0.010	< 0.050	< 0.050	< 0.25	0.0266	0.0247	123	0.00137	0.00224	< 0.0050			< 0.00050
12/12/2017	GH_TC1	E102714		< 0.010	0.028	< 0.050	< 0.050	0.0183	0.0183	122	0.00183	0.00418	< 0.0050			< 0.00050
1/10/2017	GH_TC2	E207436	0.02265	< 0.010	0.021	< 0.050	< 0.050	0.0225	0.0199	103	0.00965	0.0102	< 0.0050			< 0.00050
2/9/2017	GH_TC2	E207436	0.00914	< 0.010	0.092	< 0.050	0.05	0.0221	0.0197	102	0.0167	0.0203	< 0.0050			0.0011
2/15/2017	GH_TC2	E207436	0.0227	< 0.010	0.029	< 0.050	0.052	0.0245	0.0257	104	0.0139	0.0164	< 0.0050			0.00087
3/6/2017	GH_TC2	E207436	0.023	< 0.010	0.018	< 0.050	< 0.050	0.0199	0.0237	106	0.00878	0.00957	< 0.0050			0.00057
3/16/2017	GH_TC2	E207436	0.10152													
3/21/2017	GH_TC2	E207436	0.074													
3/28/2017	GH_TC2	E207436	0.093													
4/4/2017	GH_TC2	E207436	0.1555													
4/10/2017	GH_TC2	E207436	0.21													
4/20/2017	GH_TC2	E207436	0.36085	0.021	0.34	< 0.050	0.234	0.0105	0.01	36.5	0.00534	0.0153	< 0.0050			0.00351
4/25/2017	GH_TC2	E207436	0.3868													
5/3/2017	GH_TC2	E207436	0.3198042	0.012	0.189	< 0.050	0.113	0.0122	0.0101	42.7	0.00451	0.00973	< 0.0050			< 0.00050
5/10/2017	GH_TC2	E207436	0.352975													
5/15/2017	GH_TC2	E207436	0.277													
5/24/2017	GH_TC2	E207436	0.215													
5/29/2017	GH_TC2	E207436	0.14688													
6/7/2017	GH_TC2	E207436	0.0824544	< 0.010	0.04	< 0.050	< 0.050	0.02	0.0226	79.9	0.00038	0.00734	< 0.0050		< 0.0050	
6/12/2017	GH_TC2	E207436	0.2277882													
6/19/2017	GH_TC2	E207436	0.08407404	< 0.010	0.037	< 0.050	< 0.050	0.0204	0.0201	90.7	0.0024	0.00694	< 0.0050			0.001
6/27/2017	GH_TC2	E207436	0.0750924													
7/4/2017	GH_TC2	E207436	0.11936808													
7/10/2017	GH_TC2	E207436	0.0428652	< 0.010	0.02	< 0.050	< 0.050	0.0254	0.025	107	0.00317	0.00776	< 0.0050			< 0.0025
8/2/2017	GH_TC2	E207436	0.0371	< 0.010	0.017	< 0.050	< 0.050	0.0268	0.0267	131	0.00073	0.00607	< 0.0050			0.00058
9/12/2017	GH_TC2	E207436	0.014	< 0.010	0.024	< 0.050	< 0.050	0.0292	0.0319	167	0.00134	0.00598	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
10/3/2017	GH_TC2	E207436	0.016	< 0.010	0.014	< 0.050	< 0.050	0.0268	0.0273	151	0.0008	0.00158	< 0.0050			< 0.00050
11/14/2017	GH_TC2	E207436	0.023	< 0.010	0.019	< 0.050	< 0.050	0.0215	0.0218	143	< 0.0070	0.0108	< 0.0050			0.00058
12/6/2017	GH_TC2	E207436	0.03	< 0.010	0.016	< 0.050	< 0.050	0.0228	0.0221	101	0.0082	0.0101	< 0.0050			0.00054
6/7/2017	GH_TPS	E287438		< 0.010	0.046	< 0.050	0.151	0.0429	0.0477	29.7	0.00021	0.00611	< 0.0050			0.0008
6/19/2017	GH_TPS	E287438		< 0.010	0.238	0.076	0.71	0.0478	0.0459	33.9	0.00094	0.00819	< 0.0050			0.0011
11/21/2017	GH_TPS	E287438		0.019	< 0.010	0.362	0.389	0.0987	0.12	68.5	0.0776	0.0862	< 0.0050		< 0.0050	
1/10/2017	GH_WADE	E287433	0													
2/14/2017	GH_WADE	E287433	0													
3/6/2017	GH_WADE	E287433	0													
3/16/2017	GH_WADE	E287433	0.0068	0.03	0.661	< 0.050	0.681	0.0116	0.0123	15.5	0.00352	0.0236	< 0.0050			0.00812
3/22/2017	GH_WADE	E287433	0.006	0.015	0.106	< 0.050	0.088	0.0106	0.0109	17	0.00405	0.00855	< 0.0050			0.00313
3/27/2017	GH_WADE	E287433	0.021													
3/28/2017	GH_WADE	E287433														
3/30/2017	GH_WADE	E287433														
4/4/2017	GH_WADE	E287433	0.03376													
4/4/2017	GH_WADE	E287433														
4/10/2017	GH_WADE	E287433	0.03399													
4/18/2017	GH_WADE	E287433	0.02018	0.013	0.12	< 0.050	0.138	0.0169	0.0176	17.9	0.00046	0.00489	< 0.0050			0.004
4/25/2017	GH_WADE	E287433	0.022783													
5/1/2017	GH_WADE	E287433	0.0234058	0.013	0.156	< 0.050	0.171	0.0162	0.0147	16.3	0.00095	0.00627	< 0.0050		< 0.0050	
5/8/2017	GH_WADE	E287433	0.0317552													
5/15/2017	GH_WADE	E287433	0.012													
5/24/2017	GH_WADE	E287433	0.013													
5/29/2017	GH_WADE	E287433	0.0022													
6/5/2017	GH_WADE	E287433	0.000726773	< 0.010	0.03	< 0.050	< 0.050	0.019	0.0197	19.5	0.00012	0.00123	< 0.0050		< 0.0050	
6/12/2017	GH_WADE	E287433	0.00145345													
6/20/2017	GH_WADE	E287433	0.00251505													
6/27/2017	GH_WADE	E287433	0.00083916													
7/4/2017	GH_WADE	E287433	0.00038													
7/10/2017	GH_WADE	E287433	0.000144	< 0.010	0.013	< 0.050	< 0.050	0.0252	0.024	19.7	0.00012	0.00038	< 0.0050			< 0.0025
8/2/2017	GH_WADE	E287433	0													
9/12/2017	GH_WADE	E287433	0													
10/3/2017	GH_WADE	E287433	0													
11/28/2017	GH_WADE	E287433	0.0013	< 0.010	< 0.010	< 0.050	< 0.050	0.0257	0.0253	25.9	0.00022	0.0003	< 0.0050			0.00108
12/6/2017	GH_WADE	E287433	0													
1/10/2017	GH_WC1	E257795	0													
2/15/2017	GH_WC1	E257795	0													
3/6/2017	GH_WC1	E257795	0													
3/16/2017	GH_WC1	E257795	0													
3/21/2017	GH_WC1	E257795	0													
3/27/2017	GH_WC1	E257795	0.0001	0.014	0.149	< 0.050	0.072	0.0201	0.0181	31.1	0.0123	0.016	< 0.0050			0.00212
4/4/2017	GH_WC1	E257795	0.00149													
4/10/2017	GH_WC1	E257795	0.0019													
4/20/2017	GH_WC1	E257795	0.0209	< 0.010	0.037	< 0.050	< 0.050	0.07	0.0646	85.7	0.00263	0.00299	< 0.0050			0.00106
4/25/2017	GH_WC1	E257795														
5/1/2017	GH_WC1	E257795	0.0551	< 0.010	0.068	< 0.050	0.057	0.121	0.13	67.2	0.00149	0.00242	< 0.0050			0.00111
5/3/2017	GH_WC1	E257795														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
5/8/2017	GH_WC1	E257795	0.097													
5/15/2017	GH_WC1	E257795	0.049													
5/24/2017	GH_WC1	E257795	0.0062													
5/29/2017	GH_WC1	E257795	0.0043													
6/5/2017	GH_WC1	E257795	0.00691	< 0.010	0.018	< 0.050	< 0.050	0.0823	0.0794	99.5	0.00236	0.00316	< 0.0050			0.00076
6/12/2017	GH_WC1	E257795	0.0045													
6/19/2017	GH_WC1	E257795	0													
6/27/2017	GH_WC1	E257795	0													
7/4/2017	GH_WC1	E257795	0													
7/10/2017	GH_WC1	E257795	0													
8/2/2017	GH_WC1	E257795	0													
9/11/2017	GH_WC1	E257795	0													
10/3/2017	GH_WC1	E257795	0													
11/6/2017	GH_WC1	E257795	0													
12/12/2017	GH_WC1	E257795	0.017	< 0.010	0.01	< 0.050	< 0.050	0.132	0.131	139	0.0006	0.00161	< 0.0050			< 0.00050
1/16/2017	GH_WILLOW_SP1	E305854	0													
2/14/2017	GH_WILLOW_SP1	E305854	0													
3/6/2017	GH_WILLOW_SP1	E305854	0													
3/16/2017	GH_WILLOW_SP1	E305854	0													
3/22/2017	GH_WILLOW_SP1	E305854	0													
3/27/2017	GH_WILLOW_SP1	E305854	0													
4/4/2017	GH_WILLOW_SP1	E305854	0.067													
4/10/2017	GH_WILLOW_SP1	E305854	0.07187616													
4/18/2017	GH_WILLOW_SP1	E305854	0.04469472	0.013	0.069	< 0.050	< 0.050	0.0069	0.0064	14.7	0.00046	0.00114	< 0.0050			0.00253
4/25/2017	GH_WILLOW_SP1	E305854	0.067339296													
5/3/2017	GH_WILLOW_SP1	E305854	0.055	0.011	0.07	< 0.050	< 0.050	0.0071	0.0053	14.3	0.00036	0.00107	< 0.0050			0.00284
5/8/2017	GH_WILLOW_SP1	E305854	0.031120646													
5/15/2017	GH_WILLOW_SP1	E305854	0.031120646													
5/24/2017	GH_WILLOW_SP1	E305854	0.02451456													
5/29/2017	GH_WILLOW_SP1	E305854	0.02195424													
6/5/2017	GH_WILLOW_SP1	E305854	0.0038	< 0.010	0.045	< 0.050	0.079	0.0077	0.0077	18.2	0.00024	0.00149	< 0.0050			0.00165
6/12/2017	GH_WILLOW_SP1	E305854	0.00123													
6/20/2017	GH_WILLOW_SP1	E305854	0													
6/27/2017	GH_WILLOW_SP1	E305854	0													
7/4/2017	GH_WILLOW_SP1	E305854	0													
7/10/2017	GH_WILLOW_SP1	E305854	0													
8/2/2017	GH_WILLOW_SP1	E305854	0													
9/12/2017	GH_WILLOW_SP1	E305854	0													
10/3/2017	GH_WILLOW_SP1	E305854	0													
11/6/2017	GH_WILLOW_SP1	E305854	0													
12/6/2017	GH_WILLOW_SP1	E305854	0													
1/10/2017	GH_WOLF_SP1	E305855	0													
2/14/2017	GH_WOLF_SP1	E305855	0													
3/6/2017	GH_WOLF_SP1	E305855	0													
3/16/2017	GH_WOLF_SP1	E305855	0													
3/22/2017	GH_WOLF_SP1	E305855	0													
3/27/2017	GH_WOLF_SP1	E305855	0													

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
4/4/2017	GH_WOLF_SP1	E305855	0													
4/10/2017	GH_WOLF_SP1	E305855	0													
4/20/2017	GH_WOLF_SP1	E305855	0													
4/24/2017	GH_WOLF_SP1	E305855	0													
5/1/2017	GH_WOLF_SP1	E305855	0													
5/8/2017	GH_WOLF_SP1	E305855	0													
5/15/2017	GH_WOLF_SP1	E305855	0													
5/22/2017	GH_WOLF_SP1	E305855	0													
5/29/2017	GH_WOLF_SP1	E305855	0													
6/5/2017	GH_WOLF_SP1	E305855	0													
6/12/2017	GH_WOLF_SP1	E305855	0													
6/20/2017	GH_WOLF_SP1	E305855	0													
6/27/2017	GH_WOLF_SP1	E305855	0													
7/4/2017	GH_WOLF_SP1	E305855	0													
7/10/2017	GH_WOLF_SP1	E305855	0													
8/1/2017	GH_WOLF_SP1	E305855	0													
9/12/2017	GH_WOLF_SP1	E305855	0													
10/3/2017	GH_WOLF_SP1	E305855	0													
11/6/2017	GH_WOLF_SP1	E305855	0													
12/6/2017	GH_WOLF_SP1	E305855	0													
1/12/2017	LC_LC1	E216142	0													
2/14/2017	LC_LC1	E216142	0													
3/9/2017	LC_LC1	E216142	0													
3/14/2017	LC_LC1	E216142	0													
3/21/2017	LC_LC1	E216142	0													
3/29/2017	LC_LC1	E216142	0													
4/5/2017	LC_LC1	E216142	0													
4/11/2017	LC_LC1	E216142	0													
4/20/2017	LC_LC1	E216142	0													
4/25/2017	LC_LC1	E216142		< 0.010	< 0.010	< 0.050	< 0.050	0.0034	0.0036	12.4	< 0.00010	0.00013	< 0.0050			< 0.00050
5/1/2017	LC_LC1	E216142		< 0.010	< 0.010	< 0.050	< 0.050	0.0032	0.0035	12.9	< 0.00010	0.00021	< 0.0050			< 0.00050
5/5/2017	LC_LC1	E216142														
5/6/2017	LC_LC1	E216142														
5/9/2017	LC_LC1	E216142														
5/9/2017	LC_LC1	E216142	0.736													
5/16/2017	LC_LC1	E216142														
5/24/2017	LC_LC1	E216142														
5/30/2017	LC_LC1	E216142														
6/6/2017	LC_LC1	E216142	2.878													
6/7/2017	LC_LC1	E216142		< 0.010	0.027	< 0.050	< 0.050	0.002	0.0018	7.22	< 0.00010	0.00088	< 0.0050			< 0.00050
6/13/2017	LC_LC1	E216142														
6/20/2017	LC_LC1	E216142														
6/20/2017	LC_LC1	E216142	1.071													
6/26/2017	LC_LC1	E216142														
7/6/2017	LC_LC1	E216142	0.599240231	< 0.010	< 0.010	< 0.050	< 0.050	0.0025	0.0023	7.64	< 0.00010	0.00014	< 0.0050			< 0.00050
7/10/2017	LC_LC1	E216142	0.435259556													
7/11/2017	LC_LC1	E216142														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
8/2/2017	LC_LC1	E216142		< 0.010	< 0.010	< 0.050	< 0.050	0.0025	0.0024	12	< 0.00010	< 0.00010	< 0.0050			< 0.00050
8/2/2017	LC_LC1	E216142	0.154696803													
8/8/2017	LC_LC1	E216142														
8/15/2017	LC_LC1	E216142	0.089017374													
8/18/2017	LC_LC1	E216142														
8/18/2017	LC_LC1	E216142	0.058299667													
8/21/2017	LC_LC1	E216142														
8/24/2017	LC_LC1	E216142	0.041433897													
8/24/2017	LC_LC1	E216142														
8/27/2017	LC_LC1	E216142														
8/30/2017	LC_LC1	E216142	0.03408305													
9/2/2017	LC_LC1	E216142														
9/5/2017	LC_LC1	E216142		< 0.010	< 0.010	< 0.050	< 0.050	0.0032	0.0031	14.1	< 0.00010	0.00025	< 0.0050			< 0.00050
9/5/2017	LC_LC1	E216142	0.005076204													
9/8/2017	LC_LC1	E216142	0.027452646													
10/3/2017	LC_LC1	E216142	0.0051	< 0.010	< 0.010	< 0.050	< 0.050	0.0029	0.0033	15.2	< 0.00010	< 0.00010	< 0.0050			< 0.00050
11/8/2017	LC_LC1	E216142		< 0.010	< 0.010	< 0.050	< 0.050	0.0029	0.0032	15	0.00013	0.00026	< 0.0050			< 0.00050
11/8/2017	LC_LC1	E216142	1.2068													
11/30/2017	LC_LC1	E216142														< 0.00050
12/4/2017	LC_LC1	E216142		< 0.010	< 0.010	< 0.050	< 0.050	0.0031	0.0032	13.9	< 0.00010	0.00014	< 0.0050			< 0.00050
12/4/2017	LC_LC1	E216142	0.2771													
1/9/2017	LC_LC12	E223240	0													
2/15/2017	LC_LC12	E223240	0													
3/6/2017	LC_LC12	E223240	0													
3/14/2017	LC_LC12	E223240	0													
3/20/2017	LC_LC12	E223240	0													
3/27/2017	LC_LC12	E223240	0													
4/3/2017	LC_LC12	E223240	0													
4/10/2017	LC_LC12	E223240	0													
4/17/2017	LC_LC12	E223240	0													
4/24/2017	LC_LC12	E223240	0													
5/1/2017	LC_LC12	E223240	0													
5/9/2017	LC_LC12	E223240		< 0.010	< 0.010	< 0.050	< 0.050	0.0083	0.0077	40.1	0.0002	0.00044	< 0.0050			0.00058
5/16/2017	LC_LC12	E223240														
5/23/2017	LC_LC12	E223240														
5/30/2017	LC_LC12	E223240														
6/6/2017	LC_LC12	E223240		< 0.010	< 0.010	< 0.050	< 0.050	0.0063	0.0056	24.6	< 0.00010	0.00027	< 0.0050			< 0.00050
6/13/2017	LC_LC12	E223240														
6/20/2017	LC_LC12	E223240														
6/26/2017	LC_LC12	E223240														
7/5/2017	LC_LC12	E223240		< 0.010	< 0.010	< 0.050	< 0.050	0.0072	0.0065	30.6	< 0.00010	0.00023	< 0.0050			0.00059
7/11/2017	LC_LC12	E223240														
1/9/2017	LC_LC2	200335		< 0.010	< 0.010	< 0.050	< 0.050	0.0043	0.0044	15.5	0.00053	0.0006	< 0.0050			< 0.00050
2/14/2017	LC_LC2	200335		< 0.010	< 0.010	< 0.050	< 0.050	0.0048	0.0048	17	0.0007	0.00089	< 0.0050			< 0.00050
3/6/2017	LC_LC2	200335		< 0.010	< 0.010	< 0.050	< 0.050	0.005	0.0047	15.5	0.00073	0.00107	< 0.0050			< 0.00050
3/13/2017	LC_LC2	200335														
3/16/2017	LC_LC2	200335														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
3/17/2017	LC_LC2	200335		< 0.010	< 0.010	< 0.050	< 0.050	0.0052	0.0055	15.8	0.00073	0.00093	< 0.0050			< 0.00050
3/18/2017	LC_LC2	200335														
3/19/2017	LC_LC2	200335														
3/20/2017	LC_LC2	200335														
3/21/2017	LC_LC2	200335														
3/22/2017	LC_LC2	200335														
3/23/2017	LC_LC2	200335														
3/24/2017	LC_LC2	200335														
3/25/2017	LC_LC2	200335														
3/26/2017	LC_LC2	200335														
3/27/2017	LC_LC2	200335														
4/4/2017	LC_LC2	200335		< 0.010	0.013	< 0.050	< 0.050	0.0053	0.0047	16.1	0.00073	0.00104	< 0.0050			< 0.00050
4/4/2017	LC_LC2	200335	0.132													
4/10/2017	LC_LC2	200335														
4/18/2017	LC_LC2	200335														
4/25/2017	LC_LC2	200335														
5/1/2017	LC_LC2	200335		< 0.010	0.01	< 0.050	< 0.050	0.0043	0.0043	14.9	0.00025	0.00063	< 0.0050			< 0.00050
5/5/2017	LC_LC2	200335														
5/6/2017	LC_LC2	200335														
5/7/2017	LC_LC2	200335														
5/9/2017	LC_LC2	200335														
5/11/2017	LC_LC2	200335														
5/13/2017	LC_LC2	200335														
5/16/2017	LC_LC2	200335														
5/18/2017	LC_LC2	200335	1.417													
5/23/2017	LC_LC2	200335														
5/24/2017	LC_LC2	200335														
5/25/2017	LC_LC2	200335														
5/30/2017	LC_LC2	200335														
6/1/2017	LC_LC2	200335														
6/5/2017	LC_LC2	200335	3.104													
6/6/2017	LC_LC2	200335		< 0.010	0.086	< 0.050	0.054	0.0031	0.0026	8.79	0.00022	0.00202	< 0.0050			< 0.00050
6/13/2017	LC_LC2	200335														
6/20/2017	LC_LC2	200335														
6/26/2017	LC_LC2	200335														
7/5/2017	LC_LC2	200335		< 0.010	0.011	< 0.050	< 0.050	0.0033	0.0032	9.7	0.00015	0.00054	< 0.0050			< 0.00050
7/6/2017	LC_LC2	200335	0.755879396													
7/10/2017	LC_LC2	200335	0.561357817													
7/11/2017	LC_LC2	200335														
8/2/2017	LC_LC2	200335		< 0.010	< 0.010	< 0.050	< 0.050	0.0039	0.0038	14.2	0.00016	< 0.00050	< 0.0050			< 0.00050
8/2/2017	LC_LC2	200335	0.183729125													
9/6/2017	LC_LC2	200335	0.156235123	< 0.010	< 0.010	< 0.050	< 0.050	0.0048	0.0049	16.3	0.00045	0.00083	< 0.0050			< 0.00050
10/3/2017	LC_LC2	200335	0.132	< 0.010	< 0.010	< 0.050	< 0.050	0.0047	0.0054	16.9	0.00052	0.00076	< 0.0050			< 0.00050
11/8/2017	LC_LC2	200335		< 0.010	0.014	< 0.050	0.05	0.0049	0.0051	17.5	0.00055	0.00081	< 0.0050			< 0.00050
11/8/2017	LC_LC2	200335	0.132													
12/4/2017	LC_LC2	200335	0.1108	< 0.010	< 0.010	< 0.050	< 0.050	0.0045	0.0049	17.8	0.0005	0.00067	< 0.0050			< 0.00050
1/2/2017	LC_LC3	200337		< 0.010	0.011	< 0.050	< 0.050	0.0649	0.0769	69.7	0.0003	0.00087	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
1/2/2017	LC_LC3	200337														
1/9/2017	LC_LC3	200337		< 0.010	0.055	< 0.050	< 0.050	0.0604	0.0621	71	0.0122	0.0164	< 0.0050			< 0.00050
1/16/2017	LC_LC3	200337		< 0.010	0.054	< 0.050	< 0.050	0.0701	0.0806	73	0.0157	0.02	< 0.0050			< 0.00050
1/23/2017	LC_LC3	200337		< 0.010	0.079	< 0.050	< 0.050	0.0585	0.0592	77.4	0.019	0.0347	< 0.0050			< 0.00050
1/31/2017	LC_LC3	200337		< 0.010	0.076	< 0.050	< 0.050	0.0511	0.0584	73.5	0.021	0.026	< 0.0050			< 0.00050
2/7/2017	LC_LC3	200337		0.012	0.155	< 0.050	< 0.050	0.0605	0.0593	82.5	0.0325	0.0386	< 0.0050			< 0.00050
2/14/2017	LC_LC3	200337		0.014	0.106	< 0.050	< 0.050	0.0562	0.0551	80.8	0.0273	0.0315	< 0.0050			< 0.00050
2/20/2017	LC_LC3	200337		0.015	0.124	< 0.050	< 0.050	0.0615	0.063	80.9	0.0213	0.0267	< 0.0050			< 0.00050
2/24/2017	LC_LC3	200337		0.018	0.131	< 0.050	< 0.050	0.062	0.0641	76.1	0.0187	0.0243	< 0.0050			< 0.00050
2/27/2017	LC_LC3	200337		0.016	0.109	< 0.050	< 0.050	0.0631	0.0634	80.8	0.0207	0.0262	< 0.0050			< 0.00050
3/1/2017	LC_LC3	200337	0.291													
3/6/2017	LC_LC3	200337		< 0.010	0.106	< 0.050	< 0.050	0.0681	0.0578	70.4	0.0262	0.027	< 0.0050			< 0.00050
3/13/2017	LC_LC3	200337		0.011	0.089	< 0.050	< 0.050	0.0581	0.0559	71.7	0.0184	0.0202	< 0.0050			< 0.00050
3/16/2017	LC_LC3	200337														
3/16/2017	LC_LC3	200337														
3/17/2017	LC_LC3	200337		< 0.010	0.231	< 0.050	0.288	0.0608	0.063	67.3	0.00041	0.00564	< 0.0050			0.00247
3/18/2017	LC_LC3	200337														
3/19/2017	LC_LC3	200337														
3/20/2017	LC_LC3	200337		< 0.010	0.205	< 0.050	0.302	0.0585	0.0626	63.3	0.0024	0.00979	< 0.0050			0.0023
3/21/2017	LC_LC3	200337														
3/22/2017	LC_LC3	200337														
3/23/2017	LC_LC3	200337														
3/24/2017	LC_LC3	200337														
3/25/2017	LC_LC3	200337														
3/26/2017	LC_LC3	200337														
3/27/2017	LC_LC3	200337		< 0.010	0.115	< 0.050	0.098	0.067	0.0727	87.9	0.0227	0.0271	< 0.0050			0.00103
3/28/2017	LC_LC3	200337														
3/29/2017	LC_LC3	200337														
3/30/2017	LC_LC3	200337														
4/3/2017	LC_LC3	200337		< 0.010	0.078	< 0.050	< 0.050	0.0693	0.06	70.6	0.00919	0.0115	< 0.0050			0.00056
4/4/2017	LC_LC3	200337	0.339													
4/10/2017	LC_LC3	200337		< 0.010	0.068	< 0.050	0.063	0.0751	0.0719	74	0.00554	0.00825	< 0.0050			0.00083
4/18/2017	LC_LC3	200337		< 0.010	0.062	< 0.050	< 0.050	0.0737	0.0718	73.2	0.00503	0.00703	< 0.0050			< 0.00050
4/25/2017	LC_LC3	200337		< 0.010	0.048	< 0.050	< 0.050	0.0715	0.0738	66.1	0.00215	0.00505	< 0.0050			0.00061
5/1/2017	LC_LC3	200337		< 0.010	0.032	< 0.050	< 0.050	0.0747	0.0704	58.9	0.00127	0.00283	< 0.0050			< 0.00050
5/4/2017	LC_LC3	200337														
5/7/2017	LC_LC3	200337														
5/9/2017	LC_LC3	200337		< 0.010	0.017	< 0.050	< 0.050	0.0372	0.0357	39.2	0.00065	0.00166	< 0.0050			0.00093
5/16/2017	LC_LC3	200337		< 0.010	< 0.010	< 0.050	< 0.050	0.0314	0.0266	32.1	0.00048	0.00104	< 0.0050			0.00175
5/18/2017	LC_LC3	200337	2.614													
5/23/2017	LC_LC3	200337		< 0.010	0.015	< 0.050	< 0.050	0.0413	0.0407	36.3	0.00057	0.00112	< 0.0050			0.00084
5/30/2017	LC_LC3	200337		< 0.010	< 0.010	< 0.050	< 0.050	0.0323	0.0345	28.8	0.00049	0.00092	0.0052			0.00088
6/6/2017	LC_LC3	200337	1.08													
6/7/2017	LC_LC3	200337		< 0.010	< 0.010	< 0.050	< 0.050	0.0387	0.0349	30.4	0.00068	0.00084	< 0.0050			0.0006
6/13/2017	LC_LC3	200337		< 0.010	< 0.010	< 0.050	< 0.050	0.0426	0.0399	38.4	0.00125	0.00145	< 0.0050			0.0007
6/19/2017	LC_LC3	200337		< 0.010	< 0.010	< 0.050	< 0.050	0.0376	0.0379	35.7	0.00163	0.00185	< 0.0050			0.0007
6/26/2017	LC_LC3	200337		< 0.010	0.02	< 0.050	< 0.050	0.0466	0.0436	41.9	0.00461	0.00434	< 0.0050			0.00066

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
7/6/2017	LC_LC3	200337	2.013201225													
7/6/2017	LC_LC3	200337		< 0.010	< 0.010	< 0.050	< 0.050	0.0518	0.0503	43.8	0.00102	0.00145	< 0.0050			< 0.00050
7/11/2017	LC_LC3	200337	1.300391239													
7/11/2017	LC_LC3	200337		< 0.010	< 0.010	< 0.050	< 0.050	0.0521	0.0511	47.5	0.00117	0.00556	< 0.0050			< 0.00050
7/13/2017	LC_LC3	200337	1.441													
7/14/2017	LC_LC3	200337		< 0.010	0.108	< 0.050	0.111	0.049	0.0485	50.9	0.00222	0.00411	< 0.0050		< 0.0050	
7/14/2017	LC_LC3	200337														
7/18/2017	LC_LC3	200337		< 0.010	< 0.010	< 0.050	< 0.050	0.0565	0.0537	50.1	0.00295	0.0035	< 0.0050			0.0006
7/25/2017	LC_LC3	200337	0.580299811													
7/25/2017	LC_LC3	200337		< 0.010	0.011	< 0.050	< 0.050	0.0567	0.0561	53.1	0.00246	0.00253	< 0.0050			0.0009
7/26/2017	LC_LC3	200337		< 0.010	0.011	< 0.050	< 0.050	0.0577	0.0551	55.5	0.00231	0.00256				
8/2/2017	LC_LC3	200337	0.550306323													
8/2/2017	LC_LC3	200337		< 0.010	0.019	< 0.050	< 0.050	0.0557	0.0569	63.4	0.00368	0.00563	< 0.0050			0.0005
8/8/2017	LC_LC3	200337	0.492695369													
8/8/2017	LC_LC3	200337		< 0.010	0.015	< 0.050	< 0.050	0.0616	0.0636	61.7	0.00246	0.00382	< 0.0050			0.00067
8/12/2017	LC_LC3	200337		< 0.010	0.017	< 0.050	< 0.050	0.0516	0.0524	56.5	0.00768	0.00858	< 0.0050		< 0.0050	
8/12/2017	LC_LC3	200337														
8/15/2017	LC_LC3	200337	0.550306323													
8/15/2017	LC_LC3	200337		< 0.010	0.012	< 0.050	< 0.050	0.0526	0.054	61.2	0.00733	0.00833	< 0.0050			< 0.00050
8/18/2017	LC_LC3	200337														
8/21/2017	LC_LC3	200337		< 0.010	0.015	< 0.050	< 0.050	0.0527	0.0495	65.3	0.0228	0.0246	< 0.0050			< 0.00050
8/24/2017	LC_LC3	200337	0.478787795													
8/24/2017	LC_LC3	200337														
8/25/2017	LC_LC3	200337														
8/27/2017	LC_LC3	200337	0.580299811													
8/27/2017	LC_LC3	200337														
8/30/2017	LC_LC3	200337	0.465078344													
8/30/2017	LC_LC3	200337		< 0.010	< 0.010	< 0.050	< 0.050	0.0494	0.05	54.1	0.00537	0.00615	< 0.0050			< 0.00050
9/2/2017	LC_LC3	200337	0.465078344													
9/2/2017	LC_LC3	200337														
9/5/2017	LC_LC3	200337	0.438253923													
9/5/2017	LC_LC3	200337		< 0.010	0.015	< 0.050	< 0.050	0.0502	0.0491	69.2	0.00714	0.00928	< 0.0050			< 0.00050
9/5/2017	LC_LC3	200337														
9/8/2017	LC_LC3	200337														
9/12/2017	LC_LC3	200337		< 0.010	0.029	< 0.050	< 0.050	0.0493	0.0527	73.5	0.00622	0.00755	< 0.0050			< 0.00050
9/20/2017	LC_LC3	200337	0.465078344													
9/20/2017	LC_LC3	200337		< 0.010	0.02	< 0.050	< 0.050	0.0517	0.0526	63	0.0142	0.0157	< 0.0050			< 0.00050
9/21/2017	LC_LC3	200337		< 0.010	0.021	< 0.050	< 0.050	0.0522	0.0535	69.1	0.019	0.0198	< 0.0050			< 0.00050
9/25/2017	LC_LC3	200337	0.52110477													
9/25/2017	LC_LC3	200337		< 0.010	0.011	< 0.050	< 0.050	0.0487	0.0494	66.6	0.00916	0.00947	< 0.0050			< 0.00050
9/25/2017	LC_LC3	200337		< 0.010	0.019	< 0.050	< 0.050	0.0489	0.0521	65.2	0.00831	0.00996	< 0.0050			< 0.00050
10/2/2017	LC_LC3	200337	0.4122	< 0.010	0.02	< 0.050	< 0.050	0.0511	0.0542	63.1	0.00755	0.00961	< 0.0050			< 0.00050
10/10/2017	LC_LC3	200337		< 0.010	0.021	< 0.050	< 0.050	0.0523	0.0591	71.1	0.00886	0.0104	< 0.0050			< 0.00050
10/10/2017	LC_LC3	200337	0.316													
10/17/2017	LC_LC3	200337	0.2727	< 0.010	0.012	< 0.050	< 0.050	0.0565	0.0584	71.9	0.00044	0.00111	< 0.0050			< 0.00050
10/24/2017	LC_LC3	200337		< 0.010	0.013	< 0.050	< 0.050	0.0618	0.0582	66.6	0.00092	0.00172	< 0.0050			< 0.00050
10/24/2017	LC_LC3	200337	0.4122													

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
10/31/2017	LC_LC3	200337		< 0.010	0.017	< 0.050	< 0.050	0.0697	0.0663	64.1	0.00091	0.00194	< 0.0050			< 0.00050
10/31/2017	LC_LC3	200337	0.4383													
11/6/2017	LC_LC3	200337		< 0.010	0.014	< 0.050	< 0.050	0.057	0.0664	70.7	0.00104	0.00133	< 0.0050			< 0.00050
11/8/2017	LC_LC3	200337	0.3995													
11/9/2017	LC_LC3	200337		< 0.010	0.012	< 0.050	< 0.050	0.065	0.0629	65.6	0.00119	0.00166	< 0.0050			< 0.00050
11/14/2017	LC_LC3	200337	0.4651	< 0.010	0.016	< 0.050	< 0.050	0.0634	0.0843	71.6	0.00187	0.00287	< 0.0050			< 0.00050
11/21/2017	LC_LC3	200337	0.3625	< 0.010	0.011	< 0.050	< 0.050	0.0717	0.0715	66.4	0.00093	0.00163	< 0.0050			< 0.00050
11/28/2017	LC_LC3	200337	0.5068	< 0.010	0.018	< 0.050	< 0.050	0.0762	0.0653	69.6	0.00094	0.00172	< 0.0050			< 0.00050
12/4/2017	LC_LC3	200337	0.4122	< 0.010	0.013	< 0.050	< 0.050	0.0787	0.0721	69.3	0.00092	0.00142	< 0.0050			< 0.00050
12/12/2017	LC_LC3	200337	0.387	< 0.010	0.012	< 0.050	< 0.050	0.0775	0.0804	69.6	0.00144	0.0018	< 0.0050			< 0.00050
12/18/2017	LC_LC3	200337	0.3274	< 0.010	0.011	< 0.050	< 0.050	0.0777	0.0713	70.6	0.00096	0.00133	< 0.0050			< 0.00050
12/27/2017	LC_LC3	200337		< 0.010	0.023	< 0.050	0.069	0.0857	0.0838	72.4	0.00076	0.00132	< 0.0050			< 0.00050
12/27/2017	LC_LC3	200337	0.3274													
1/9/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0323	0.0337	41.3	0.0002	0.00033	< 0.0050			< 0.00050
2/14/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0305	0.0276	41.4	0.00024	0.00048	< 0.0050			< 0.00050
2/24/2017	LC_LC4	200044		< 0.010	0.011	< 0.050	< 0.050	0.0335	0.0316	41.3	0.00025	0.00041	< 0.0050			< 0.00050
2/27/2017	LC_LC4	200044		< 0.010	0.033	< 0.050	< 0.050	0.027	0.0295	41.2	0.00031	0.0014	< 0.0050			< 0.00050
3/6/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.031	0.0289	41.7	0.00026	0.00035	< 0.0050			< 0.00050
3/13/2017	LC_LC4	200044		< 0.010	0.028	< 0.050	< 0.050	0.0306	0.0291	38.8	0.00038	0.00088	< 0.0050			< 0.00050
3/15/2017	LC_LC4	200044														
3/16/2017	LC_LC4	200044														
3/17/2017	LC_LC4	200044		< 0.010	0.149	< 0.050	0.156	0.0325	0.0314	41.4	0.00052	0.00443	< 0.0050			0.00117
3/18/2017	LC_LC4	200044														
3/19/2017	LC_LC4	200044														
3/20/2017	LC_LC4	200044		< 0.010	0.069	< 0.050	0.079	0.0314	0.032	38.4	0.00049	0.00223	< 0.0050			0.00086
3/21/2017	LC_LC4	200044														
3/22/2017	LC_LC4	200044														
3/23/2017	LC_LC4	200044														
3/24/2017	LC_LC4	200044														
3/25/2017	LC_LC4	200044														
3/26/2017	LC_LC4	200044														
3/27/2017	LC_LC4	200044		< 0.010	0.022	< 0.050	< 0.050	0.0355	0.0367	46.9	0.00056	0.00129	< 0.0050			< 0.00050
4/3/2017	LC_LC4	200044		< 0.010	0.015	< 0.050	< 0.050	0.0369	0.0323	43.8	0.00048	0.00089	< 0.0050			< 0.00050
4/10/2017	LC_LC4	200044		< 0.010	0.036	< 0.050	< 0.050	0.0388	0.0379	42	0.0006	0.00182	< 0.0050			0.00062
4/18/2017	LC_LC4	200044		< 0.010	0.011	< 0.050	< 0.050	0.0378	0.0345	40.3	0.00041	0.00078	< 0.0050			0.0009
4/24/2017	LC_LC4	200044		< 0.010	0.04	< 0.050	< 0.050	0.0358	0.0358	38.3	0.00043	0.00205	< 0.0050			0.00083
4/27/2017	LC_LC4	200044														
5/1/2017	LC_LC4	200044		< 0.010	0.037	< 0.050	< 0.050	0.0389	0.0389	43.6	0.00056	0.00173	< 0.0050			0.00064
5/5/2017	LC_LC4	200044														
5/6/2017	LC_LC4	200044														
5/7/2017	LC_LC4	200044														
5/8/2017	LC_LC4	200044														
5/8/2017	LC_LC4	200044		< 0.010	0.28	< 0.050	0.237	0.0214	0.0212	28.1	0.00079	0.0138	< 0.0050			0.00275
5/10/2017	LC_LC4	200044														
5/11/2017	LC_LC4	200044														
5/13/2017	LC_LC4	200044														
5/14/2017	LC_LC4	200044														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
5/15/2017	LC_LC4	200044		< 0.010	0.309	< 0.050	0.225	0.0191	0.018	22.2	0.00066	0.00976	< 0.0050			0.00214
5/16/2017	LC_LC4	200044														
5/17/2017	LC_LC4	200044														
5/18/2017	LC_LC4	200044														
5/19/2017	LC_LC4	200044														
5/23/2017	LC_LC4	200044		< 0.010	0.216	< 0.050	0.183	0.0163	0.0163	19.6	0.00077	0.0105	< 0.0050			0.00227
5/24/2017	LC_LC4	200044														
5/25/2017	LC_LC4	200044														
5/30/2017	LC_LC4	200044		< 0.010	0.316	< 0.050	0.286	0.013	0.0142	16.9	0.00077	0.0165	< 0.0050			0.00275
5/31/2017	LC_LC4	200044														
6/1/2017	LC_LC4	200044														
6/2/2017	LC_LC4	200044														
6/7/2017	LC_LC4	200044		< 0.010	0.1	< 0.050	0.077	0.0184	0.0172	20.4	0.00051	0.00426	< 0.0050			0.0008
6/13/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0203	0.0184	22.7	0.00048	0.00066	< 0.0050			0.0008
6/19/2017	LC_LC4	200044		< 0.010	0.019	< 0.050	< 0.050	0.02	0.0197	22.2	0.00046	0.00121	< 0.0050			0.0009
6/26/2017	LC_LC4	200044		< 0.010	0.011	< 0.050	< 0.050	0.0223	0.0213	25.5	0.001	0.00136	< 0.0050			0.00105
7/5/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0283	0.0268	27.5	0.00028	0.00062	< 0.0050			0.00055
7/11/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0277	0.0266	29	0.0002	0.00253	< 0.0050			0.00059
7/18/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0298	0.0291	32.4	0.00038	0.00063	< 0.0050			0.0005
7/25/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0306	0.0301	32.7	0.00032	0.00056	< 0.0050			0.0005
8/2/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0288	0.0296	39	0.00013	0.00064	< 0.0050			< 0.00050
8/8/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0335	0.0332	39.3	0.00012	0.0005	< 0.0050			0.00081
8/15/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0321	0.0315	38.6	0.0005	0.00093	< 0.0050			< 0.00050
8/18/2017	LC_LC4	200044														
8/21/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0322	0.0288	41.7	0.00072	0.0013	< 0.0050			< 0.00050
8/24/2017	LC_LC4	200044														
8/27/2017	LC_LC4	200044														
8/30/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0315	0.031	33.7	< 0.00010	0.00059	< 0.0050			< 0.00050
9/2/2017	LC_LC4	200044														
9/5/2017	LC_LC4	200044														
9/5/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0304	0.0302	41.9	< 0.00010	0.0008	< 0.0050			< 0.00050
9/8/2017	LC_LC4	200044														
9/12/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.03	0.0326	41.2	0.00029	0.00076	< 0.0050			< 0.00050
9/20/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0314	0.032	40.5	0.0004	0.00092	< 0.0050			< 0.00050
9/25/2017	LC_LC4	200044		< 0.010	0.01	< 0.050	< 0.050	0.029	0.0322	41.8	0.00033	0.00069	< 0.0050			< 0.00050
10/2/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0298	0.0328	41.5	0.00015	0.00071	< 0.0050			< 0.00050
10/10/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0286	0.0333	44.4	0.00032	0.00059	< 0.0050			< 0.00050
10/17/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0297	0.0307	42.1	0.00019	0.00066	< 0.0050			< 0.00050
10/24/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0316	0.0307	44.5	< 0.00010	0.00044	< 0.0050			< 0.00050
10/31/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0416	0.0386	42.8	0.00014	0.00047	< 0.0050			< 0.00050
11/6/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0333	0.035	44	0.00011	0.00041	< 0.0050			< 0.00050
11/10/2017	LC_LC4	200044		< 0.010	< 0.050	< 0.050	< 0.25	0.0399	0.0316	42.5	0.00015	< 0.00050	< 0.0050			< 0.00050
11/14/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0356	0.0464	46.4	0.0001	0.00038	< 0.0050			< 0.00050
11/21/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0366	0.0376	46.8	< 0.00010	0.00038	< 0.0050			< 0.00050
11/23/2017	LC_LC4	200044														
11/28/2017	LC_LC4	200044		< 0.010	0.01	< 0.050	< 0.050	0.0392	0.0365	39.5	0.00013	0.00011	< 0.0050			< 0.00050
12/4/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0413	0.0408	45.8	0.00012	0.00037	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
12/12/2017	LC_LC4	200044		< 0.010	0.036	< 0.050	< 0.050	0.0402	0.0423	45.6	0.00016	0.00093	< 0.0050			< 0.00050
12/18/2017	LC_LC4	200044		< 0.010	< 0.010	< 0.050	< 0.050	0.0423	0.0426	44.2	0.00013	0.00027	< 0.0050			< 0.00050
12/27/2017	LC_LC4	200044		< 0.010	0.012	< 0.050	< 0.050	0.0418	0.0401	44.8	0.00022	0.00076	< 0.0050			< 0.00050
1/2/2017	LC_LC5	200028		< 0.010	< 0.010	< 0.050	< 0.050	0.0205	0.0211	43	0.00023	0.00068	< 0.0050			< 0.00050
1/9/2017	LC_LC5	200028		< 0.010	0.021	< 0.050	< 0.050	0.0189	0.0195	39.1	0.00011	0.00103	< 0.0050			< 0.00050
1/16/2017	LC_LC5	200028		< 0.010	0.097	< 0.050	0.074	0.0206	0.0224	41.8	0.00013	0.00537	< 0.0050			< 0.00050
2/14/2017	LC_LC5	200028		< 0.010	0.075	< 0.050	< 0.050	0.0175	0.0175	43.6	0.00021	0.00347	< 0.0050			< 0.00050
3/6/2017	LC_LC5	200028		< 0.010	0.016	< 0.050	< 0.050	0.0193	0.0185	39.3	0.00012	0.00061	< 0.0050			< 0.00050
3/13/2017	LC_LC5	200028		< 0.010	0.044	< 0.050	< 0.050	0.0178	0.0191	37.8	0.00023	0.00181	< 0.0050			< 0.00050
3/16/2017	LC_LC5	200028														
3/20/2017	LC_LC5	200028		< 0.010	0.057	< 0.050	0.062	0.0205	0.0188	48.8	0.0006	0.00483	< 0.0050			0.00061
3/27/2017	LC_LC5	200028		< 0.010	0.052	< 0.050	< 0.050	0.0213	0.021	43.8	0.00077	0.00556	< 0.0050			0.00055
4/3/2017	LC_LC5	200028		< 0.010	0.04	< 0.050	< 0.050	0.0208	0.0181	42.5	0.00086	0.00359	< 0.0050			< 0.00050
4/10/2017	LC_LC5	200028		< 0.010	0.026	< 0.050	0.057	0.0217	0.0208	39.4	0.0008	0.00255	< 0.0050			< 0.00050
4/18/2017	LC_LC5	200028		< 0.010	0.022	< 0.050	< 0.050	0.0214	0.0197	38.6	0.00069	0.00269	< 0.0050			0.00051
4/25/2017	LC_LC5	200028		< 0.010	0.117	< 0.050	0.098	0.0209	0.0204	36.2	0.00126	0.00929	< 0.0050			0.00131
5/1/2017	LC_LC5	200028		< 0.010	0.052	< 0.050	< 0.050	0.0215	0.0219	41.6	0.00096	0.00351	< 0.0050			0.0006
5/8/2017	LC_LC5	200028		< 0.010	0.424	< 0.050	0.269	0.014	0.0138	26	0.00051	0.0228	< 0.0050			0.00313
5/15/2017	LC_LC5	200028		< 0.010	0.502	< 0.050	0.316	0.014	0.0135	24.4	0.00071	0.0235	< 0.0050			0.00251
5/24/2017	LC_LC5	200028		< 0.010	3.44	< 0.050	2.35	0.0115	0.0145	24.8	0.00027	0.247	< 0.0050			0.0133
5/31/2017	LC_LC5	200028		< 0.010	1.58	< 0.050	0.968	0.0105	0.012	21.7	0.00178	0.0942	< 0.0050			0.00591
6/6/2017	LC_LC5	200028		< 0.010	0.253	< 0.050	0.148	0.016	0.0143	23	0.00056	0.0144	< 0.0050			0.0012
6/13/2017	LC_LC5	200028		< 0.010	0.024	< 0.050	< 0.050	0.0208	0.0189	23.3	0.00053	0.00123	< 0.0050			0.0008
6/19/2017	LC_LC5	200028		< 0.010	0.05	< 0.050	< 0.050	0.0155	0.0141	23.9	0.00086	0.00386	< 0.0050			< 0.000500000
6/26/2017	LC_LC5	200028		< 0.010	0.028	< 0.050	< 0.050	0.017	0.0167	28.4	0.00088	0.00247	< 0.0050			0.0012
7/6/2017	LC_LC5	200028		< 0.010	0.02	< 0.050	< 0.050	0.0197	0.019	27.2	0.00059	0.00189	< 0.0050			0.0005
7/10/2017	LC_LC5	200028		< 0.010	0.023	< 0.050	< 0.050	0.0196	0.019	30	0.0006	0.00999	< 0.0050			0.00062
7/18/2017	LC_LC5	200028		< 0.010	0.032	< 0.050	< 0.050	0.0208	0.0197	30.8	0.00046	0.00152	< 0.0050			0.0005
7/25/2017	LC_LC5	200028		< 0.010	< 0.010	< 0.050	< 0.050	0.0211	0.0205	31.6	0.00031	0.00108	< 0.0050			0.0005
8/2/2017	LC_LC5	200028		< 0.010	0.036	< 0.050	0.057	0.0197	0.0198	36.4	< 0.00010	0.00229	< 0.0050			< 0.00050
8/8/2017	LC_LC5	200028														
8/15/2017	LC_LC5	200028		< 0.010	< 0.010	< 0.050	< 0.050	0.0226	0.022	38.1	0.00029	0.00055	< 0.0050			0.0005
8/18/2017	LC_LC5	200028														
8/21/2017	LC_LC5	200028														
8/24/2017	LC_LC5	200028														
8/27/2017	LC_LC5	200028														
8/30/2017	LC_LC5	200028														
9/2/2017	LC_LC5	200028														
9/5/2017	LC_LC5	200028														
9/5/2017	LC_LC5	200028		< 0.010	< 0.010	< 0.050	< 0.050	0.0219	0.0216	39.9	< 0.00010	0.00067	< 0.0050			< 0.00050
9/8/2017	LC_LC5	200028														
9/12/2017	LC_LC5	200028		< 0.010	< 0.010	< 0.050	0.065	0.0208	0.0299	42.4	0.00026	0.00073	< 0.0050			< 0.00050
10/2/2017	LC_LC5	200028		< 0.010	< 0.010	< 0.050	< 0.050	0.0199	0.0218	39.9	< 0.00010	0.00041	< 0.0050			< 0.00050
11/7/2017	LC_LC5	200028		< 0.010	< 0.010	< 0.050	< 0.050	0.0198	0.0223	43	0.00024	0.00071	< 0.0050			< 0.00050
11/28/2017	LC_LC5	200028		< 0.010	< 0.010	< 0.050	< 0.050	0.0236	0.0695	55.4	0.00014	0.00029	< 0.0050			< 0.00050
11/30/2017	LC_LC5	200028														< 0.00050
12/4/2017	LC_LC5	200028		< 0.010	< 0.010	< 0.050	< 0.050	0.0273	0.0265	45.5	0.00018	0.00048	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
1/9/2017	LC_LC7	E216144	0													
2/14/2017	LC_LC7	E216144	0													
3/6/2017	LC_LC7	E216144	0													
3/13/2017	LC_LC7	E216144	0													
3/17/2017	LC_LC7	E216144	0.00368													
3/18/2017	LC_LC7	E216144														
3/19/2017	LC_LC7	E216144														
3/20/2017	LC_LC7	E216144														
3/21/2017	LC_LC7	E216144	0.00368	< 0.010	0.55	< 0.050	0.905	0.0429	0.0448	24.6	0.0155	0.0306	< 0.0050			0.00784
3/21/2017	LC_LC7	E216144														
3/22/2017	LC_LC7	E216144														
3/23/2017	LC_LC7	E216144														
3/25/2017	LC_LC7	E216144														
3/26/2017	LC_LC7	E216144														
3/27/2017	LC_LC7	E216144	0.01041	< 0.010	0.123	< 0.050	0.221	0.0479	0.0494	30.4	0.00852	0.0125	< 0.0050			0.00266
3/28/2017	LC_LC7	E216144														
3/29/2017	LC_LC7	E216144														
3/30/2017	LC_LC7	E216144														
3/31/2017	LC_LC7	E216144														
4/4/2017	LC_LC7	E216144	0.041	< 0.010	0.085	< 0.050	0.263	0.045	0.0404	29.3	0.006	0.00863	< 0.0050			0.0014
4/11/2017	LC_LC7	E216144	0.054													
4/18/2017	LC_LC7	E216144	0.054													
4/25/2017	LC_LC7	E216144	0.075													
5/1/2017	LC_LC7	E216144		< 0.010	0.101	< 0.050	< 0.050	0.0373	0.037	29.7	0.00504	0.00695	< 0.0050			0.00063
5/1/2017	LC_LC7	E216144	0.222													
5/5/2017	LC_LC7	E216144														
5/6/2017	LC_LC7	E216144		< 0.010	0.61	< 0.050	0.773	0.0152	0.0148	17.1	0.00239	0.0153	< 0.0050			0.00859
5/7/2017	LC_LC7	E216144														
5/8/2017	LC_LC7	E216144	0.191													
5/11/2017	LC_LC7	E216144														
5/16/2017	LC_LC7	E216144	0.201													
5/23/2017	LC_LC7	E216144	0.232													
5/30/2017	LC_LC7	E216144	0.211													
5/31/2017	LC_LC7	E216144														0.0023
6/6/2017	LC_LC7	E216144	0.191	< 0.010	0.03	< 0.050	< 0.050	0.0082	0.007	11.2	0.00141	0.0023	< 0.0050			0.001
6/13/2017	LC_LC7	E216144	0.191													
6/20/2017	LC_LC7	E216144	0.152													
6/26/2017	LC_LC7	E216144	0.142													
7/5/2017	LC_LC7	E216144	0.124171298	< 0.010	0.014	< 0.050	< 0.050	0.006	0.0057	10.6	0.00096	0.00142	< 0.0050			0.00056
7/7/2017	LC_LC7	E216144														
7/11/2017	LC_LC7	E216144	0.133078385													
7/11/2017	LC_LC7	E216144														
7/13/2017	LC_LC7	E216144	0.141													
8/2/2017	LC_LC7	E216144		< 0.010	0.017	< 0.050	< 0.050	0.0045	0.0046	12.6	0.00018	0.00228	< 0.0050			0.00056
8/2/2017	LC_LC7	E216144	0.115466483													
8/8/2017	LC_LC7	E216144	0.098686264													
8/8/2017	LC_LC7	E216144		< 0.010	< 0.010	< 0.050	< 0.050	0.0048	0.0052	12.1	0.00024	0.00244	< 0.0050			0.00059

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
9/6/2017	LC_LC7	E216144		< 0.010	< 0.010	< 0.050	< 0.050	0.0055	0.0054	13.5	0.00057	0.00295	< 0.0050			< 0.00050
9/6/2017	LC_LC7	E216144	0.067828575													
10/3/2017	LC_LC7	E216144		< 0.010	0.01	< 0.050	< 0.050	0.0052	0.006	13.7	0.00176	0.00183	< 0.0050			< 0.00050
10/3/2017	LC_LC7	E216144	0.054													
11/8/2017	LC_LC7	E216144	0.054	< 0.010	< 0.010	< 0.050	< 0.050	0.0083	0.0092	15.9	0.00106	0.00187	< 0.0050			< 0.00050
12/4/2017	LC_LC7	E216144	0.083	< 0.010	0.025	< 0.050	< 0.050	0.0139	0.0136	19.4	0.0018	0.00218	< 0.0050			< 0.00050
12/21/2017	LC_LC7	E216144														
5/23/2017	LC_LC7DSTF	E304613														
6/6/2017	LC_LC7DSTF	E304613		< 0.010	0.036	< 0.050	< 0.050	0.0069	0.0064	11.3	0.00166	0.00313	< 0.0050			0.0011
7/6/2017	LC_LC7DSTF	E304613		< 0.010	0.016	< 0.050	< 0.050	0.0061	0.006	11	0.00124	0.00198	< 0.0050			< 0.00050
8/2/2017	LC_LC7DSTF	E304613														
8/8/2017	LC_LC7DSTF	E304613														
8/8/2017	LC_LC7DSTF	E304613		< 0.010	0.02	< 0.050	< 0.050	0.0048	0.0053	12	0.00022	0.00343	< 0.0050			< 0.00050
1/9/2017	LC_LC8	E219411	0													
2/14/2017	LC_LC8	E219411	0													
3/6/2017	LC_LC8	E219411	0													
3/13/2017	LC_LC8	E219411	0													
3/21/2017	LC_LC8	E219411	0													
3/27/2017	LC_LC8	E219411	0													
4/3/2017	LC_LC8	E219411	0													
4/11/2017	LC_LC8	E219411	0													
4/18/2017	LC_LC8	E219411	0													
4/25/2017	LC_LC8	E219411	0													
5/1/2017	LC_LC8	E219411	0													
5/9/2017	LC_LC8	E219411	0													
5/16/2017	LC_LC8	E219411	0													
5/23/2017	LC_LC8	E219411	0													
5/30/2017	LC_LC8	E219411	0													
6/6/2017	LC_LC8	E219411	0													
6/13/2017	LC_LC8	E219411	0													
6/19/2017	LC_LC8	E219411	0													
6/26/2017	LC_LC8	E219411	0													
10/3/2017	LC_LC8	E219411														
11/8/2017	LC_LC8	E219411														
12/4/2017	LC_LC8	E219411														
1/9/2017	LC_LC9	E221268	0													
2/14/2017	LC_LC9	E221268	0													
3/13/2017	LC_LC9	E221268	0													
3/16/2017	LC_LC9	E221268														
3/17/2017	LC_LC9	E221268	0.01185													
3/18/2017	LC_LC9	E221268														
3/19/2017	LC_LC9	E221268														
3/21/2017	LC_LC9	E221268	0.01274	< 0.010	0.238	< 0.050	0.375	0.0623	0.065	23.7	0.0247	0.0319	< 0.0050			0.00363
3/21/2017	LC_LC9	E221268														
3/22/2017	LC_LC9	E221268														
3/23/2017	LC_LC9	E221268														
3/24/2017	LC_LC9	E221268														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
3/25/2017	LC_LC9	E221268														
3/26/2017	LC_LC9	E221268														
3/27/2017	LC_LC9	E221268	0.2441													
3/28/2017	LC_LC9	E221268														
3/29/2017	LC_LC9	E221268														
3/30/2017	LC_LC9	E221268														
3/31/2017	LC_LC9	E221268														
4/4/2017	LC_LC9	E221268	0.012	< 0.010	0.043	< 0.050	0.248	0.0767	0.0714	31.3	0.0225	0.0248	< 0.0050			0.00125
4/5/2017	LC_LC9	E221268														
4/11/2017	LC_LC9	E221268	0													
4/18/2017	LC_LC9	E221268	0													
4/25/2017	LC_LC9	E221268	0													
5/1/2017	LC_LC9	E221268	0													
5/9/2017	LC_LC9	E221268	0													
5/16/2017	LC_LC9	E221268	0													
5/23/2017	LC_LC9	E221268	0													
5/30/2017	LC_LC9	E221268	0													
6/6/2017	LC_LC9	E221268	0													
6/13/2017	LC_LC9	E221268	0													
6/19/2017	LC_LC9	E221268	0													
6/26/2017	LC_LC9	E221268	0													
10/3/2017	LC_LC9	E221268														
11/8/2017	LC_LC9	E221268														
12/4/2017	LC_LC9	E221268														
1/2/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0526	0.0519	53.5	0.0005	0.00079	< 0.0050			< 0.00050
1/5/2017	LC_LCDSSLCC	E297110	0.769													
1/9/2017	LC_LCDSSLCC	E297110		< 0.010	0.011	< 0.050	< 0.050	0.042	0.0428	49.4	0.00087	0.00144	< 0.0050			< 0.00050
1/13/2017	LC_LCDSSLCC	E297110	0.729													
1/16/2017	LC_LCDSSLCC	E297110		< 0.010	0.014	< 0.050	< 0.050	0.049	0.0539	52.4	0.00114	0.00192	< 0.0050			< 0.00050
1/18/2017	LC_LCDSSLCC	E297110	0.71													
1/23/2017	LC_LCDSSLCC	E297110		< 0.010	0.015	< 0.050	< 0.050	0.0404	0.041	53.2	0.00118	0.00185	< 0.0050			< 0.00050
1/31/2017	LC_LCDSSLCC	E297110		< 0.010	0.015	< 0.050	< 0.050	0.0388	0.0412	49.6	0.00113	0.00184	< 0.0050			< 0.00050
2/7/2017	LC_LCDSSLCC	E297110		< 0.010	0.025	< 0.050	< 0.050	0.0402	0.0398	55.9	0.00203	0.00255	< 0.0050			< 0.00050
2/14/2017	LC_LCDSSLCC	E297110		< 0.010	0.022	< 0.050	< 0.050	0.0395	0.0396	57.2	0.00158	0.00227	< 0.0050			< 0.00050
2/21/2017	LC_LCDSSLCC	E297110		< 0.010	0.025	< 0.050	< 0.050	0.0402	0.0391	57.6	0.00156	0.00216	< 0.0050			< 0.00050
2/21/2017	LC_LCDSSLCC	E297110														
2/22/2017	LC_LCDSSLCC	E297110	0.374													
2/27/2017	LC_LCDSSLCC	E297110		< 0.010	0.026	< 0.050	< 0.050	0.0425	0.0445	56.8	0.00126	0.00212	< 0.0050			< 0.00050
3/6/2017	LC_LCDSSLCC	E297110		< 0.010	0.027	< 0.050	< 0.050	0.0425	0.0377	51.7	0.00152	0.00214	< 0.0050			< 0.00050
3/9/2017	LC_LCDSSLCC	E297110	0.377													
3/13/2017	LC_LCDSSLCC	E297110		< 0.010	0.092	< 0.050	0.142	0.048	0.0476	50.5	0.00174	0.0045	< 0.0050			0.00105
3/15/2017	LC_LCDSSLCC	E297110														
3/20/2017	LC_LCDSSLCC	E297110		< 0.010	0.06	< 0.050	0.091	0.0417	0.0405	44	0.00075	0.00313	< 0.0050			0.001
3/21/2017	LC_LCDSSLCC	E297110	0.659													
3/27/2017	LC_LCDSSLCC	E297110		< 0.010	0.019	< 0.050	< 0.050	0.0464	0.0497	58	0.00289	0.00369	< 0.0050			< 0.00050
4/3/2017	LC_LCDSSLCC	E297110		< 0.010	0.019	< 0.050	< 0.050	0.0481	0.0432	55.4	0.00186	0.00257	< 0.0050			< 0.00050
4/10/2017	LC_LCDSSLCC	E297110		< 0.010	0.028	< 0.050	0.054	0.052	0.0496	50.4	0.00144	0.00316	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
4/18/2017	LC_LCDSSLCC	E297110		< 0.010	0.02	< 0.050	< 0.050	0.0497	0.0442	47.2	0.00105	0.0022	< 0.0050			0.00059
4/24/2017	LC_LCDSSLCC	E297110														
4/25/2017	LC_LCDSSLCC	E297110		< 0.010	0.033	< 0.050	< 0.050	0.0483	0.0474	48.3	0.00081	0.00355	< 0.0050			0.00069
4/27/2017	LC_LCDSSLCC	E297110	1.341													
5/2/2017	LC_LCDSSLCC	E297110		< 0.010	0.031	< 0.050	< 0.050	0.0518	0.0508	47.5	0.00058	0.00283	< 0.0050			< 0.00050
5/5/2017	LC_LCDSSLCC	E297110	1.878													
5/9/2017	LC_LCDSSLCC	E297110		< 0.010	0.045	< 0.050	< 0.050	0.0247	0.0237	30.4	0.00069	0.00389	< 0.0050			0.00112
5/16/2017	LC_LCDSSLCC	E297110		< 0.010	0.017	< 0.050	< 0.050	0.0215	0.0187	25.8	0.00036	0.00223	< 0.0050			0.00102
5/17/2017	LC_LCDSSLCC	E297110	5.976													
5/23/2017	LC_LCDSSLCC	E297110		< 0.010	0.045	< 0.050	< 0.050	0.0199	0.0197	21	0.0006	0.00343	< 0.0050			0.00128
5/30/2017	LC_LCDSSLCC	E297110		< 0.010	0.086	< 0.050	0.077	0.0154	0.0163	17.2	0.00055	0.00593	< 0.0050			0.00148
6/7/2017	LC_LCDSSLCC	E297110		< 0.010	0.02	< 0.050	< 0.050	0.0224	0.0202	23.4	0.00052	0.00163	< 0.0050			< 0.00050
6/12/2017	LC_LCDSSLCC	E297110		< 0.010	0.016	< 0.050	< 0.050	0.024	0.0233	25.3	0.00054	0.00137	< 0.0050			< 0.0005000000
6/13/2017	LC_LCDSSLCC	E297110														
6/19/2017	LC_LCDSSLCC	E297110		< 0.010	0.014	< 0.050	< 0.050	0.0244	0.0221	25.3	0.00069	0.00311	< 0.0050			0.0009
6/20/2017	LC_LCDSSLCC	E297110	6.023													
6/20/2017	LC_LCDSSLCC	E297110		< 0.010	0.01	< 0.050	< 0.050	0.0247	0.0227	24.8	0.00034	0.00072	< 0.0050			0.0005
6/26/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.027	0.0256	29.2	0.00164	0.0019	< 0.0050			0.0009
7/6/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0325	0.031	30.6	0.0005	0.00074	< 0.0050			< 0.00050
7/11/2017	LC_LCDSSLCC	E297110	6.009175779													
7/11/2017	LC_LCDSSLCC	E297110		< 0.010	0.018	< 0.050	< 0.050	0.0332	0.0316	33.4	0.00041	0.00504	< 0.0050			< 0.00050
7/13/2017	LC_LCDSSLCC	E297110	2.071													
7/18/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0354	0.0342	38.1	0.00105	0.00137	< 0.0050			0.0005
7/21/2017	LC_LCDSSLCC	E297110														
7/25/2017	LC_LCDSSLCC	E297110	2.611918347													
7/25/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	0.097	< 0.050	0.0364	0.0364	37.2	0.00066	0.00087	< 0.0050			0.0005
8/2/2017	LC_LCDSSLCC	E297110	1.609604149													
8/2/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0365	0.0371	47.1	0.00073	0.00151	< 0.0050			< 0.00050
8/8/2017	LC_LCDSSLCC	E297110	1.21779082													
8/8/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0405	0.0414	46	0.00011	0.00063	< 0.0050			< 0.00050
8/15/2017	LC_LCDSSLCC	E297110	1.150670146													
8/15/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0391	0.0385	46.4	0.00189	0.00264	< 0.0050			< 0.00050
8/18/2017	LC_LCDSSLCC	E297110														
8/21/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0353	0.035	49.1	0.00425	0.00489	< 0.0050			0.00073
8/24/2017	LC_LCDSSLCC	E297110	0.948													
8/24/2017	LC_LCDSSLCC	E297110	0.759													
8/27/2017	LC_LCDSSLCC	E297110	0.968889635													
8/27/2017	LC_LCDSSLCC	E297110														
8/30/2017	LC_LCDSSLCC	E297110	1.21779082													
8/30/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0365	0.0357	47.6	0.00093	0.00166	< 0.0050			0.00063
9/2/2017	LC_LCDSSLCC	E297110														
9/5/2017	LC_LCDSSLCC	E297110	0.914338107													
9/5/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0371	0.0358	49	0.00117	0.00205	< 0.0050			< 0.00050
9/8/2017	LC_LCDSSLCC	E297110														
9/12/2017	LC_LCDSSLCC	E297110	0.837707112													
9/12/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0366	0.0392	47.1	0.00141	0.00184	< 0.0050			< 0.00050
9/13/2017	LC_LCDSSLCC	E297110														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
9/20/2017	LC_LCDSSLCC	E297110	0.888117841													
9/20/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0369	0.0365	48.4	0.00229	0.00282	< 0.0050			< 0.00050
9/25/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0371	0.0378	49.6	0.00123	0.00185	< 0.0050			< 0.00050
9/25/2017	LC_LCDSSLCC	E297110	0.813485172													
9/26/2017	LC_LCDSSLCC	E297110	0.705													
10/2/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0372	0.0397	48.5	0.00106	0.00218	< 0.0050			< 0.00050
10/3/2017	LC_LCDSSLCC	E297110	0.8881													
10/10/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0382	0.041	52	0.00119	0.0018	< 0.0050			< 0.00050
10/10/2017	LC_LCDSSLCC	E297110	0.8626													
10/17/2017	LC_LCDSSLCC	E297110	0.7016	< 0.010	< 0.010	< 0.050	< 0.050	0.0367	0.0384	51.1	0.00035	0.0009	< 0.0050			< 0.00050
10/18/2017	LC_LCDSSLCC	E297110	0.764													
10/24/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0429	0.0381	51	< 0.00010	0.00084	< 0.0050			0.00051
10/24/2017	LC_LCDSSLCC	E297110	0.7016													
10/31/2017	LC_LCDSSLCC	E297110	0.6609	< 0.010	< 0.010	< 0.050	< 0.050	0.0511	0.0467	50	0.00024	0.00098	< 0.0050			< 0.00050
11/6/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0348	0.0442	52	0.00016	0.00064	< 0.0050			< 0.00050
11/10/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.050	< 0.050	< 0.25	0.0456	0.0425	51.4	0.00019	0.00087	< 0.0050			< 0.00050
11/14/2017	LC_LCDSSLCC	E297110	0.5029	< 0.010	< 0.010	< 0.050	< 0.050	0.0467	0.0555	53.9	0.00026	0.00091	< 0.0050			< 0.00050
11/16/2017	LC_LCDSSLCC	E297110	0.564													
11/21/2017	LC_LCDSSLCC	E297110	0.5513	< 0.010	< 0.010	< 0.050	< 0.050	0.0489	0.0474	53.7	0.00013	0.0009	< 0.0050			< 0.00050
11/28/2017	LC_LCDSSLCC	E297110	0.6223													
11/28/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0512	0.0432	48.9	0.00019	0.00089	< 0.0050			< 0.00050
11/30/2017	LC_LCDSSLCC	E297110														< 0.00050
12/4/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0535	0.056	51.5	0.00022	0.00066	< 0.0050			< 0.00050
12/12/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0516	0.0558	53.1	0.00025	0.00057	< 0.0050			< 0.00050
12/12/2017	LC_LCDSSLCC	E297110	4.5853													
12/14/2017	LC_LCDSSLCC	E297110	1.419													
12/18/2017	LC_LCDSSLCC	E297110		< 0.010	< 0.010	< 0.050	< 0.050	0.0503	0.0504	54.3	0.00019	0.00049	< 0.0050			< 0.00050
12/18/2017	LC_LCDSSLCC	E297110	0.8626													
12/27/2017	LC_LCDSSLCC	E297110	0.6223													
12/27/2017	LC_LCDSSLCC	E297110		0.011	< 0.010	< 0.050	< 0.050	0.0566	0.0522	54.8	0.0002	0.00054	< 0.0050			< 0.00050
1/2/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0834	0.0849	57.5	< 0.00010	0.00013	< 0.0050			< 0.00050
1/9/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0717	0.0689	52.2	< 0.00010	< 0.00010	< 0.0050			< 0.00050
1/16/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0792	0.0875	55.4	< 0.00010	0.00011	< 0.0050			< 0.00050
2/14/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0643	0.0612	56.4	< 0.00010	0.0001	< 0.0050			< 0.00050
2/24/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0684	0.0703	55.3	< 0.00010	0.00011	< 0.0050			< 0.00050
2/27/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0604	0.0633	53.3	< 0.00010	0.00014	< 0.0050			< 0.00050
3/6/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0713	0.0608	53.6	< 0.00010	< 0.00010	< 0.0050			< 0.00050
3/13/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0666	0.065	52.8	< 0.00010	0.00011	< 0.0050			< 0.00050
3/16/2017	LC_LCUSWLC	E293369														
3/18/2017	LC_LCUSWLC	E293369														
3/19/2017	LC_LCUSWLC	E293369														
3/20/2017	LC_LCUSWLC	E293369		< 0.010	0.219	< 0.050	0.372	0.0654	0.0615	48.5	0.00015	0.00359	< 0.0050			0.00296
3/22/2017	LC_LCUSWLC	E293369														
3/23/2017	LC_LCUSWLC	E293369														
3/24/2017	LC_LCUSWLC	E293369														
3/25/2017	LC_LCUSWLC	E293369														
3/26/2017	LC_LCUSWLC	E293369														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
3/27/2017	LC_LCUSWLC	E293369		< 0.010	0.106	< 0.050	0.169	0.0709	0.0742	62.5	< 0.00010	0.00198	< 0.0050			0.00177
3/28/2017	LC_LCUSWLC	E293369														
3/29/2017	LC_LCUSWLC	E293369														
3/30/2017	LC_LCUSWLC	E293369														
4/3/2017	LC_LCUSWLC	E293369		< 0.010	0.026	< 0.050	< 0.050	0.0725	0.0657	58.2	< 0.00010	0.00053	< 0.0050			0.00056
4/10/2017	LC_LCUSWLC	E293369		< 0.010	0.034	< 0.050	0.077	0.0805	0.0699	49.4	< 0.00010	0.00075	< 0.0050			0.00078
4/18/2017	LC_LCUSWLC	E293369		< 0.010	0.02	< 0.050	< 0.050	0.0765	0.0679	52.7	< 0.00010	0.00043	< 0.0050			0.00238
4/25/2017	LC_LCUSWLC	E293369		< 0.010	0.018	< 0.050	< 0.050	0.0709	0.0685	48.8	0.00012	0.00052	< 0.0050			0.00103
5/1/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0718	0.0704	49.8	0.0001	0.00021	< 0.0050			< 0.00050
5/9/2017	LC_LCUSWLC	E293369		< 0.010	0.088	< 0.050	< 0.050	0.0332	0.0312	33.5	0.00017	0.00145	< 0.0050			0.00088
5/16/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.027	0.0243	25.2	0.00017	0.00023	< 0.0050			0.00101
5/23/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0358	0.0352	27.5	0.00018	0.00027	< 0.0050			0.00083
5/30/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0251	0.0264	24.1	< 0.00010	0.00022	0.005			0.00088
6/7/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0309	0.0279	24.4	0.00017	0.00021	< 0.0050			< 0.00050
6/13/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0343	0.0319	28.5	0.00016	0.00021	< 0.0050			0.0006
6/19/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0365	0.034	26.1	0.00013	0.0002	< 0.0050			0.0006
6/26/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0424	0.0399	32.7	0.00013	0.00014	< 0.0050			0.00054
7/6/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0474	0.0453	32.8	0.00013	0.00018	< 0.0050			< 0.00050
7/11/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0504	0.0478	36.8	0.00012	0.00188	< 0.0050			0.00058
7/18/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0533	0.0522	39.3	0.00014	0.00018	< 0.0050			0.0005
7/25/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0565	0.0557	40.7	0.0001	0.00017	< 0.0050			0.0005
8/2/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0574	0.0581	48.7	0.0001	< 0.00020	< 0.0050			< 0.00050
8/8/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0646	0.0657	48.6	< 0.00010	0.00026	< 0.0050			< 0.00050
8/15/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0341	0.0351	189	0.00224	0.00248	< 0.0050			0.00059
8/18/2017	LC_LCUSWLC	E293369														
8/21/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0462	0.0471	46.7	0.00013	0.0002	< 0.0050			0.00203
8/24/2017	LC_LCUSWLC	E293369														
8/27/2017	LC_LCUSWLC	E293369														
8/30/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0502	0.0505	45.7	0.00013	0.00022	< 0.0050			0.00064
9/2/2017	LC_LCUSWLC	E293369														
9/5/2017	LC_LCUSWLC	E293369														
9/5/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0464	0.0487	46.7	0.00015	0.0002	< 0.0050			< 0.00050
9/8/2017	LC_LCUSWLC	E293369														
9/12/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0503	0.0494	44	< 0.00010	0.0003	< 0.0050			< 0.00050
9/20/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0499	0.0487	46.5	< 0.00010	0.00021	< 0.0050			< 0.00050
9/25/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0484	0.052	46.1	0.00013	0.00016	< 0.0050			< 0.00050
10/2/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0517	0.0531	44.5	< 0.00010	0.00017	< 0.0050			< 0.00050
10/10/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0575	0.0627	51.3	< 0.00010	0.00021	< 0.0050			< 0.00050
10/17/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0577	0.0566	52	< 0.00010	0.00013	< 0.0050			< 0.00050
10/24/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0639	0.0623	52.4	< 0.00010	0.00015	< 0.0050			< 0.00050
10/31/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0766	0.0659	48	< 0.00010	0.00017	< 0.0050			< 0.00050
11/6/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0621	0.0697	56.4	< 0.00010	< 0.00010	< 0.0050			< 0.00050
11/9/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0715	0.068	51.7	< 0.00010	0.0002	< 0.0050			< 0.00050
11/14/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0666	0.08	53.4	< 0.00010	0.00016	< 0.0050			< 0.00050
11/21/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0766	0.0733	54.6	< 0.00010	0.00011	< 0.0050			< 0.00050
11/28/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0713	0.036	40.9	0.00014	0.00048	< 0.0050			< 0.00050
12/4/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0798	0.0819	50.6	< 0.00010	0.00017	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
12/12/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0811	0.0792	56.5	< 0.00010	0.00015	< 0.0050			< 0.00050
12/18/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0816	0.0779	55.4	< 0.00010	< 0.00010	< 0.0050			< 0.00050
12/27/2017	LC_LCUSWLC	E293369		< 0.010	< 0.010	< 0.050	< 0.050	0.0924	0.0848	57.1	< 0.00010	0.00012	< 0.0050			< 0.00050
1/9/2017	LC_SLC	E282149	0.188													
1/9/2017	LC_SLC	E282149		< 0.010	< 0.010	< 0.050	< 0.050	0.0035	0.0034	15.5	< 0.00010	< 0.00010	< 0.0050			< 0.00050
2/14/2017	LC_SLC	E282149	0.179	< 0.010	< 0.010	< 0.050	< 0.050	0.0039	0.0037	17.4	< 0.00010	< 0.00010	< 0.0050			< 0.00050
2/14/2017	LC_SLC	E282149	0.182													
3/6/2017	LC_SLC	E282149		< 0.010	< 0.010	< 0.050	< 0.050	0.0038	0.0042	16.3	< 0.00010	< 0.00010	< 0.0050			< 0.00050
3/9/2017	LC_SLC	E282149	0.122													
4/3/2017	LC_SLC	E282149		< 0.010	< 0.010	< 0.050	< 0.050	0.0041	0.0037	17	< 0.00010	< 0.00010	< 0.0050			< 0.00050
4/3/2017	LC_SLC	E282149	0.17													
5/1/2017	LC_SLC	E282149		< 0.010	< 0.010	< 0.050	< 0.050	0.0039	0.0041	15.6	< 0.00010	0.00016	< 0.0050			< 0.00050
5/6/2017	LC_SLC	E282149														
5/7/2017	LC_SLC	E282149														
5/17/2017	LC_SLC	E282149	2.166													
5/24/2017	LC_SLC	E282149														
6/7/2017	LC_SLC	E282149		< 0.010	0.033	< 0.050	< 0.050	0.0015	0.0011	7.54	0.00021	0.00124	< 0.0050			0.0007
6/22/2017	LC_SLC	E282149	1.75													
7/6/2017	LC_SLC	E282149		< 0.010	< 0.010	< 0.050	< 0.050	0.0021	0.002	9.41	< 0.00010	0.00032	< 0.0050			0.0006
7/13/2017	LC_SLC	E282149	0.701													
8/2/2017	LC_SLC	E282149		< 0.010	< 0.010	< 0.050	< 0.050	0.0026	0.0024	14.6	< 0.00010	< 0.00020	< 0.0050			< 0.00050
8/8/2017	LC_SLC	E282149														
8/15/2017	LC_SLC	E282149														
8/18/2017	LC_SLC	E282149														
8/21/2017	LC_SLC	E282149														
8/24/2017	LC_SLC	E282149	0.261													
8/24/2017	LC_SLC	E282149	0.261													
8/27/2017	LC_SLC	E282149														
8/30/2017	LC_SLC	E282149														
9/2/2017	LC_SLC	E282149														
9/5/2017	LC_SLC	E282149	0.286													
9/5/2017	LC_SLC	E282149		< 0.010	< 0.010	< 0.050	< 0.050	0.0034	0.0038	16.8	< 0.00010	0.00029	< 0.0050			< 0.00050
9/5/2017	LC_SLC	E282149														
9/8/2017	LC_SLC	E282149														
9/29/2017	LC_SLC	E282149	0.19													
10/2/2017	LC_SLC	E282149		< 0.010	< 0.010	< 0.050	< 0.050	0.0033	0.0038	16.3	< 0.00010	0.00016	< 0.0050			< 0.00050
10/18/2017	LC_SLC	E282149	0.148													
11/8/2017	LC_SLC	E282149		< 0.010	< 0.010	< 0.050	< 0.050	0.0036	0.0039	16.8	< 0.00010	0.00017	< 0.0050			< 0.00050
11/8/2017	LC_SLC	E282149	3.9492													
11/16/2017	LC_SLC	E282149	0.135													
12/4/2017	LC_SLC	E282149	4.4581	< 0.010	< 0.010	< 0.050	< 0.050	0.0031	0.0035	14.9	< 0.00010	0.00013	< 0.0050			< 0.00050
12/14/2017	LC_SLC	E282149	0.127													
1/9/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.031	0.0322	193	< 0.00010	< 0.00010	< 0.0050			0.00101
2/14/2017	LC_WLC	E261958		< 0.010	0.012	< 0.050	< 0.050	0.0353	0.0325	205	< 0.00010	< 0.00010	< 0.0050			0.00105
3/6/2017	LC_WLC	E261958		< 0.010	0.011	< 0.050	< 0.050	0.0366	0.0325	199	< 0.00010	< 0.00010	< 0.0050			0.00103
3/13/2017	LC_WLC	E261958		< 0.010	0.012	< 0.050	< 0.050	0.0342	0.0328	185	< 0.00010	< 0.00010	< 0.0050			0.00107
3/18/2017	LC_WLC	E261958														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
3/19/2017	LC_WLC	E261958														
3/20/2017	LC_WLC	E261958		< 0.010	0.042	< 0.050	< 0.050	0.0346	0.0365	209	0.00118	0.00241	< 0.0050			0.00153
3/21/2017	LC_WLC	E261958														
3/25/2017	LC_WLC	E261958														
3/26/2017	LC_WLC	E261958														
3/27/2017	LC_WLC	E261958		< 0.010	0.015	< 0.050	< 0.050	0.0347	0.0386	229	0.00011	0.00017	< 0.0050			0.00149
4/3/2017	LC_WLC	E261958	0.035	< 0.010	0.011	< 0.050	< 0.050	0.0394	0.036	284	0.0001	0.00015	< 0.0050			0.00108
4/10/2017	LC_WLC	E261958		< 0.010	0.011	< 0.050	< 0.050	0.0395	0.0367	194	< 0.00010	< 0.00010	< 0.0050			0.00113
4/18/2017	LC_WLC	E261958		< 0.010	0.015	< 0.050	< 0.050	0.0388	0.0348	198	< 0.00010	0.0003	< 0.0050			0.00121
4/25/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.0376	0.038	198	< 0.00010	0.00013	< 0.0050			0.00133
4/26/2017	LC_WLC	E261958														0.00119
5/1/2017	LC_WLC	E261958		< 0.010	0.017	< 0.050	< 0.050	0.0379	0.0368	192	< 0.00010	0.00018	< 0.0050			0.00113
5/1/2017	LC_WLC	E261958	0.038													
5/9/2017	LC_WLC	E261958		< 0.010	0.016	< 0.050	< 0.050	0.0358	0.0354	191	< 0.00010	0.00017	< 0.0050			0.00148
5/16/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.0311	0.0279	139	< 0.00010	0.00013	< 0.0050			0.00142
5/23/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.03	0.0296	129	0.00012	0.00018	< 0.0050			0.00123
5/30/2017	LC_WLC	E261958		< 0.010	0.025	< 0.050	< 0.050	0.0257	0.026	97.6	0.00056	0.00112	< 0.0050			0.00118
6/6/2017	LC_WLC	E261958	0.334	< 0.010	< 0.010	< 0.050	< 0.050	0.0236	0.0212	83.4	0.00105	0.00105	< 0.0050			0.0005
6/13/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.0211	0.0208	94.8	0.00095	0.00093	< 0.0050			0.0013
6/19/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.0195	0.0197	90.7	0.00093	0.00085	< 0.0050			0.0015
6/26/2017	LC_WLC	E261958		0.023	< 0.010	< 0.050	< 0.050	0.0238	0.0226	118	0.00102	0.00099	< 0.0050			0.0011
7/6/2017	LC_WLC	E261958	0.09915006													
7/6/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.0273	0.0263	112	0.00142	0.0014	< 0.0050			0.00109
7/11/2017	LC_WLC	E261958	0.094782822													
7/11/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.0265	0.026	127	0.00134	0.0181	< 0.0050			0.00105
7/18/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.028	0.0278	137	0.00195	0.00182	< 0.0050			0.0012
7/25/2017	LC_WLC	E261958	0.078478077													
7/25/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.0284	0.0288	138	0.00194	0.00177	< 0.0050			0.0012
8/2/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.0298	0.0292	167	0.0017	0.00175	< 0.0050			0.00118
8/3/2017	LC_WLC	E261958	0.067441311													
8/8/2017	LC_WLC	E261958	0.060634178													
8/8/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.0355	0.0349	169	0.002	0.00184	< 0.0050			0.00117
8/15/2017	LC_WLC	E261958	0.057392375													
8/15/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.0517	0.0527	44.3	0.00012	0.00022	< 0.0050			0.00118
8/21/2017	LC_WLC	E261958		< 0.010	0.011	< 0.050	< 0.050	0.0373	0.0322	192	0.00228	0.00215	< 0.0050			0.00117
8/30/2017	LC_WLC	E261958	0.054256853													
8/30/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.0336	0.0352	165	0.00136	0.00127	< 0.0050			0.00112
9/5/2017	LC_WLC	E261958	0.054256853													
9/5/2017	LC_WLC	E261958		< 0.010	< 0.020	< 0.050	< 0.10	0.0368	0.0393	197	0.00163	0.00184	< 0.0050			0.00116
9/5/2017	LC_WLC	E261958														
9/12/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.0376	0.0391	205	0.0015	0.00161	< 0.0050			0.00071
9/20/2017	LC_WLC	E261958	0.04829989													
9/20/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.0374	0.0362	184	0.00082	0.00082	< 0.0050			0.00072
9/25/2017	LC_WLC	E261958	0.04829989													
9/25/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.0403	0.0353	195	0.00045	0.0005				0.00124
10/3/2017	LC_WLC	E261958	0.04275362	< 0.010	< 0.010	< 0.050	< 0.050	0.0364	0.0394	199	0.00013	0.00038	< 0.0050			0.00114
10/10/2017	LC_WLC	E261958		< 0.010	0.01	< 0.050	< 0.050	0.034	0.0368	211	0.00019	0.00029	< 0.0050			0.00121

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
10/10/2017	LC_WLC	E261958	0.04275362													
10/17/2017	LC_WLC	E261958	0.040131411	< 0.010	0.01	< 0.050	< 0.050	0.0331	0.0342	195	0.00013	0.00017	< 0.0050			0.00123
10/24/2017	LC_WLC	E261958	0.04275362	< 0.020	< 0.020	< 0.10	< 0.10	0.0314	0.0347	204	< 0.00020	< 0.00020	< 0.0050			0.00132
10/31/2017	LC_WLC	E261958	0.04275362													
10/31/2017	LC_WLC	E261958		< 0.020	< 0.020	< 0.10	< 0.10	0.0376	0.0354	198	< 0.00020	< 0.00020	< 0.0050			0.00113
11/8/2017	LC_WLC	E261958		< 0.010	< 0.020	< 0.050	< 0.10	0.0295	0.0359	216	< 0.00010	< 0.00020	< 0.0050			0.00122
11/8/2017	LC_WLC	E261958	0.04275362													
11/14/2017	LC_WLC	E261958	0.0746875	< 0.010	0.014	< 0.050	< 0.050	0.0342	0.0433	224	< 0.00010	0.00012	< 0.0050			0.00122
11/21/2017	LC_WLC	E261958	0.037608144	< 0.020	0.014	< 0.10	< 0.050	0.038	0.036	217	< 0.00020	0.00015	< 0.0050			0.0011
11/28/2017	LC_WLC	E261958		< 0.020	0.01	< 0.10	< 0.050	0.0369	0.0368	202	< 0.00020	0.00013	< 0.0050			0.00103
11/28/2017	LC_WLC	E261958	0.040131411													
12/4/2017	LC_WLC	E261958	0.032853312	< 0.010	< 0.020	< 0.050	< 0.10	0.0376	0.037	198	< 0.00010	< 0.00020	< 0.0050			0.00114
12/12/2017	LC_WLC	E261958	0.037608144	< 0.020	< 0.020	< 0.10	< 0.10	0.0346	0.0365	214	< 0.00020	< 0.00020	< 0.0050			0.00114
12/18/2017	LC_WLC	E261958		< 0.010	< 0.010	< 0.050	< 0.050	0.035	0.0366	217	< 0.00010	< 0.00010	< 0.0050			0.00109
12/18/2017	LC_WLC	E261958	0.032853312													
12/27/2017	LC_WLC	E261958	0.030619142	< 0.010	< 0.020	< 0.050	< 0.10	0.0396	0.0393	214	< 0.00010	< 0.00020	< 0.0050			0.00106
4/11/2017	RG_BORDER	E300094		0.37	1.01	0.672	0.895	0.0031	0.004	14.7	0.0642	0.0762	< 0.0050			0.00203
4/11/2017	RG_BORDER	E300094		0.321	0.891	0.573	0.83	0.0031	0.004	14.7	0.0614	0.0731	< 0.0050			0.00175
4/11/2017	RG_BORDER	E300094		0.019	0.959	< 0.050	0.837	0.0031	0.0041	14.6	0.0361	0.0726	< 0.0050			0.00172
4/17/2017	RG_BORDER	E300094		0.025	1.25	< 0.050	1.04	0.0031	0.0042	15	0.03	0.0737	< 0.0050			0.00236
4/17/2017	RG_BORDER	E300094		0.026	1.11	< 0.050	1.03	0.003	0.0043	14.7	0.0289	0.0677	< 0.0050			0.00185
4/17/2017	RG_BORDER	E300094		0.025	1.06	< 0.050	0.979	0.0029	0.0043	14.6	0.0298	0.0672	< 0.0050			0.00177
4/24/2017	RG_BORDER	E300094		0.033	1.99	0.071	1.7	0.0025	0.0052	14.5	0.026	0.0863	< 0.0050			0.00259
4/24/2017	RG_BORDER	E300094		0.028	1.63	0.065	1.5	0.003	0.0048	14.7	0.0249	0.0754	< 0.0050			0.0022
4/24/2017	RG_BORDER	E300094		0.024	1.56	0.062	1.45	0.0032	0.0048	14.3	0.0217	0.0737	< 0.0050			0.00227
5/2/2017	RG_BORDER	E300094		0.022	1.85	0.05	1.52	0.0023	0.004	13.3	0.0206	0.0776	< 0.0050			0.00263
5/2/2017	RG_BORDER	E300094		0.02	1.48	0.052	1.36	0.0026	0.0039	13.2	0.0236	0.0674	< 0.0050			0.00215
5/9/2017	RG_BORDER	E300094		0.039	3.11	0.069	2.67	0.0014	0.0049	11.1	0.0181	0.0985	< 0.0050			0.00509
5/9/2017	RG_BORDER	E300094		0.058	3.25	0.08	2.71	0.0017	0.0052	11.2	0.0168	0.101	< 0.0050			0.00536
5/9/2017	RG_BORDER	E300094		0.04	3.24	0.073	2.74	0.0014	0.0049	11.3	0.0178	0.102	< 0.0050			0.00523
5/16/2017	RG_BORDER	E300094		0.018	1.32	< 0.050	1.15	0.0013	0.0027	9.65	0.00656	0.039	< 0.0050			0.00302
5/16/2017	RG_BORDER	E300094		0.018	1.27	< 0.050	1.05	0.0011	0.0025	9.66	0.0071	0.0379	< 0.0050			0.00278
5/16/2017	RG_BORDER	E300094		0.018	1.21	< 0.050	1.01	0.0016	0.0025	9.6	0.0071	0.036	< 0.0050			0.00273
5/23/2017	RG_BORDER	E300094		0.011	0.341	< 0.050	0.481	0.0017	0.0026	10.9	0.00395	0.0193	< 0.0050			0.00165
5/23/2017	RG_BORDER	E300094		0.011	0.468	< 0.050	0.493	0.0016	0.0028	10.8	0.00409	0.0195	< 0.0050			0.00175
5/23/2017	RG_BORDER	E300094		0.012	0.192	< 0.050	0.387	0.0018	0.0024	10.8	0.00396	0.0158	< 0.0050			0.00145
5/30/2017	RG_BORDER	E300094		0.013	1.13	< 0.050	0.883	0.0018	0.0029	9.55	0.00263	0.0324	< 0.0050			0.00233
5/30/2017	RG_BORDER	E300094		0.017	1.06	< 0.050	0.85	0.0014	0.0025	9.21	0.00245	0.0317	< 0.0050			0.0024
5/30/2017	RG_BORDER	E300094		0.015	0.677	< 0.050	0.614	0.0014	0.0018	8.66	0.00184	0.0214	< 0.0050			0.002
6/6/2017	RG_BORDER	E300094		0.022	1.45	< 0.050	1.4	< 0.0010	0.003	8.22	0.00111	0.0423	< 0.0050			0.0026
6/6/2017	RG_BORDER	E300094		0.019	1.54	< 0.050	1.32	< 0.0010	0.0031	8.36	0.00085	0.0398	< 0.0050			0.0023
6/6/2017	RG_BORDER	E300094		< 0.010	0.081	< 0.050	0.152	0.0012	0.0018	7.94	0.00021	0.00393	< 0.0050			0.0009
6/13/2017	RG_BORDER	E300094		0.137	1.11	0.147	0.901	0.0016	0.0028	7.94	0.00336	0.0282	< 0.0050			0.0019
6/13/2017	RG_BORDER	E300094		< 0.010	0.097	< 0.050	0.132	0.0012	0.0017	8.22	0.0002	0.00463	< 0.0050			0.0008
6/13/2017	RG_BORDER	E300094		< 0.010	1.58	< 0.050	1.27	0.001	0.0032	8.22	0.00174	0.0391	< 0.0050			0.0024
6/20/2017	RG_BORDER	E300094		< 0.010	0.777	< 0.050	0.667	0.0014	0.0021	8.56	0.00173	0.0216	< 0.0050			0.00149
6/20/2017	RG_BORDER	E300094		< 0.010	0.365	< 0.050	0.358	0.0013	0.0014	7.89	0.00106	0.0113	< 0.0050			0.00102

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
6/20/2017	RG_BORDER	E300094		< 0.010	0.056	< 0.050	0.139	0.0015	0.0011	8.06	0.00019	0.00244	< 0.0050			0.00066
6/27/2017	RG_BORDER	E300094		< 0.010	0.351	< 0.050	0.384	0.002	0.0023	9.42	0.00046	0.0132	< 0.0050			0.00129
6/27/2017	RG_BORDER	E300094		< 0.010	0.233	< 0.050	0.285	0.0021	0.0021	9.08	0.00256	0.0106	< 0.0050			0.00091
6/27/2017	RG_BORDER	E300094		< 0.010	0.032	< 0.050	< 0.050	0.002	0.0018	8.29	0.00045	0.0016	< 0.0050			0.0006
7/4/2017	RG_BORDER	E300094		< 0.010	0.305	< 0.050	0.321	0.0016	0.0017	9.15	0.00038	0.00993	< 0.0050			0.00114
7/4/2017	RG_BORDER	E300094		< 0.010	0.152	< 0.050	0.184	0.0011	0.0011	8.37	0.00105	0.0062	< 0.0050			0.0007
7/4/2017	RG_BORDER	E300094		< 0.010	0.033	< 0.050	< 0.050	0.0014	0.0011	8.84	0.00048	0.00146	< 0.0050			0.00061
7/11/2017	RG_BORDER	E300094		< 0.010	0.125	< 0.050	0.216	0.0017	0.0018	6.94	0.00021	0.00586	< 0.0050			0.00101
7/11/2017	RG_BORDER	E300094		< 0.010	0.056	< 0.050	0.09	0.0015	0.0015	8.24	0.00081	0.00408	< 0.0050			0.00056
7/11/2017	RG_BORDER	E300094		< 0.010	0.019	< 0.050	< 0.050	0.0015	0.0015	8.42	0.00066	0.00148	< 0.0050			0.00063
8/8/2017	RG_BORDER	E300094		< 0.010	0.018	< 0.050	< 0.050	0.0015	0.0015	8.46	< 0.00010	0.00118	< 0.0050			< 0.00050
8/8/2017	RG_BORDER	E300094		< 0.010	0.065	< 0.050	0.087	0.0017	0.0016	8.35	< 0.00010	0.00316	< 0.0050			0.00066
8/8/2017	RG_BORDER	E300094		< 0.010	0.015	< 0.050	< 0.050	0.0018	0.0016	8.8	< 0.00010	0.001	< 0.0050			< 0.00050
9/18/2017	RG_BORDER	E300094		< 0.010	0.03	< 0.050	< 0.050	0.0013	0.002	8.05	< 0.00010	0.0036	< 0.0050			< 0.00050
9/18/2017	RG_BORDER	E300094		< 0.010	0.01	< 0.050	< 0.050	0.0017	0.0024	9.93	< 0.00010	0.00146	< 0.0050			< 0.00050
9/18/2017	RG_BORDER	E300094		< 0.010	< 0.010	< 0.050	< 0.050	0.0017	0.0022	9.72	< 0.00010	0.00114	< 0.0050			< 0.00050
10/3/2017	RG_BORDER	E300094		< 0.010	0.034	< 0.050	0.07	0.0018	0.0018	11.7	< 0.00010	0.00472	< 0.0050			< 0.00050
10/3/2017	RG_BORDER	E300094		< 0.010	0.011	< 0.050	< 0.050	0.0017	0.0015	10.3	< 0.00010	0.00135	< 0.0050			< 0.00050
10/3/2017	RG_BORDER	E300094		< 0.010	0.013	< 0.050	< 0.050	0.0017	0.0015	10.5	< 0.00010	0.00129	< 0.0050			< 0.00050
11/8/2017	RG_BORDER	E300094		< 0.010	0.022	< 0.050	< 0.050	0.0022	0.002	11.5	< 0.00010	0.00228	< 0.0050			< 0.00050
11/8/2017	RG_BORDER	E300094		< 0.010	0.014	< 0.050	0.054	0.0023	0.0021	11	< 0.00010	0.00198	< 0.0050			< 0.00050
11/8/2017	RG_BORDER	E300094		< 0.010	0.015	< 0.050	< 0.050	0.0022	0.0017	11	< 0.00010	0.00181	< 0.0050			< 0.00050
12/5/2017	RG_BORDER	E300094		< 0.010	0.046	< 0.050	0.06	0.0024	0.0017	12.3	0.00018	0.00364	< 0.0050			< 0.00050
12/5/2017	RG_BORDER	E300094		< 0.010	0.019	< 0.050	< 0.050	0.0028	0.0014	11.2	0.00019	0.00196	< 0.0050			< 0.00050
12/5/2017	RG_BORDER	E300094		< 0.010	0.018	< 0.050	0.069	0.0019	0.0015	11	0.00014	0.00176	< 0.0050			< 0.00050
4/4/2017	RG_DSELK	E300230		0.042	2.68	0.069	2.15	0.0032	0.0078	17.7	0.0498	0.137	< 0.0050			0.00471
4/11/2017	RG_DSELK	E300230		0.031	5.09	0.061	4.1	0.0031	0.0079	18.5	0.0145	0.185	< 0.0050			0.00974
4/17/2017	RG_DSELK	E300230		0.033	2.69	0.088	5.69	0.0032	0.0045	20.5	0.00769	0.237	< 0.0050			0.00747
4/24/2017	RG_DSELK	E300230		0.029	13.5	0.075	11.7	0.0028	0.0176	25.8	0.0201	0.426	< 0.0050			0.0263
5/2/2017	RG_DSELK	E300230		0.023	4.86	0.063	4.23	0.0026	0.0075	17.6	0.00591	0.14	< 0.0050			0.00555
5/9/2017	RG_DSELK	E300230		0.026	8.54	0.056	8.34	0.0015	0.0108	18.7	0.00948	0.25	< 0.0050			0.00947
5/16/2017	RG_DSELK	E300230		0.012	1.95	< 0.050	1.86	< 0.0010	0.0033	11.1	0.00373	0.0581	< 0.0050			0.00343
5/23/2017	RG_DSELK	E300230		0.014	1.84	< 0.050	1.97	< 0.0010	0.0037	10.4	0.0044	0.0646	< 0.0050			0.0041
5/30/2017	RG_DSELK	E300230		0.02	4.11	< 0.050	3.19	0.0016	0.0055	12	0.00198	0.121	< 0.0050			0.00621
6/6/2017	RG_DSELK	E300230		0.014	1.36	< 0.050	1.14	0.0016	0.0038	9.19	0.00112	0.0495	< 0.0050			0.0033
6/6/2017	RG_DSELK	E300230		0.018	0.991	< 0.050	1.21	< 0.0010	0.0025	8.21	0.00189	0.042	< 0.0050			0.0025
6/6/2017	RG_DSELK	E300230		0.017	1.44	< 0.050	1.31	< 0.0010	0.003	8.22	0.002	0.0409	< 0.0050			0.0024
6/13/2017	RG_DSELK	E300230		< 0.010	1.78	< 0.050	1.28	< 0.0010	0.0034	8.75	0.00233	0.0395	< 0.0050			0.0023
6/13/2017	RG_DSELK	E300230		< 0.010	1.59	< 0.050	1.12	< 0.0010	0.0033	8.98	0.00193	0.0372	< 0.0050			0.0023
6/13/2017	RG_DSELK	E300230		< 0.010	1.07	< 0.050	0.91	0.0023	0.0042	10.3	0.00286	0.0296	< 0.0050			0.0021
6/20/2017	RG_DSELK	E300230		< 0.010	0.645	< 0.050	0.521	0.0016	0.0019	8.65	0.00218	0.0179	< 0.0050			0.00114
6/20/2017	RG_DSELK	E300230		< 0.010	0.472	< 0.050	0.454	0.0015	0.0018	8.56	0.00222	0.0166	< 0.0050			0.0011
6/20/2017	RG_DSELK	E300230		< 0.010	0.24	< 0.050	0.284	0.0014	0.0015	8.05	0.00211	0.0101	< 0.0050			0.00087
6/27/2017	RG_DSELK	E300230		< 0.010	0.037	< 0.050	0.055	0.0015	0.0015	8.35	0.00187	0.00289	< 0.0050			0.0006
6/27/2017	RG_DSELK	E300230		< 0.010	0.149	< 0.050	0.238	0.0013	0.0015	13.1	0.00254	0.015	< 0.0050			0.00108
6/27/2017	RG_DSELK	E300230		< 0.010	0.089	< 0.050	0.155	0.0016	0.0017	9.21	0.00245	0.00697	< 0.0050			0.00069
7/4/2017	RG_DSELK	E300230		< 0.010	0.132	< 0.050	0.195	0.001	0.0011	9.13	0.00129	0.00801	< 0.0050			0.00075

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
7/4/2017	RG_DSELK	E300230		< 0.010	0.039	< 0.050	0.064	0.0018	0.0016	10	0.00079	0.00329	< 0.0050			0.00053
7/4/2017	RG_DSELK	E300230		< 0.010	0.022	< 0.050	< 0.050	0.0013	0.0011	9.07	0.00062	0.00152	< 0.0050			0.00065
7/11/2017	RG_DSELK	E300230		< 0.010	0.065	< 0.050	0.131	0.0015	0.0015	8.02	0.00117	0.00682	< 0.0050			0.00065
7/11/2017	RG_DSELK	E300230		< 0.010	0.034	< 0.050	0.051	0.0031	0.003	10.7	0.00063	0.00331	< 0.0050			0.00053
7/11/2017	RG_DSELK	E300230		< 0.010	0.015	< 0.050	< 0.050	0.0017	0.0015	8.34	0.00073	0.0016	< 0.0050			< 0.00050
8/8/2017	RG_DSELK	E300230		< 0.010	0.017	< 0.050	< 0.050	0.0022	0.0022	9.57	< 0.00010	0.00186	< 0.0050			< 0.00050
8/8/2017	RG_DSELK	E300230		< 0.010	0.119	< 0.050	0.186	0.0018	0.0017	8.52	< 0.00010	0.00897	< 0.0050			0.00061
9/18/2017	RG_DSELK	E300230		< 0.010	0.039	< 0.050	0.074	0.0023	0.0027	11.5	< 0.00010	0.00473	< 0.0050			< 0.00050
9/18/2017	RG_DSELK	E300230		< 0.010	0.012	< 0.050	< 0.050	0.002	0.0024	10.5	< 0.00010	0.00166	< 0.0050			< 0.00050
9/18/2017	RG_DSELK	E300230		< 0.010	< 0.010	< 0.050	< 0.050	0.0019	0.0025	10.5	< 0.00010	0.0015	< 0.0050			< 0.00050
10/3/2017	RG_DSELK	E300230		< 0.010	0.037	< 0.050	0.068	0.0028	0.0025	13.2	0.0002	0.00493	< 0.0050			< 0.00050
10/3/2017	RG_DSELK	E300230		< 0.010	< 0.010	< 0.050	< 0.050	0.0017	0.0017	10.6	< 0.00010	0.00107	< 0.0050			< 0.00050
10/3/2017	RG_DSELK	E300230		< 0.010	< 0.010	< 0.050	0.265	0.0019	0.0017	11	< 0.00010	0.00127	< 0.0050			< 0.00050
11/8/2017	RG_DSELK	E300230		< 0.010	0.027	< 0.050	< 0.050	0.0026	0.0025	13.1	< 0.00010	0.00289	< 0.0050			< 0.00050
11/8/2017	RG_DSELK	E300230		< 0.010	0.018	< 0.050	< 0.050	0.0027	0.0022	13.1	< 0.00010	0.00242	< 0.0050			< 0.00050
11/8/2017	RG_DSELK	E300230		< 0.010	< 0.010	< 0.050	< 0.050	0.0025	0.0022	11.6	< 0.00010	0.00187	< 0.0050			< 0.00050
12/5/2017	RG_DSELK	E300230		< 0.010	0.055	< 0.050	0.057	0.0031	0.0032	13.8	0.00018	0.0052	< 0.0050			< 0.00050
12/5/2017	RG_DSELK	E300230		< 0.010	0.045	< 0.050	0.054	0.0029	0.0022	13.3	0.00019	0.00452	< 0.0050			< 0.00050
12/5/2017	RG_DSELK	E300230		< 0.010	0.025	< 0.050	< 0.050	0.0019	0.0018	12	0.00015	0.00258	< 0.0050			< 0.00050
1/3/2017	RG_ELKORES	E294312		< 0.010	0.283	< 0.050	0.319	0.0094	0.0094	22.8	0.0017	0.0093	< 0.0050			0.0009
2/8/2017	RG_ELKORES	E294312		< 0.010	0.277	0.104	0.415	0.0082	0.009	22.1	0.00028	0.012	< 0.0050			0.00115
3/7/2017	RG_ELKORES	E294312		< 0.010	0.425	< 0.050	0.337	0.0079	0.0077	19.6	0.00149	0.0156	< 0.0050			0.00188
3/14/2017	RG_ELKORES	E294312		< 0.010	0.643	< 0.050	0.597	0.0048	0.0039	8.55	0.00712	0.0265	< 0.0050			0.00167
3/21/2017	RG_ELKORES	E294312		0.013	0.727	< 0.050	0.447	0.0057	0.0066	13.8	0.00464	0.0272	< 0.0050			0.0034
3/28/2017	RG_ELKORES	E294312		< 0.010	0.166	< 0.050	0.101	0.0065	0.0067	13.7	0.00389	0.00754	< 0.0050			0.00141
4/4/2017	RG_ELKORES	E294312		< 0.010	0.181	< 0.050	0.101	0.0064	0.0071	16.9	0.00259	0.00772	< 0.0050			0.00132
4/11/2017	RG_ELKORES	E294312		0.01	0.153	< 0.050	0.088	0.0066	0.0065	16	0.00063	0.00692	< 0.0050			0.00126
4/18/2017	RG_ELKORES	E294312		< 0.010	0.145	< 0.050	0.082	0.0058	0.0058	18.2	0.00083	0.00659	< 0.0050			0.00127
4/25/2017	RG_ELKORES	E294312		0.01	0.513	< 0.050	0.37	0.0063	0.0068	16.7	0.00103	0.0208	< 0.0050			0.003
5/1/2017	RG_ELKORES	E294312		0.013	0.21	< 0.050	0.163	0.0059	0.0066	16.3	0.0026	0.00985	< 0.0050			0.00191
5/9/2017	RG_ELKORES	E294312		0.013	1.12	< 0.050	0.748	0.005	0.0057	14.5	0.00059	0.0407	< 0.0050			0.00528
5/16/2017	RG_ELKORES	E294312		< 0.010	0.675	< 0.050	0.468	0.0051	0.006	14	0.00172	0.0317	< 0.0050			0.00338
5/23/2017	RG_ELKORES	E294312		0.199	1.42	0.538	0.878	0.0044	0.0055	13.1	0.0523	0.0496	< 0.0050			0.00607
5/30/2017	RG_ELKORES	E294312		0.024	3.17	< 0.050	2.4	0.0035	0.0058	15.5	0.00166	0.156	< 0.0050			0.0142
6/6/2017	RG_ELKORES	E294312		< 0.010	1.84	< 0.050	1.2	0.0038	0.0057	12.8	0.00179	0.0758	< 0.0050			0.00596
6/13/2017	RG_ELKORES	E294312		< 0.010	0.792	< 0.050	0.48	0.005	0.006	13.6	0.00087	0.0377	< 0.0050			0.003
6/20/2017	RG_ELKORES	E294312		< 0.010	0.408	< 0.050	0.273	0.0047	0.0056	13	0.0011	0.0202	< 0.0050			0.0021
6/27/2017	RG_ELKORES	E294312		< 0.010	0.178	< 0.050	< 0.20	0.0057	0.0058	14.1	0.00059	0.0116	< 0.0050			0.00124
7/4/2017	RG_ELKORES	E294312		< 0.010	0.096	< 0.050	0.066	0.0057	0.0058	16	0.00062	0.00693	< 0.0050			0.00068
7/11/2017	RG_ELKORES	E294312		< 0.010	0.808	< 0.050	0.483	0.0058	0.0065	14.4	0.00012	0.0907	< 0.0050			0.00272
8/1/2017	RG_ELKORES	E294312		< 0.010	0.055	< 0.050	< 0.050	0.0073	0.0069	19	0.00017	0.00495	< 0.0050			< 0.00050
9/19/2017	RG_ELKORES	E294312		< 0.010	0.015	< 0.050	< 0.050	0.009	0.0088	19.7	0.00013	0.00158	< 0.0050			< 0.00050
10/3/2017	RG_ELKORES	E294312		< 0.010	0.018	< 0.050	< 0.050	0.0079	0.0082	19.2	0.00052	0.00145	< 0.0050			< 0.00050
11/8/2017	RG_ELKORES	E294312		< 0.010	0.041	< 0.050	< 0.050	0.009	0.0089	21.8	0.00056	0.00323	< 0.0050			< 0.00050
12/5/2017	RG_ELKORES	E294312		< 0.010	0.032	< 0.050	< 0.050	0.0076	0.0078	18.1	0.00032	0.00284	< 0.0050			< 0.00050
4/4/2017	RG_GRASMERE	E300092		0.034	1.17	0.064	1.04	0.0029	0.0048	15.7	0.0426	0.0789	< 0.0050			0.00233
4/4/2017	RG_GRASMERE	E300092		0.033	1.21	0.056	1.03	0.0032	0.0049	15.9	0.044	0.0818	< 0.0050			0.00177

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l
4/11/2017	RG_GRASMERE	E300092		0.026	2.08	0.103	1.61	0.0032	0.005	15.5	0.0235	0.0939	< 0.0050			0.00287
4/17/2017	RG_GRASMERE	E300092		0.031	2.01	0.068	1.66	0.0035	0.0055	15.7	0.0199	0.085	< 0.0050			0.00272
4/24/2017	RG_GRASMERE	E300092		0.017	2.15	< 0.050	1.69	0.0032	0.0053	15.3	0.097	0.164	< 0.0050			0.00293
5/2/2017	RG_GRASMERE	E300092		0.024	13.3	0.077	12.4	0.0026	0.0161	27.6	0.0129	0.403	< 0.0050			0.0125
5/9/2017	RG_GRASMERE	E300092		0.026	7.01	0.06	6.55	0.0015	0.0098	16.5	0.0133	0.201	< 0.0050			0.0102
5/16/2017	RG_GRASMERE	E300092		0.012	0.893	< 0.050	0.872	0.0011	0.0021	9.69	0.00446	0.0289	< 0.0050			0.00192
5/23/2017	RG_GRASMERE	E300092		0.019	0.558	< 0.050	0.8	< 0.0010	0.0022	9.96	0.00209	0.0296	< 0.0050			0.00217
5/30/2017	RG_GRASMERE	E300092		0.02	2.22	0.056	2.01	0.001	0.0031	8.94	0.00213	0.058	< 0.0050			0.00298
6/6/2017	RG_GRASMERE	E300092		0.015	0.917	< 0.050	1.1	0.0011	0.0028	8.43	0.00147	0.0402	< 0.0050			0.0026
6/6/2017	RG_GRASMERE	E300092		0.017	1.58	< 0.050	1.32	< 0.0010	0.0031	8.54	0.00165	0.0423	< 0.0050			0.0026
6/6/2017	RG_GRASMERE	E300092		0.017	0.899	< 0.050	1.05	< 0.0010	0.002	7.4	0.00219	0.0325	< 0.0050			0.0014
6/13/2017	RG_GRASMERE	E300092		< 0.010	2	< 0.050	1.43	< 0.0010	0.0037	8.83	0.00181	0.0452	< 0.0050			0.0026
6/13/2017	RG_GRASMERE	E300092		< 0.010	1.65	< 0.050	1.17	0.001	0.0035	8.92	0.00202	0.0378	< 0.0050			0.0026
6/13/2017	RG_GRASMERE	E300092		< 0.010	0.786	< 0.050	0.589	0.0015	0.0027	8.63	0.00177	0.0198	< 0.0050			0.0018
6/20/2017	RG_GRASMERE	E300092		< 0.010	0.607	< 0.050	0.516	0.0016	0.0022	9.19	0.00219	0.0184	< 0.0050			0.00129
6/20/2017	RG_GRASMERE	E300092		< 0.010	0.379	< 0.050	0.35	0.0013	0.0014	8.18	0.00208	0.0119	< 0.0050			0.00095
6/20/2017	RG_GRASMERE	E300092		< 0.010	0.061	< 0.050	0.08	0.0016	0.0011	7.94	0.0011	0.00283	< 0.0050			0.00065
6/27/2017	RG_GRASMERE	E300092		< 0.010	0.194	< 0.050	0.268	0.002	0.0022	9.67	0.00224	0.0112	< 0.0050			0.00116
6/27/2017	RG_GRASMERE	E300092		< 0.010	0.094	< 0.050	0.135	0.0017	0.0019	9.21	0.00213	0.00587	< 0.0050			0.00064
6/27/2017	RG_GRASMERE	E300092		< 0.010	0.027	< 0.050	< 0.050	0.0014	0.0016	8.43	0.00105	0.00213	< 0.0050			0.00061
7/4/2017	RG_GRASMERE	E300092		< 0.010	0.114	< 0.050	0.198	0.0013	0.0013	9.34	0.00154	0.00841	< 0.0050			0.00074
7/4/2017	RG_GRASMERE	E300092		< 0.010	0.024	< 0.050	< 0.050	0.0014	0.0011	9.07	0.00062	0.00247	< 0.0050			0.00052
7/4/2017	RG_GRASMERE	E300092		< 0.010	0.016	< 0.050	< 0.050	0.0013	0.0011	8.78	0.00047	0.00141	< 0.0050			0.00055
7/11/2017	RG_GRASMERE	E300092		< 0.010	0.144	< 0.050	0.178	0.0017	0.0018	8.44	0.00124	0.0078	< 0.0050			0.00077
7/11/2017	RG_GRASMERE	E300092		< 0.010	0.144	< 0.050	0.122	0.0012	0.0012	8.08	0.00105	0.00571	< 0.0050			0.00061
7/11/2017	RG_GRASMERE	E300092		< 0.010	0.016	< 0.050	< 0.050	0.0016	0.0016	7.89	0.00081	0.00169	< 0.0050			0.00054
8/8/2017	RG_GRASMERE	E300092		< 0.010	0.028	< 0.050	0.053	0.002	0.002	9.93	< 0.00010	0.00276	< 0.0050			0.00062
8/8/2017	RG_GRASMERE	E300092		< 0.010	< 0.010	< 0.050	< 0.050	0.0018	0.0018	8.77	< 0.00010	0.00128	< 0.0050			< 0.00050
9/18/2017	RG_GRASMERE	E300092		< 0.010	0.025	< 0.050	< 0.050	0.0023	0.0027	11.3	< 0.00010	0.00389	< 0.0050			< 0.00050
9/18/2017	RG_GRASMERE	E300092		< 0.010	< 0.010	< 0.050	< 0.050	0.0019	0.0023	10.5	< 0.00010	0.00159	< 0.0050			< 0.00050
9/18/2017	RG_GRASMERE	E300092		< 0.010	< 0.010	< 0.050	< 0.050	0.0019	0.0024	10.5	< 0.00010	0.00138	< 0.0050			< 0.00050
10/3/2017	RG_GRASMERE	E300092		< 0.010	0.02	< 0.050	< 0.050	0.002	0.002	11.7	< 0.00010	0.0025	< 0.0050			< 0.00050
10/3/2017	RG_GRASMERE	E300092		< 0.010	< 0.010	< 0.050	< 0.050	0.0018	0.0015	10.4	< 0.00010	0.00128	< 0.0050			< 0.00050
10/3/2017	RG_GRASMERE	E300092		< 0.010	< 0.010	< 0.050	< 0.050	0.0017	0.0017	10.7	< 0.00010	0.00125	< 0.0050			< 0.00050
11/8/2017	RG_GRASMERE	E300092		< 0.010	0.014	< 0.050	< 0.050	0.0024	0.0023	12	< 0.00010	0.00194	< 0.0050			< 0.00050
11/8/2017	RG_GRASMERE	E300092		< 0.010	0.021	< 0.050	< 0.050	0.0024	0.002	13.9	< 0.00010	0.00269	< 0.0050			< 0.00050
11/8/2017	RG_GRASMERE	E300092		< 0.010	0.016	< 0.050	< 0.050	0.0023	0.002	11.5	< 0.00010	0.00202	< 0.0050			< 0.00050
12/5/2017	RG_GRASMERE	E300092		< 0.010	0.052	< 0.050	0.058	0.0023	0.0016	13.5	0.00016	0.00487	< 0.0050			< 0.00050
12/5/2017	RG_GRASMERE	E300092		< 0.010	0.058	< 0.050	< 0.050	0.002	0.0018	12.7	< 0.00010	0.00337	< 0.0050			< 0.00050
12/5/2017	RG_GRASMERE	E300092		< 0.010	0.019	< 0.050	< 0.050	0.0025	0.0016	11.5	< 0.00010	0.00197	< 0.0050			< 0.00050
4/24/2017	RG_KERRRD	E300095		0.021	2.03	0.077	1.81	0.002	0.0044	14.3	0.00582	0.0601	< 0.0050			0.00323
5/2/2017	RG_KERRRD	E300095		0.015	0.821	0.052	0.778	0.0015	0.0023	12.9	0.00422	0.0248	< 0.0050			0.00128
5/9/2017	RG_KERRRD	E300095		0.023	3.28	< 0.050	2.99	< 0.0010	0.0046	11.8	0.0063	0.084	< 0.0050			0.00522
5/16/2017	RG_KERRRD	E300095		0.01	1.2	< 0.050	1.08	< 0.0010	0.002	9.99	0.00261	0.0326	< 0.0050			0.0024
5/23/2017	RG_KERRRD	E300095		0.066	3.45	< 0.050	2.96	< 0.0010	0.0052	12.2	0.00412	0.0898	< 0.0050			0.00691
5/30/2017	RG_KERRRD	E300095		0.023	4.41	0.061	4.21	< 0.0010	0.0052	11.2	0.00244	0.113	< 0.0050			0.00601
6/6/2017	RG_KERRRD	E300095		0.017	2.23	< 0.050	1.92	< 0.0010	0.0037	8.52	0.00118	0.0553	< 0.0050			0.00266

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l
6/6/2017	RG_KERRRD	E300095		0.015	2.28	< 0.050	2.02	< 0.0010	0.0033	8.07	0.00126	0.0555	< 0.0050			0.0033
6/13/2017	RG_KERRRD	E300095		< 0.010	1.47	< 0.050	1.05	< 0.0010	0.0027	9.02	0.0029	0.0361	< 0.0050			0.0017
6/13/2017	RG_KERRRD	E300095		< 0.010	1.51	< 0.050	1.06	< 0.0010	0.0028	8.98	0.00317	0.0368	< 0.0050			0.0021
6/20/2017	RG_KERRRD	E300095		< 0.010	0.544	< 0.050	0.451	< 0.0010	0.0016	8.14	0.00199	0.0166	< 0.0050			0.00095
6/20/2017	RG_KERRRD	E300095		< 0.010	0.583	< 0.050	0.46	0.001	0.0016	8.12	0.0024	0.0163	< 0.0050			0.00113
6/20/2017	RG_KERRRD	E300095		< 0.010	0.525	< 0.050	0.465	< 0.0010	0.0016	8.47	0.00248	0.0164	< 0.0050			0.00108
6/27/2017	RG_KERRRD	E300095		< 0.010	0.164	< 0.050	0.241	0.001	0.0012	8.65	0.00305	0.00982	< 0.0050			0.00072
6/27/2017	RG_KERRRD	E300095		< 0.010	0.208	< 0.050	0.271	< 0.0010	0.0013	8.39	0.00325	0.00979	< 0.0050			0.00077
6/27/2017	RG_KERRRD	E300095		< 0.010	0.268	< 0.050	0.239	< 0.0010	0.0013	8.14	0.00308	0.00897	< 0.0050			0.00076
7/4/2017	RG_KERRRD	E300095		< 0.010	0.096	< 0.050	0.151	< 0.0010	< 0.0010	8.78	0.00154	0.00605	< 0.0050			0.00073
7/4/2017	RG_KERRRD	E300095		< 0.010	0.107	< 0.050	0.175	< 0.0010	< 0.0010	8.6	0.00156	0.00662	< 0.0050			0.00072
7/4/2017	RG_KERRRD	E300095		< 0.010	0.039	< 0.050	0.076	0.0013	< 0.0010	8.7	0.00095	0.00333	< 0.0050			0.0006
7/11/2017	RG_KERRRD	E300095		< 0.010	0.151	< 0.050	0.16	0.0011	0.0012	7.74	0.00096	0.00638	< 0.0050			0.0006
7/11/2017	RG_KERRRD	E300095		< 0.010	0.102	< 0.050	0.124	0.0015	0.0013	7.73	0.00039	0.0049	< 0.0050			0.00055
7/11/2017	RG_KERRRD	E300095		< 0.010	0.033	< 0.050	< 0.050	0.0012	0.0015	8.29	0.00041	0.00278	< 0.0050			< 0.00050
8/8/2017	RG_KERRRD	E300095		< 0.010	0.043	< 0.050	0.079	0.0014	0.0013	9.21	0.00011	0.00469	< 0.0050			< 0.00050
8/8/2017	RG_KERRRD	E300095		< 0.010	0.026	< 0.050	0.05	0.0014	0.0013	10	< 0.00010	0.00208	< 0.0050			< 0.00050
8/8/2017	RG_KERRRD	E300095		< 0.010	0.014	< 0.050	< 0.050	0.0016	0.0013	9.56	< 0.00010	0.0014	< 0.0050			< 0.00050
9/18/2017	RG_KERRRD	E300095		< 0.010	0.04	< 0.050	0.076	0.0016	0.002	11.1	< 0.00010	0.00361	< 0.0050			< 0.00050
9/18/2017	RG_KERRRD	E300095		< 0.010	0.011	< 0.050	0.094	0.0016	0.002	10.3	< 0.00010	0.0015	< 0.0050			< 0.00050
9/18/2017	RG_KERRRD	E300095		< 0.010	< 0.010	< 0.050	< 0.050	0.0017	0.002	9.91	< 0.00010	0.00127	< 0.0050			< 0.00050
10/3/2017	RG_KERRRD	E300095		< 0.010	0.05	< 0.050	0.091	0.0016	0.0014	13.4	0.00012	0.00461	< 0.0050			< 0.00050
10/3/2017	RG_KERRRD	E300095		< 0.010	< 0.010	< 0.050	< 0.050	0.0018	0.0018	11.6	< 0.00010	0.001	< 0.0050			< 0.00050
10/3/2017	RG_KERRRD	E300095		< 0.010	< 0.010	< 0.050	< 0.050	0.0017	0.0022	10.2	< 0.00010	0.00089	< 0.0050			< 0.00050
11/8/2017	RG_KERRRD	E300095		< 0.010	0.023	< 0.050	< 0.050	0.002	0.0019	13.6	0.00019	0.00277	< 0.0050			< 0.00050
11/8/2017	RG_KERRRD	E300095		< 0.010	0.022	< 0.050	0.131	0.0022	0.0015	13.2	< 0.00010	0.00267	< 0.0050			< 0.00050
11/8/2017	RG_KERRRD	E300095		< 0.010	0.024	< 0.050	< 0.050	0.0022	0.0023	12.7	0.00013	0.00277	< 0.0050			< 0.00050
12/5/2017	RG_KERRRD	E300095		< 0.010	0.103	< 0.050	0.113	0.0015	0.0011	12.4	0.00025	0.00748	< 0.0050			< 0.00050
12/5/2017	RG_KERRRD	E300095		< 0.010	0.091	< 0.050	0.118	0.0017	< 0.0010	12.3	0.00026	0.00794	< 0.0050			< 0.00050
12/5/2017	RG_KERRRD	E300095		< 0.010	0.092	< 0.050	0.123	0.0012	0.001	11.9	0.00026	0.00759	< 0.0050			< 0.00050
4/4/2017	RG_USGOLD	E300093		0.029	0.917	< 0.050	0.831	0.0031	0.0045	15.5	0.0503	0.0772	< 0.0050			0.00152
4/4/2017	RG_USGOLD	E300093		0.025	0.718	< 0.050	0.721	0.0031	0.0042	15.5	0.0499	0.0718	< 0.0050			0.00142
4/11/2017	RG_USGOLD	E300093		0.022	1.17	< 0.050	1.27	0.0029	0.0039	14.9	0.0262	0.0792	< 0.0050			0.00267
4/17/2017	RG_USGOLD	E300093		0.03	1.24	0.066	1.38	0.0034	0.0043	15.1	0.0166	0.074	< 0.0050			0.00217
4/24/2017	RG_USGOLD	E300093		0.024	5.52	0.058	4.24	0.0026	0.009	17.6	0.027	0.196	< 0.0050			0.00817
5/2/2017	RG_USGOLD	E300093		0.011	4.32	< 0.050	3.49	0.0042	0.009	18.4	0.0285	0.144	< 0.0050			0.00557
5/9/2017	RG_USGOLD	E300093		0.027	2.93	0.06	2.59	0.0015	0.0047	12	0.0155	0.0913	< 0.0050			0.00419
5/16/2017	RG_USGOLD	E300093		0.012	1.16	< 0.050	1.08	0.0011	0.0023	10.2	0.0052	0.0364	< 0.0050			0.00246
5/23/2017	RG_USGOLD	E300093		0.015	0.862	< 0.050	1.07	0.0014	0.0026	9.98	0.00389	0.0398	< 0.0050			0.00239
5/30/2017	RG_USGOLD	E300093		0.02	2.02	< 0.050	1.62	0.0014	0.0034	9.72	0.00259	0.058	< 0.0050			0.00336
5/30/2017	RG_USGOLD	E300093		0.02	1.86	< 0.050	1.39	0.0019	0.0035	9.61	0.00269	0.0528	< 0.0050			0.0035
5/30/2017	RG_USGOLD	E300093		0.016	1.39	< 0.050	1.06	0.0019	0.0031	9.44	0.00317	0.0411	< 0.0050			0.00319
6/6/2017	RG_USGOLD	E300093		0.017	1.16	< 0.050	1.13	0.0016	0.0034	9.28	0.00153	0.044	< 0.0050			0.003
6/6/2017	RG_USGOLD	E300093		0.018	1.43	< 0.050	1.25	< 0.0010	0.0028	7.82	0.00179	0.0367	< 0.0050			0.0021
6/6/2017	RG_USGOLD	E300093		< 0.010	0.58	< 0.050	0.499	0.0011	0.0024	7.87	0.00041	0.0152	< 0.0050			0.0016
6/13/2017	RG_USGOLD	E300093		< 0.010	2.19	< 0.050	1.59	< 0.0010	0.004	8.64	0.00149	0.0488	< 0.0050			0.0027
6/13/2017	RG_USGOLD	E300093		< 0.010	1.19	< 0.050	0.885	0.0014	0.0031	8.76	0.00207	0.0294	< 0.0050			0.0021

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
6/13/2017	RG_USGOLD	E300093		< 0.010	0.116	< 0.050	0.165	0.0011	0.0017	7.96	0.00058	0.00565	< 0.0050			0.0009
6/20/2017	RG_USGOLD	E300093		< 0.010	0.683	< 0.050	0.56	0.0019	0.0023	9.05	0.00213	0.0197	< 0.0050			0.00135
6/20/2017	RG_USGOLD	E300093		< 0.010	0.219	< 0.050	0.226	0.0014	0.0011	7.9	0.00128	0.00795	< 0.0050			0.00083
6/20/2017	RG_USGOLD	E300093		< 0.010	0.053	< 0.050	0.08	0.0016	0.0012	7.8	0.00022	0.00242	< 0.0050			0.00067
6/27/2017	RG_USGOLD	E300093		< 0.010	0.231	< 0.050	0.3	0.0023	0.0025	9.86	0.00218	0.0118	< 0.0050			0.00101
6/27/2017	RG_USGOLD	E300093		< 0.010	0.119	< 0.050	0.213	0.0014	0.0016	8.77	0.00227	0.00835	< 0.0050			0.00074
6/27/2017	RG_USGOLD	E300093		< 0.010	0.024	< 0.050	< 0.050	0.0015	0.0015	8.45	0.00052	0.00138	< 0.0050			0.00056
7/4/2017	RG_USGOLD	E300093		< 0.010	0.152	< 0.050	0.229	0.0012	0.0013	9	0.00103	0.00878	< 0.0050			0.00077
7/4/2017	RG_USGOLD	E300093		< 0.010	0.047	< 0.050	0.076	0.0013	0.0012	8.97	0.00121	0.00346	< 0.0050			0.00059
7/4/2017	RG_USGOLD	E300093		< 0.010	0.021	< 0.050	< 0.050	0.0013	0.0012	8.93	0.00059	0.00155	< 0.0050			0.00062
7/11/2017	RG_USGOLD	E300093		< 0.010	0.073	< 0.050	0.149	0.002	0.0019	8.91	0.00033	0.00516	< 0.0050			0.00075
7/11/2017	RG_USGOLD	E300093		< 0.010	0.054	< 0.050	0.112	0.0014	0.0013	8.2	0.00112	0.0052	< 0.0050			0.00061
7/11/2017	RG_USGOLD	E300093		< 0.010	0.014	< 0.050	< 0.050	0.0016	0.0015	8.41	0.00063	0.00152	< 0.0050			< 0.00050
8/8/2017	RG_USGOLD	E300093		< 0.010	0.042	< 0.050	0.072	0.0016	0.0015	8.16	< 0.00010	0.00282	< 0.0050			0.00074
8/8/2017	RG_USGOLD	E300093		< 0.010	0.027	< 0.050	< 0.050	0.0032	0.0029	11.7	< 0.00010	0.00324	< 0.0050			< 0.00050
8/8/2017	RG_USGOLD	E300093		< 0.010	0.012	< 0.050	< 0.050	0.0019	0.0025	8.96	< 0.00010	0.00126	< 0.0050			< 0.00050
9/18/2017	RG_USGOLD	E300093		< 0.010	0.061	< 0.050	0.105	0.0022	0.0022	10.3	< 0.00010	0.0114	< 0.0050			< 0.00050
9/18/2017	RG_USGOLD	E300093		< 0.010	0.012	< 0.050	< 0.050	0.0019	0.0019	10.2	< 0.00010	0.00152	< 0.0050			< 0.00050
9/18/2017	RG_USGOLD	E300093		< 0.010	< 0.010	< 0.050	< 0.050	0.0018	0.0022	10.3	< 0.00010	0.00119	< 0.0050			< 0.00050
10/3/2017	RG_USGOLD	E300093		< 0.010	0.047	< 0.050	0.1	0.0021	0.0019	12.6	0.00013	0.00537	< 0.0050			< 0.00050
10/3/2017	RG_USGOLD	E300093		< 0.010	< 0.010	< 0.050	< 0.050	0.0018	0.0016	10.8	< 0.00010	0.00109	< 0.0050			< 0.00050
10/3/2017	RG_USGOLD	E300093		< 0.010	< 0.010	< 0.050	< 0.050	0.0018	0.0016	10.6	0.00106	0.00061	< 0.0050			< 0.00050
11/8/2017	RG_USGOLD	E300093		< 0.010	0.036	< 0.050	0.055	0.0024	0.0022	11.7	< 0.00010	0.00298	< 0.0050			< 0.00050
11/8/2017	RG_USGOLD	E300093		< 0.010	0.013	< 0.050	< 0.050	0.0025	0.0021	11.7	< 0.00010	0.00189	< 0.0050			< 0.00050
11/8/2017	RG_USGOLD	E300093		< 0.010	0.012	< 0.050	< 0.050	0.0023	0.0021	11.5	< 0.00010	0.00168	< 0.0050			< 0.00050
12/5/2017	RG_USGOLD	E300093		< 0.010	0.052	< 0.050	0.07	0.0035	0.0019	12.8	0.00017	0.00458	< 0.0050			< 0.00050
12/5/2017	RG_USGOLD	E300093		< 0.010	0.021	< 0.050	< 0.050	0.0032	0.0015	11.6	< 0.00010	0.00207	< 0.0050			< 0.00050
12/5/2017	RG_USGOLD	E300093		< 0.010	0.02	< 0.050	< 0.050	0.002	0.0014	11.3	0.00012	0.00195	< 0.0050			< 0.00050
1/1/2017	WL_BFWB_OUT_SP21	E291569		0.018	0.278	< 0.050	< 0.050	0.0499	0.0494	133	0.113	0.117				
1/2/2017	WL_BFWB_OUT_SP21	E291569		0.01	0.448	< 0.050	< 0.050	0.0485	0.0496	132	0.109	0.108				
1/3/2017	WL_BFWB_OUT_SP21	E291569		0.013	0.438	< 0.050	< 0.050	0.0615	0.0621	152	0.117	0.125				
1/4/2017	WL_BFWB_OUT_SP21	E291569														
1/5/2017	WL_BFWB_OUT_SP21	E291569		0.014	0.258	0.084	< 0.050	0.0493	0.0593	136	0.0966	0.0991				
1/6/2017	WL_BFWB_OUT_SP21	E291569														
1/7/2017	WL_BFWB_OUT_SP21	E291569														
1/8/2017	WL_BFWB_OUT_SP21	E291569		0.019	0.28	< 0.050	< 0.050	0.0522	0.0536	156	0.0779	0.0916				
1/9/2017	WL_BFWB_OUT_SP21	E291569		0.143	0.224	< 0.050	< 0.050	0.0502	0.0507	145	0.0468	0.0753	< 0.0050		< 0.0050	
1/10/2017	WL_BFWB_OUT_SP21	E291569		0.026	0.32	< 0.050	< 0.050	0.0481	0.0508	143	0.0821	0.0921				
1/11/2017	WL_BFWB_OUT_SP21	E291569														
1/12/2017	WL_BFWB_OUT_SP21	E291569		0.01	0.285	< 0.050	< 0.050	0.0483	0.0524	143	0.0907	0.102				
1/12/2017	WL_BFWB_OUT_SP21	E291569														
1/13/2017	WL_BFWB_OUT_SP21	E291569														
1/14/2017	WL_BFWB_OUT_SP21	E291569														
1/15/2017	WL_BFWB_OUT_SP21	E291569		0.053	0.373	< 0.050	< 0.050	0.0499	0.0525	139	0.0762	0.0996				
1/16/2017	WL_BFWB_OUT_SP21	E291569		0.028	0.317	< 0.050	< 0.050	0.0517	0.0564	158	0.104	0.117				
1/17/2017	WL_BFWB_OUT_SP21	E291569		0.022	0.292	< 0.050	< 0.050	0.0505	0.0559	144	0.108	0.125				
1/18/2017	WL_BFWB_OUT_SP21	E291569														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
1/19/2017	WL_BFWB_OUT_SP21	E291569		0.021	0.269	< 0.050	< 0.050	0.0568	0.0539	137	0.0915	0.105				
1/20/2017	WL_BFWB_OUT_SP21	E291569														
1/21/2017	WL_BFWB_OUT_SP21	E291569														
1/22/2017	WL_BFWB_OUT_SP21	E291569		0.015	0.28	< 0.050	< 0.050	0.053	0.0544	143	0.0953	0.108				
1/23/2017	WL_BFWB_OUT_SP21	E291569		0.018	0.305	< 0.050	< 0.050	0.0512	0.0566	137	0.099	0.105				
1/24/2017	WL_BFWB_OUT_SP21	E291569		0.014	0.319	< 0.050	< 0.050	0.0547	0.0514	144	0.0991	0.11				
1/25/2017	WL_BFWB_OUT_SP21	E291569														
1/26/2017	WL_BFWB_OUT_SP21	E291569		0.018	0.316	< 0.050	< 0.050	0.049	0.0457	128	0.0942	0.0943				
1/27/2017	WL_BFWB_OUT_SP21	E291569														
1/28/2017	WL_BFWB_OUT_SP21	E291569														
1/29/2017	WL_BFWB_OUT_SP21	E291569		0.025	0.309	< 0.050	< 0.050	0.0491	0.0488	141	0.103	0.109				
1/30/2017	WL_BFWB_OUT_SP21	E291569		< 0.050	0.333	< 0.25	< 0.25	0.0469	0.0475	141	0.0991	0.107				
1/31/2017	WL_BFWB_OUT_SP21	E291569		< 0.050	0.308	< 0.25	< 0.25	0.0422	0.0426	140	0.116	0.111				
1/31/2017	WL_BFWB_OUT_SP21	E291569														
2/1/2017	WL_BFWB_OUT_SP21	E291569														
2/1/2017	WL_BFWB_OUT_SP21	E291569														
2/2/2017	WL_BFWB_OUT_SP21	E291569		0.014	0.315	< 0.050	< 0.050	0.0496	0.0485	145	0.104	0.112				
2/2/2017	WL_BFWB_OUT_SP21	E291569														
2/3/2017	WL_BFWB_OUT_SP21	E291569														
2/3/2017	WL_BFWB_OUT_SP21	E291569														
2/4/2017	WL_BFWB_OUT_SP21	E291569														
2/4/2017	WL_BFWB_OUT_SP21	E291569														
2/5/2017	WL_BFWB_OUT_SP21	E291569		0.015	0.333	< 0.050	< 0.050	0.0475	0.0453	119	0.0975	0.1				
2/6/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.508	< 0.050	< 0.050	0.0458	0.0475	119	0.124	0.133				
2/6/2017	WL_BFWB_OUT_SP21	E291569														
2/7/2017	WL_BFWB_OUT_SP21	E291569		0.045	0.443	< 0.050	< 0.050	0.0457	0.0503	128	0.148	0.141	< 0.0050			< 0.00050
2/8/2017	WL_BFWB_OUT_SP21	E291569														
2/8/2017	WL_BFWB_OUT_SP21	E291569														
2/9/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.428	< 0.050	< 0.050	0.0484	0.0493	137	0.125	0.135				
2/10/2017	WL_BFWB_OUT_SP21	E291569														
2/10/2017	WL_BFWB_OUT_SP21	E291569														
2/11/2017	WL_BFWB_OUT_SP21	E291569														
2/11/2017	WL_BFWB_OUT_SP21	E291569														
2/12/2017	WL_BFWB_OUT_SP21	E291569		0.02	0.382	< 0.050	< 0.050	0.0497	0.0491	146	0.142	0.153				
2/12/2017	WL_BFWB_OUT_SP21	E291569														
2/13/2017	WL_BFWB_OUT_SP21	E291569		0.021	0.416	< 0.050	< 0.050	0.049	0.0511	149	0.121	0.138				
2/13/2017	WL_BFWB_OUT_SP21	E291569														
2/14/2017	WL_BFWB_OUT_SP21	E291569		0.013	0.357	< 0.050	< 0.050	0.0491	0.0494	133	0.104	0.113				
2/14/2017	WL_BFWB_OUT_SP21	E291569														
2/15/2017	WL_BFWB_OUT_SP21	E291569														
2/16/2017	WL_BFWB_OUT_SP21	E291569		0.022	0.417	< 0.050	< 0.050	0.0487	0.0484	137	0.106	0.113				
2/16/2017	WL_BFWB_OUT_SP21	E291569														
2/17/2017	WL_BFWB_OUT_SP21	E291569														
2/17/2017	WL_BFWB_OUT_SP21	E291569														
2/18/2017	WL_BFWB_OUT_SP21	E291569														
2/18/2017	WL_BFWB_OUT_SP21	E291569														
2/19/2017	WL_BFWB_OUT_SP21	E291569														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
2/19/2017	WL_BFWB_OUT_SP21	E291569		0.016	0.478	< 0.050	< 0.050	0.0485	0.05	153	0.106	0.113				
2/19/2017	WL_BFWB_OUT_SP21	E291569														
2/20/2017	WL_BFWB_OUT_SP21	E291569		0.02	0.02	< 0.050	< 0.050	0.0526	0.0541	146	0.1	0.102				
2/20/2017	WL_BFWB_OUT_SP21	E291569														
2/21/2017	WL_BFWB_OUT_SP21	E291569														
2/21/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.39	< 0.050	< 0.050	0.0459	0.0478	126	0.0833	0.0954				
2/21/2017	WL_BFWB_OUT_SP21	E291569														
2/22/2017	WL_BFWB_OUT_SP21	E291569														
2/22/2017	WL_BFWB_OUT_SP21	E291569														
2/23/2017	WL_BFWB_OUT_SP21	E291569		0.012	0.409	< 0.050	< 0.050	0.0477	0.0502	139	0.0927	0.0993				
2/23/2017	WL_BFWB_OUT_SP21	E291569														
2/24/2017	WL_BFWB_OUT_SP21	E291569														
2/24/2017	WL_BFWB_OUT_SP21	E291569														
2/25/2017	WL_BFWB_OUT_SP21	E291569														
2/25/2017	WL_BFWB_OUT_SP21	E291569														
2/26/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.4	< 0.050	< 0.050	0.047	0.0518	146	0.0879	0.0959				
2/26/2017	WL_BFWB_OUT_SP21	E291569														
2/27/2017	WL_BFWB_OUT_SP21	E291569		0.321	0.342	< 0.050	< 0.050	0.0498	0.0504	158	0.0859	0.117				
2/27/2017	WL_BFWB_OUT_SP21	E291569														
2/28/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.337	< 0.050	< 0.050	0.0501	0.0512	129	0.0839	0.0923				
2/28/2017	WL_BFWB_OUT_SP21	E291569														
3/1/2017	WL_BFWB_OUT_SP21	E291569														
3/2/2017	WL_BFWB_OUT_SP21	E291569		0.01	0.405	< 0.050	< 0.050	0.0491	0.0525	133	0.105	0.106				
3/2/2017	WL_BFWB_OUT_SP21	E291569														
3/3/2017	WL_BFWB_OUT_SP21	E291569														
3/3/2017	WL_BFWB_OUT_SP21	E291569														
3/4/2017	WL_BFWB_OUT_SP21	E291569														
3/4/2017	WL_BFWB_OUT_SP21	E291569														
3/5/2017	WL_BFWB_OUT_SP21	E291569														
3/5/2017	WL_BFWB_OUT_SP21	E291569		0.014	0.42	< 0.050	< 0.050	0.0507	0.0533	141	0.122	0.136				
3/5/2017	WL_BFWB_OUT_SP21	E291569														
3/6/2017	WL_BFWB_OUT_SP21	E291569		0.014	0.36	< 0.050	< 0.050	0.0455	0.0459	139	0.107	0.116	< 0.0050			< 0.00050
3/6/2017	WL_BFWB_OUT_SP21	E291569														
3/7/2017	WL_BFWB_OUT_SP21	E291569		0.014	0.38	< 0.050	< 0.050	0.0495	0.0484	127	0.096	0.102				
3/7/2017	WL_BFWB_OUT_SP21	E291569														
3/8/2017	WL_BFWB_OUT_SP21	E291569														
3/8/2017	WL_BFWB_OUT_SP21	E291569														
3/8/2017	WL_BFWB_OUT_SP21	E291569														
3/9/2017	WL_BFWB_OUT_SP21	E291569														
3/9/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.299	< 0.050	< 0.050	0.0445	0.0496	126	0.0792	0.0888				
3/9/2017	WL_BFWB_OUT_SP21	E291569														
3/10/2017	WL_BFWB_OUT_SP21	E291569		0.011	0.306	< 0.050	< 0.050	0.0383	0.0386	138	0.0805	0.0854				
3/10/2017	WL_BFWB_OUT_SP21	E291569														
3/11/2017	WL_BFWB_OUT_SP21	E291569		0.016	0.281	< 0.050	< 0.050	0.0393	0.0491	128	0.0743	0.0792				
3/11/2017	WL_BFWB_OUT_SP21	E291569														
3/12/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.288	< 0.050	< 0.050	0.0367	0.0455	138	0.0719	0.074				
3/12/2017	WL_BFWB_OUT_SP21	E291569														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
3/12/2017	WL_BFWB_OUT_SP21	E291569														
3/13/2017	WL_BFWB_OUT_SP21	E291569		0.013	0.308	< 0.050	< 0.050	0.0533	0.0354	137	0.0725	0.0782				
3/13/2017	WL_BFWB_OUT_SP21	E291569														
3/14/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.281	< 0.050	< 0.050	0.0431	0.0461	118	0.0593	0.0685				
3/14/2017	WL_BFWB_OUT_SP21	E291569														
3/15/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.287	< 0.050	< 0.050	0.0424	0.0441	121	0.065	0.0703				
3/15/2017	WL_BFWB_OUT_SP21	E291569														
3/16/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.315	< 0.050	< 0.050	0.0461	0.047	145	0.0574	0.0715				
3/16/2017	WL_BFWB_OUT_SP21	E291569														
3/20/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.251	< 0.050	< 0.050	0.0436	0.0436	116	0.0408	0.0496				
3/20/2017	WL_BFWB_OUT_SP21	E291569														
3/21/2017	WL_BFWB_OUT_SP21	E291569														
3/21/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.334	< 0.050	< 0.050	0.0392	0.0512	169	0.0327	0.0487				
3/21/2017	WL_BFWB_OUT_SP21	E291569														
3/22/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.275	< 0.050	< 0.050	0.0391	0.0405	155	0.0272	0.0325				
3/22/2017	WL_BFWB_OUT_SP21	E291569														
3/23/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.252	< 0.050	< 0.050	0.0397	0.0402	161	0.0334	0.0394				
3/23/2017	WL_BFWB_OUT_SP21	E291569														
3/24/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.238	< 0.050	< 0.050	0.0324	0.0363	166	0.0362	0.0414				
3/24/2017	WL_BFWB_OUT_SP21	E291569														
3/25/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.21	< 0.050	< 0.050	0.0414	0.0406	164	0.0402	0.0435				
3/25/2017	WL_BFWB_OUT_SP21	E291569														
3/26/2017	WL_BFWB_OUT_SP21	E291569														
3/26/2017	WL_BFWB_OUT_SP21	E291569														
3/27/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.244	< 0.050	< 0.050	0.0499	0.0436	147	0.114	0.12				
3/27/2017	WL_BFWB_OUT_SP21	E291569														
3/28/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.258	< 0.050	< 0.050	0.0496	0.0504	146	0.122	0.127				
3/28/2017	WL_BFWB_OUT_SP21	E291569														
3/29/2017	WL_BFWB_OUT_SP21	E291569		0.01	0.285	< 0.050	< 0.050	0.0508	0.0524	133	0.112	0.115				
3/29/2017	WL_BFWB_OUT_SP21	E291569														
3/30/2017	WL_BFWB_OUT_SP21	E291569		0.017	0.314	< 0.050	0.083	0.0538	0.0502	131	0.0969	0.0978				
3/31/2017	WL_BFWB_OUT_SP21	E291569		0.021	0.305	< 0.050	< 0.050	0.0457	0.0516	131	0.0896	0.0857				
3/31/2017	WL_BFWB_OUT_SP21	E291569														
4/1/2017	WL_BFWB_OUT_SP21	E291569		0.01	0.337	< 0.050	< 0.050	0.0459	0.0498	126	0.0814	0.09				
4/1/2017	WL_BFWB_OUT_SP21	E291569														
4/2/2017	WL_BFWB_OUT_SP21	E291569		0.01	0.323	< 0.050	< 0.050	0.0468	0.0531	128	0.0738	0.0816				
4/2/2017	WL_BFWB_OUT_SP21	E291569														
4/2/2017	WL_BFWB_OUT_SP21	E291569														
4/3/2017	WL_BFWB_OUT_SP21	E291569		0.282	0.315	< 0.050	< 0.050	0.045	0.0515	129	0.0696	0.0742	< 0.0050			< 0.00050
4/3/2017	WL_BFWB_OUT_SP21	E291569														
4/4/2017	WL_BFWB_OUT_SP21	E291569		0.012	0.282	< 0.050	< 0.050	0.0404	0.0506	134	0.0544	0.0586				
4/4/2017	WL_BFWB_OUT_SP21	E291569														
4/5/2017	WL_BFWB_OUT_SP21	E291569		0.024	0.276	< 0.050	< 0.050	0.0508	0.0551	131	0.0516	0.0575				
4/5/2017	WL_BFWB_OUT_SP21	E291569														
4/6/2017	WL_BFWB_OUT_SP21	E291569		0.012	0.301	< 0.050	< 0.050	0.0544	0.0601	151	0.053	0.0623				
4/6/2017	WL_BFWB_OUT_SP21	E291569														
4/7/2017	WL_BFWB_OUT_SP21	E291569		0.25	0.31	< 0.050	< 0.050	0.0469	0.0612	158	0.0661	0.0747				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
4/7/2017	WL_BFWB_OUT_SP21	E291569														
4/8/2017	WL_BFWB_OUT_SP21	E291569		0.013	0.292	< 0.050	< 0.050	0.0478	0.0577	151	0.0523	0.0744				
4/8/2017	WL_BFWB_OUT_SP21	E291569														
4/9/2017	WL_BFWB_OUT_SP21	E291569		0.023	0.327	< 0.050	< 0.050	0.0526	0.0566	154	0.0525	0.0679				
4/9/2017	WL_BFWB_OUT_SP21	E291569														
4/10/2017	WL_BFWB_OUT_SP21	E291569		0.015	0.289	< 0.050	< 0.050	0.0535	0.0622	148	0.0537	0.0584				
4/10/2017	WL_BFWB_OUT_SP21	E291569														
4/11/2017	WL_BFWB_OUT_SP21	E291569		0.026	0.286	< 0.050	< 0.050	0.0563	0.0564	142	0.0483	0.0546				
4/11/2017	WL_BFWB_OUT_SP21	E291569														
4/12/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.288	< 0.050	< 0.050	0.0546	0.0585	147	0.0422	0.0559				
4/12/2017	WL_BFWB_OUT_SP21	E291569														
4/13/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.28	< 0.050	< 0.050	0.054	0.051	131	0.057	0.0734				
4/13/2017	WL_BFWB_OUT_SP21	E291569														
4/14/2017	WL_BFWB_OUT_SP21	E291569		0.01	0.259	< 0.050	< 0.050	0.0548	0.0489	130	0.0496	0.0611				
4/14/2017	WL_BFWB_OUT_SP21	E291569														
4/15/2017	WL_BFWB_OUT_SP21	E291569		0.024	0.234	< 0.050	< 0.050	0.0557	0.0548	139	0.0458	0.0532				
4/15/2017	WL_BFWB_OUT_SP21	E291569														
4/16/2017	WL_BFWB_OUT_SP21	E291569		0.011	0.234	< 0.050	< 0.050	0.0588	0.0613	139	0.0431	0.0487				
4/16/2017	WL_BFWB_OUT_SP21	E291569														
4/17/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.225	< 0.050	< 0.050	0.052	0.0581	142	0.0373	0.0448				
4/17/2017	WL_BFWB_OUT_SP21	E291569														
4/18/2017	WL_BFWB_OUT_SP21	E291569		0.014	0.227	< 0.050	< 0.050	0.0613	0.0588	147	0.0324	0.0414				
4/18/2017	WL_BFWB_OUT_SP21	E291569														
4/19/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.229	< 0.050	< 0.050	0.0592	0.0604	144	0.032	0.0395				
4/19/2017	WL_BFWB_OUT_SP21	E291569														
4/20/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.195	< 0.050	< 0.050	0.0538	0.0597	142	0.0251	0.0357				
4/20/2017	WL_BFWB_OUT_SP21	E291569														
4/21/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.185	< 0.050	< 0.050	0.0521	0.062	141	0.0187	0.0316				
4/21/2017	WL_BFWB_OUT_SP21	E291569														
4/22/2017	WL_BFWB_OUT_SP21	E291569		0.01	0.185	< 0.050	< 0.050	0.0587	0.0553	138	0.0168	0.0282				
4/22/2017	WL_BFWB_OUT_SP21	E291569														
4/23/2017	WL_BFWB_OUT_SP21	E291569		0.011	0.18	< 0.050	< 0.050	0.0565	0.0551	134	0.0176	0.027				
4/23/2017	WL_BFWB_OUT_SP21	E291569														
4/24/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.191	< 0.050	< 0.050	0.058	0.0551	140	0.0199	0.0306				
4/24/2017	WL_BFWB_OUT_SP21	E291569														
4/25/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.205	< 0.050	< 0.050	0.0519	0.0561	146	0.0211	0.0331				
4/25/2017	WL_BFWB_OUT_SP21	E291569														
4/26/2017	WL_BFWB_OUT_SP21	E291569		0.012	0.205	< 0.050	< 0.050	0.0511	0.0559	148	0.0188	0.0304				
4/27/2017	WL_BFWB_OUT_SP21	E291569		0.021	0.184	0.07	< 0.050	0.0537	0.0534	140	0.0145	0.0286				
4/27/2017	WL_BFWB_OUT_SP21	E291569														
4/28/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.199	< 0.050	< 0.050	0.0513	0.0526	140	0.0165	0.0288				
4/28/2017	WL_BFWB_OUT_SP21	E291569														
4/29/2017	WL_BFWB_OUT_SP21	E291569		0.014	0.209	< 0.050	< 0.050	0.0507	0.0472	142	0.0113	0.0272				
4/29/2017	WL_BFWB_OUT_SP21	E291569														
4/30/2017	WL_BFWB_OUT_SP21	E291569		0.013	0.19	< 0.050	< 0.050	0.051	0.0492	144	0.0107	0.0227				
4/30/2017	WL_BFWB_OUT_SP21	E291569														
5/1/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.19	< 0.050	< 0.050	0.0521	0.0493	141	0.0139	0.024	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
5/1/2017	WL_BFWB_OUT_SP21	E291569														
5/2/2017	WL_BFWB_OUT_SP21	E291569		0.013	0.198	< 0.050	< 0.050	0.0538	0.0543	132	0.0206	0.0263				
5/2/2017	WL_BFWB_OUT_SP21	E291569														
5/2/2017	WL_BFWB_OUT_SP21	E291569														
5/3/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.266	< 0.050	< 0.050	0.0502	0.0575	155	0.0382	0.0534				
5/3/2017	WL_BFWB_OUT_SP21	E291569														
5/4/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.177	< 0.050	< 0.050	0.0789	0.0556	159	< 0.00010	0.0357				
5/4/2017	WL_BFWB_OUT_SP21	E291569														
5/5/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.204	< 0.050	< 0.050	0.0453	0.0547	166	0.0174	0.0424				
5/5/2017	WL_BFWB_OUT_SP21	E291569														
5/5/2017	WL_BFWB_OUT_SP21	E291569														
5/6/2017	WL_BFWB_OUT_SP21	E291569		0.017	0.149	< 0.050	< 0.050	0.0518	0.0545	144	0.0163	0.0322				
5/6/2017	WL_BFWB_OUT_SP21	E291569														
5/7/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.182	< 0.050	< 0.050	0.0474	0.0443	157	0.0185	0.0498				
5/7/2017	WL_BFWB_OUT_SP21	E291569														
5/8/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.168	< 0.050	< 0.050	0.0454	0.04	158	0.0301	0.0451				
5/8/2017	WL_BFWB_OUT_SP21	E291569														
5/9/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.158	< 0.050	< 0.050	0.0374	0.0337	151	0.0181	0.0356				
5/9/2017	WL_BFWB_OUT_SP21	E291569														
5/10/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.181	< 0.050	< 0.050	0.0373	0.0376	156	0.0204	0.033				
5/10/2017	WL_BFWB_OUT_SP21	E291569														
5/11/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.222	< 0.050	0.161	0.0393	0.035	156	0.0228	0.0324				
5/11/2017	WL_BFWB_OUT_SP21	E291569														
5/12/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.219	< 0.050	< 0.050	0.0404	0.036	162	0.0237	0.0331				
5/12/2017	WL_BFWB_OUT_SP21	E291569														
5/13/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.17	< 0.050	< 0.050	0.0303	0.0321	151	0.0244	0.0279				
5/13/2017	WL_BFWB_OUT_SP21	E291569														
5/14/2017	WL_BFWB_OUT_SP21	E291569		0.025	0.201	< 0.050	< 0.050	0.0294	0.0333	190	0.0203	0.0361				
5/14/2017	WL_BFWB_OUT_SP21	E291569														
5/15/2017	WL_BFWB_OUT_SP21	E291569			0.211		< 0.050		0.0317	166		0.026				
5/15/2017	WL_BFWB_OUT_SP21	E291569														
5/15/2017	WL_BFWB_OUT_SP21	E291569														
5/16/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.212	< 0.050	< 0.050	0.0346	0.0333	153	0.0217	0.0289				
5/16/2017	WL_BFWB_OUT_SP21	E291569														
5/17/2017	WL_BFWB_OUT_SP21	E291569		0.015	0.213	< 0.050	< 0.050	0.0333	0.0324	142	0.0233	0.0288				
5/17/2017	WL_BFWB_OUT_SP21	E291569														
5/18/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.246	< 0.050	< 0.050	0.0308	0.0324	164	0.0201	0.0316				
5/18/2017	WL_BFWB_OUT_SP21	E291569														
5/19/2017	WL_BFWB_OUT_SP21	E291569		0.019	0.261	< 0.050	< 0.050	0.0308	0.0315	165	0.0173	0.029				
5/19/2017	WL_BFWB_OUT_SP21	E291569														
5/20/2017	WL_BFWB_OUT_SP21	E291569			0.222		< 0.050		0.0323	160		0.0307				
5/20/2017	WL_BFWB_OUT_SP21	E291569														
5/21/2017	WL_BFWB_OUT_SP21	E291569		0.01	0.258	< 0.050	< 0.050	0.0304	0.031	156	0.0212	0.0303				
5/21/2017	WL_BFWB_OUT_SP21	E291569														
5/22/2017	WL_BFWB_OUT_SP21	E291569		0.016	0.315	< 0.050	< 0.050	0.0303	0.03	172	0.0249	0.0377				
5/22/2017	WL_BFWB_OUT_SP21	E291569														
5/23/2017	WL_BFWB_OUT_SP21	E291569		0.02	0.294	< 0.050	< 0.050	0.03	0.0324	139	0.0221	0.0323				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
5/23/2017	WL_BFWB_OUT_SP21	E291569														
5/24/2017	WL_BFWB_OUT_SP21	E291569		0.024	0.269	< 0.050	< 0.050	0.031	0.0323	137	0.0188	0.0306				
5/24/2017	WL_BFWB_OUT_SP21	E291569														
5/25/2017	WL_BFWB_OUT_SP21	E291569		< 0.010		< 0.050		0.029			0.0273					
5/25/2017	WL_BFWB_OUT_SP21	E291569														
5/25/2017	WL_BFWB_OUT_SP21	E291569														
5/26/2017	WL_BFWB_OUT_SP21	E291569														
5/26/2017	WL_BFWB_OUT_SP21	E291569		0.014	0.255	< 0.050	< 0.050	0.0279	0.028	129	0.0333	0.0447				
5/26/2017	WL_BFWB_OUT_SP21	E291569														
5/27/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.277	< 0.050	< 0.050	0.0286	0.0282	126	0.0361	0.0523				
5/27/2017	WL_BFWB_OUT_SP21	E291569														
5/28/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.198	< 0.050	< 0.050	0.0312	0.0346	123	0.0425	0.051				
5/28/2017	WL_BFWB_OUT_SP21	E291569														
5/29/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.153	< 0.050	< 0.050	0.0276	0.0281	138	0.0423	0.0532				
5/29/2017	WL_BFWB_OUT_SP21	E291569														
5/30/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.226	< 0.050	< 0.050	0.0287	0.028	112	0.042	0.0655				
5/30/2017	WL_BFWB_OUT_SP21	E291569														
5/31/2017	WL_BFWB_OUT_SP21	E291569		0.011	0.264	< 0.050	< 0.050	0.0285	0.0262	110	0.0668	0.0815				
5/31/2017	WL_BFWB_OUT_SP21	E291569														
5/31/2017	WL_BFWB_OUT_SP21	E291569														
6/1/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.232	< 0.050	< 0.050	0.0284	0.0283	109	0.103	0.118				
6/1/2017	WL_BFWB_OUT_SP21	E291569														
6/2/2017	WL_BFWB_OUT_SP21	E291569		0.014	0.193	< 0.050	< 0.050	0.0274	0.0276	107	0.105	0.124				
6/2/2017	WL_BFWB_OUT_SP21	E291569														
6/3/2017	WL_BFWB_OUT_SP21	E291569														
6/3/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.119	< 0.050	< 0.050	0.0267	0.0269	105	0.0599	0.0673				
6/4/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.15	< 0.050	< 0.050	0.0246	0.0256	99.3	0.0448	0.0584				
6/4/2017	WL_BFWB_OUT_SP21	E291569														
6/5/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.131	< 0.050	< 0.050	0.0246	0.0244	94.6	0.041	0.0471	0.0096			< 0.00050
6/5/2017	WL_BFWB_OUT_SP21	E291569														
6/6/2017	WL_BFWB_OUT_SP21	E291569		0.01	0.123	< 0.050	< 0.050	0.0219	0.0243	92.5	0.0352	0.046				
6/6/2017	WL_BFWB_OUT_SP21	E291569														
6/7/2017	WL_BFWB_OUT_SP21	E291569		0.011	0.15	< 0.050	< 0.050	0.022	0.0264	85.7	0.0417	0.0448				
6/7/2017	WL_BFWB_OUT_SP21	E291569														
6/8/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.116	< 0.050	< 0.050	0.0209	0.0264	84.9	0.0315	0.0325				
6/8/2017	WL_BFWB_OUT_SP21	E291569														
6/9/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.215	< 0.050	< 0.050	0.0206	0.0215	86.7	0.0328	0.0521				
6/9/2017	WL_BFWB_OUT_SP21	E291569														
6/10/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.164	< 0.050	< 0.050	0.0201	0.0194	87.8	0.0256	0.0351				
6/10/2017	WL_BFWB_OUT_SP21	E291569														
6/11/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.169	< 0.050	< 0.050	0.0193	0.0191	89.6	0.0414	0.0497				
6/11/2017	WL_BFWB_OUT_SP21	E291569														
6/12/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.174	< 0.050	< 0.050	0.0194	0.0188	90.7	0.0459	0.0509	< 0.0050			< 0.000500000
6/12/2017	WL_BFWB_OUT_SP21	E291569														< 0.000500000
6/12/2017	WL_BFWB_OUT_SP21	E291569														
6/13/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.184	< 0.050	< 0.050	0.0212	0.0209	91.9	0.0444	0.0548				
6/13/2017	WL_BFWB_OUT_SP21	E291569														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
6/14/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.255	< 0.050	< 0.050	0.0226	0.021	90.9	0.0452	0.0538				
6/14/2017	WL_BFWB_OUT_SP21	E291569														
6/15/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.285	< 0.050	< 0.050	0.0214	0.0204	102	0.0519	0.0629				
6/15/2017	WL_BFWB_OUT_SP21	E291569														
6/16/2017	WL_BFWB_OUT_SP21	E291569		0.012	0.193	< 0.050	< 0.050	0.0218	0.0237	108	0.0556	0.0631				
6/16/2017	WL_BFWB_OUT_SP21	E291569														
6/17/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.166	< 0.050	< 0.050	0.0231	0.0232	90.9	0.0584	0.0686				
6/17/2017	WL_BFWB_OUT_SP21	E291569														
6/18/2017	WL_BFWB_OUT_SP21	E291569		< 0.010		< 0.050		0.0228			0.0559					
6/18/2017	WL_BFWB_OUT_SP21	E291569														
6/19/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.159	< 0.050	< 0.050	0.0239	0.0233	98.5	0.0495	0.0565				
6/19/2017	WL_BFWB_OUT_SP21	E291569														
6/20/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.158	< 0.050	0.197	0.0222	0.0241	110	0.0431	0.0551				
6/22/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.207	< 0.050	< 0.050	0.023	0.0243	107	0.057	0.0643				
6/22/2017	WL_BFWB_OUT_SP21	E291569														
6/23/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.199	< 0.050	< 0.050	0.0264	0.0246	111	0.0647	0.0788				
6/23/2017	WL_BFWB_OUT_SP21	E291569														
6/24/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.206	< 0.050	0.257	0.0244	0.0255	116	0.0772	0.0876				
6/24/2017	WL_BFWB_OUT_SP21	E291569														
6/25/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.176	< 0.050	< 0.050	0.0247	0.024	117	0.0864	0.0953				
6/25/2017	WL_BFWB_OUT_SP21	E291569														
6/26/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.192	< 0.050	< 0.050	0.0252	0.0251	119	0.136	0.171				
6/27/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.164	< 0.050	< 0.050	0.0253	0.0246	115	0.0957	0.107				
6/28/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.152	< 0.050	< 0.050	0.0263	0.0257	118	0.064	0.0756				
6/29/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.115	< 0.050	< 0.050	0.0246	0.0247	116	0.0408	0.0505				
6/29/2017	WL_BFWB_OUT_SP21	E291569														
6/30/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.112	< 0.050	< 0.050	0.0247	0.0246	114	0.0392	0.0469				
7/1/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.105	< 0.050	< 0.050	0.0249	0.0246	160	0.0346	0.0492				
7/2/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.103	< 0.050	< 0.050	0.0254	0.0249	136	0.0244	0.0365				
7/3/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.112	< 0.050	< 0.050	0.0238	0.025	141	0.0271	0.0364				
7/3/2017	WL_BFWB_OUT_SP21	E291569														
7/4/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	< 0.010	< 0.050	< 0.050	0.0248	0.0264	120	0.0213	0.022				
7/5/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	< 0.010	0.067	0.074	0.0239	0.026	124	0.0226	0.0219				
7/6/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.093	< 0.050	< 0.050	0.0259	0.0257	130	0.0217	0.0271				
7/7/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.091	< 0.050	< 0.050	0.0266	0.0249	131	0.021	0.0267				
7/8/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.097	< 0.050	< 0.050	0.0243	0.0251	135	0.0153	0.0222				
7/9/2017	WL_BFWB_OUT_SP21	E291569		0.01	0.075	< 0.050	< 0.050	0.0248	0.0258	136	0.0135	0.0186				
7/10/2017	WL_BFWB_OUT_SP21	E291569														
7/10/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.09	< 0.050	< 0.050	0.028	0.0267	136	0.0121	0.0182	< 0.0050			< 0.00050
7/11/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.094	< 0.050	< 0.050	0.0272	0.0276	156	0.0171	0.0225				
7/12/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.096	< 0.050	< 0.050	0.0257	0.0286	149	0.0206	0.0276				
7/12/2017	WL_BFWB_OUT_SP21	E291569														
7/13/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.096	< 0.050	< 0.050	0.0265	0.0269	131	0.025	0.0297				
7/14/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.094	0.249	< 0.050	0.0281	0.0274	131	0.0333	0.0392	< 0.0050			< 0.00050
7/14/2017	WL_BFWB_OUT_SP21	E291569														
7/14/2017	WL_BFWB_OUT_SP21	E291569														
7/15/2017	WL_BFWB_OUT_SP21	E291569														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
7/16/2017	WL_BFWB_OUT_SP21	E291569														
7/16/2017	WL_BFWB_OUT_SP21	E291569														
7/17/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.109	< 0.050	< 0.050	0.0269	0.0272	141	0.0566	0.0746				
7/18/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.103	< 0.050	< 0.050	0.031	0.0306	149	0.0598	0.0698				
7/19/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.143	< 0.050	< 0.050	0.0306	0.0319	149	0.0533	0.0666				
7/20/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.123	< 0.050	< 0.050	0.028	0.0278	141	0.032	0.05				
7/20/2017	WL_BFWB_OUT_SP21	E291569														
7/21/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.09	< 0.050	< 0.050	0.0286	0.0278	143	0.0422	0.0408				
7/22/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.082	< 0.050	< 0.050	0.0297	0.0291	133	0.0294	0.0363				
7/22/2017	WL_BFWB_OUT_SP21	E291569														
7/23/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.129	< 0.050	< 0.050	0.0285	0.029	131	0.0271	0.0317				
7/24/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.111	< 0.050	< 0.050	0.0293	0.0325	142	0.0226	0.0318				
7/25/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.086	< 0.050	< 0.050	0.0295	0.0304	160	0.027	0.0342				
7/26/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.082	< 0.050	< 0.050	0.0297	0.0321	165	0.0277	0.0317				
7/27/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.101	< 0.050	< 0.050	0.0357	0.0326	154	0.0264	0.0304				
7/28/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.11	< 0.050	< 0.050	0.0321	0.0341	162	0.0251	0.0312				
7/29/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.104	< 0.050	< 0.050	0.0358	0.031	143	0.0304	0.0321				
7/30/2017	WL_BFWB_OUT_SP21	E291569		0.035	0.119	< 0.050	< 0.050	0.0359	0.0317	153	0.0373	0.0412				
7/31/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.115	< 0.050	< 0.050	0.0355	0.0323	151	0.039	0.0426				
8/1/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.167	< 0.050	< 0.050	0.0311	0.0304	166	0.038	0.0433				
8/2/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.152	< 0.050	< 0.050	0.0307	0.0311	167	0.0469	0.0502				
8/3/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.127	< 0.050	< 0.050	0.0302	0.0351	168	0.0597	0.062				
8/4/2017	WL_BFWB_OUT_SP21	E291569		0.011	0.152	< 0.050	< 0.050	0.0323	0.0356	181	0.0667	0.0798				
8/5/2017	WL_BFWB_OUT_SP21	E291569		0.14	< 0.010	< 0.050	< 0.050	0.0302	0.0327	176	0.066	0.0643				
8/6/2017	WL_BFWB_OUT_SP21	E291569		< 0.010		< 0.050		0.0321			0.0688					
8/7/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.233	< 0.050	< 0.050	0.0309	0.032	173	0.0603	0.0726				
8/8/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.175	< 0.050	0.062	0.0339	0.0326	157	0.0528	0.056				
8/9/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.158	0.053	< 0.050	0.0349	0.0331	166	0.0745	0.0742				
8/9/2017	WL_BFWB_OUT_SP21	E291569														
8/10/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.15	< 0.050	< 0.050	0.0356	0.0342	172	0.0935	0.0966				
8/11/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.182	< 0.050	< 0.050	0.0344	0.0326	166	0.0953	0.0963				
8/11/2017	WL_BFWB_OUT_SP21	E291569														
8/12/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.116	< 0.050	< 0.050	0.0363	0.0343	172	0.0801	0.0857	< 0.0050			
8/13/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.109	< 0.050	< 0.050	0.0374	0.0332	172	0.0812	0.085				
8/13/2017	WL_BFWB_OUT_SP21	E291569														
8/14/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.11	< 0.050	< 0.050	0.037	0.0367	174	0.0858	0.0877	< 0.0050			< 0.00050
8/15/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.109	< 0.050	< 0.050	0.0352	0.0351	172	0.0878	0.0905				
8/16/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.11	< 0.050	< 0.050	0.0353	0.0331	176	0.0852	0.0874				
8/17/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.126	0.218	< 0.050	0.036	0.0353	157	0.0848	0.0969				
8/18/2017	WL_BFWB_OUT_SP21	E291569			0.105		< 0.050		0.0363	159		0.0921				
8/19/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.135	< 0.050	< 0.050	0.0377	0.0387	175	0.0986	0.112				
8/20/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.152	< 0.050	< 0.050	0.0392	0.0384	175	0.111	0.128				
8/21/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.136	< 0.050	< 0.050	0.0402	0.0393	175	0.194	0.202				
8/22/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.099	< 0.050	< 0.050	0.0354	0.0351	168	0.17	0.173				
8/23/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.096	< 0.050	< 0.050	0.0418	0.0401	164	0.101	0.118				
8/24/2017	WL_BFWB_OUT_SP21	E291569		0.01	0.107	< 0.050	< 0.050	0.0427	0.0388	160	0.0796	0.0842				
8/25/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.083	< 0.050	< 0.050	0.0408	0.0399	171	0.0696	0.073				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
8/25/2017	WL_BFWB_OUT_SP21	E291569														
8/26/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.087	< 0.050	< 0.050	0.0406	0.0392	173	0.0607	0.0631				
8/26/2017	WL_BFWB_OUT_SP21	E291569														
8/27/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.073	< 0.050	< 0.050	0.04	0.0389	180	0.0544	0.0622				
8/28/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.072	< 0.050	< 0.050	0.0402	0.0388	175	0.0552	0.0586				
8/29/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.071	< 0.050	< 0.050	0.0378	0.0375	163	0.0532	0.0563				
8/30/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.073	< 0.050	< 0.050	0.0372	0.0375	163	0.0522	0.0531				
8/31/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.078	0.054	< 0.050	0.0404	0.0457	165	0.0511	0.0546				
9/1/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.079	< 0.050	< 0.050	0.0417	0.041	161	0.0529	0.0539				
9/2/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.086	< 0.050	< 0.050	0.0385	0.0398	169	0.0499	0.0547				
9/3/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.094	< 0.050	< 0.050	0.0374	0.0378	166	0.0533	0.0565				
9/4/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.1	< 0.050	< 0.050	0.0407	0.0414	175	0.055	0.0581				
9/5/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.097	< 0.050	< 0.050	0.0423	0.0408	174	0.0576	0.059				
9/6/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.102	< 0.050	< 0.050	0.0386	0.0393	169	0.0604	0.062				
9/7/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.107	< 0.050	< 0.050	0.0406	0.037	153	0.0581	0.0594				
9/8/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.137	< 0.050	< 0.050	0.0442	0.041	160	0.063	0.0635				
9/9/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.167	< 0.050	< 0.050	0.0411	0.0415	164	0.0693	0.0677				
9/10/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.134	< 0.050	< 0.050	0.0415	0.0416	155	0.0685	0.0647				
9/11/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.151	< 0.050	< 0.050	0.0419	0.0424	161	0.0675	0.0656				
9/12/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.154	< 0.050	< 0.050	0.0422	0.0427	164	0.0686	0.0701	< 0.0050			< 0.00050
9/13/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.134	< 0.050	< 0.050	0.0411	0.0406	175	0.0598	0.0662				
9/14/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.113	< 0.050	< 0.050	0.042	0.0414	173	0.063	0.0685				
9/15/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.136	< 0.050	< 0.050	0.0433	0.0359	172	0.0706	0.0716				
9/16/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.144	< 0.050	< 0.050	0.0448	0.0429	166	0.0752	0.0795				
9/17/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.139	< 0.050	< 0.050	0.0452	0.0472	162	0.0756	0.0784				
9/18/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.135	< 0.050	< 0.050	0.044	0.0455	157	0.0796	0.081				
9/19/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.151	< 0.050	< 0.050	0.0407	0.0406	158	0.0989	0.102				
9/20/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.16	< 0.050	< 0.050	0.042	0.0409	155	0.115	0.112				
9/21/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.148	< 0.050	< 0.050	0.0428	0.0403	144	0.146	0.148	< 0.0050			< 0.00050
9/21/2017	WL_BFWB_OUT_SP21	E291569														
9/22/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.13	< 0.050	< 0.050	0.0434	0.0405	146	0.109	0.111				
9/23/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.177	< 0.050	< 0.050	0.0387	0.0434	192	0.0947	0.115				
9/24/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.127	< 0.050	< 0.050	0.0395	0.0426	163	0.078	0.0848				
9/24/2017	WL_BFWB_OUT_SP21	E291569														
9/25/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.142	< 0.050	< 0.050	0.0399	0.0434	160	0.0726	0.0756				
9/26/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.157	< 0.050	< 0.050	0.0399	0.0412	169	0.0638	0.0719				
9/26/2017	WL_BFWB_OUT_SP21	E291569														
9/27/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.164	< 0.050	< 0.050	0.0414	0.0407	161	0.0632	0.0638				
9/28/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.16	< 0.050	< 0.050	0.0428	0.0448	158	0.0639	0.0652				
9/28/2017	WL_BFWB_OUT_SP21	E291569														
9/29/2017	WL_BFWB_OUT_SP21	E291569			0.182		< 0.050		0.0454	160		0.0647				
9/29/2017	WL_BFWB_OUT_SP21	E291569		< 0.010		< 0.050		0.0422			0.0634					
9/30/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.153	< 0.050	< 0.050	0.0429	0.049	171	0.0598	0.0643				
9/30/2017	WL_BFWB_OUT_SP21	E291569														
10/1/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.169	< 0.050	< 0.050	0.0444	0.0497	174	0.0639	0.069				
10/2/2017	WL_BFWB_OUT_SP21	E291569														
10/2/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.137	< 0.050	< 0.050	0.0467	0.0501	170	0.0849	0.0783	< 0.0050			< 0.00050

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l
10/3/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.12	< 0.050	< 0.050	0.0467	0.0482	170	0.0714	0.0771				
10/4/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.119	0.09	< 0.050	0.0492	0.0462	165	0.0621	0.0642				
10/5/2017	WL_BFWB_OUT_SP21	E291569			0.125		0.36		0.0427	158		0.062				
10/5/2017	WL_BFWB_OUT_SP21	E291569		< 0.010		< 0.050		0.0456			0.0595					
10/6/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.107	< 0.050	< 0.050	0.0474	0.043	156	0.0583	0.0602				
10/6/2017	WL_BFWB_OUT_SP21	E291569														
10/7/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.116	< 0.050	< 0.050	0.0423	0.0445	154	0.0596	0.0633				
10/7/2017	WL_BFWB_OUT_SP21	E291569														
10/8/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.108	< 0.050	< 0.050	0.0441	0.0446	154	0.0623	0.0675				
10/9/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.104	< 0.050	< 0.050	0.0426	0.0453	158	0.0652	0.0655				
10/9/2017	WL_BFWB_OUT_SP21	E291569														
10/10/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.101	< 0.050	< 0.050	0.0481	0.0427	159	0.0663	0.065				
10/11/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.137	< 0.050	< 0.050	0.0463	0.0462	165	0.0663	0.0685				
10/12/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.147	< 0.050	< 0.050	0.0447	0.0442	161	0.0694	0.0705				
10/13/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.137	< 0.050	< 0.050	0.0485	0.0491	140	0.0765	0.0774				
10/14/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.137	< 0.050	< 0.050	0.0477	0.0509	163	0.0895	0.0901				
10/15/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.121	< 0.050	< 0.050	0.0467	0.0518	164	0.0984	0.103				
10/16/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.147	< 0.050	< 0.050	0.0478	0.0524	166	0.0902	0.0958				
10/17/2017	WL_BFWB_OUT_SP21	E291569														
10/18/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.123	0.372	< 0.050	0.0439	0.0491	156	0.0709	0.0742				
10/19/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.1	< 0.050	< 0.050	0.0509	0.0498	131	0.0531	0.0527				
10/20/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.091	< 0.050	< 0.050	0.0485	0.0525	113	0.0424	0.043				
10/21/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.088	< 0.050	< 0.050	0.0587	0.0513	109	0.0319	0.0381				
10/21/2017	WL_BFWB_OUT_SP21	E291569														
10/22/2017	WL_BFWB_OUT_SP21	E291569		0.019	0.08	< 0.050	< 0.050	0.0566	0.0549	99.7	0.0252	0.0295				
10/23/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.082	< 0.050	< 0.050	0.0581	0.059	88.4	0.0204	0.0237				
10/24/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.08	< 0.050	< 0.050	0.0635	0.057	83.4	0.0181	0.0195				
10/25/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.09	0.161	< 0.050	0.0646	0.06	81.8	0.016	0.0194				
10/26/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.109	< 0.050	< 0.050	0.0741	0.0648	76.6	0.0179	0.0201				
10/27/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.143	< 0.050	< 0.050	0.074	0.0613	72.4	0.0168	0.018				
10/28/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.17	< 0.050	< 0.050	0.0621	0.0609	79.8	0.0156	0.0171				
10/28/2017	WL_BFWB_OUT_SP21	E291569														
10/29/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.167	< 0.050	< 0.050	0.0658	0.0599	73.8	0.0149	0.0179				
10/30/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.131	< 0.050	< 0.050	0.0704	0.061	75.3	0.015	0.0154				
10/31/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.146	< 0.050	< 0.050	0.0603	0.0726	77.7	0.0139	0.0163				
11/1/2017	WL_BFWB_OUT_SP21	E291569		0.044	0.14	< 0.050	< 0.25	0.0623	0.0703	71.1	0.0148	0.0194				
11/2/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.136	< 0.050	< 0.050	0.0603	0.0698	70.3	0.015	0.0171				
11/3/2017	WL_BFWB_OUT_SP21	E291569			0.135		< 0.050		0.0701	71		0.0164				
11/3/2017	WL_BFWB_OUT_SP21	E291569		0.016		< 0.050		0.0597			0.0147					
11/4/2017	WL_BFWB_OUT_SP21	E291569		0.011	0.144	< 0.050	< 0.050	0.0649	0.0611	75.6	0.0141	0.0185				
11/5/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.117	< 0.050	< 0.050	0.0661	0.0693	69.4	0.0154	0.0172				
11/5/2017	WL_BFWB_OUT_SP21	E291569														
11/6/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.121	< 0.050	< 0.050	0.0628	0.0654	68.3	0.0157	0.0212	< 0.0050			< 0.00050
11/7/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.085	< 0.050	< 0.050	0.0646	0.0677	66.7	0.0156	0.0168				
11/8/2017	WL_BFWB_OUT_SP21	E291569														
11/8/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.09	< 0.050	< 0.050	0.0622	0.0675	67	0.0164	0.0199				
11/9/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.078	< 0.050	< 0.050	0.0648	0.0616	69.7	0.017	0.0176				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
11/9/2017	WL_BFWB_OUT_SP21	E291569														
11/10/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.076	< 0.050	< 0.050	0.0588	0.0651	74	0.016	0.0167				
11/10/2017	WL_BFWB_OUT_SP21	E291569		0.013	0.082	0.36	0.566	0.0661	0.0763	65.3	0.0167	0.0188				
11/10/2017	WL_BFWB_OUT_SP21	E291569														
11/11/2017	WL_BFWB_OUT_SP21	E291569		0.011	0.074	0.109	< 0.050	0.0634	0.0679	82.6	0.0217	0.0218				
11/11/2017	WL_BFWB_OUT_SP21	E291569														
11/12/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.082	< 0.050	< 0.050	0.0635	0.067	79.4	0.0178	0.0247				
11/12/2017	WL_BFWB_OUT_SP21	E291569														
11/13/2017	WL_BFWB_OUT_SP21	E291569		0.013	0.082	< 0.050	< 0.050	0.0579	0.0587	70.6	0.0263	0.0271				
11/13/2017	WL_BFWB_OUT_SP21	E291569														
11/14/2017	WL_BFWB_OUT_SP21	E291569		0.013	0.109	< 0.050	< 0.050	0.0576	0.0587	69.6	0.0274	0.0304				
11/15/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.103	< 0.050	< 0.050	0.0599	0.0634	68	0.0242	0.0247				
11/16/2017	WL_BFWB_OUT_SP21	E291569		0.011	0.105	< 0.050	< 0.050	0.0678	0.0652	72.1	0.0198	0.0242				
11/16/2017	WL_BFWB_OUT_SP21	E291569		0.048	0.109	0.434	0.321	0.0685	0.0716	64.5	0.0222	0.0249				
11/17/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.098	< 0.050	< 0.050	0.0604	0.0702	74.9	0.0193	0.0229				
11/17/2017	WL_BFWB_OUT_SP21	E291569		0.019	0.086	0.228	0.474	0.0752	0.0646	76.3	0.022	0.0229				
11/18/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.073	< 0.050	< 0.050	0.0703	0.0683	74.6	0.0166	0.0201				
11/18/2017	WL_BFWB_OUT_SP21	E291569														
11/19/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.066	< 0.050	< 0.050	0.0684	0.0683	71.3	0.0155	0.0162				
11/20/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.073	< 0.050	< 0.050	0.0667	0.0662	74.8	0.0151	0.017				
11/21/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.092	< 0.050	< 0.050	0.0745	0.0651	75.4	0.0152	0.0166				
11/22/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.1	< 0.050	< 0.050	0.0653	0.0647	70.9	0.0157	0.0167				
11/23/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.153	< 0.050	< 0.050	0.0645	0.0774	80.8	0.0179	0.0221				
11/23/2017	WL_BFWB_OUT_SP21	E291569														
11/24/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.128	< 0.050	< 0.050	0.0666	0.0734	79.3	0.017	0.0204				
11/24/2017	WL_BFWB_OUT_SP21	E291569		0.013	0.136	0.325	0.539	0.0665	0.0652	70.9	0.0152	0.0196				
11/25/2017	WL_BFWB_OUT_SP21	E291569		0.011	0.107	< 0.050	< 0.050	0.0632	0.061	75.7	0.017	0.0177				
11/26/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.108	< 0.050	< 0.050	0.0636	0.0615	75.3	0.017	0.0179				
11/27/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.105	< 0.050	< 0.050	0.0633	0.063	75.3	0.0194	0.0204				
11/28/2017	WL_BFWB_OUT_SP21	E291569		0.013	0.1	0.571	0.477	0.0806	0.0672	67.8	0.0164	0.0192				
11/28/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.107	< 0.050	< 0.050	0.0612	0.0642	81.3	0.0161	0.0217				
11/29/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.095	< 0.050	< 0.050	0.0691	0.0673	72.6	0.0164	0.0186				
11/30/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.093	< 0.050	< 0.050	0.0712	0.0765	79	0.0168	0.0192				
11/30/2017	WL_BFWB_OUT_SP21	E291569		0.019	0.09	0.141	0.11	0.0801	0.07	71.9	0.016	0.0185				
12/1/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.087	< 0.050	< 0.050	0.0717	0.0725	75.7	0.0163	0.0186				
12/2/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.092	0.059	< 0.050	0.0744	0.0706	73.6	0.0166	0.0194				
12/3/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.08	< 0.050	< 0.050	0.0708	0.0723	73.7	0.0161	0.0181				
12/4/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.078	< 0.050	< 0.050	0.0764	0.074	74.7	0.0158	0.0175	< 0.0050			< 0.00050
12/5/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.079	< 0.050	< 0.050	0.0823	0.0724	75.1	0.016	0.0168				
12/6/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.082	< 0.050	< 0.050	0.0797	0.0811	75.3	0.015	0.0169				
12/6/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.09	0.062	0.063	0.0769	0.084	64.1	0.0162	0.0175				
12/6/2017	WL_BFWB_OUT_SP21	E291569														
12/7/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.092	< 0.050	< 0.050	0.0842	0.0673	70.1	0.0163	0.0173				
12/7/2017	WL_BFWB_OUT_SP21	E291569														
12/8/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.108	< 0.050	< 0.050	0.0721	0.0769	71.5	0.0259	0.0282				
12/9/2017	WL_BFWB_OUT_SP21	E291569		< 0.010		< 0.050		0.0793			0.0418					
12/10/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.122	< 0.050	0.084	0.0799	0.0806	67.5	0.0352	0.0393				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
12/11/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.104	< 0.050	< 0.050	0.0745	0.0815	69.2	0.028	0.0285				
12/12/2017	WL_BFWB_OUT_SP21	E291569		< 0.080	0.103	< 0.050	< 0.050	0.0792	0.0784	65.2	0.0225	0.0224				
12/13/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.101	< 0.050	< 0.050	0.079	0.0783	65.3	0.0186	0.0183				
12/14/2017	WL_BFWB_OUT_SP21	E291569		0.01	0.099	< 0.050	< 0.050	0.0737	0.0699	70.9	0.0165	0.0165				
12/15/2017	WL_BFWB_OUT_SP21	E291569		0.011	0.101	< 0.050	< 0.050	0.0753	0.072	72.2	0.0148	0.0153				
12/16/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.09	< 0.050	< 0.050	0.0751	0.0756	73.2	0.0136	0.0143				
12/17/2017	WL_BFWB_OUT_SP21	E291569		0.01	0.085	< 0.050	< 0.050	0.0781	0.075	72.7	0.0132	0.0132				
12/18/2017	WL_BFWB_OUT_SP21	E291569		0.01	0.097	< 0.050	< 0.050	0.0787	0.0765	76.4	0.0123	0.0133				
12/19/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.102	< 0.050	< 0.050	0.0776	0.078	73.6	0.0116	0.0131				
12/20/2017	WL_BFWB_OUT_SP21	E291569		0.012	0.275	< 0.050	< 0.050	0.0767	0.0775	73.2	0.0113	0.0869				
12/20/2017	WL_BFWB_OUT_SP21	E291569		0.012	0.274	0.082	0.128	0.0698	0.0863	74.3	0.00941	0.0831				
12/21/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.103	< 0.050	< 0.050	0.0952	0.0784	72.6	0.0124	0.0172				
12/22/2017	WL_BFWB_OUT_SP21	E291569		0.012	0.092	< 0.050	< 0.050	0.0833	0.0737	71.3	0.0108	0.0119				
12/23/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.013	< 0.050	< 0.050	0.0838	0.0393	199	0.0109	0.00024				
12/23/2017	WL_BFWB_OUT_SP21	E291569														
12/24/2017	WL_BFWB_OUT_SP21	E291569		0.013	0.103	< 0.050	< 0.050	0.082	0.0833	73	0.0103	0.0112				
12/25/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.105	< 0.050	< 0.050	0.0773	0.0743	71.2	0.00993	0.01				
12/26/2017	WL_BFWB_OUT_SP21	E291569		0.016	0.101	< 0.050	< 0.050	0.0742	0.0725	71.7	0.00891	0.0102				
12/27/2017	WL_BFWB_OUT_SP21	E291569		< 0.010	0.116	< 0.050	< 0.050	0.0776	0.081	82.7	0.00876	0.0101				
12/28/2017	WL_BFWB_OUT_SP21	E291569		0.014	0.113	< 0.050	< 0.050	0.0701	0.0703	84.3	0.00913	0.0101				
12/29/2017	WL_BFWB_OUT_SP21	E291569		0.027	0.114	< 0.050	< 0.050	0.071	0.0698	83.1	0.00917	0.0103				
12/30/2017	WL_BFWB_OUT_SP21	E291569		0.013	0.122	< 0.050	< 0.050	0.0662	0.0696	83.1	0.00969	0.0115				
12/31/2017	WL_BFWB_OUT_SP21	E291569		0.039	0.11	< 0.050	< 0.050	0.0665	0.0649	73.4	0.0108	0.0117				
1/1/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.118	< 0.050	0.0809	0.0831	56.8	0.00128	0.0002				
1/2/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0784	0.0805	54.5	0.00054	0.00018				
1/3/2017	WL_LCI_SP02	E293370		0.01	0.056	< 0.050	< 0.050	0.0869	0.0905	57.5	0.00063	0.00098				
1/4/2017	WL_LCI_SP02	E293370														
1/5/2017	WL_LCI_SP02	E293370		< 0.010	0.01	< 0.050	< 0.050	0.0842	0.0943	54.1	0.00183	0.00019				
1/6/2017	WL_LCI_SP02	E293370														
1/7/2017	WL_LCI_SP02	E293370														
1/8/2017	WL_LCI_SP02	E293370		< 0.010	0.027	< 0.050	< 0.050	0.0691	0.0724	59.2	0.00032	0.0004				
1/9/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0699	0.0727	58.7	0.00034	0.00012	< 0.0050		< 0.0050	
1/10/2017	WL_LCI_SP02	E293370		< 0.010	0.01	< 0.050	< 0.050	0.0692	0.0723	57.2	0.00029	0.00028				
1/11/2017	WL_LCI_SP02	E293370														
1/12/2017	WL_LCI_SP02	E293370		< 0.010	0.017	< 0.050	0.085	0.0767	0.0837	58.2	0.00069	0.00041				
1/13/2017	WL_LCI_SP02	E293370														
1/14/2017	WL_LCI_SP02	E293370														
1/15/2017	WL_LCI_SP02	E293370		< 0.010	0.013	< 0.050	< 0.050	0.0725	0.0774	63.5	0.0004	0.0003				
1/16/2017	WL_LCI_SP02	E293370		< 0.010	0.011	< 0.050	< 0.050	0.0793	0.0797	54.6	0.00059	0.00018				
1/17/2017	WL_LCI_SP02	E293370		0.011	< 0.010	< 0.050	< 0.050	0.0826	0.0819	55.2	0.00028	0.00015				
1/18/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0871	0.0846	56.8	0.00012	0.00018				
1/19/2017	WL_LCI_SP02	E293370		0.014	0.023	< 0.050	< 0.050	0.0848	0.0898	56.2	0.00065	0.00042				
1/20/2017	WL_LCI_SP02	E293370														
1/21/2017	WL_LCI_SP02	E293370														
1/22/2017	WL_LCI_SP02	E293370		< 0.010	0.014	< 0.050	< 0.050	0.0685	0.0729	55.5	0.00067	0.00058				
1/23/2017	WL_LCI_SP02	E293370		0.013	0.01	< 0.050	< 0.050	0.0766	0.077	57.8	0.00042	0.00022				
1/24/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0729	0.0734	57.6	0.00267	0.00018				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
1/25/2017	WL_LCI_SP02	E293370														
1/26/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0642	0.0636	51.6	0.00097	0.00022				
1/27/2017	WL_LCI_SP02	E293370														
1/28/2017	WL_LCI_SP02	E293370														
1/29/2017	WL_LCI_SP02	E293370		0.014	< 0.010	< 0.050	< 0.050	0.0665	0.068	57.6	0.00027	0.00011				
1/30/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0638	0.0668	56.7	0.00019	0.00019				
1/31/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0637	0.0636	56.6	0.00017	0.00015				
2/1/2017	WL_LCI_SP02	E293370														
2/1/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0653	0.0677	55.2	0.0001	0.00016				
2/2/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0638	0.0666	58.4	0.0003	0.00025				
2/3/2017	WL_LCI_SP02	E293370														
2/4/2017	WL_LCI_SP02	E293370														
2/5/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0624	0.0622	52.4	0.00025	0.00015				
2/6/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0629	0.0636	48.2	0.00024	0.00016				
2/7/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0624	0.0622	49.9	0.00017	0.00013	< 0.0050			< 0.00050
2/8/2017	WL_LCI_SP02	E293370														
2/8/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.069	0.0703	58.6	< 0.00010	0.00015				
2/9/2017	WL_LCI_SP02	E293370														
2/10/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0666	0.0645	57	0.00015	0.00013				
2/11/2017	WL_LCI_SP02	E293370														
2/12/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0621	0.0669	60.9	0.00043	0.00016				
2/13/2017	WL_LCI_SP02	E293370		0.013	< 0.010	< 0.050	< 0.050	0.0646	0.068	59.4	0.00026	0.00014				
2/14/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.406	< 0.050	0.0645	0.0677	57.4	0.00042	0.00011				
2/15/2017	WL_LCI_SP02	E293370														
2/16/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0629	0.0634	58	0.00022	0.00025				
2/17/2017	WL_LCI_SP02	E293370														
2/18/2017	WL_LCI_SP02	E293370														
2/19/2017	WL_LCI_SP02	E293370		< 0.010	0.018	< 0.050	< 0.050	0.0661	0.0705	62.1	0.00023	0.00057				
2/20/2017	WL_LCI_SP02	E293370		< 0.010	0.018	< 0.050	< 0.050	0.0771	0.0778	66.1	0.00035	0.00038				
2/21/2017	WL_LCI_SP02	E293370		< 0.010	0.01	< 0.050	< 0.050	0.0737	0.0759	58.8	0.0003	0.00036				
2/22/2017	WL_LCI_SP02	E293370														
2/22/2017	WL_LCI_SP02	E293370														
2/23/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0652	0.0646	57.4	0.00028	0.00039				
2/24/2017	WL_LCI_SP02	E293370														
2/25/2017	WL_LCI_SP02	E293370														
2/26/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0669	0.0714	58.6	0.00019	0.00016				
2/27/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.067	0.0672	53.1	0.00022	0.00013				
2/28/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0678	0.0696	53.8	0.00032	0.0002				
3/1/2017	WL_LCI_SP02	E293370														
3/2/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0672	0.0681	55.7	0.00017	0.00013				
3/3/2017	WL_LCI_SP02	E293370														
3/4/2017	WL_LCI_SP02	E293370														
3/5/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.054	< 0.050	0.0658	0.0707	58.5	0.00058	0.00016				
3/6/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0625	0.0592	59.4	0.00013	< 0.00010	< 0.0050			< 0.00050
3/7/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0652	0.064	52.3	0.00023	0.00017				
3/8/2017	WL_LCI_SP02	E293370														
3/9/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0618	0.0625	50.5	0.00057	< 0.00010				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
3/10/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0511	0.0476	57	0.00046	0.00011				
3/11/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0535	0.0462	57.6	0.00028	< 0.00010				
3/12/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.049	0.0505	62.5	0.00059	0.00016				
3/13/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0483	0.0499	57.6	0.00016	< 0.00010				
3/14/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.061	0.0647	48.2	< 0.00010	< 0.00010				
3/15/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0573	0.0592	53	0.0002	0.00019				
3/16/2017	WL_LCI_SP02	E293370		< 0.010	0.28	< 0.050	0.382	0.06	0.0637	52.2	0.00163	0.00634				
3/20/2017	WL_LCI_SP02	E293370		< 0.010	0.068	< 0.050	< 0.050	0.0643	0.0619	47.9	0.00366	0.00406				
3/21/2017	WL_LCI_SP02	E293370		< 0.010	0.261	< 0.050	0.441	0.0651	0.0676	54.9	0.00023	0.00451				
3/22/2017	WL_LCI_SP02	E293370		< 0.010	0.082	< 0.050	0.14	0.068	0.0693	56.8	0.00033	0.00156				
3/23/2017	WL_LCI_SP02	E293370		< 0.010	0.112	< 0.050	0.161	0.0698	0.068	57	0.00035	0.00211				
3/24/2017	WL_LCI_SP02	E293370		< 0.010	0.119	< 0.050	0.164	0.0607	0.0629	58.9	0.00038	0.00256				
3/25/2017	WL_LCI_SP02	E293370		< 0.010	0.104	< 0.050	0.153	0.0655	0.0654	58.9	0.00024	0.00197				
3/26/2017	WL_LCI_SP02	E293370		< 0.010	0.121	< 0.050	0.185	0.0672	0.0631	58.3	0.00025	0.00271				
3/27/2017	WL_LCI_SP02	E293370		< 0.010	0.082	< 0.050	0.127	0.0748	0.0639	58.6	0.00031	0.00188				
3/28/2017	WL_LCI_SP02	E293370		< 0.010	0.08	< 0.050	0.11	0.0825	0.0843	59.1	0.00018	0.00156				
3/29/2017	WL_LCI_SP02	E293370		< 0.010	0.064	< 0.050	0.089	0.0853	0.0859	60.7	0.00036	0.00125				
3/30/2017	WL_LCI_SP02	E293370		< 0.010	0.031	< 0.050	0.057	0.072	0.0721	64.9	0.00035	0.00083				
3/31/2017	WL_LCI_SP02	E293370		< 0.010	0.219	< 0.050	0.287	0.0622	0.0714	73	0.00131	0.00581				
4/1/2017	WL_LCI_SP02	E293370		< 0.010	0.047	< 0.050	0.071	0.0695	0.0714	57.9	0.00045	0.001				
4/2/2017	WL_LCI_SP02	E293370		< 0.010	0.051	< 0.050	0.072	0.0691	0.0741	57.9	0.00065	0.00099				
4/3/2017	WL_LCI_SP02	E293370		< 0.010	0.035	< 0.050	< 0.050	0.0679	0.0712	59.1	0.0001	0.00074	< 0.0050			0.00058
4/4/2017	WL_LCI_SP02	E293370		< 0.010	0.021	< 0.050	< 0.050	0.06	0.0654	62.2	0.00012	0.00051				
4/5/2017	WL_LCI_SP02	E293370		< 0.010	0.023	< 0.050	< 0.050	0.0751	0.0745	61.2	0.00015	0.00055				
4/6/2017	WL_LCI_SP02	E293370		< 0.010	0.023	< 0.050	< 0.050	0.0748	0.0769	70.7	0.00014	0.00062				
4/7/2017	WL_LCI_SP02	E293370														
4/7/2017	WL_LCI_SP02	E293370		< 0.010	0.025	< 0.050	< 0.050	0.072	0.0829	69	0.00013	0.00063				
4/8/2017	WL_LCI_SP02	E293370		< 0.010	0.031	< 0.050	0.051	0.0664	0.0779	72.4	0.00077	0.0009				
4/9/2017	WL_LCI_SP02	E293370		< 0.010	0.045	< 0.050	0.068	0.0757	0.078	67.7	0.00025	0.00101				
4/10/2017	WL_LCI_SP02	E293370		< 0.010	0.028	< 0.050	0.057	0.0732	0.0827	64.1	0.00043	0.00079				
4/12/2017	WL_LCI_SP02	E293370		< 0.010	0.028	< 0.050	< 0.050	0.0805	0.0859	67.9	0.00068	0.00067				
4/13/2017	WL_LCI_SP02	E293370		< 0.010	0.017	< 0.050	< 0.050	0.0816	0.0751	59.9	0.00012	0.00049				
4/14/2017	WL_LCI_SP02	E293370		< 0.010	0.015	< 0.050	< 0.050	0.0798	0.0794	57.7	0.0001	0.00052				
4/15/2017	WL_LCI_SP02	E293370		< 0.010	0.019	< 0.050	< 0.050	0.0772	0.0729	67	< 0.00010	0.00052				
4/16/2017	WL_LCI_SP02	E293370		< 0.010	0.015	< 0.050	< 0.050	0.0787	0.0769	65.6	0.00012	0.00045				
4/17/2017	WL_LCI_SP02	E293370		< 0.010	0.015	< 0.050	< 0.050	0.0722	0.0785	67.1	< 0.00010	0.00043				
4/18/2017	WL_LCI_SP02	E293370		< 0.010	0.012	< 0.050	< 0.050	0.0748	0.0778	65.5	0.00045	0.00027				
4/19/2017	WL_LCI_SP02	E293370		< 0.010	0.011	< 0.050	< 0.050	0.0796	0.0818	66.7	0.00026	0.00037				
4/20/2017	WL_LCI_SP02	E293370		< 0.010	0.026	< 0.050	0.053	0.0746	0.0745	61.9	0.00051	0.00077				
4/21/2017	WL_LCI_SP02	E293370		< 0.010	0.015	< 0.050	< 0.050	0.0704	0.0741	62.3	0.00044	0.00045				
4/22/2017	WL_LCI_SP02	E293370		< 0.010	0.135	< 0.050	0.185	0.0784	0.0787	65.2	0.00034	0.0027				
4/23/2017	WL_LCI_SP02	E293370		< 0.010	0.017	< 0.050	< 0.050	0.073	0.0754	64.1	0.00024	0.00051				
4/24/2017	WL_LCI_SP02	E293370		< 0.010	0.019	< 0.050	< 0.050	0.0782	0.0791	65.1	0.00017	0.00053				
4/25/2017	WL_LCI_SP02	E293370		< 0.010	0.017	< 0.050	< 0.050	0.0751	0.0766	63.8	0.00015	0.00054				
4/26/2017	WL_LCI_SP02	E293370		< 0.010	0.018	< 0.050	< 0.050	0.071	0.0679	64	0.00051	0.00059				
4/27/2017	WL_LCI_SP02	E293370		< 0.010	0.011	0.146	0.075	0.0762	0.0777	64.1	0.0002	0.00052				
4/28/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.203	0.0709	0.0731	61.8	0.0004	0.00036				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
4/29/2017	WL_LCI_SP02	E293370		< 0.010	0.016	< 0.050	< 0.050	0.0745	0.0762	63.3	0.00016	0.00038				
4/30/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0771	0.0825	64.7	0.00028	0.00018				
5/1/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0765	0.0781	63.6	0.00056	0.00028	< 0.0050			< 0.00050
5/2/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0737	0.0812	53.7	0.00133	0.00023				
5/3/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0734	0.079	53.7	0.0008	0.00021				
5/4/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0787	0.0771	62	0.00012	0.00022				
5/5/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0789	0.069	48.1	0.00076	0.00063				
5/6/2017	WL_LCI_SP02	E293370		< 0.010	0.031	< 0.050	0.072	0.0713	0.073	67.5	0.0003	0.00142				
5/7/2017	WL_LCI_SP02	E293370		< 0.010	0.037	< 0.050	0.081	0.055	0.0596	54.1	0.00033	0.00154				
5/8/2017	WL_LCI_SP02	E293370		< 0.010	0.018	< 0.050	< 0.050	0.0473	0.0449	46.4	0.00028	0.00082				
5/9/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0409	0.0432	41.3	0.0007	0.00043				
5/10/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0436	0.0469	44	0.00049	0.00034				
5/11/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0539	0.0561	45.9	0.00074	0.00023				
5/12/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0562	0.0523	47.3	0.00088	0.00035				
5/13/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0449	0.0538	45	0.00042	0.00054				
5/14/2017	WL_LCI_SP02	E293370		< 0.010	0.018	< 0.050	< 0.050	0.0471	0.0521	44.1	0.00068	0.0008				
5/15/2017	WL_LCI_SP02	E293370														
5/16/2017	WL_LCI_SP02	E293370		< 0.010	0.017	< 0.050	< 0.050	0.0403	0.0399	37.4	0.00019	0.00063				
5/17/2017	WL_LCI_SP02	E293370		< 0.010	0.011	< 0.050	0.051	0.0408	0.0416	39	0.0009	0.00046				
5/18/2017	WL_LCI_SP02	E293370		< 0.010	0.019	< 0.050	< 0.050	0.0444	0.0428	41.1	0.00016	0.00046				
5/19/2017	WL_LCI_SP02	E293370		0.025	0.012	< 0.050	0.064	0.0445	0.0476	43.4	0.00277	0.00048				
5/20/2017	WL_LCI_SP02	E293370														
5/21/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.054	0.0511	0.0545	46.1	0.00018	0.00021				
5/22/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0527	0.0569	51.8	0.00036	0.00027				
5/23/2017	WL_LCI_SP02	E293370		0.021	0.024	< 0.050	< 0.050	0.051	0.0523	47.9	0.00315	0.00068				
5/24/2017	WL_LCI_SP02	E293370		< 0.010	0.012	< 0.050	< 0.050	0.0439	0.042	42.3	0.00017	0.00049				
5/25/2017	WL_LCI_SP02	E293370		< 0.010	0.021	< 0.050	0.057	0.0384	0.0381	39.6	0.00032	0.00062				
5/26/2017	WL_LCI_SP02	E293370		< 0.010	0.013	< 0.050	< 0.050	0.0356	0.0375	39.7	0.00183	0.00053				
5/27/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0368	0.0315	34.5	0.00017	0.00031				
5/28/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0425	0.0406	39	0.0002	0.00034				
5/29/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0369	0.0394	41.3	0.00021	0.00031				
5/30/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0396	0.0335	32	0.00024	0.0004				
5/31/2017	WL_LCI_SP02	E293370		< 0.010	0.014	< 0.050	0.054	0.0364	0.0413	38.7	0.00025	0.0006				
6/1/2017	WL_LCI_SP02	E293370		< 0.010	0.019	< 0.050	< 0.050	0.035	0.0379	42.9	0.00126	0.00083				
6/2/2017	WL_LCI_SP02	E293370		< 0.010	0.015	< 0.050	< 0.050	0.0371	0.0371	39.8	0.00031	0.0007				
6/3/2017	WL_LCI_SP02	E293370		< 0.010	0.152	< 0.050	< 0.050	0.0373	0.0288	103	0.00033	0.075				
6/4/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0379	0.043	40.9	0.00026	0.00039				
6/5/2017	WL_LCI_SP02	E293370											0.0074			0.0008
6/5/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0388	0.0435	41.4	0.00042	0.00039				
6/6/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.071	0.072	0.0372	0.0399	37.9	0.00036	0.00045				
6/7/2017	WL_LCI_SP02	E293370		< 0.010	0.012	< 0.050	0.112	0.0419	0.0441	37.1	0.0003	0.00062				
6/8/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0377	0.0508	42.9	0.00025	0.00033				
6/9/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.095	0.0434	0.0451	37.9	0.00032	0.00051				
6/10/2017	WL_LCI_SP02	E293370		< 0.010	0.01	< 0.050	0.051	0.0402	0.0392	36.4	0.0003	0.00043				
6/11/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.051	0.0374	0.0361	35.8	0.00027	0.00039				
6/12/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.092	0.0385	0.0407	36.9	0.00024	0.00034	< 0.0050			0.0008
6/13/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.063	0.0492	0.051	47	0.0003	< 0.00070				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
6/13/2017	WL_LCI_SP02	E293370														
6/14/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.09	0.0517	0.0554	44.9	0.00021	0.00033				
6/14/2017	WL_LCI_SP02	E293370														
6/15/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.161	0.0523	0.0486	42.6	0.00032	0.00047				
6/15/2017	WL_LCI_SP02	E293370														
6/16/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0444	0.0434	36.4	0.00024	0.00032				
6/16/2017	WL_LCI_SP02	E293370														
6/17/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.082	0.0481	0.0431	38.8	0.00054	0.00046				
6/17/2017	WL_LCI_SP02	E293370														
6/18/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.101	0.0489	0.046	40	0.00059	0.00033				
6/18/2017	WL_LCI_SP02	E293370														
6/19/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0486	0.0493	41.9	0.00033	0.00029				
6/19/2017	WL_LCI_SP02	E293370														
6/20/2017	WL_LCI_SP02	E293370														
6/21/2017	WL_LCI_SP02	E293370														
6/22/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0579	0.0564	49.4	0.00033	0.00034				
6/22/2017	WL_LCI_SP02	E293370														
6/23/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.06	0.0591	45.4	0.0003	0.0004				
6/23/2017	WL_LCI_SP02	E293370														
6/24/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0588	0.0595	47.3	0.00031	0.00038				
6/24/2017	WL_LCI_SP02	E293370														
6/25/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0614	0.0618	43.4	0.00032	0.00034				
6/25/2017	WL_LCI_SP02	E293370														
6/26/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0633	0.0636	46.7	0.0008	0.0004				
6/27/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0506	0.0501	50	0.00029	0.00035				
6/28/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0554	0.0475	47.2	0.0003	0.00052				
6/29/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.088	0.0556	0.0517	43.5	0.00029	0.00035				
6/30/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0571	0.0567	44.6	0.0003	0.00086				
7/1/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0563	0.0579	48.8	0.00028	0.00046				
7/2/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0508	0.0652	50.2	0.00025	0.00029				
7/3/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0543	0.0584	46.3	0.00022	0.00023				
7/4/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0622	0.0597	51.3	0.00026	0.00034				
7/5/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0603	0.0593	49	0.00024	0.00028				
7/6/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0609	0.0578	47.3	0.00019	0.00026				
7/7/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.058	0.0557	48.7	0.0002	0.0003				
7/8/2017	WL_LCI_SP02	E293370		< 0.010	0.044	0.09	0.078	0.0629	0.0529	57	0.00034	0.00075				
7/9/2017	WL_LCI_SP02	E293370		< 0.010	0.02	< 0.050	0.138	0.0626	0.052	53.5	0.00135	0.00052				
7/10/2017	WL_LCI_SP02	E293370		< 0.010	0.028	< 0.050	< 0.050	0.0625	0.0572	56.6	0.00036	0.00058	< 0.0050			< 0.00050
7/11/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0635	0.0634	54.7	0.00023	0.00027				
7/12/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.085	0.0585	0.0589	53.5	0.00023	0.00034				
7/13/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0644	0.0638	49.6	0.00023	0.00027				
7/14/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.24	0.0648	0.0629	50.1	0.00022	0.00043	< 0.0050			0.00056
7/14/2017	WL_LCI_SP02	E293370														
7/15/2017	WL_LCI_SP02	E293370														
7/16/2017	WL_LCI_SP02	E293370														
7/17/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.059	0.0569	51.3	< 0.00030	0.00031				
7/18/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.068	0.0679	54.7	0.00024	0.00036				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
7/19/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0674	0.0683	56.9	0.00057	0.00062				
7/20/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0641	0.0644	54.3	0.00061	0.00074				
7/21/2017	WL_LCI_SP02	E293370		0.018	< 0.010	< 0.050	0.11	0.0626	0.064	51	0.00053	0.00029				
7/22/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0636	0.069	47.1	0.00039	0.00032				
7/23/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0638	0.0639	46.8	0.00016	0.00022				
7/24/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.085	0.064	0.0651	47.8	0.00019	0.00027				
7/25/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0643	0.0654	55.4	0.00021	0.00026				
7/26/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.067	0.0665	0.0632	55	0.0002	0.00024				
7/27/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0751	0.0728	53	0.00012	0.00024				
7/28/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0731	0.0728	53.4	< 0.00010	0.00026				
7/29/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0755	0.0755	54.7	0.00016	0.00022				
7/30/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0751	0.0741	54.2	0.00018	0.00038				
7/31/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0755	0.0785	55	0.00014	0.00024				
8/1/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.065	0.0648	49	0.00012	0.00017				
8/2/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0647	0.0667	51	0.00013	0.00019				
8/3/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0607	0.0595	49.3	0.00017	0.0002				
8/4/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.065	0.0653	54.1	0.00018	0.00026				
8/5/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0593	0.0584	47.5	0.00019	0.00022				
8/6/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0603	0.0602	51	0.00018	0.00024				
8/7/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.06	0.0615	53.4	0.00015	0.00022				
8/8/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.065	0.067	58.7	0.00019	0.00043				
8/9/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0572	0.0587	64.2	0.00044	0.00051				
8/11/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.06	0.0624	0.0621	53.6	0.00019	0.00046				
8/12/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0636	0.0577	47.9	0.00033	0.00047				
8/13/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0652	0.0597	50	0.00028	0.00036				
8/13/2017	WL_LCI_SP02	E293370														
8/14/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0628	0.0592	48.9	0.00027	0.00029	< 0.0050			< 0.00050
8/15/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.08	0.114	0.06	0.0609	49.9	0.00061	0.0006				
8/16/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0604	0.0601	48.6	0.00023	0.00022				
8/17/2017	WL_LCI_SP02	E293370		0.033	< 0.010	< 0.050	< 0.050	0.0589	0.059	45.4	0.00065	0.00024				
8/18/2017	WL_LCI_SP02	E293370														
8/19/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0603	0.0606	50.5	0.00046	0.00049				
8/20/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0614	0.0606	49.9	0.00034	0.0003				
8/21/2017	WL_LCI_SP02	E293370		0.015	< 0.010	< 0.050	< 0.050	0.061	0.06	49.3	0.00035	0.00039				
8/22/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0564	0.0542	50.5	0.00029	0.00035				
8/23/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0633	0.0641	47.5	0.00029	0.00041				
8/24/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0655	0.0652	48	0.00017	0.00018				
8/25/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0595	0.0598	51.8	0.00014	0.00025				
8/26/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.056	0.0572	0.0581	52.4	0.00017	0.00026				
8/27/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0564	0.0544	51.1	0.00018	0.00058				
8/28/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0568	0.0531	52	0.00023	0.00028				
8/29/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0546	0.0538	49.2	0.00021	0.00035				
8/30/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0528	0.052	50	0.00019	0.00024				
8/31/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0586	0.0575	48.8	0.00029	0.00045				
9/1/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0574	0.0583	49.5	0.0003	0.00031				
9/2/2017	WL_LCI_SP02	E293370														
9/2/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0517	0.0503	50.3	0.00026	0.0003				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
9/3/2017	WL_LCI_SP02	E293370														
9/3/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0511	0.051	50.4	0.00049	0.00063				
9/4/2017	WL_LCI_SP02	E293370														
9/4/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0556	0.0557	53.2	0.00034	0.00046				
9/5/2017	WL_LCI_SP02	E293370														
9/5/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0544	0.0546	51.9	0.00026	0.00031				
9/6/2017	WL_LCI_SP02	E293370														
9/6/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0525	0.0518	50.1	0.00024	0.00033				
9/7/2017	WL_LCI_SP02	E293370														
9/7/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0519	0.0498	44.1	0.0002	0.00025				
9/7/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0612	0.0631	50.1	0.0002	0.00026				
9/8/2017	WL_LCI_SP02	E293370														
9/8/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0554	0.0555	44.6	0.00036	0.00037				
9/9/2017	WL_LCI_SP02	E293370														
9/9/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0543	0.0542	47	0.00026	0.00032				
9/10/2017	WL_LCI_SP02	E293370														
9/10/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0548	0.0543	50.4	0.00028	0.00027				
9/11/2017	WL_LCI_SP02	E293370														
9/11/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0595	0.0543	49.8	0.00029	0.00025				
9/12/2017	WL_LCI_SP02	E293370														
9/12/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.055	0.0597	51.9	0.00021	0.00032	< 0.0050			< 0.00050
9/13/2017	WL_LCI_SP02	E293370														
9/13/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.072	0.087	0.0561	0.0564	53.7	0.00033	0.00041				
9/14/2017	WL_LCI_SP02	E293370														
9/14/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.086	0.096	0.065	0.0656	53.3	0.00024	0.00037				
9/15/2017	WL_LCI_SP02	E293370														
9/15/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.054	0.247	0.0541	0.0529	49	0.0002	0.00031				
9/16/2017	WL_LCI_SP02	E293370														
9/16/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.183	0.108	0.0584	0.0569	51.3	0.00023	0.00032				
9/17/2017	WL_LCI_SP02	E293370														
9/17/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.104	0.072	0.0603	0.0568	51.1	< 0.00010	0.00047				
9/18/2017	WL_LCI_SP02	E293370														
9/18/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.059	0.066	0.0601	0.0577	51.5	0.00026	0.00027				
9/18/2017	WL_LCI_SP02	E293370														
9/19/2017	WL_LCI_SP02	E293370														
9/19/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0573	0.0583	44.5	0.00014	0.00014				
9/20/2017	WL_LCI_SP02	E293370														
9/20/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0565	0.0574	50.9	0.00014	0.00019				
9/20/2017	WL_LCI_SP02	E293370														
9/21/2017	WL_LCI_SP02	E293370														
9/21/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0567	0.0594	49.9	< 0.00030	0.00021				
9/21/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0574	0.0593	53.5	< 0.00010	0.00014	< 0.0050			< 0.00050
9/22/2017	WL_LCI_SP02	E293370														
9/22/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0579	0.058	50.1	< 0.00030	0.00027				
9/23/2017	WL_LCI_SP02	E293370														
9/23/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0455	0.0499	48.5	0.00011	0.00014				
9/24/2017	WL_LCI_SP02	E293370														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
9/24/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0552	0.057	52	0.00013	0.00017				
9/25/2017	WL_LCI_SP02	E293370														
9/25/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0589	0.0558	51.1	0.00018	0.00019				
9/26/2017	WL_LCI_SP02	E293370														
9/26/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0553	0.0552	54.2	0.0001	0.00014				
9/27/2017	WL_LCI_SP02	E293370														
9/27/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0545	0.0552	52.2	< 0.00010	0.00013				
9/28/2017	WL_LCI_SP02	E293370														
9/28/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0566	0.0567	53.6	< 0.00010	< 0.00010				
9/29/2017	WL_LCI_SP02	E293370														
9/29/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0553	0.0564	52.7	0.00017	0.00015				
9/30/2017	WL_LCI_SP02	E293370														
9/30/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0575	0.0568	49.4	0.00011	0.00022				
10/1/2017	WL_LCI_SP02	E293370														
10/1/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0578	0.0562	48	0.00013	0.00032				
10/2/2017	WL_LCI_SP02	E293370														
10/2/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0558	0.0565	50.1	0.00011	0.00014	0.0054			0.00065
10/2/2017	WL_LCI_SP02	E293370														
10/3/2017	WL_LCI_SP02	E293370														
10/3/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0596	0.06	49.7	< 0.00010	0.00016				
10/4/2017	WL_LCI_SP02	E293370														
10/4/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0636	0.0628	51.9	< 0.00010	0.00014				
10/5/2017	WL_LCI_SP02	E293370														
10/5/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0626	0.0631	50.8	0.00013	0.00018				
10/6/2017	WL_LCI_SP02	E293370														
10/6/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0611	0.0618	50.6	0.00015	0.00034				
10/7/2017	WL_LCI_SP02	E293370														
10/7/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0548	0.0559	52.4	< 0.00020	0.00011				
10/8/2017	WL_LCI_SP02	E293370														
10/8/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0577	0.056	51.3	< 0.00020	< 0.00010				
10/9/2017	WL_LCI_SP02	E293370														
10/9/2017	WL_LCI_SP02	E293370		< 0.010	0.026	< 0.050	0.672	0.0573	0.0639	56.3	< 0.00020	0.00048				
10/10/2017	WL_LCI_SP02	E293370														
10/10/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0663	0.0629	53.7	< 0.00010	< 0.00030				
10/11/2017	WL_LCI_SP02	E293370														
10/11/2017	WL_LCI_SP02	E293370		< 0.010	0.01	< 0.050	0.071	0.0622	0.0615	55.8	0.00013	0.0004				
10/12/2017	WL_LCI_SP02	E293370														
10/12/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0618	0.0601	56.7	< 0.00010	0.00015				
10/13/2017	WL_LCI_SP02	E293370														
10/13/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0679	0.0673	50.1	0.00019	< 0.00045				
10/14/2017	WL_LCI_SP02	E293370														
10/14/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0621	0.0689	56.4	0.0002	0.00021				
10/15/2017	WL_LCI_SP02	E293370														
10/15/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0629	0.0638	54.3	0.0001	0.00023				
10/16/2017	WL_LCI_SP02	E293370														
10/16/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0638	0.0668	55.3	0.00019	0.00046				
10/17/2017	WL_LCI_SP02	E293370														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
10/17/2017	WL_LCI_SP02	E293370		< 0.010	0.012	< 0.050	0.183	0.0552	0.0554	77.2	0.0003	0.00062				
10/18/2017	WL_LCI_SP02	E293370														
10/18/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.053	0.062	0.0519	0.0503	79	0.00015	0.00029				
10/19/2017	WL_LCI_SP02	E293370														
10/19/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0553	0.0549	78.7	0.00025	0.00044				
10/20/2017	WL_LCI_SP02	E293370														
10/20/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.052	< 0.050	0.0705	0.0628	77	0.00023	0.0003				
10/21/2017	WL_LCI_SP02	E293370														
10/21/2017	WL_LCI_SP02	E293370		< 0.010	0.198	< 0.050	0.346	0.0625	0.0653	72.7	0.00039	0.00293				
10/22/2017	WL_LCI_SP02	E293370														
10/22/2017	WL_LCI_SP02	E293370		< 0.010	0.014	0.508	< 0.050	0.068	0.0691	74.6	0.00018	0.00029				
10/23/2017	WL_LCI_SP02	E293370														
10/23/2017	WL_LCI_SP02	E293370		< 0.010	0.022	0.087	0.2	0.0611	0.0637	76.7	0.00013	0.00055				
10/24/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0697	0.0724	68.9	0.00018	0.00024				
10/25/2017	WL_LCI_SP02	E293370		< 0.010	0.012	< 0.050	< 0.050	0.0716	0.0721	68.9	0.00013	0.00032				
10/26/2017	WL_LCI_SP02	E293370		< 0.010	0.012	< 0.050	< 0.050	0.0722	0.0709	75.8	0.00015	0.00038				
10/27/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0735	0.0765	71.8	0.00015	0.00025				
10/28/2017	WL_LCI_SP02	E293370														
10/29/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0662	0.0635	77.1	0.00016	0.00034				
10/30/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0681	0.0648	77.9	0.00012	0.00023				
10/31/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0605	0.0564	69.4	0.00014	0.00016				
11/1/2017	WL_LCI_SP02	E293370		< 0.010	0.014	< 0.050	< 0.050	0.0626	0.061	74.2	0.00018	0.00028				
11/2/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0647	0.0721	72.3	0.00017	0.00021				
11/3/2017	WL_LCI_SP02	E293370		< 0.010	0.011	< 0.050	< 0.050	0.063	0.0727	69.8	0.00017	0.00068				
11/4/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0647	0.0638	69.6	0.00015	0.00025				
11/5/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0642	0.0673	69.4	< 0.00010	0.00017				
11/6/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.065	0.0618	67.8	< 0.00010	0.00014	< 0.0050			< 0.00050
11/7/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.055	0.0633	0.0625	73.3	0.00018	0.00011				
11/8/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0593	0.0653	64.2	< 0.00010	0.00013				
11/9/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0596	0.0617	69.2	0.00014	0.00018				
11/10/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.057	0.0617	68.9	< 0.00010	0.00014				
11/11/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0618	0.0571	67.3	0.00013	0.00019				
11/12/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0627	0.0618	69.6	0.00012	0.00014				
11/13/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0652	0.0577	69.6	0.00011	0.00016				
11/14/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0585	0.0562	71.7	< 0.00010	0.00012				
11/15/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.068	0.0578	0.0617	76.7	0.00012	0.0002				
11/16/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0666	0.0693	80.6	0.00012	0.00015				
11/17/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0634	0.0705	76.5	< 0.00010	0.00025				
11/18/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0723	0.0714	75.1	0.00013	0.00015				
11/19/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0648	0.0726	78.1	< 0.00010	0.00013				
11/20/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0669	0.0666	78.5	< 0.00010	0.00014				
11/21/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0713	0.07	74.8	< 0.00010	0.00016				
11/22/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0715	0.0655	72	< 0.00010	0.00019				
11/23/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0666	0.0649	78.4	0.00011	0.00015				
11/24/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0712	0.0651	83.3	0.00015	0.00023				
11/25/2017	WL_LCI_SP02	E293370		< 0.010	0.01	< 0.050	< 0.050	0.0681	0.0691	81.7	0.00014	0.00025				
11/26/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0718	0.0711	75.4	< 0.00020	0.00032				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
11/27/2017	WL_LCI_SP02	E293370		< 0.010	0.032	< 0.050	0.099	0.0701	0.067	76.5	0.00014	0.00128				
11/28/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.056	< 0.050	0.0667	0.0735	80.1	0.00012	0.00024				
11/29/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.471	0.0769	0.067	72.1	0.00011	0.00025				
11/30/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0745	0.0734	75.3	0.0001	0.0002				
12/1/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0688	0.0725	74.7	0.00011	0.00012				
12/2/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0747	0.0808	66.8	0.00011	0.00017				
12/3/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0718	0.0785	69.7	0.00018	0.00016				
12/4/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0742	0.0782	63.2	< 0.00010	0.00016	< 0.0050			< 0.00050
12/5/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0768	0.0786	76.7	0.00013	0.00024				
12/6/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0821	0.0789	72	0.00011	0.00013				
12/7/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0816	0.0809	67.9	0.00042	0.00034				
12/8/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0659	0.0636	73.7	0.00011	0.00017				
12/9/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.081	0.0793	70.6	< 0.00010	0.00031				
12/10/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0757	0.0832	71.3	0.00011	0.00015				
12/11/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.055	< 0.050	0.0778	0.0805	69.9	< 0.00010	0.00014				
12/12/2017	WL_LCI_SP02	E293370		< 0.010	0.013	< 0.050	0.116	0.075	0.0725	65.3	< 0.00015	0.00025				
12/13/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0756	0.0759	70.8	< 0.00010	0.00015				
12/14/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0752	0.068	72.4	< 0.00010	0.00014				
12/15/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0759	0.0736	66.5	0.0001	0.00012				
12/16/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0758	0.0784	71.9	< 0.00010	0.00011				
12/17/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0815	0.0842	72.5	< 0.00010	0.0001				
12/18/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0778	0.0812	76.1	< 0.00010	0.00011				
12/19/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0795	0.0835	80.6	< 0.00010	0.00018				
12/20/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.051	0.0768	0.086	78.3	< 0.00010	0.00017				
12/21/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.067	0.076	0.0986	0.0834	80.5	< 0.00010	0.00016				
12/22/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0783	0.0744	79.1	< 0.00010	0.00014				
12/23/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	0.061	0.0794	0.0761	72.4	0.00016	0.00024				
12/24/2017	WL_LCI_SP02	E293370		< 0.010	0.031	< 0.050	< 0.050	0.0752	0.0716	80.1	0.00016	0.00106				
12/25/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0831	0.0739	73	< 0.00010	0.00017				
12/26/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0731	0.0735	72.4	< 0.00010	0.00013				
12/27/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0722	0.0705	78.8	< 0.00010	0.00011				
12/28/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.065	0.0711	78.8	0.00018	0.00011				
12/29/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.0707	0.0675	77.5	0.00015	0.00012				
12/30/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	< 0.050	< 0.050	0.067	0.0735	83.5	< 0.00010	0.00013				
12/31/2017	WL_LCI_SP02	E293370														
12/31/2017	WL_LCI_SP02	E293370		< 0.010	< 0.010	0.098	< 0.050	0.0633	0.0608	72.4	0.00019	0.00012				
1/1/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0305	0.0295	174	0.0004	0.00013				
1/3/2017	WL_WLCI_SP01	E293371		0.025	0.012	< 0.050	< 0.050	0.0317	0.029	180	0.00212	0.00024				
1/4/2017	WL_WLCI_SP01	E293371														
1/5/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0316	0.0365	182	0.00065	0.00011				
1/6/2017	WL_WLCI_SP01	E293371														
1/7/2017	WL_WLCI_SP01	E293371														
1/8/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0329	0.0335	206	0.0007	0.00019				
1/9/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0313	0.0337	208	0.00066	0.00014	< 0.0050		< 0.0050	
1/10/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0331	0.0337	190	0.00027	0.00012				
1/11/2017	WL_WLCI_SP01	E293371														
1/12/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	0.056	0.0327	0.0322	187	0.00101	0.00014				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
1/13/2017	WL_WLCI_SP01	E293371														
1/14/2017	WL_WLCI_SP01	E293371														
1/15/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0323	0.0311	190	0.00104	0.00015				
1/16/2017	WL_WLCI_SP01	E293371		< 0.010	0.012	< 0.050	< 0.050	0.0347	0.0333	206	0.00094	0.00038				
1/17/2017	WL_WLCI_SP01	E293371		< 0.010	0.02	< 0.050	< 0.050	0.0321	0.0343	202	0.00019	0.00026				
1/18/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0353	0.034	196	< 0.00010	0.00012				
1/19/2017	WL_WLCI_SP01	E293371		< 0.010	0.012	< 0.050	< 0.050	0.0346	0.0348	203	0.00127	0.00016				
1/20/2017	WL_WLCI_SP01	E293371														
1/21/2017	WL_WLCI_SP01	E293371														
1/22/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0344	0.0353	201	0.00138	0.00016				
1/23/2017	WL_WLCI_SP01	E293371		0.011	0.013	< 0.050	< 0.050	0.0341	0.0387	210	0.0006	0.00018				
1/24/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0363	0.0384	217	0.00144	0.00011				
1/25/2017	WL_WLCI_SP01	E293371														
1/26/2017	WL_WLCI_SP01	E293371		< 0.010	0.014	< 0.050	< 0.050	0.0338	0.0341	202	0.00203	0.00017				
1/27/2017	WL_WLCI_SP01	E293371														
1/28/2017	WL_WLCI_SP01	E293371														
1/29/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0336	0.0355	208	0.0002	0.00012				
1/30/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0333	0.0348	211	0.00019	0.00013				
1/31/2017	WL_WLCI_SP01	E293371		< 0.050	< 0.050	< 0.25	< 0.25	0.0312	0.0313	208	< 0.00050	< 0.00050				
2/1/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0301	0.0315	191	0.00175	0.00015				
2/1/2017	WL_WLCI_SP01	E293371		< 0.050	< 0.050	< 0.25	< 0.25	0.0303	0.0317	201	< 0.00050	< 0.00050				
2/2/2017	WL_WLCI_SP01	E293371		< 0.010	0.012	< 0.050	< 0.050	0.034	0.0326	206	0.00034	0.00022				
2/3/2017	WL_WLCI_SP01	E293371														
2/4/2017	WL_WLCI_SP01	E293371														
2/5/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0346	0.0363	180	0.00014	0.00016				
2/6/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0345	0.0341	178	0.00016	0.00012				
2/7/2017	WL_WLCI_SP01	E293371		< 0.010	0.089	< 0.050	0.06	0.0248	0.0339	179	0.00029	0.00086	< 0.0050			0.00112
2/8/2017	WL_WLCI_SP01	E293371														
2/8/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0347	0.0307	190	0.00011	0.0001				
2/9/2017	WL_WLCI_SP01	E293371														
2/10/2017	WL_WLCI_SP01	E293371		< 0.010	0.012	< 0.050	< 0.050	0.0347	0.0353	202	0.00012	0.0002				
2/11/2017	WL_WLCI_SP01	E293371														
2/12/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0364	0.0366	221	0.00021	0.00018				
2/13/2017	WL_WLCI_SP01	E293371		0.019	0.011	< 0.050	< 0.050	0.0356	0.0376	224	0.00047	0.00013				
2/14/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0356	0.0344	201	0.00025	< 0.00010				
2/15/2017	WL_WLCI_SP01	E293371														
2/16/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0356	0.0364	218	0.00021	0.00016				
2/17/2017	WL_WLCI_SP01	E293371														
2/18/2017	WL_WLCI_SP01	E293371														
2/19/2017	WL_WLCI_SP01	E293371		< 0.010	0.019	< 0.050	< 0.050	0.0348	0.0346	241	0.0007	0.00026				
2/20/2017	WL_WLCI_SP01	E293371		< 0.010	0.012	< 0.050	< 0.050	0.0381	0.0405	219	0.00061	0.00019				
2/21/2017	WL_WLCI_SP01	E293371		< 0.010	0.013	< 0.050	< 0.050	0.0325	0.0343	196	0.00021	0.00012				
2/22/2017	WL_WLCI_SP01	E293371														
2/22/2017	WL_WLCI_SP01	E293371														
2/23/2017	WL_WLCI_SP01	E293371		< 0.010	0.012	< 0.050	< 0.050	0.0335	0.0348	206	0.00065	0.00011				
2/24/2017	WL_WLCI_SP01	E293371														
2/25/2017	WL_WLCI_SP01	E293371														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
2/26/2017	WL_WLCI_SP01	E293371		0.01	0.011	< 0.050	< 0.050	0.0364	0.0359	234	0.0001	0.00039				
2/27/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0364	0.0345	182	0.00015	0.00017				
2/28/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0346	0.036	192	0.00039	0.00014				
3/1/2017	WL_WLCI_SP01	E293371														
3/2/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0355	0.0347	199	0.00012	0.00012				
3/3/2017	WL_WLCI_SP01	E293371														
3/4/2017	WL_WLCI_SP01	E293371														
3/5/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0354	0.0371	205	0.0011	0.0001				
3/6/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0343	0.0325	217	0.00014	0.00011	< 0.0050			0.001
3/7/2017	WL_WLCI_SP01	E293371		< 0.010	0.012	< 0.050	< 0.050	0.0348	0.0384	195	0.00029	0.00013				
3/8/2017	WL_WLCI_SP01	E293371														
3/9/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0319	0.0372	200	0.0004	0.00014				
3/10/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0243	0.0252	227	0.00168	< 0.00010				
3/11/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0234	0.0245	215	0.00051	0.00011				
3/12/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.031	0.0274	211	0.00123	< 0.00010				
3/13/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0319	0.033	191	0.00045	< 0.00010				
3/14/2017	WL_WLCI_SP01	E293371		< 0.020	< 0.020	< 0.10	< 0.10	0.0232	0.0299	199	< 0.00020	< 0.00020				
3/15/2017	WL_WLCI_SP01	E293371		< 0.010	0.216	< 0.050	0.142	0.0267	0.03	177	0.00104	0.00256				
3/16/2017	WL_WLCI_SP01	E293371		< 0.010	1.22	< 0.050	0.686	0.0274	0.0298	157	0.00095	0.0134				
3/20/2017	WL_WLCI_SP01	E293371		< 0.010	0.299	< 0.050	0.202	0.035	0.0361	221	0.00376	0.00611				
3/21/2017	WL_WLCI_SP01	E293371		< 0.010	0.018	< 0.050	< 0.050	0.0347	0.0361	197	0.0009	0.00093				
3/22/2017	WL_WLCI_SP01	E293371		< 0.010	0.014	< 0.050	< 0.050	0.0354	0.0403	222	0.00042	0.00051				
3/23/2017	WL_WLCI_SP01	E293371		< 0.010	0.015	< 0.050	< 0.050	0.0331	0.0369	216	0.0002	0.00021				
3/24/2017	WL_WLCI_SP01	E293371		< 0.020	< 0.020	< 0.10	< 0.10	0.0278	0.0313	214	0.00033	0.00054				
3/25/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0342	0.0337	215	0.00022	0.00021				
3/26/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0356	0.0315	205	0.00012	0.00014				
3/27/2017	WL_WLCI_SP01	E293371		< 0.010	0.012	< 0.050	< 0.050	0.0401	0.0333	212	0.0002	0.00018				
3/28/2017	WL_WLCI_SP01	E293371		< 0.010	0.016	< 0.050	< 0.050	0.0412	0.0446	209	0.00036	0.00025				
3/29/2017	WL_WLCI_SP01	E293371		< 0.010	0.013	< 0.050	< 0.050	0.0409	0.0444	218	0.00026	0.00019				
3/30/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.04	0.0359	195	0.00023	0.00018				
3/31/2017	WL_WLCI_SP01	E293371		< 0.010	0.119	< 0.050	0.077	0.0334	0.0361	217	0.00074	0.00224				
4/1/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	0.089	< 0.050	0.0335	0.0385	194	0.0002	0.00023				
4/2/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0347	0.0388	201	0.00039	0.00013				
4/3/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0319	0.0361	203	0.0001	0.00014	< 0.0050			0.00105
4/4/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0346	0.0348	219	< 0.00010	0.00014				
4/5/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.036	0.0339	208	0.00011	0.00013				
4/6/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0375	0.0378	241	0.00014	0.00011				
4/7/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.037	0.0427	246	0.00012	0.00017				
4/8/2017	WL_WLCI_SP01	E293371		< 0.010	0.013	< 0.050	< 0.050	0.0287	0.0391	239	0.00092	0.00019				
4/9/2017	WL_WLCI_SP01	E293371		< 0.010	0.013	< 0.050	< 0.050	0.0289	0.0391	245	0.00041	0.00019				
4/10/2017	WL_WLCI_SP01	E293371		< 0.010	0.015	0.054	< 0.050	0.0366	0.0408	221	0.00048	0.00025				
4/11/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0378	0.0381	224	< 0.00010	0.00016				
4/12/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0376	0.0369	225	0.00014	0.00018				
4/13/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0361	0.0361	208	0.00011	0.00012				
4/14/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0376	0.0343	206	< 0.00010	0.00021				
4/15/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0363	0.0367	233	0.00011	0.00011				
4/16/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0403	0.036	210	0.0005	0.00013				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
4/17/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0341	0.0412	219	< 0.00010	0.0002				
4/18/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	0.146	0.0379	0.0388	231	< 0.00010	< 0.00010				
4/19/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0388	0.0393	225	0.00017	0.00014				
4/20/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0356	0.0372	214	0.00033	0.00013				
4/21/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0356	0.0401	210	0.00021	0.00014				
4/22/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0385	0.0373	221	0.00057	0.00014				
4/23/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0331	0.0371	220	0.00015	0.00012				
4/24/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0333	0.0377	220	< 0.00010	0.00013				
4/25/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0354	0.037	224	0.00012	0.00013				
4/26/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0348	0.0345	222	0.00026	0.00012				
4/27/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.036	0.0367	218	0.00012	0.00012				
4/28/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	0.156	0.149	0.0358	0.0358	224	0.00024	0.00015				
4/29/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0346	0.0352	217	0.00019	0.00017				
4/30/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0356	0.0367	220	0.00012	0.00014				
5/1/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0353	0.0366	221	0.0002	0.00012	< 0.025			0.00111
5/2/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0331	0.0391	188	0.00058	< 0.00010				
5/3/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.033	0.0373	184	0.00072	< 0.00010				
5/4/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0366	0.0358	213	< 0.00010	0.00013				
5/5/2017	WL_WLCI_SP01	E293371		< 0.010	0.042	< 0.050	< 0.050	0.0363	0.0324	181	0.00036	0.00099				
5/6/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0338	0.0312	182	< 0.00010	0.00031				
5/7/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0374	0.035	204	< 0.00010	0.00019				
5/8/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0354	0.0351	201	0.0001	0.00013				
5/9/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0369	0.0361	194	0.00026	0.00016				
5/10/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0342	0.0354	186	0.00019	0.00016				
5/11/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0376	0.033	199	0.00041	0.00015				
5/12/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0354	0.0361	187	0.00044	0.00026				
5/13/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	0.179	0.0281	0.0339	182	< 0.00010	0.00017				
5/14/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0304	0.0353	182	0.00012	0.00016				
5/15/2017	WL_WLCI_SP01	E293371			< 0.010		< 0.050		0.0307	152		0.00024				
5/16/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0326	0.0318	157	0.00012	0.00018				
5/17/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0319	0.0326	159	0.00038	0.00019				
5/18/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0299	0.0302	157	0.00014	0.00016				
5/19/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0302	0.031	156	0.00035	0.00016				
5/20/2017	WL_WLCI_SP01	E293371														
5/21/2017	WL_WLCI_SP01	E293371		0.025	0.024	< 0.050	< 0.050	0.0292	0.0291	155	0.00039	0.00042				
5/22/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0292	0.0282	158	0.00022	0.00051				
5/23/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0299	0.0302	150	0.00061	0.00029				
5/24/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0292	0.0301	141	0.00027	0.00037				
5/25/2017	WL_WLCI_SP01	E293371		< 0.010	0.036	< 0.050	< 0.050	0.0281	0.0288	118	0.00068	0.00122				
5/26/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0271	0.0269	120	0.00066	0.00054				
5/27/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0279	0.0284	133	0.00038	0.0005				
5/28/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0329	0.0318	122	0.00041	0.00046				
5/29/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0249	0.0266	120	0.00043	0.00052				
5/30/2017	WL_WLCI_SP01	E293371		< 0.010	0.022	< 0.050	< 0.050	0.026	0.0284	102	0.00061	0.00109				
5/31/2017	WL_WLCI_SP01	E293371		< 0.010	0.048	< 0.050	0.059	0.0276	0.0274	97.4	0.00085	0.00194				
6/1/2017	WL_WLCI_SP01	E293371		< 0.010	0.041	< 0.050	0.055	0.0263	0.0269	108	0.00136	0.00245				
6/2/2017	WL_WLCI_SP01	E293371		< 0.010	0.017	< 0.050	< 0.050	0.0268	0.0287	96.8	0.00143	0.00166				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
6/3/2017	WL_WLCI_SP01	E293371		< 0.010	0.017	< 0.050	< 0.050	0.0237	0.0262	94	0.00126	0.00159				
6/4/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0235	0.0258	94.5	0.00111	0.00119				
6/5/2017	WL_WLCi_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0226	0.0237	90.5	0.00112	0.0012	< 0.0050			< 0.0007000000
6/6/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0242	0.0224	84.8	0.00092	0.00115				
6/6/2017	WL_WLCI_SP01	E293371														
6/7/2017	WL_WLCI_SP01	E293371		< 0.010	0.114	< 0.050	0.096	0.0222	0.0235	85.8	0.00118	0.00427				
6/8/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0207	0.0229	88	0.00099	0.00106				
6/9/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0201	0.0254	75.1	0.00117	0.00103				
6/10/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0196	0.0204	92.9	0.00129	0.00133				
6/11/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	0.056	0.0189	0.0189	92.1	0.00107	0.00116				
6/12/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.02	0.0194	94.8	0.00102	0.00104	< 0.0050			0.0012
6/13/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0221	0.0226	94.5	0.0008	0.00087				
6/13/2017	WL_WLCI_SP01	E293371														
6/14/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0231	0.0225	96.7	0.00103	0.00099				
6/14/2017	WL_WLCI_SP01	E293371														
6/15/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0221	0.0212	94.9	0.00114	0.00103				
6/15/2017	WL_WLCI_SP01	E293371														
6/16/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0215	0.021	98.8	0.00115	0.00096				
6/16/2017	WL_WLCI_SP01	E293371														
6/17/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	0.064	< 0.050	0.0231	0.0215	99.2	0.00146	0.00104				
6/17/2017	WL_WLCI_SP01	E293371														
6/18/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.023	0.0221	102	0.0017	0.00097				
6/18/2017	WL_WLCI_SP01	E293371														
6/19/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0247	0.0228	104	0.001	0.00096				
6/19/2017	WL_WLCI_SP01	E293371														
6/20/2017	WL_WLCI_SP01	E293371														
6/21/2017	WL_WLCI_SP01	E293371														
6/22/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.023	0.0245	115	0.00107	0.00106				
6/22/2017	WL_WLCI_SP01	E293371														
6/23/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0246	0.0234	114	0.00104	0.00108				
6/23/2017	WL_WLCI_SP01	E293371														
6/24/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0246	0.0242	106	0.00098	0.00094				
6/24/2017	WL_WLCI_SP01	E293371														
6/25/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0253	0.0256	99	0.00097	0.00099				
6/25/2017	WL_WLCI_SP01	E293371														
6/26/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0255	0.0247	108	0.00178	0.00089				
6/27/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0259	0.025	128	0.00096	0.00099				
6/28/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	0.204	0.0262	0.0218	127	0.00102	0.00104				
6/29/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0251	0.0258	131	0.00117	0.00142				
6/30/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0251	0.0257	120	0.00136	0.00125				
7/1/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0258	0.0258	117	0.0013	0.00109				
7/2/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0265	0.0291	133	0.00131	0.00128				
7/3/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0242	0.028	129	0.0013	0.00122				
7/4/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.027	0.0277	139	0.00179	0.00143				
7/5/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0283	0.0286	140	0.00145	0.00145				
7/6/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0269	0.0261	124	0.00132	0.00134				
7/7/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0266	0.0261	132	0.00123	0.00123				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
7/8/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0276	0.0248	157	0.00135	0.00133				
7/9/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0268	0.023	148	0.00202	0.00123				
7/10/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.03	0.0266	151	0.00132	0.00123	< 0.0050			0.00105
7/11/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0273	0.0279	148	0.00144	0.00143				
7/12/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0275	0.0282	148	0.00233	0.00158				
7/13/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0284	0.0275	132	0.00146	0.00147				
7/14/2017	WL_WLCI_SP01	E293371		< 0.010	0.013	< 0.050	< 0.050	0.0283	0.028	135	0.00143	0.0016	< 0.0050			0.00107
7/14/2017	WL_WLCI_SP01	E293371														
7/15/2017	WL_WLCI_SP01	E293371														
7/16/2017	WL_WLCI_SP01	E293371														
7/17/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0285	0.0292	143	0.00163	0.00158				
7/18/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0305	0.031	148	0.00197	0.00198				
7/19/2017	WL_WLCI_SP01	E293371		0.014	< 0.010	< 0.050	< 0.050	0.0294	0.0316	159	0.00245	0.00251				
7/20/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0284	0.0285	150	0.00182	0.0017				
7/21/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0279	0.0285	144	0.00207	0.00181				
7/22/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0314	0.0294	134	0.00212	0.0019				
7/23/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0285	0.0305	134	0.00196	0.00184				
7/24/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0311	0.0302	137	0.00157	0.00165				
7/25/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.03	0.0308	165	0.0021	0.002				
7/26/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.03	0.0289	160	0.00199	0.00199				
7/27/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0345	0.0347	163	0.00158	0.00186				
7/28/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0354	0.035	160	0.00158	0.00168				
7/29/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0359	0.0365	167	0.00168	0.00162				
7/30/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0363	0.0354	162	0.00151	0.00163				
7/31/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0355	0.0351	168	0.00139	0.0015				
8/1/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0316	0.0316	159	0.00133	0.00146				
8/2/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0323	0.0309	168	0.00149	0.00155				
8/3/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0322	0.0319	161	0.00194	0.0018				
8/4/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0329	0.0304	159	0.00166	0.00157				
8/5/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0322	0.0328	172	0.00171	0.00173				
8/6/2017	WL_WLCI_SP01	E293371		< 0.010		< 0.050		0.0318			0.00219					
8/7/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0308	0.0315	171	0.00185	0.00188				
8/8/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0347	0.0335	175	0.00173	0.00178				
8/9/2017	WL_WLCI_SP01	E293371		0.014	< 0.010	< 0.050	< 0.050	0.033	0.0337	169	0.00196	0.00178				
8/11/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0349	0.0333	177	0.00193	0.00208				
8/12/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0371	0.0328	173	0.00175	0.0019				
8/12/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0335	0.0347	168	0.0019	0.00195	< 0.0050			
8/13/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0361	0.0323	176	0.00145	0.00171				
8/13/2017	WL_WLCI_SP01	E293371														
8/14/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0369	0.0344	176	0.00184	0.0018	< 0.0050			0.00118
8/15/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0349	0.0351	181	0.00223	0.00277				
8/16/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0352	0.0354	183	0.00231	0.00245				
8/17/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0343	0.0346	165	0.00193	0.00207				
8/18/2017	WL_WLCI_SP01	E293371														
8/19/2017	WL_WLCI_SP01	E293371		0.028	< 0.010	< 0.050	< 0.050	0.0366	0.0369	187	0.00177	0.00179				
8/20/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0367	0.0367	187	0.00193	0.00207				
8/21/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0366	0.0374	185	0.0021	0.00217				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
8/22/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0314	0.0323	193	0.00221	0.00235				
8/23/2017	WL_WLCI_SP01	E293371		< 0.010	0.012	< 0.050	< 0.050	0.0389	0.0381	170	0.00185	0.00181				
8/24/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0403	0.0399	169	0.00153	0.00157				
8/25/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0374	0.0372	190	0.00168	0.0018				
8/26/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0362	0.0365	194	0.0021	0.00215				
8/27/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.035	0.0349	195	0.00201	0.00193				
8/28/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0359	0.035	191	0.0018	0.0018				
8/29/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0334	0.0341	191	0.00146	0.00155				
8/30/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0339	0.0343	198	0.00138	0.00142				
8/31/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0387	0.0377	187	0.00131	0.00128				
9/1/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0386	0.0387	189	0.0014	0.00143				
9/2/2017	WL_WLCI_SP01	E293371														
9/2/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0324	0.0334	190	0.00142	0.00142				
9/3/2017	WL_WLCI_SP01	E293371														
9/3/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0324	0.0335	188	0.00125	0.00127				
9/4/2017	WL_WLCI_SP01	E293371														
9/4/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0388	0.0374	204	0.00146	0.00137				
9/5/2017	WL_WLCI_SP01	E293371														
9/5/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0384	0.0378	204	0.00166	0.00166				
9/6/2017	WL_WLCI_SP01	E293371														
9/6/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0352	0.0374	196	0.00173	0.00167				
9/7/2017	WL_WLCI_SP01	E293371														
9/7/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0343	0.0344	169	0.00192	0.00171				
9/8/2017	WL_WLCI_SP01	E293371														
9/8/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0398	0.0393	181	0.00139	0.00129				
9/9/2017	WL_WLCI_SP01	E293371														
9/9/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0375	0.0381	194	0.00134	0.00127				
9/10/2017	WL_WLCI_SP01	E293371														
9/10/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0376	0.0376	205	0.0013	0.00144				
9/11/2017	WL_WLCI_SP01	E293371														
9/11/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0393	0.0386	201	0.00171	0.00172				
9/12/2017	WL_WLCI_SP01	E293371														
9/12/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0389	0.0382	197	0.00158	0.00159	< 0.0050			0.001
9/13/2017	WL_WLCI_SP01	E293371														
9/13/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0364	0.038	201	0.00159	0.00178				
9/14/2017	WL_WLCI_SP01	E293371														
9/14/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0372	0.0385	188	0.00209	0.00202				
9/15/2017	WL_WLCI_SP01	E293371														
9/15/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0382	0.0377	200	0.00206	0.00212				
9/16/2017	WL_WLCI_SP01	E293371														
9/16/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0373	0.0376	207	0.00179	0.00196				
9/17/2017	WL_WLCI_SP01	E293371														
9/17/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0397	0.0371	197	0.00134	0.00135				
9/18/2017	WL_WLCI_SP01	E293371														
9/18/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0396	0.0369	199	0.0013	0.00126				
9/19/2017	WL_WLCI_SP01	E293371														
9/19/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0396	0.0373	180	0.00112	0.00119				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
9/20/2017	WL_WLCI_SP01	E293371														
9/20/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0368	0.0344	198	0.00096	0.00098				
9/21/2017	WL_WLCI_SP01	E293371														
9/21/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0379	0.0387	201	< 0.0010	0.00084				
9/22/2017	WL_WLCI_SP01	E293371														
9/22/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0378	0.0384	230	< 0.00080	0.00089				
9/23/2017	WL_WLCI_SP01	E293371														
9/23/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0333	0.0344	196	0.00052	0.00057				
9/24/2017	WL_WLCI_SP01	E293371														
9/24/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0401	0.0356	200	0.00042	0.00043				
9/25/2017	WL_WLCI_SP01	E293371														
9/25/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0359	0.0359	203	0.00052	0.00047				
9/26/2017	WL_WLCI_SP01	E293371														
9/26/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0355	0.0353	208	0.00054	0.00048				
9/27/2017	WL_WLCI_SP01	E293371														
9/27/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0351	0.0356	210	0.00051	0.00055				
9/28/2017	WL_WLCI_SP01	E293371														
9/28/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0374	0.0385	210	0.00047	0.00051				
9/29/2017	WL_WLCI_SP01	E293371														
9/29/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0378	0.0378	208	0.00055	0.0006				
9/30/2017	WL_WLCI_SP01	E293371														
9/30/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0385	0.0406	196	0.00056	0.00064				
10/1/2017	WL_WLCI_SP01	E293371														
10/1/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.041	0.0397	204	0.00073	0.00081				
10/2/2017	WL_WLCI_SP01	E293371														
10/2/2017	WL_WLCI_SP01	E293371		< 0.010	0.012	< 0.050	< 0.050	0.0377	0.0379	207	0.00063	0.00067	< 0.0050			0.00115
10/3/2017	WL_WLCI_SP01	E293371														
10/3/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0407	0.0409	206	0.00044	0.00052				
10/4/2017	WL_WLCI_SP01	E293371														
10/4/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0414	0.0403	207	0.00034	0.00032				
10/5/2017	WL_WLCI_SP01	E293371														
10/5/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0381	0.0406	208	0.00037	0.00038				
10/6/2017	WL_WLCI_SP01	E293371														
10/6/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0405	0.0407	207	0.00035	0.00037				
10/7/2017	WL_WLCI_SP01	E293371														
10/7/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0384	0.0357	202	< 0.00050	0.00034				
10/8/2017	WL_WLCI_SP01	E293371														
10/8/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0377	0.0378	205	< 0.00040	0.00028				
10/9/2017	WL_WLCI_SP01	E293371														
10/9/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0357	0.0404	212	< 0.00050	0.00033				
10/10/2017	WL_WLCI_SP01	E293371														
10/10/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0403	0.0369	204	0.00028	< 0.00030				
10/11/2017	WL_WLCI_SP01	E293371														
10/11/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0387	0.0366	214	0.00026	0.0003				
10/12/2017	WL_WLCI_SP01	E293371														
10/12/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0366	0.0348	210	0.00019	0.00028				
10/13/2017	WL_WLCI_SP01	E293371														

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
10/13/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0403	0.0409	189	0.00022	< 0.00030				
10/14/2017	WL_WLCI_SP01	E293371														
10/14/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0373	0.0398	201	0.00018	0.00021				
10/15/2017	WL_WLCI_SP01	E293371														
10/15/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0377	0.0386	202	0.00019	0.00021				
10/16/2017	WL_WLCI_SP01	E293371														
10/16/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0387	0.0384	203	0.00019	0.00025				
10/17/2017	WL_WLCI_SP01	E293371														
10/17/2017	WL_WLCI_SP01	E293371		< 0.010	0.013	< 0.050	< 0.050	0.0363	0.0359	216	0.00029	0.00042				
10/18/2017	WL_WLCI_SP01	E293371														
10/18/2017	WL_WLCI_SP01	E293371		0.011	0.013	< 0.050	< 0.050	0.0344	0.0344	221	0.0003	0.00156				
10/19/2017	WL_WLCI_SP01	E293371														
10/19/2017	WL_WLCI_SP01	E293371		< 0.010	0.012	< 0.050	< 0.050	0.0391	0.0353	213	0.00026	0.00032				
10/20/2017	WL_WLCI_SP01	E293371														
10/20/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0402	0.0363	206	0.00029	0.0003				
10/21/2017	WL_WLCI_SP01	E293371														
10/21/2017	WL_WLCI_SP01	E293371		0.011	< 0.010	< 0.050	< 0.050	0.038	0.0394	212	0.00032	0.00028				
10/21/2017	WL_WLCI_SP01	E293371														
10/22/2017	WL_WLCI_SP01	E293371														
10/22/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	0.052	< 0.050	0.0454	0.0394	215	0.00028	0.00029				
10/23/2017	WL_WLCI_SP01	E293371														
10/23/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0389	0.0375	211	0.00016	0.00019				
10/24/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0342	0.0377	173	0.00016	0.00014				
10/25/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0435	0.0387	184	0.00017	0.0002				
10/26/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0447	0.0443	219	0.00019	0.00021				
10/27/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0448	0.0468	219	0.00017	0.00022				
10/27/2017	WL_WLCI_SP01	E293371														
10/28/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0371	0.0387	216	0.00018	0.00019				
10/29/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0373	0.0343	228	0.00019	0.00028				
10/30/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.039	0.0344	226	0.00018	0.00021				
10/31/2017	WL_WLCI_SP01	E293371		0.01	0.016	< 0.050	< 0.050	0.0348	0.0366	215	0.00015	0.00031				
11/1/2017	WL_WLCI_SP01	E293371		0.022	0.01	< 0.050	< 0.050	0.0346	0.0355	208	0.00024	0.00019				
11/2/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	0.267	0.0399	0.0391	208	0.00016	0.00018				
11/3/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0376	0.0382	207	0.00016	0.00018				
11/4/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0371	0.0379	197	0.00013	0.00017				
11/5/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0364	0.0373	209	0.00015	0.00019				
11/6/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0376	0.0367	203	0.00012	0.00017	< 0.0050			0.00119
11/7/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0347	0.0353	206	0.0001	0.00012				
11/8/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0351	0.0378	213	0.00028	< 0.00010				
11/9/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0356	0.0366	208	0.00012	0.00019				
11/10/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0357	0.0391	213	0.00017	0.00023				
11/11/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	0.051	< 0.050	0.0337	0.0367	205	0.00014	0.00014				
11/12/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0343	0.0337	210	0.00013	0.00018				
11/13/2017	WL_WLCI_SP01	E293371		0.01	< 0.010	< 0.050	< 0.050	0.0355	0.0343	208	0.0002	0.00016				
11/14/2017	WL_WLCI_SP01	E293371		< 0.010	0.029	< 0.050	< 0.050	0.0357	0.0301	211	0.00017	0.00025				
11/15/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0313	0.0301	235	0.00011	0.00018				
11/16/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0345	0.0392	212	0.00014	0.00016				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N	D	T	D	T	D	T	T	D	T	D	D	T	T
Sample Date	Location	EMS Number	m3/s	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l						
11/17/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	0.051	0.0358	0.0408	215	0.00018	0.00018				
11/17/2017	WL_WLCI_SP01	E293371														
11/18/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0386	0.0368	223	< 0.00010	0.00015				
11/19/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0416	0.0393	230	0.00011	0.00013				
11/20/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0349	0.0376	224	0.00014	0.00017				
11/21/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.037	0.0339	207	0.00014	0.00012				
11/22/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0377	0.0315	205	0.00016	0.00014				
11/23/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0357	0.0329	213	0.00015	0.00018				
11/24/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0354	0.0359	206	0.00019	0.00018				
11/25/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0355	0.0345	221	0.00014	0.00011				
11/26/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0354	0.0341	217	0.00015	0.00015				
11/27/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0354	0.0344	235	0.00014	0.00019				
11/28/2017	WL_WLCI_SP01	E293371		0.012	< 0.010	0.888	< 0.050	0.034	0.0339	245	0.00022	0.00021				
11/29/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	0.103	0.0426	0.0344	226	< 0.00010	0.00014				
11/30/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	0.485	0.0342	0.0383	228	< 0.00010	0.00015				
12/1/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0351	0.0366	221	0.00011	< 0.00010				
12/2/2017	WL_WLCI_SP01	E293371		0.059	< 0.010	< 0.050	< 0.050	0.0395	0.0423	194	0.00346	0.00015				
12/3/2017	WL_WLCI_SP01	E293371		< 0.010	0.014	< 0.050	< 0.050	0.0388	0.0441	202	0.00012	0.00026				
12/4/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.039	0.0425	195	0.0001	0.00014	< 0.0050			0.00128
12/5/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0401	0.0372	210	0.00015	0.00016				
12/6/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0393	0.038	213	0.00011	0.00012				
12/6/2017	WL_WLCI_SP01	E293371														
12/6/2017	WL_WLCI_SP01	E293371														
12/7/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0402	0.0346	206	0.00039	0.00011				
12/8/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0301	0.0329	216	0.00014	0.00018				
12/9/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0372	0.0395	212	0.00012	0.00015				
12/10/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	0.077	0.342	0.037	0.041	215	0.00012	0.00011				
12/11/2017	WL_WLCI_SP01	E293371		< 0.010	0.013	0.112	0.335	0.0382	0.0406	207	0.00011	0.00021				
12/12/2017	WL_WLCI_SP01	E293371		< 0.010	0.019	< 0.050	0.083	0.0361	0.037	195	< 0.00015	0.00032				
12/13/2017	WL_WLCI_SP01	E293371		< 0.010	0.012	< 0.050	0.073	0.0391	0.0384	201	< 0.00010	0.00019				
12/13/2017	WL_WLCI_SP01	E293371		0.011	< 0.020	0.168	0.2	0.04	0.0378	226	0.00038	0.00047				
12/14/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0332	0.0359	211	0.00012	0.00015				
12/15/2017	WL_WLCI_SP01	E293371		< 0.010	0.013	< 0.050	< 0.050	0.0337	0.0365	220	0.00015	0.00026				
12/16/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0385	0.0387	212	< 0.00010	< 0.00010				
12/17/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0371	0.0377	212	0.00015	< 0.00010				
12/18/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0369	0.0396	218	0.00015	0.00015				
12/19/2017	WL_WLCI_SP01	E293371		< 0.010	0.02	< 0.050	< 0.050	0.0365	0.0402	235	0.00014	0.00037				
12/20/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	< 0.050	0.0361	0.0393	226	0.00014	0.00016				
12/21/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.0385	0.0356	216	0.00012	0.00021				
12/22/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0388	0.0377	218	0.00016	0.00015				
12/22/2017	WL_WLCI_SP01	E293371		0.015	0.018	0.307	0.307	0.0368	0.0351	218	0.00059	0.00062				
12/23/2017	WL_WLCI_SP01	E293371		< 0.010	0.016	< 0.050	< 0.050	0.035	0.0339	216	0.0001	0.00029				
12/23/2017	WL_WLCI_SP01	E293371			0.028		< 0.050		0.0351	217		0.00084				
12/24/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0401	0.0382	201	0.00011	0.00017				
12/25/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	< 0.050	< 0.050	0.037	0.0368	198	0.00013	0.00016				
12/26/2017	WL_WLCI_SP01	E293371		0.01	< 0.010	< 0.050	< 0.050	0.0363	0.0359	203	0.00013	0.00011				
12/27/2017	WL_WLCI_SP01	E293371		< 0.010	0.012	< 0.050	< 0.050	0.0372	0.0342	217	< 0.00010	0.00015				

Analyte			INSTANTANEOUS FLOW	IRON	IRON	LEAD	LEAD	LITHIUM	LITHIUM	MAGNESIUM	MANGANESE	MANGANESE	MERCURY	MERCURY	MERCURY	MERCURY
Fraction Result Unit			N m3/s	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	T mg/l	D mg/l	T mg/l	D mg/l	D ug/l	T mg/l	T ug/l
Sample Date	Location	EMS Number														
12/28/2017	WL_WLCI_SP01	E293371		0.012	0.011	< 0.050	< 0.050	0.032	0.0366	233	0.00015	0.00014				
12/29/2017	WL_WLCI_SP01	E293371		< 0.010	0.011	< 0.050	0.092	0.0336	0.0341	210	0.00011	0.00012				
12/30/2017	WL_WLCI_SP01	E293371		< 0.010	0.01	< 0.050	< 0.050	0.0331	0.0345	214	0.00011	< 0.00010				
12/30/2017	WL_WLCI_SP01	E293371														
12/31/2017	WL_WLCI_SP01	E293371		< 0.010	< 0.010	0.057	< 0.050	0.033	0.0317	215	0.00019	0.00013				

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
1/5/2017	CM_CC1	200209	0.00279	0.00268	90	92	12	0.0614	0.0506		8.16	8.07
1/17/2017	CM_CC1	200209	0.00278	0.00282	91.6	93.1	12	0.07	0.0807	< 0.0010	8.12	8.21
1/24/2017	CM_CC1	200209	0.00292	0.00304	85.6	88.8	11.9	0.0808	0.0629		8.34	7.99
1/29/2017	CM_CC1	200209									8.42	
1/30/2017	CM_CC1	200209	0.00255	0.0026	89.7	85.7	11.6	0.0382	0.0374		8.24	8
1/31/2017	CM_CC1	200209	0.00247	0.0026	91.4	96.9	12.2	0.0377	0.0375			8.02
2/1/2017	CM_CC1	200209	0.00245	0.00261	92.5	100	12.3	0.0371	0.0343	< 0.0010	8.15	8.03
2/7/2017	CM_CC1	200209	0.00239	0.00249	87	93.7	10.9	0.0505	0.0406		8.16	8.12
2/21/2017	CM_CC1	200209	0.00261	0.00271	64.3	67.1	9.53	0.0557	0.0515		8.11	8.22
3/1/2017	CM_CC1	200209	0.0025	0.00267	77.5	75.7	11	0.0685	0.0574	< 0.0010	8.11	8.06
3/7/2017	CM_CC1	200209	0.00336	0.00358	100	103	10.5	0.0676	0.188		8.19	8.11
3/22/2017	CM_CC1	200209									8.38	
3/22/2017	CM_CC1	200209	0.00338	0.00379	76.4	81.3	7.3	0.0628	0.31	< 0.0010		8.2
3/29/2017	CM_CC1	200209	0.00339	0.00348	72.2	67.6	7.12	0.072	0.391	< 0.0010	8.56	8.06
4/4/2017	CM_CC1	200209									8.06	
4/5/2017	CM_CC1	200209	0.00446	0.00421	56.9	53.2	7.05	0.0627	0.366	< 0.0010	8.17	8.1
4/12/2017	CM_CC1	200209	0.0031	0.00311	65.6	61.1	6.37	0.0485	0.298	< 0.0010	8.06	8.16
4/19/2017	CM_CC1	200209	0.00299	0.0034	84.8	89.4	6.38	0.0449	0.311	< 0.0010	8.1	8.2
4/26/2017	CM_CC1	200209	0.00239	0.00248	57.8	59.1	5.19	0.0329	0.198	< 0.0010	8.14	8.22
5/2/2017	CM_CC1	200209	0.00263	0.00275	59.6	61.5	5.86	0.0354	0.214	< 0.0010	8.1	8.2
5/9/2017	CM_CC1	200209	0.00198	0.00196	43.6	40.6	5.91	0.0182	0.128	< 0.0010	8.08	8.24
5/16/2017	CM_CC1	200209	0.00149	0.00177	48	47	7.66	0.0158	0.103	0.0024	8.06	8.35
5/17/2017	CM_CC1	200209										
5/17/2017	CM_CC1	200209										
5/18/2017	CM_CC1	200209										
5/23/2017	CM_CC1	200209	0.00215	0.00242	54.9	54.5	6.51	0.0269	0.156	0.0017	8.33	8.37
5/30/2017	CM_CC1	200209	0.00197	0.00196	57.6	56.2	6.45	0.0159	0.135	< 0.0010	8.09	8.38
6/6/2017	CM_CC1	200209	0.00215	0.00224	68.2	64.8	5.9	0.0314	0.212	0.0014	8.31	8.27
6/14/2017	CM_CC1	200209	0.00302	0.00302	87.9	86.2	7.18	0.0355	0.316	< 0.0010	8.26	8.15
6/21/2017	CM_CC1	200209	0.00304	0.00304	106	103	6.87	0.0441	0.422	< 0.0010	8.28	8.01
6/28/2017	CM_CC1	200209	0.00306	0.00324	96.4	93.3	7.08	0.0489	0.322	< 0.0010	8.23	8.11
7/5/2017	CM_CC1	200209	0.00307	0.00304	102	101	7.66	0.053	0.245	< 0.0010	8.14	8.02
7/12/2017	CM_CC1	200209	0.0034	0.00345	102	101	7.9	0.0601	0.266	0.001	8.13	8.11
7/19/2017	CM_CC1	200209	0.00288	0.00282	81.7	78.7	8.37	0.0548	0.175	0.0018	8.19	8.26
7/25/2017	CM_CC1	200209	0.00267	0.00275	85.8	87	8.09	0.0588	0.168	< 0.0010	7.93	8.21
8/1/2017	CM_CC1	200209	0.00259	0.00266	70.5	75.1	8.02	0.0571	0.121	0.0013	8.07	8.11
8/8/2017	CM_CC1	200209	0.00233	0.0025	71.7	72.4	8.41	0.043	0.112	< 0.0010	8.18	8.14
8/15/2017	CM_CC1	200209	0.00229	0.00243	68.3	72.6	8.45	0.0406	0.0956	< 0.0010		8.12
8/15/2017	CM_CC1	200209									8.2	
8/22/2017	CM_CC1	200209	0.00223	0.00234	65.4	66.9	8.39	0.0412	0.0969	0.001	8.21	8.14
8/29/2017	CM_CC1	200209	0.00221	0.0022	59.4	57.7	8.48	0.0466	0.0863	< 0.0010	8.05	8.13
9/5/2017	CM_CC1	200209	0.00196	0.00211	52.8	59.5	8.69	0.0338	0.062	< 0.0010	7.97	8.12
9/12/2017	CM_CC1	200209	0.00203	0.00207	53.1	57.2	9.25	0.0856	0.0508	< 0.0010	8.13	8.06
9/19/2017	CM_CC1	200209	0.00111	0.00108	23.8	26.2	7.2	0.0093	< 0.0050	< 0.0010	8.05	8.03
10/4/2017	CM_CC1	200209	0.00212	0.00217	55.3	56.3	9.54	0.0478	0.0716	< 0.0010	8.35	8.29
11/7/2017	CM_CC1	200209	0.00241	0.00244	56	56.2	9.64	0.0476	0.125	< 0.0010	8.32	8.19
12/6/2017	CM_CC1	200209	0.00243	0.00254	53.6	54.6	8.64	0.0701	0.26	< 0.0050	8.29	8.2

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
1/17/2017	CM_CCPD	E206438	0.00228	0.00226	39.5	39.9	8.91	0.039	0.254	0.0027	7.94	8.14
2/1/2017	CM_CCPD	E206438	0.00138	0.00145	38.8	40.6	9.79	0.0126	0.0145	0.0027	7.9	7.93
3/1/2017	CM_CCPD	E206438	0.00146	0.00147	33.8	32.9	9.69	0.0138	< 0.0050	0.0017	7.82	7.94
4/5/2017	CM_CCPD	E206438	0.0052	0.0056	38.2	37	8.8	0.0922	0.43	0.0015	8.12	8.15
4/12/2017	CM_CCPD	E206438									7.77	
4/19/2017	CM_CCPD	E206438										
4/19/2017	CM_CCPD	E206438									8.11	
4/26/2017	CM_CCPD	E206438									8.17	
5/2/2017	CM_CCPD	E206438	0.00226	0.0024	37.6	39.2	8.71	0.0299	0.159	< 0.0010	8.86	8.05
5/6/2017	CM_CCPD	E206438										
5/9/2017	CM_CCPD	E206438									7.74	
5/16/2017	CM_CCPD	E206438									7.71	
5/17/2017	CM_CCPD	E206438										
5/17/2017	CM_CCPD	E206438										
5/18/2017	CM_CCPD	E206438										
5/23/2017	CM_CCPD	E206438									7.69	
5/30/2017	CM_CCPD	E206438	0.00138	0.00117	51.1	45.1	17.7	0.0107	0.0654	< 0.0010	7.12	8.16
6/6/2017	CM_CCPD	E206438	0.00101	0.00106	48.3	46.7	7.77	0.0096	0.0292	0.0019	7.37	7.71
6/14/2017	CM_CCPD	E206438	0.00107	0.000972	52.9	51.7	5.84	0.0098	0.0053	< 0.0010	7.29	8.26
6/21/2017	CM_CCPD	E206438	0.000918	0.000915	61	59.9	7.42	0.0064	< 0.0050	< 0.0010	7.4	7.92
6/28/2017	CM_CCPD	E206438	0.000961	0.000924	60.7	58.5	7.84	0.0114	0.0257	< 0.0010	7.42	8.05
7/5/2017	CM_CCPD	E206438	0.00106	0.00105	65	60.1	8.17	0.023	0.0321	< 0.0010	7.51	7.95
7/12/2017	CM_CCPD	E206438	0.00116	0.00116	59.8	58.5	8.19	0.0201	0.0289	0.0011	7.47	7.86
7/19/2017	CM_CCPD	E206438	0.000987	0.000962	57.2	51	8.55	0.0191	0.0122	< 0.0010	7.62	7.99
7/25/2017	CM_CCPD	E206438	0.000922	0.000922	62.4	63.3	8.7	0.0195	0.0077	< 0.0010	7.89	8.03
8/1/2017	CM_CCPD	E206438	0.000904	0.000923	61.4	65.1	8.92	0.0239	0.0104	0.0011	7.7	8.03
8/22/2017	CM_CCPD	E206438	0.000803	0.000917	64.8	63.6	8.79	0.0241	< 0.0050	< 0.0010	7.82	8.04
9/12/2017	CM_CCPD	E206438	0.00111	0.00116	58.9	63.4	10.2	0.0542	0.0559	< 0.0010	7.95	7.96
9/19/2017	CM_CCPD	E206438	0.00118	0.00117	56.3	62.1	10.7	0.0359	0.083	< 0.0010	8.05	7.98
10/3/2017	CM_CCPD	E206438	0.00132	0.00143	57.7	60.7	10.4	0.0358	0.118	< 0.0010	8.09	8.04
10/10/2017	CM_CCPD	E206438	0.00132	0.00135	52.8	57.1	10.5	0.0354	0.115	< 0.0010	8.11	7.98
10/11/2017	CM_CCPD	E206438										
10/24/2017	CM_CCPD	E206438	0.00282	0.00288	61.2	65.2	11	0.0467	0.621	< 0.0010	8.11	7.89
11/7/2017	CM_CCPD	E206438	0.00298	0.00301	65.6	69.4	11	0.0545	0.62	< 0.0010	8.21	8.08
11/22/2017	CM_CCPD	E206438	0.00282	0.00293	53	58.4	10.5	0.0407	0.556	< 0.0010	7.84	8.01
11/28/2017	CM_CCPD	E206438	0.00431	0.00453	131	144	11.1	0.0616	1.07	0.001	8.09	8.11
12/6/2017	CM_CCPD	E206438	0.00307	0.00296	77.3	83.2	10.6	0.0459	0.66	0.0022	8.05	8.16
12/12/2017	CM_CCPD	E206438	0.00273	0.00259	66	66.3	10.2	0.0292	0.54	< 0.0010	8.05	8.12
12/19/2017	CM_CCPD	E206438	0.00219	0.00231	58.8	61.9	9.96	0.0217	0.424	< 0.0010	8.07	8.02
12/27/2017	CM_CCPD	E206438	0.00212	0.00223	52.7	53.3	10.5	0.0307	0.313	< 0.0010	8.01	8.17
1/18/2017	CM_MC1	E258175	0.000867	0.000896	< 0.50	< 0.50	0.0336	< 0.0010	< 0.0050	0.004	8.17	8.27
2/1/2017	CM_MC1	E258175	0.000876	0.001	< 0.50	< 0.50	0.0339	0.001	< 0.0050	0.0042	8.17	8.09
3/1/2017	CM_MC1	E258175	0.000807	0.000821	< 0.50	< 0.50	0.0387	< 0.0010	< 0.0050	0.0037	8.13	8.04
4/5/2017	CM_MC1	E258175	0.000898	0.000873	< 0.50	< 0.50	0.0246	< 0.0010	0.0252	0.004	10.3	8.28
4/12/2017	CM_MC1	E258175	0.000757	0.000792	< 0.50	< 0.50	0.0186	< 0.0010	0.0513	0.0034	8.17	8.16
4/19/2017	CM_MC1	E258175	0.000809	0.000902	< 0.50	< 0.50	0.0176	< 0.0010	0.0194	0.003	8.04	8.21
4/26/2017	CM_MC1	E258175	0.000789	0.000845	< 0.50	< 0.50	0.0132	< 0.0010	0.0092	0.003	8.11	8.24

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
5/2/2017	CM_MC1	E258175	0.00074	0.000797	< 0.50	< 0.50	0.0122	< 0.0010	< 0.0050	0.0029	8.14	8.16
5/9/2017	CM_MC1	E258175	0.000585	0.000625	< 0.50	0.52	0.009	< 0.0010	0.0093	0.0028	7.3	8.17
5/16/2017	CM_MC1	E258175	0.00044	0.000622	< 0.50	< 0.50	0.0119	< 0.0010	< 0.0050	0.0047	5.65	8.3
5/23/2017	CM_MC1	E258175	0.000511	0.000647	< 0.50	1.07	0.0057	< 0.0010	< 0.0050	0.0047	7.84	8.17
5/30/2017	CM_MC1	E258175	0.000379	0.000574	0.62	1.37	0.0136	< 0.0010	< 0.0050	0.0035	7.94	8.19
6/6/2017	CM_MC1	E258175	0.00043	0.000519	< 0.50	0.95	0.0099	< 0.0010	< 0.0050	0.0044	7.77	8.07
6/14/2017	CM_MC1	E258175	0.000519	0.000585	< 0.50	0.88	0.16	< 0.0050	< 0.0050	< 0.0010	8.1	8.22
6/21/2017	CM_MC1	E258175	0.000482	0.000508	< 0.50	0.6	0.0074	< 0.0010	< 0.0050	0.0028	8.22	8.2
6/28/2017	CM_MC1	E258175	0.000642	0.000704	< 0.50	< 0.50	0.0117	< 0.0010	< 0.0050	0.0067	8.21	8.23
7/4/2017	CM_MC1	E258175	0.000733	0.000736	< 0.50	< 0.50	0.0083	< 0.0010	0.0097	0.0038		8.18
7/4/2017	CM_MC1	E258175									8.14	
7/12/2017	CM_MC1	E258175	0.000788	0.000795	< 0.50	< 0.50	0.0132	< 0.0010	0.0066	0.0054	8.18	8.28
7/19/2017	CM_MC1	E258175	0.000815	0.000823	< 0.50	< 0.50	0.0101	< 0.0010	0.0056	0.0053	8.01	8.37
7/25/2017	CM_MC1	E258175	0.000884	0.00085	< 0.50	< 0.50	0.0117	< 0.0010	0.0067	0.005	6.17	8.22
8/1/2017	CM_MC1	E258175	0.000889	0.000904	< 0.50	< 0.50	0.017	< 0.0010	0.0069	0.0055	8.21	8.21
8/8/2017	CM_MC1	E258175	0.000912	0.000934	< 0.50	< 0.50	0.0162	< 0.0010	0.0067	0.0044	7.92	8.25
8/15/2017	CM_MC1	E258175	0.000879	0.000912	< 0.50	< 0.50	0.0136	< 0.0010	< 0.0050	0.0048	8.47	8.39
8/22/2017	CM_MC1	E258175	0.000865	0.000906	< 0.50	< 0.50	0.0306	< 0.0010	0.0061	0.0053	7.98	8.34
8/29/2017	CM_MC1	E258175	0.000851	0.000893	< 0.50	< 0.50	0.0221	< 0.0010	0.0184	0.0033	8.12	8.31
9/12/2017	CM_MC1	E258175	0.000883	0.000971	< 0.50	< 0.50	0.0714	0.0013	0.005	0.0019	7.7	8.4
9/19/2017	CM_MC1	E258175	0.000874	0.000924	< 0.50	1.32	0.0203	< 0.0010	0.0065	0.0012	8.48	8.5
9/26/2017	CM_MC1	E258175	0.000833	0.00103	< 0.50	< 0.50	0.0077	< 0.0010	0.0066	0.0029	8.14	8.29
10/2/2017	CM_MC1	E258175	0.000903	0.000865	< 0.50	< 0.50	0.0147	< 0.0010	< 0.0050	0.0035	8.32	8.27
10/10/2017	CM_MC1	E258175	0.000879	0.000897	< 0.50	< 0.50	0.0109	< 0.0010	< 0.0050	0.0033	8.46	8.31
10/17/2017	CM_MC1	E258175	0.000841	0.000848	< 0.50	< 0.50	0.0103	< 0.0010	0.0105	0.0035	8.13	8.25
10/24/2017	CM_MC1	E258175	0.000771	0.000873	< 0.50	< 0.50	0.0243	0.0011	0.0093	0.0036	8.29	8.08
10/31/2017	CM_MC1	E258175	0.000877	0.000903	< 0.50	< 0.50	0.278	< 0.0050	< 0.0050	0.0034	8.12	8.21
11/7/2017	CM_MC1	E258175	0.000886	0.000909	< 0.50	< 0.50	0.0187	< 0.0010	0.0056	0.0029	8.17	8.25
12/6/2017	CM_MC1	E258175	0.00084	0.000855	< 0.50	< 0.50	0.055	< 0.0050	0.0098	0.005	8.5	8.16
1/5/2017	CM_MC2	E258937	0.00181	0.00178	41.7	44	6.38	0.0213	0.0301		8.3	8.09
1/12/2017	CM_MC2	E258937	0.00161	0.00169	36.4	37.4	5.64	0.0176	0.0154		8.12	8.11
1/17/2017	CM_MC2	E258937	0.00162	0.00172	39.1	41.5	6.01	0.0331	0.0288	0.002	8.32	8.31
1/24/2017	CM_MC2	E258937	0.00168	0.00172	34.4	34.2	5.79	0.0345	0.0211		8.18	8.01
1/29/2017	CM_MC2	E258937									8.46	
1/30/2017	CM_MC2	E258937	0.00143	0.00157	36.8	37.5	5.49	0.013	0.01	0.0025	8.12	8.17
1/31/2017	CM_MC2	E258937	0.00161	0.00171	42.4	43.7	6.65	0.0176	0.0107			8.16
2/1/2017	CM_MC2	E258937	0.0015	0.00164	35	37.7	6.07	0.017	0.0126	0.003	8.21	8.11
2/7/2017	CM_MC2	E258937	0.00144	0.00146	33.8	34.9	5.21	0.0178	0.017		8.39	8.09
2/21/2017	CM_MC2	E258937	0.00144	0.00152	23.4	24.8	4.23	0.0178	0.012		8.15	8.31
2/28/2017	CM_MC2	E258937	0.00142	0.00137	25.6	28	4.92	0.0114	0.0081	0.0022	8.21	8.41
3/1/2017	CM_MC2	E258937	0.00144	0.00148	29.6	29.5	4.73	0.0174	0.0059	0.002	8.35	8.2
3/7/2017	CM_MC2	E258937	0.00175	0.00175	37.9	39.1	4.93	0.025	0.0498	0.0024	8.25	8.14
3/14/2017	CM_MC2	E258937	0.00178	0.00182	42.2	39.1	4.38	0.0306	0.0804	0.0022	8.38	8.23
3/21/2017	CM_MC2	E258937	0.00138	0.00143	17.1	18	1.93	0.0118	0.0606	0.0035	8.58	8.26
3/22/2017	CM_MC2	E258937									8.34	
3/29/2017	CM_MC2	E258937									8.71	
4/5/2017	CM_MC2	E258937	0.00235	0.00225	24	21.1	3.36	0.0276	0.139	< 0.0010	8.41	8.36

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
4/12/2017	CM_MC2	E258937									8.15	
4/12/2017	CM_MC2	E258937	0.00161	0.00155	24.6	23.1	2.7	0.0189	0.137	< 0.0010	8.15	8.26
4/19/2017	CM_MC2	E258937	0.00169	0.00173	33.2	34.5	2.77	0.0198	0.11	< 0.0010	8.31	8.31
4/24/2017	CM_MC2	E258937	0.00132	0.00128	24.2	23.8	2.19	0.0127	0.0734	< 0.0010	8.38	8.22
5/2/2017	CM_MC2	E258937	0.00139	0.00171	21.6	26.8	2.29	0.013	0.0524	< 0.0010	8.05	8.26
5/9/2017	CM_MC2	E258937	0.000974	0.00102	10.9	13.8	2.04	0.0064	0.044	0.0019	8.22	8.24
5/16/2017	CM_MC2	E258937	0.000883	0.00104	16.6	17.2	2.84	0.0057	0.0165	0.0024	8.3	8.26
5/23/2017	CM_MC2	E258937	0.000972	0.00114	13.4	16.9	1.92	0.0082	0.0369	0.0041	8.05	8.28
5/30/2017	CM_MC2	E258937	0.000729	0.000972	11.3	14.6	1.64	0.0054	0.0155	0.003	8.25	8.3
6/6/2017	CM_MC2	E258937	0.000832	0.000959	13.9	16.7	1.42	0.0063	0.0392	0.0057	8.29	8.17
6/13/2017	CM_MC2	E258937	0.000951	0.00105	16.4	19.5	1.34	0.0072	0.0468	0.0033	8.08	8.2
6/14/2017	CM_MC2	E258937	0.000931	0.0011	15.8	17.1	1.18	0.0075	0.0569	0.0021	8.36	8.31
6/21/2017	CM_MC2	E258937	0.000922	0.000978	18.6	20.6	1.33	0.0097	0.0665	0.0027	8.41	8.4
6/28/2017	CM_MC2	E258937	0.00111	0.00114	17	17.4	1.41	0.0107	0.0434	0.0057	8.44	8.27
7/4/2017	CM_MC2	E258937	0.00121	0.00122	20.7	22.3	1.71	0.014	0.0272	0.0013	8.61	8.38
7/12/2017	CM_MC2	E258937	0.00156	0.00159	29.6	29.8	2.51	0.022	0.036	0.0016	8.55	8.41
7/19/2017	CM_MC2	E258937	0.00152	0.00148	28.2	26.8	3.08	0.021	0.0134	< 0.0010	8.45	8.45
7/25/2017	CM_MC2	E258937	0.0015	0.00152	28.1	29.2	3.05	0.0237	0.0201	< 0.0010	8.4	8.47
8/1/2017	CM_MC2	E258937	0.00152	0.00156	24.2	25.1	2.98	0.0195	0.0177	0.0017	8.4	8.33
8/8/2017	CM_MC2	E258937	0.00156	0.00152	26.8	30.3	3.69	0.0183	0.0157	< 0.0010	8.38	8.37
8/15/2017	CM_MC2	E258937	0.00137	0.00147	23.2	24.7	3.52	0.0139	< 0.0050	< 0.0010	8.3	8.34
8/22/2017	CM_MC2	E258937	0.00141	0.00163	25.3	25.7	4.04	0.0139	0.0142	< 0.0010	8.05	8.26
8/29/2017	CM_MC2	E258937	0.00151	0.00152	22.3	21.8	4.18	0.0142	0.0106	< 0.0010	8.4	8.36
9/12/2017	CM_MC2	E258937	0.00138	0.00148	21.6	23.8	5.45	0.0302	0.0088	< 0.0010	8.41	8.12
9/19/2017	CM_MC2	E258937	0.000999	0.00102	10.5	12.2	3.39	0.0032	< 0.0050	< 0.0010	8.54	8.18
9/26/2017	CM_MC2	E258937	0.000912	0.00107	7.84	7.69	2.58	0.0028	0.0076	< 0.0010	8.41	8.32
10/2/2017	CM_MC2	E258937	0.00134	0.00137	13.6	14.6	3.5	0.0071	0.0282	< 0.0010	8.65	8.25
10/2/2017	CM_MC2	E258937	0.00138	0.00142	16.3	17.1	3.73	0.0099	0.0075	< 0.0010	8.42	8.33
10/3/2017	CM_MC2	E258937	0.00143	0.00145	18.3	19.3	4.57	0.0168	0.005	< 0.0010	8.72	8.32
10/5/2017	CM_MC2	E258937	0.00129	0.0013	17	17.2	4.08	0.0131	< 0.0050	< 0.0010	8.29	8.33
10/6/2017	CM_MC2	E258937	0.00136	0.00156	17.6	18.5	4.07	0.0087	0.0171	< 0.0010	8.56	8.25
10/10/2017	CM_MC2	E258937	0.0012	0.00123	14.9	15.3	3.96	0.011	0.0061	< 0.0010	8.47	8.27
10/11/2017	CM_MC2	E258937	0.00127	0.00134	15.8	16.3	4.24	0.0124	1.61	< 0.0010	8.58	8.27
10/12/2017	CM_MC2	E258937	0.00128	0.00149	16	16.6	4	0.011	0.0264	< 0.0010	8.53	8.31
10/16/2017	CM_MC2	E258937	0.00127	0.0013	15.6	17	4.01	0.01	0.011	< 0.0010	8.58	8.2
10/17/2017	CM_MC2	E258937	0.00125	0.00127	14.4	14.9	3.94	0.0102	0.0117	< 0.0010	8.75	8.35
10/19/2017	CM_MC2	E258937	0.00163	0.00193	24.2	44.9	4.49	0.032	0.0719	< 0.0010	8.7	8.26
10/20/2017	CM_MC2	E258937	0.0013	0.00133	12.9	13.8	2.79	0.0171	0.0312	< 0.0010	8.82	8.24
10/23/2017	CM_MC2	E258937	0.00138	0.00148	14.1	15.1	3.09	0.0167	0.0366	< 0.0010	8.75	8.28
10/24/2017	CM_MC2	E258937	0.00138	0.00141	14.9	15.3	3.33	0.0153	0.0442	< 0.0010	8.42	8.21
10/26/2017	CM_MC2	E258937	0.00129	0.0013	15.4	16.1	3.36	0.0157	0.032	0.0013	8.62	8.29
10/30/2017	CM_MC2	E258937	0.00139	0.00147	19.4	19.4	3.82	0.0166	0.0406	< 0.0010	8.66	8.41
10/31/2017	CM_MC2	E258937	0.00144	0.00149	19	22.5	4.49	0.0233	0.032	< 0.0010	8.49	8.23
11/7/2017	CM_MC2	E258937	0.00141	0.00139	17.8	17.7	3.94	0.0122	0.0163	< 0.0010	8.58	8.37
11/9/2017	CM_MC2	E258937	0.00148	0.00157	17.7	18	4.07	0.0141	0.0192	0.001	8.63	8.31
11/14/2017	CM_MC2	E258937	0.00125	0.00131	15.3	15.5	3.98	0.0136	0.0067	0.0011	8.71	8.24
11/21/2017	CM_MC2	E258937	0.00131	0.00137	14.2	14	3.95	0.0204	0.0234	< 0.0010	8.63	8.25

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
11/28/2017	CM_MC2	E258937	0.00156	0.00156	21.2	23.7	3	0.0189	0.107	0.0023	8.35	8.27
12/6/2017	CM_MC2	E258937	0.00167	0.0016	24.9	27.4	4.53	0.034	0.113	0.0021	8.25	8.27
12/12/2017	CM_MC2	E258937	0.00152	0.00146	20	21.2	4.31	0.0326	0.0669	< 0.0010	8.3	8.23
12/19/2017	CM_MC2	E258937	0.00128	0.00129	18.1	18.9	3.77	0.0324	0.0378	< 0.0010	8.46	8.15
12/27/2017	CM_MC2	E258937	0.00132	0.00149	17.4	18.5	4.38	0.0313	0.0401	< 0.0010	8.27	8.15
4/12/2017	CM_PC2	E298733									8.13	
4/19/2017	CM_PC2	E298733	0.00141	0.00151	1.43	1.88	0.654	< 0.0010	0.0194	0.004	8.25	8.23
4/26/2017	CM_PC2	E298733									8.18	
5/2/2017	CM_PC2	E298733	0.000814	0.000897	1.36	1.51					8.21	
5/9/2017	CM_PC2	E298733									7.92	
5/16/2017	CM_PC2	E298733									8.4	
5/23/2017	CM_PC2	E298733									8.23	
5/30/2017	CM_PC2	E298733									7.94	
6/6/2017	CM_PC2	E298733	0.000595	0.000684	2.02	1.85					7.97	
6/14/2017	CM_PC2	E298733									8	
6/21/2017	CM_PC2	E298733									8.06	
6/28/2017	CM_PC2	E298733									7.59	
7/5/2017	CM_PC2	E298733	0.000665	0.000652	1.37	1.38	0.106	< 0.0010	0.0075	0.0025	7.91	8.11
7/12/2017	CM_PC2	E298733										
7/19/2017	CM_PC2	E298733										
7/25/2017	CM_PC2	E298733										
8/1/2017	CM_PC2	E298733										
8/8/2017	CM_PC2	E298733										
8/15/2017	CM_PC2	E298733										
8/22/2017	CM_PC2	E298733										
8/29/2017	CM_PC2	E298733										
9/5/2017	CM_PC2	E298733										
9/12/2017	CM_PC2	E298733										
9/19/2017	CM_PC2	E298733										
9/26/2017	CM_PC2	E298733										
10/3/2017	CM_PC2	E298733										
10/10/2017	CM_PC2	E298733										
10/17/2017	CM_PC2	E298733										
10/24/2017	CM_PC2	E298733										
10/31/2017	CM_PC2	E298733										
11/7/2017	CM_PC2	E298733										
11/14/2017	CM_PC2	E298733										
11/21/2017	CM_PC2	E298733										
11/24/2017	CM_PC2	E298733	0.000917	0.00093	2.88	3.02	0.955	< 0.0010	0.0055	0.006	8.42	8.48
11/28/2017	CM_PC2	E298733										
12/6/2017	CM_PC2	E298733										
12/12/2017	CM_PC2	E298733										
12/19/2017	CM_PC2	E298733										
12/27/2017	CM_PC2	E298733										
1/17/2017	CM_SOW	E298734	0.000459	0.000508	3.27	3.55	0.59	< 0.010	0.0105	< 0.0010	7.73	8
2/1/2017	CM_SOW	E298734	0.00044	0.00048	3.4	4.1	0.651	0.0053	< 0.0050	0.0016	7.73	7.83
3/1/2017	CM_SOW	E298734	0.000661	0.000655	3.51	3.43	0.619	0.0124	0.0123	0.001	7.67	7.77

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
4/5/2017	CM_SOW	E298734	0.00118	0.00124	3.52	4.18	0.647	< 0.0050	0.0356	0.0017	7.81	8.12
5/2/2017	CM_SOW	E298734	0.00118	0.00121	7.61	8.36	1.02	0.0051	< 0.0050	< 0.0010	8.56	8.03
6/6/2017	CM_SOW	E298734	0.000878	0.000905	4.59	4.68	0.153	< 0.0050	0.0217	0.0016	8.01	8.18
7/4/2017	CM_SOW	E298734	0.00158	0.00152	5.07	5.82	< 0.025	< 0.0050	0.0065	< 0.0010	7.94	8.22
8/1/2017	CM_SOW	E298734	0.00106	0.00107	3.5	3.77	0.033	< 0.0050	0.0067	0.001	8.06	8.14
9/12/2017	CM_SOW	E298734	0.00105	0.00114	2.94	3.29	0.742	0.0119	0.0063	< 0.0010	8.31	8.24
10/4/2017	CM_SOW	E298734	0.00161	0.00152	2.81	3.18	0.037	< 0.0050	< 0.0050	< 0.0010	8.39	8.31
11/7/2017	CM_SOW	E298734	0.00406	0.00518	4.87	27	0.193	0.0083	0.0229	0.0164	8.14	8.18
12/5/2017	CM_SOW	E298734	0.00421	0.00575	3.25	69.9	0.232	0.0083	0.0538	0.0012	8.77	7.85
1/5/2017	CM_SPD	E102488	0.00554	0.00552	214	219	20.4	0.129	0.185		8.09	8.08
1/17/2017	CM_SPD	E102488	0.00517	0.00529	221	228	22.2	0.144	0.173	< 0.0010	8.15	8.23
1/24/2017	CM_SPD	E102488	0.00558	0.00536	202	176	20.8	0.177	0.166		8.34	8
1/29/2017	CM_SPD	E102488									8.41	
1/30/2017	CM_SPD	E102488	0.00506	0.00511	213	211	21.6	0.105	0.146		8.18	8.01
1/31/2017	CM_SPD	E102488	0.0046	0.00515	223	241	22	0.1	0.144			8.06
2/1/2017	CM_SPD	E102488	0.00452	0.00497	210	236	21.9	0.0913	0.143	0.0014	8.18	8.11
2/7/2017	CM_SPD	E102488	0.00493	0.00483	225	215	19.4	0.108	0.156		8.21	8.11
2/21/2017	CM_SPD	E102488	0.0051	0.00529	149	159	15.5	0.149	0.181		8.25	8.23
3/1/2017	CM_SPD	E102488	0.0045	0.00433	160	145	17.6	0.153	0.166	< 0.0010	8.22	8.11
3/7/2017	CM_SPD	E102488	0.00628	0.00697	197	252	16.6	0.176	0.49		8.37	8.15
3/29/2017	CM_SPD	E102488									8.55	
3/29/2017	CM_SPD	E102488					9.15	0.091				
4/5/2017	CM_SPD	E102488	0.00638	0.00645	106	110	8.59	0.0762	0.93	< 0.0010	8.43	8.04
4/10/2017	CM_SPD	E102488										
4/12/2017	CM_SPD	E102488					8.12	0.0716			8.06	
4/19/2017	CM_SPD	E102488					7.54	0.0639			8.02	
4/26/2017	CM_SPD	E102488					6.1	0.0516			8.07	
4/27/2017	CM_SPD	E102488										
4/28/2017	CM_SPD	E102488										
4/28/2017	CM_SPD	E102488										
5/2/2017	CM_SPD	E102488	0.00398	0.00415	121	123	7.13	0.0416	0.506	< 0.0010	8.75	8.17
5/5/2017	CM_SPD	E102488										
5/5/2017	CM_SPD	E102488										
5/6/2017	CM_SPD	E102488										
5/6/2017	CM_SPD	E102488										
5/6/2017	CM_SPD	E102488										
5/6/2017	CM_SPD	E102488										
5/7/2017	CM_SPD	E102488										
5/9/2017	CM_SPD	E102488					5.37	0.0214			8.26	
5/16/2017	CM_SPD	E102488					6.47	0.031			8.44	
5/17/2017	CM_SPD	E102488										
5/17/2017	CM_SPD	E102488										
5/18/2017	CM_SPD	E102488										
5/23/2017	CM_SPD	E102488					7.12	0.0682			8.27	
5/30/2017	CM_SPD	E102488					8.31	0.0693			8.2	
6/6/2017	CM_SPD	E102488	0.00668	0.00704	191	180	8.71	0.0777	0.877	0.0011	8.07	8.02
6/14/2017	CM_SPD	E102488					9.01	0.0889			9.12	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
6/21/2017	CM_SPD	E102488					9.99	0.104			8.07	
6/28/2017	CM_SPD	E102488					10.1	0.108			8.23	
7/4/2017	CM_SPD	E102488	0.00771	0.00781	234	237	11.2	0.129	0.89	< 0.0010	8.08	7.96
7/12/2017	CM_SPD	E102488					11.8	0.135			8.12	
7/19/2017	CM_SPD	E102488					12.7	0.111			7.8	
7/25/2017	CM_SPD	E102488					13.3	0.139			8.07	
8/1/2017	CM_SPD	E102488	0.00796	0.00759	200	232	13.3	0.143	0.651	0.0011	7.94	8.03
8/8/2017	CM_SPD	E102488					14.4	0.118			7.99	
8/15/2017	CM_SPD	E102488					15.1	0.115			8.33	
8/22/2017	CM_SPD	E102488	0.00587	0.00618	171	173	15.1	0.112	0.431	< 0.0010	7.96	8.09
8/29/2017	CM_SPD	E102488					15.6	0.12			8.17	
9/5/2017	CM_SPD	E102488					16.2	0.104			8.15	
9/12/2017	CM_SPD	E102488	0.00548	0.00586	153	163	16.2	0.121	0.316	< 0.0010	8.28	8.12
9/19/2017	CM_SPD	E102488					16.6	0.131			8.44	
10/3/2017	CM_SPD	E102488	0.00543	0.00577	141	149	16.5	0.129	0.277	< 0.0010	8.36	8.08
10/19/2017	CM_SPD	E102488										
10/19/2017	CM_SPD	E102488										
10/20/2017	CM_SPD	E102488										
10/23/2017	CM_SPD	E102488										
11/7/2017	CM_SPD	E102488	0.00449	0.00461	147	151	16.4	0.0864	0.304	0.001	8.41	8.13
11/22/2017	CM_SPD	E102488	0.00352	0.00379	120	131	16.2	0.146	0.25	< 0.0010	8.26	8.02
12/6/2017	CM_SPD	E102488	0.00313	0.00308	78.2	82.2	11.2	0.127	0.189	< 0.0010	8.23	8.23
1/10/2017	EV_AQ1	E210369										
2/8/2017	EV_AQ1	E210369										
3/7/2017	EV_AQ1	E210369										
3/15/2017	EV_AQ1	E210369	0.00146	0.00147	0.78	1.04	0.231	0.0053	0.0683	0.0596	8.01	7.85
3/15/2017	EV_AQ1	E210369										
3/16/2017	EV_AQ1	E210369										
3/17/2017	EV_AQ1	E210369										
3/18/2017	EV_AQ1	E210369										
3/19/2017	EV_AQ1	E210369										
3/19/2017	EV_AQ1	E210369										
3/20/2017	EV_AQ1	E210369										
3/21/2017	EV_AQ1	E210369										
3/22/2017	EV_AQ1	E210369	0.00158	0.00163	1.21	2.98	0.213	< 0.0010	0.0086	0.017	8.14	8.36
3/23/2017	EV_AQ1	E210369										
3/24/2017	EV_AQ1	E210369										
3/28/2017	EV_AQ1	E210369										
4/4/2017	EV_AQ1	E210369	0.00136	0.00148	1.16	2.13	0.698	< 0.0010	< 0.0050	0.0116	8.09	8.44
4/12/2017	EV_AQ1	E210369										
4/20/2017	EV_AQ1	E210369										
4/26/2017	EV_AQ1	E210369										
5/3/2017	EV_AQ1	E210369	0.00125	0.00126	0.86	1.2	2.14	0.0025	< 0.0050	< 0.0010	8.43	8.5
5/10/2017	EV_AQ1	E210369										
5/17/2017	EV_AQ1	E210369										
5/24/2017	EV_AQ1	E210369										
5/31/2017	EV_AQ1	E210369										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
6/5/2017	EV_AQ1	E210369	0.00137	0.00142	0.92	1.45	1.7	0.003	0.0056	0.006	8.35	8.5
6/14/2017	EV_AQ1	E210369										
6/21/2017	EV_AQ1	E210369										
6/28/2017	EV_AQ1	E210369										
7/5/2017	EV_AQ1	E210369										
7/11/2017	EV_AQ1	E210369										
8/2/2017	EV_AQ1	E210369										
9/12/2017	EV_AQ1	E210369										
10/3/2017	EV_AQ1	E210369										
11/15/2017	EV_AQ1	E210369										
12/6/2017	EV_AQ1	E210369										
1/10/2017	EV_AQ6	E302170	0.00138	0.00135	1.17	1.23	0.112	< 0.0010	< 0.0050	0.0079	8.08	8.38
2/8/2017	EV_AQ6	E302170										
2/16/2017	EV_AQ6	E302170	0.00135	0.00147	1.47	2.36	0.193	0.002	0.0214	0.0243	6.02	8.18
2/23/2017	EV_AQ6	E302170										
3/8/2017	EV_AQ6	E302170	0.00122	0.00127	0.99	1.07	0.155	< 0.0050	< 0.0050	0.0092	8.14	8.38
3/15/2017	EV_AQ6	E302170										
3/15/2017	EV_AQ6	E302170										
3/16/2017	EV_AQ6	E302170										
3/17/2017	EV_AQ6	E302170										
3/18/2017	EV_AQ6	E302170										
3/18/2017	EV_AQ6	E302170										
3/19/2017	EV_AQ6	E302170										
3/20/2017	EV_AQ6	E302170										
3/21/2017	EV_AQ6	E302170										
3/22/2017	EV_AQ6	E302170										
3/23/2017	EV_AQ6	E302170										
3/24/2017	EV_AQ6	E302170										
3/28/2017	EV_AQ6	E302170										
3/31/2017	EV_AQ6	E302170										
4/4/2017	EV_AQ6	E302170	0.00134	0.00144	1.11	1.85	0.855	< 0.0010	< 0.0050	0.0132	8.32	8.47
4/12/2017	EV_AQ6	E302170										
4/20/2017	EV_AQ6	E302170										
4/26/2017	EV_AQ6	E302170										
5/2/2017	EV_AQ6	E302170										
5/3/2017	EV_AQ6	E302170	0.00124	0.00117	0.82	1.08	2.56	0.0026	< 0.0050	< 0.0010	8.52	8.5
5/7/2017	EV_AQ6	E302170										
5/10/2017	EV_AQ6	E302170										
5/17/2017	EV_AQ6	E302170										
5/18/2017	EV_AQ6	E302170										
5/24/2017	EV_AQ6	E302170										
5/31/2017	EV_AQ6	E302170										
6/5/2017	EV_AQ6	E302170	0.00128	0.00126	0.93	1.12	2.69	< 0.0050	< 0.0050	0.0024	8.24	8.37
6/14/2017	EV_AQ6	E302170										
6/21/2017	EV_AQ6	E302170										
6/28/2017	EV_AQ6	E302170										
7/5/2017	EV_AQ6	E302170										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
7/11/2017	EV_AQ6	E302170	0.0021	0.00226	1.82	3.57	0.339	0.0042	0.0396	0.0037	8.02	8.38
8/2/2017	EV_AQ6	E302170	0.00165	0.00165	1.03	1.2					8.37	
8/2/2017	EV_AQ6	E302170					0.0392	< 0.0010	0.0075	< 0.0010		8.46
8/10/2017	EV_AQ6	E302170									8.32	
9/12/2017	EV_AQ6	E302170	0.00146	0.00151	1.24	1.54	0.0241	0.001	0.008	< 0.0010	8.41	8.37
10/3/2017	EV_AQ6	E302170	0.00143	0.00145	1.15	1.17	0.0722	0.0012	0.0091	0.0013	8.17	8.39
11/15/2017	EV_AQ6	E302170	0.00134	0.00131	0.74	0.79	0.072	< 0.0010	0.0106	0.0041	8.39	8.5
11/23/2017	EV_AQ6	E302170										
11/23/2017	EV_AQ6	E302170										
11/24/2017	EV_AQ6	E302170										
12/6/2017	EV_AQ6	E302170	0.00138	0.00143	0.92	0.98	0.203	< 0.0010	0.0081	0.0043	8.22	8.42
1/10/2017	EV_BC1	E102685										
2/7/2017	EV_BC1	E102685										
3/7/2017	EV_BC1	E102685										
3/16/2017	EV_BC1	E102685										
3/17/2017	EV_BC1	E102685										
3/18/2017	EV_BC1	E102685										
3/18/2017	EV_BC1	E102685										
3/20/2017	EV_BC1	E102685	0.00905	0.00991	22.1	23.2	23.7	0.0128	0.132	0.0056	8.34	8.1
3/29/2017	EV_BC1	E102685	0.00715	0.00778	24.1	26.7	34.7	0.0478	0.171	0.0076	8.14	8.09
4/5/2017	EV_BC1	E102685	0.00794	0.00783	29.2	28.3	38.2	0.047	0.167	0.0081	8.22	8.3
4/7/2017	EV_BC1	E102685										
4/12/2017	EV_BC1	E102685										
4/20/2017	EV_BC1	E102685										
4/26/2017	EV_BC1	E102685										
5/2/2017	EV_BC1	E102685	0.00901	0.00896	31.5	33.8	53.1	0.063	< 0.0050	< 0.0010	8.2	8.27
5/10/2017	EV_BC1	E102685										
5/18/2017	EV_BC1	E102685										
5/24/2017	EV_BC1	E102685										
5/31/2017	EV_BC1	E102685										
6/2/2017	EV_BC1	E102685										
6/6/2017	EV_BC1	E102685	0.0164	0.0164	40.2	42.5	25.7	0.026	0.0409	< 0.0010	8.2	8.26
6/14/2017	EV_BC1	E102685										
6/21/2017	EV_BC1	E102685										
6/28/2017	EV_BC1	E102685										
7/5/2017	EV_BC1	E102685										
7/12/2017	EV_BC1	E102685	0.017	0.0171	31.4	31.8	24.7	0.0213	0.139	< 0.0010	7.99	8.08
8/3/2017	EV_BC1	E102685	0.0134	0.0135	40.2	39.9					8.06	
8/3/2017	EV_BC1	E102685					28.3	0.038	0.0685	< 0.0010		8.19
8/9/2017	EV_BC1	E102685									8.15	
9/12/2017	EV_BC1	E102685										
10/2/2017	EV_BC1	E102685										
10/4/2017	EV_BC1	E102685	0.0118	0.0118	23.3	26.4	25.6	0.0792	0.166	< 0.0010	8.18	8.1
11/10/2017	EV_BC1	E102685										
11/15/2017	EV_BC1	E102685	0.0161	0.0164	30.6	31.6	43.1	0.0527	0.185	< 0.0010	8.25	8.16
11/23/2017	EV_BC1	E102685										
12/6/2017	EV_BC1	E102685	0.0205	0.0213	39.2	38.7	31.6	0.019	0.0324	< 0.0010	8.05	8.23

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
1/9/2017	EV_BLM2	E298592	0.000447	0.000454	< 0.50	< 0.50	0.582	< 0.0010	< 0.0050	0.0351	8.51	8.31
2/23/2017	EV_BLM2	E298592	0.000495	0.00054	< 0.50	< 0.50	0.482	< 0.0010	0.0081	0.0295	8.54	8.3
3/6/2017	EV_BLM2	E298592	0.000496	0.000502	< 0.50	< 0.50	0.478	< 0.0010	0.0076	0.0318	8.22	8.36
3/15/2017	EV_BLM2	E298592										
3/22/2017	EV_BLM2	E298592										
3/28/2017	EV_BLM2	E298592										
4/3/2017	EV_BLM2	E298592	0.000495	0.000517	< 0.50	1.27	0.193	< 0.0010	< 0.0050	0.0294	8.31	8.36
4/11/2017	EV_BLM2	E298592										
4/19/2017	EV_BLM2	E298592										
4/20/2017	EV_BLM2	E298592										
4/21/2017	EV_BLM2	E298592										
4/22/2017	EV_BLM2	E298592										
4/23/2017	EV_BLM2	E298592										
4/25/2017	EV_BLM2	E298592										
5/2/2017	EV_BLM2	E298592	0.000508	0.000628	< 0.50	6.31	0.203	< 0.0010	< 0.0050	0.0324	8.22	8.34
5/9/2017	EV_BLM2	E298592										
5/16/2017	EV_BLM2	E298592										
5/23/2017	EV_BLM2	E298592										
5/24/2017	EV_BLM2	E298592										
5/30/2017	EV_BLM2	E298592										
6/5/2017	EV_BLM2	E298592	0.000362	0.000403	< 0.50	1.68	0.604	< 0.0010	< 0.0050	0.0328	8.17	8.34
6/13/2017	EV_BLM2	E298592										
6/20/2017	EV_BLM2	E298592										
6/27/2017	EV_BLM2	E298592										
7/4/2017	EV_BLM2	E298592										
7/10/2017	EV_BLM2	E298592	0.000387	0.000384	< 0.50	< 0.50	0.571	< 0.0010	< 0.0050	0.0309	8.29	8.41
8/1/2017	EV_BLM2	E298592	0.000429	0.000434	< 0.50	0.54	0.563	< 0.0010	< 0.0050	0.0301	8.37	8.41
8/10/2017	EV_BLM2	E298592									8.17	
8/15/2017	EV_BLM2	E298592										
9/11/2017	EV_BLM2	E298592	0.00043	0.000441	< 0.50	< 0.50	0.449	< 0.0010	0.0193	0.0293	8.49	8.44
10/2/2017	EV_BLM2	E298592	0.000402	0.000407	< 0.50	0.66	0.376	0.001	0.0213	0.037	8.42	8.43
11/14/2017	EV_BLM2	E298592	0.00041	0.00044	< 2.5	< 2.5	0.356	< 0.0010	< 0.0050	0.0308	8.45	8.33
12/1/2017	EV_BLM2	E298592	0.000462	0.000466	< 0.50	0.83	0.336	< 0.0010	0.0195	0.0315	8.14	8.34
1/9/2017	EV_DC1	E298590	0.00128	0.00132	4.94	5.15	5	< 0.010	0.0094	0.0047	8.06	8.22
2/21/2017	EV_DC1	E298590	0.00127	0.00144	5.17	5.19	4.76	< 0.010	0.0214	0.0053	5.83	8.27
3/6/2017	EV_DC1	E298590	0.00134	0.00137	4.57	5.12	4.91	< 0.010	0.0118	0.0047	6.86	8.15
3/15/2017	EV_DC1	E298590									7.91	
3/21/2017	EV_DC1	E298590										
3/28/2017	EV_DC1	E298590										
4/3/2017	EV_DC1	E298590	0.0013	0.00134	3.77	4.19	3.4	< 0.0050	< 0.0050	0.004	8.19	8.36
4/11/2017	EV_DC1	E298590										
4/19/2017	EV_DC1	E298590										
4/25/2017	EV_DC1	E298590										
5/1/2017	EV_DC1	E298590	0.00115	0.0012	3.45	3.37	2.68	< 0.0050	< 0.0050	0.0019	8.29	8.37
5/9/2017	EV_DC1	E298590										
5/16/2017	EV_DC1	E298590										
5/23/2017	EV_DC1	E298590										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
5/30/2017	EV_DC1	E298590										
6/5/2017	EV_DC1	E298590	0.0013	0.00135	4.12	4.46	2.9	< 0.0050	0.0064	0.0023	8.16	8.42
6/13/2017	EV_DC1	E298590										
6/20/2017	EV_DC1	E298590										
6/27/2017	EV_DC1	E298590										
7/4/2017	EV_DC1	E298590										
7/10/2017	EV_DC1	E298590	0.00138	0.00139	4.89	4.89	3.6	0.0121	0.0119	0.0021	8.12	8.25
8/1/2017	EV_DC1	E298590	0.00139	0.00142	5.22	5.46	3.86	0.035	0.0095	0.0015	8.05	8.35
9/11/2017	EV_DC1	E298590	0.0013	0.00134	4.84	5.13	4.1	0.0123	0.0235	< 0.0010	8.26	8.22
10/2/2017	EV_DC1	E298590										
10/4/2017	EV_DC1	E298590	0.00119	0.00126	4.65	5.04	4.58	< 0.0050	0.0107	0.0025	8.12	8.1
10/6/2017	EV_DC1	E298590										
11/14/2017	EV_DC1	E298590	0.00118	0.0015	4.5	4.6	4.94	0.0111	0.0065	0.0039	8.19	8.28
12/1/2017	EV_DC1	E298590	0.00131	0.00136	4.5	4.94	4.47	< 0.0050	< 0.0050	0.0036	8.03	8.26
1/18/2017	EV_EC1	200097	0.00162	0.00167	0.58	0.53	15.6	< 0.010	< 0.0050	0.0078	7.88	8.27
2/23/2017	EV_EC1	200097	0.0016	0.00171	0.68	0.73	14.7	< 0.0050	< 0.0050	0.0048	8.24	8.19
3/8/2017	EV_EC1	200097	0.0015	0.00151	0.64	0.63	15.1	< 0.010	< 0.0050	0.0055	8.14	8.31
3/16/2017	EV_EC1	200097										
3/19/2017	EV_EC1	200097										
3/29/2017	EV_EC1	200097										
4/4/2017	EV_EC1	200097	0.00159	0.00158	0.63	0.77	13.9	< 0.010	< 0.0050	0.0082	8.14	8.36
4/12/2017	EV_EC1	200097										
4/19/2017	EV_EC1	200097										
4/26/2017	EV_EC1	200097										
5/3/2017	EV_EC1	200097	0.00151	0.00146	< 0.50	0.63	12.3	< 0.010	0.0051	0.0136	8.46	8.4
5/10/2017	EV_EC1	200097										
5/17/2017	EV_EC1	200097										
5/24/2017	EV_EC1	200097										
5/31/2017	EV_EC1	200097										
6/7/2017	EV_EC1	200097									8.21	
6/14/2017	EV_EC1	200097	0.00174	0.00153	0.73	0.64	13.8	< 0.010	< 0.0050	0.0173	8.17	8.32
6/21/2017	EV_EC1	200097										
6/28/2017	EV_EC1	200097										
7/5/2017	EV_EC1	200097										
7/11/2017	EV_EC1	200097	0.0014	0.00147	0.58	0.67	12.1	< 0.0050	< 0.0050	0.0147	8.13	8.42
8/2/2017	EV_EC1	200097	0.00139	0.00145	0.55	0.57					8.11	
8/2/2017	EV_EC1	200097					12.5	< 0.0050	< 0.0050	0.013		8.23
9/12/2017	EV_EC1	200097	0.0013	0.00129	0.57	0.75	12.9	< 0.0050	< 0.0050	0.0086	8.43	8.23
10/3/2017	EV_EC1	200097	0.00131	0.00125	0.63	0.6	13	< 0.0050	0.0058	0.0089	8.13	8.18
11/15/2017	EV_EC1	200097	0.00139	0.00142	0.56	0.63	15.8	0.0124	< 0.0050	0.0088	8.27	8.4
12/6/2017	EV_EC1	200097	0.0013	0.00134	0.68	0.73	14.7	< 0.0050	0.0124	0.011	7.95	8.35
1/10/2017	EV_ER1	200393	0.00127	0.00123	0.7	0.75	2.62	< 0.0010	< 0.0050	0.0019	8.28	8.23
2/7/2017	EV_ER1	200393	0.0013	0.00135	0.7	0.76	2.84	0.0012	0.0056	0.0018	7.81	8.26
2/20/2017	EV_ER1	200393	0.00123	0.00133	0.68	0.76	2.77	0.0019	< 0.0050	0.0039	4.46	8.38
3/7/2017	EV_ER1	200393	0.00133	0.00127	0.56	0.62	2.63	< 0.0010	0.0053	0.0013	8.29	8.32
3/16/2017	EV_ER1	200393	0.00121	0.00127	0.71	1.44	2.39	0.0022	0.0296	0.0147	8.18	8.19
3/19/2017	EV_ER1	200393										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
3/20/2017	EV_ER1	200393	0.00101	0.00101	0.91	1.2	1.71	0.0017	0.0088	0.0039	8.16	8.15
3/29/2017	EV_ER1	200393	0.00102	0.00114	< 0.50	0.71	2.25	0.0026	< 0.0050	0.0017	8.34	8.19
4/5/2017	EV_ER1	200393	0.00113	0.00113	0.61	0.69	2.36	< 0.0010	< 0.0050	< 0.0010	8.26	8.34
4/12/2017	EV_ER1	200393	0.000955	0.000936	0.66	0.79	2.19	0.0019	0.0081	< 0.0010	8.14	8.27
4/20/2017	EV_ER1	200393	0.000923	0.000869	0.95	1.68	2.01	0.0014	0.0066	0.0011	8.31	8.29
4/26/2017	EV_ER1	200393	0.000931	0.000881	0.87	1.39	1.86	0.001	< 0.0050	0.0027	8.28	8.34
5/2/2017	EV_ER1	200393	0.000983	0.00098	0.56	0.88	1.86	0.0011	< 0.0050	0.0015	8.27	8.36
5/10/2017	EV_ER1	200393	0.000754	0.000829	0.92	2.03	1.07	< 0.0010	< 0.0050	0.0078	8.19	8.37
5/17/2017	EV_ER1	200393	0.000883	0.000845	1.15	2.37	1.28	< 0.0010	< 0.0050	0.0079	8.17	8.28
5/24/2017	EV_ER1	200393	0.000637	0.00113	0.86	14.9	0.642	< 0.0010	0.0087	0.0135	8.17	8.08
5/30/2017	EV_ER1	200393	0.000601	0.000886	0.87	7.14	0.759	< 0.0010	0.0051	0.0121	7.74	8.19
6/6/2017	EV_ER1	200393	0.000755	0.000812	1.03	2.93	0.911	< 0.0010	< 0.0050	0.0086	7.85	8.05
6/13/2017	EV_ER1	200393	0.000889	0.000858	1.09	2.23	1.16	< 0.0010	< 0.0050	0.0059	7.94	8.34
6/21/2017	EV_ER1	200393	0.000856	0.000869	0.99	1.73	1.05	< 0.0010	< 0.0050	0.0031	8.27	8.31
6/28/2017	EV_ER1	200393	0.000988	0.000988	0.83	1.41	1.15	0.001	< 0.0050	< 0.0010	8.25	8.32
7/5/2017	EV_ER1	200393	0.0011	0.00107	0.94	1.17	1.28	0.0012	< 0.0050	< 0.0010	8.42	8.34
7/12/2017	EV_ER1	200393	0.00117	0.00118	0.82	1	1.47	0.0011	0.0094	0.0014	8.34	8.38
8/3/2017	EV_ER1	200393	0.00119	0.00118	0.61	0.67					8.02	
8/3/2017	EV_ER1	200393					1.77	0.0014	0.0108	< 0.0010		8.3
9/12/2017	EV_ER1	200393	0.00121	0.00127	< 0.50	0.62	1.9	0.0038	< 0.0050	< 0.0010	8.4	8.44
10/3/2017	EV_ER1	200393	0.00127	0.00131	0.6	0.67	2.25	0.0019	0.0081	< 0.0010	7.53	8.41
11/15/2017	EV_ER1	200393	0.00125	0.00128	< 0.50	< 0.50	2.37	0.0012	0.0211	< 0.0010	8.54	8.45
12/6/2017	EV_ER1	200393	0.00124	0.00122	0.8	0.9	2.22	< 0.0010	0.0097	0.0031	8.18	8.31
1/10/2017	EV_ER2	200111	0.00124	0.00122	< 0.50	< 0.50	2.67	< 0.0010	< 0.0050	0.0015	8.38	8.32
2/7/2017	EV_ER2	200111	0.00121	0.00128	< 0.50	< 0.50	2.87	< 0.0010	0.0071	< 0.0010	7.85	8.24
3/6/2017	EV_ER2	200111	0.00142	0.00122	< 0.50	0.92	2.73	< 0.0010	< 0.0050	0.0013	5.02	8.39
3/16/2017	EV_ER2	200111					2.51	0.0033	0.018	0.0124	8.2	8.19
3/17/2017	EV_ER2	200111										
3/18/2017	EV_ER2	200111										
3/19/2017	EV_ER2	200111										
3/20/2017	EV_ER2	200111										
3/21/2017	EV_ER2	200111										
3/28/2017	EV_ER2	200111										
4/3/2017	EV_ER2	200111	0.00119	0.00127	< 0.50	0.51	3.08	0.0021	< 0.0050	< 0.0010	8.39	8.41
4/11/2017	EV_ER2	200111										
4/20/2017	EV_ER2	200111										
4/25/2017	EV_ER2	200111										
5/4/2017	EV_ER2	200111	0.00115	0.00119	0.59	0.83	3.13	0.0018	< 0.0050	< 0.0010	8.03	8.4
5/9/2017	EV_ER2	200111										
5/16/2017	EV_ER2	200111										
5/23/2017	EV_ER2	200111										
5/31/2017	EV_ER2	200111										
6/5/2017	EV_ER2	200111	0.001	0.00111	< 0.50	3.35	1.59	< 0.0010	< 0.0050	0.0028	7.87	8.34
6/13/2017	EV_ER2	200111										
6/20/2017	EV_ER2	200111										
6/27/2017	EV_ER2	200111										
7/4/2017	EV_ER2	200111										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
7/10/2017	EV_ER2	200111	0.00108	0.00107	< 0.50	0.57	1.44	0.0014	< 0.0050	0.0018	8.29	8.33
8/1/2017	EV_ER2	200111	0.00117	0.00113	< 0.50	0.51	1.69	0.0016	< 0.0050	< 0.0010	8.29	8.36
8/9/2017	EV_ER2	200111									8.33	
9/11/2017	EV_ER2	200111	0.00115	0.0012	< 0.50	< 0.50	1.73	0.0025	0.006	< 0.0010	8.38	8.36
10/2/2017	EV_ER2	200111	0.00123	0.00124	< 0.50	0.52	2.03	0.0012	0.0213	< 0.0010	8.32	8.24
11/14/2017	EV_ER2	200111	0.00118	0.00118	< 2.5	< 2.5	2.47	0.0018	< 0.0050	0.0012	8.44	8.35
12/7/2017	EV_ER2	200111	0.00124	0.00127	0.6	< 0.50	2.48	< 0.0010	0.0065	< 0.0010	8.04	8.33
1/10/2017	EV_ER4	200027	0.00114	0.00118	< 0.50	< 0.50	3.65	< 0.0010	< 0.0050	< 0.0010	8.83	8.3
2/21/2017	EV_ER4	200027	0.0011	0.00114	< 0.50	< 0.50	3.56	< 0.0010	< 0.0050	< 0.0010	5.83	8.32
3/6/2017	EV_ER4	200027	0.00132	0.00117	< 0.50	< 0.50	3.45	< 0.0010	< 0.0050	0.0013	4.11	8.31
3/15/2017	EV_ER4	200027	0.00107	0.00108	< 0.50	< 0.50	3.57	< 0.0010	< 0.0050	0.0013	8.27	8.34
3/19/2017	EV_ER4	200027										
3/20/2017	EV_ER4	200027	0.00117	0.00125	< 0.50	0.6	3.26	< 0.0010	< 0.0050	< 0.0010	8.79	8.19
3/28/2017	EV_ER4	200027	0.00109	0.00114	< 0.50	0.72	4.32	< 0.0010	< 0.0050	< 0.0010	7.68	8.29
4/3/2017	EV_ER4	200027	0.00114	0.0012	< 0.50	0.53	4.16	< 0.0010	< 0.0050	< 0.0010	8.23	8.35
4/11/2017	EV_ER4	200027	0.00117	0.00117	0.5	0.58	4.16	< 0.0010	< 0.0050	< 0.0010	8.27	8.29
4/19/2017	EV_ER4	200027	0.00104	0.0011	0.51	0.66	4.41	0.0013	< 0.0050	< 0.0010	8.05	8.29
4/24/2017	EV_ER4	200027	0.00107	0.00108	0.79	1.15	4.44	0.0016	0.009	< 0.0010	8.28	8.25
5/1/2017	EV_ER4	200027	0.00107	0.00114	0.66	0.82	3.99	0.0023	< 0.0050	< 0.0010	8.22	8.32
5/9/2017	EV_ER4	200027	0.00102	0.00108	0.68	2.11	2.54	< 0.0010	< 0.0050	0.001	8.24	8.4
5/16/2017	EV_ER4	200027	0.00105	0.00111	0.67	1.67	2.29	< 0.0010	< 0.0050	0.0015	8.2	8.31
5/23/2017	EV_ER4	200027	0.00103	0.00101	0.62	2.26	2.39	< 0.0010	< 0.0050	< 0.0010	8.18	8.44
5/30/2017	EV_ER4	200027	0.000952	0.00124	0.5	4.95	1.89	0.0016	< 0.0050	0.0026	8.17	8.36
6/6/2017	EV_ER4	200027	0.00102	0.00102	0.57	2.57	1.89	0.001	0.0076	0.0022	8.16	8.25
6/13/2017	EV_ER4	200027	0.00103	0.00109	0.58	1.99	2.01	< 0.0010	< 0.0050	0.0012	8.17	8.38
6/20/2017	EV_ER4	200027	0.0011	0.00107	0.71	1.32	1.78	< 0.0010	0.0082	< 0.0010	8.19	8.31
6/21/2017	EV_ER4	200027										
6/27/2017	EV_ER4	200027	0.0011	0.00117	< 0.50	0.87	1.71	< 0.0010	< 0.0050	< 0.0010	8.23	8.37
7/4/2017	EV_ER4	200027	0.000994	0.00104	< 0.50	< 1.0	1.58	0.001	< 0.0050	< 0.0010	8.29	8.3
7/10/2017	EV_ER4	200027	0.00106	0.00102	< 0.50	0.69	1.69	0.0015	0.0084	< 0.0010	8.3	8.34
7/25/2017	EV_ER4	200027	0.00109	0.00108	< 0.50	0.65	2	0.0023	< 0.0050	< 0.0010	8.14	8.39
8/1/2017	EV_ER4	200027	0.00111	0.00112	< 0.50	0.59	2.04	0.0012	< 0.0050	< 0.0010	8.25	8.35
8/15/2017	EV_ER4	200027										
9/11/2017	EV_ER4	200027	0.00109	0.00115	< 0.50	< 0.50	2.07	0.0022	0.0088	< 0.0010	8.37	8.35
10/2/2017	EV_ER4	200027	0.00117	0.00118	< 0.50	0.66	2.69	0.0014	0.0227	< 0.0010	8.02	8.25
11/14/2017	EV_ER4	200027	0.00116	0.00112	< 2.5	< 2.5	3.24	0.0011	0.0112	< 0.0010	8.35	8.29
12/7/2017	EV_ER4	200027	0.00122	0.00115	0.54	< 0.50	3.2	< 0.0010	0.0095	< 0.0010	7.78	8.33
1/9/2017	EV_FC1	E298591										
2/19/2017	EV_FC1	E298591										
3/6/2017	EV_FC1	E298591										
3/16/2017	EV_FC1	E298591	0.00068	0.000896	0.82	4.46	0.244	0.0013	0.0067	0.0489	8.24	8.24
3/21/2017	EV_FC1	E298591										
3/28/2017	EV_FC1	E298591										
4/3/2017	EV_FC1	E298591	0.000676	0.000847	0.62	2.33	0.0461	< 0.0010	< 0.0050	0.0207	8.31	8.41
4/11/2017	EV_FC1	E298591										
4/19/2017	EV_FC1	E298591										
4/20/2017	EV_FC1	E298591										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
4/21/2017	EV_FC1	E298591										
4/25/2017	EV_FC1	E298591										
5/2/2017	EV_FC1	E298591	0.000607	0.000631	< 0.50	0.99	0.0199	< 0.0010	< 0.0050	0.0206	8.25	8.35
5/9/2017	EV_FC1	E298591										
5/16/2017	EV_FC1	E298591										
5/23/2017	EV_FC1	E298591										
5/30/2017	EV_FC1	E298591										
6/5/2017	EV_FC1	E298591	0.000632	0.000652	0.56	0.78	0.0344	< 0.0010	< 0.0050	0.018	8.14	8.47
6/13/2017	EV_FC1	E298591										
6/20/2017	EV_FC1	E298591										
6/27/2017	EV_FC1	E298591										
7/4/2017	EV_FC1	E298591										
7/10/2017	EV_FC1	E298591	0.000859	0.000903	0.66	0.72	0.179	< 0.0010	0.0069	0.0194	8.16	8.46
8/1/2017	EV_FC1	E298591	0.00121	0.00125	0.67	1.04	0.355	< 0.0050	0.0081	0.021	8.07	8.47
8/15/2017	EV_FC1	E298591										
9/11/2017	EV_FC1	E298591	0.00172	0.00174	0.81	0.92	0.202	0.0013	0.0072	0.0184	8.44	8.43
10/2/2017	EV_FC1	E298591	0.00116	0.00129	0.87	1.36	0.256	0.0013	0.0229	0.0441	8.32	8.53
11/14/2017	EV_FC1	E298591	0.00078	0.00082	< 2.5	< 2.5	0.0674	< 0.0010	0.0082	0.016	8.42	8.39
12/1/2017	EV_FC1	E298591	0.000799	0.000749	0.56	0.71	0.0466	< 0.0010	< 0.0050	0.0161	7.69	8.37
1/19/2017	EV_GC2	E208043	0.00221	0.00216	1.12	1.42	1.49	0.0051	0.0103	0.0099	8.03	8.2
1/31/2017	EV_GC2	E208043	0.00212	0.00202	1.15	1.14	1.48	< 0.0050	0.0095	0.0087	8.26	8.26
2/8/2017	EV_GC2	E208043	0.00185	0.00192	1.04	1.36	1.48	< 0.0050	0.0086	0.0109	8.56	8.23
2/16/2017	EV_GC2	E208043										
2/16/2017	EV_GC2	E208043	0.00293	0.00263	1.66	2.23	1.22	0.016	0.0661	0.0096	4.24	8.3
2/17/2017	EV_GC2	E208043										
2/17/2017	EV_GC2	E208043										
3/6/2017	EV_GC2	E208043	0.00301	0.00298	1.38	1.83	1.22	< 0.0050	0.0433	0.0075	8.32	8.28
3/15/2017	EV_GC2	E208043										
3/15/2017	EV_GC2	E208043										
3/16/2017	EV_GC2	E208043										
3/17/2017	EV_GC2	E208043										
3/18/2017	EV_GC2	E208043										
3/18/2017	EV_GC2	E208043										
3/19/2017	EV_GC2	E208043										
3/20/2017	EV_GC2	E208043										
3/28/2017	EV_GC2	E208043										
4/5/2017	EV_GC2	E208043	0.00164	0.0016	1.06	1.31	0.73	0.0074	0.0162	0.0147	8.38	8.43
4/11/2017	EV_GC2	E208043										
4/20/2017	EV_GC2	E208043										
4/24/2017	EV_GC2	E208043										
5/2/2017	EV_GC2	E208043	0.00208	0.00216	0.63	1.53	1.12	< 0.0050	0.0051	0.0094	8.42	8.47
5/3/2017	EV_GC2	E208043										
5/4/2017	EV_GC2	E208043	0.00195	0.00208	0.93	1.71	1.24	0.0027	< 0.0050	0.0065	8.45	8.51
5/7/2017	EV_GC2	E208043										
5/11/2017	EV_GC2	E208043										
5/18/2017	EV_GC2	E208043										
5/23/2017	EV_GC2	E208043										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
5/30/2017	EV_GC2	E208043									8.16	
5/30/2017	EV_GC2	E208043	0.00315	0.00319	0.94	1.53	2.48	< 0.0050	0.0058	0.003		8.15
6/6/2017	EV_GC2	E208043	0.00369	0.00336	1.09	1.58	2.29	< 0.0050	< 0.0050	0.0039	8.2	8.24
6/13/2017	EV_GC2	E208043										
6/20/2017	EV_GC2	E208043										
6/27/2017	EV_GC2	E208043										
7/4/2017	EV_GC2	E208043										
7/12/2017	EV_GC2	E208043	0.00343	0.00342	1.17	1.42	2.11	0.0055	0.0096	0.0015	8.2	8.22
7/24/2017	EV_GC2	E208043									7.99	
8/3/2017	EV_GC2	E208043	0.00314	0.00321	1.19	1.39					8.14	
8/3/2017	EV_GC2	E208043					2.23	0.0061	0.0087	< 0.0010		8.17
8/9/2017	EV_GC2	E208043									8.15	
9/1/2017	EV_GC2	E208043										
9/11/2017	EV_GC2	E208043	0.00231	0.00238	1.08	1.21	1.76	0.0053	< 0.0050	< 0.0010	7.91	8.23
9/26/2017	EV_GC2	E208043										
9/27/2017	EV_GC2	E208043										
9/28/2017	EV_GC2	E208043										
10/3/2017	EV_GC2	E208043	0.00206	0.00206	1.05	1.17	1.49	0.0031	0.0099	< 0.0010	8.11	8.17
10/13/2017	EV_GC2	E208043	0.00204	0.00212	0.92	1.03	1.47	0.0035	< 0.0050	< 0.0010	8.17	8.14
10/16/2017	EV_GC2	E208043									8.32	
10/24/2017	EV_GC2	E208043									8.35	
10/30/2017	EV_GC2	E208043										
10/30/2017	EV_GC2	E208043	0.00241	0.00256	1.27	1.27	1.33	0.0089	0.0169	< 0.0010	8.3	8.24
11/14/2017	EV_GC2	E208043	0.00286	0.00307	< 2.5	< 2.5	1.41	0.0124	0.0327	0.0053	8.41	8.25
11/23/2017	EV_GC2	E208043										
11/23/2017	EV_GC2	E208043										
11/24/2017	EV_GC2	E208043										
12/6/2017	EV_GC2	E208043	0.00199	0.00207	1.18	1.43	1.33	0.0046	0.0181	0.007	8.35	8.21
1/1/2017	EV_GH1	E296310										
1/2/2017	EV_GH1	E296310										
1/9/2017	EV_GH1	E296310										
1/16/2017	EV_GH1	E296310										
1/23/2017	EV_GH1	E296310										
1/30/2017	EV_GH1	E296310										
2/6/2017	EV_GH1	E296310										
2/13/2017	EV_GH1	E296310										
2/20/2017	EV_GH1	E296310										
2/27/2017	EV_GH1	E296310										
3/6/2017	EV_GH1	E296310										
3/13/2017	EV_GH1	E296310										
3/20/2017	EV_GH1	E296310										
3/27/2017	EV_GH1	E296310										
4/1/2017	EV_GH1	E296310										
4/3/2017	EV_GH1	E296310										
4/9/2017	EV_GH1	E296310	0.0012	0.00391	4.04	22.7	3.1	0.0182	0.146	< 0.0010	7.59	8.18
4/10/2017	EV_GH1	E296310										
4/17/2017	EV_GH1	E296310										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
4/24/2017	EV_GH1	E296310										
5/1/2017	EV_GH1	E296310										
5/8/2017	EV_GH1	E296310										
5/15/2017	EV_GH1	E296310										
5/22/2017	EV_GH1	E296310										
5/29/2017	EV_GH1	E296310										
6/5/2017	EV_GH1	E296310										
6/12/2017	EV_GH1	E296310										
6/19/2017	EV_GH1	E296310										
6/26/2017	EV_GH1	E296310										
7/1/2017	EV_GH1	E296310										
7/3/2017	EV_GH1	E296310										
7/10/2017	EV_GH1	E296310										
7/17/2017	EV_GH1	E296310										
7/24/2017	EV_GH1	E296310										
7/31/2017	EV_GH1	E296310										
8/7/2017	EV_GH1	E296310										
8/14/2017	EV_GH1	E296310										
8/21/2017	EV_GH1	E296310										
8/28/2017	EV_GH1	E296310										
9/4/2017	EV_GH1	E296310										
9/11/2017	EV_GH1	E296310										
9/18/2017	EV_GH1	E296310										
9/25/2017	EV_GH1	E296310										
10/1/2017	EV_GH1	E296310										
10/2/2017	EV_GH1	E296310										
10/3/2017	EV_GH1	E296310	0.0422	0.128	4.61	408	0.959	0.165	1.92	< 0.0010	7.75	8.13
10/9/2017	EV_GH1	E296310										
10/16/2017	EV_GH1	E296310										
10/23/2017	EV_GH1	E296310										
10/30/2017	EV_GH1	E296310										
11/6/2017	EV_GH1	E296310										
11/13/2017	EV_GH1	E296310										
11/20/2017	EV_GH1	E296310										
11/27/2017	EV_GH1	E296310										
12/4/2017	EV_GH1	E296310										
12/11/2017	EV_GH1	E296310										
12/18/2017	EV_GH1	E296310										
12/25/2017	EV_GH1	E296310										
1/10/2017	EV_GT1	E206231	0.0173	0.0169	45.3	45.3	30	< 0.010	0.0363	0.0026	8.41	8.17
1/31/2017	EV_GT1	E206231									8.16	
2/7/2017	EV_GT1	E206231	0.0169	0.0178	42	44.1	28.9	< 0.010	0.0417	0.0019	8.3	8.26
2/17/2017	EV_GT1	E206231										
3/7/2017	EV_GT1	E206231	0.0166	0.0169	36.9	39.4	28	< 0.010	0.0379	0.0013	8.32	8.34
3/16/2017	EV_GT1	E206231					20.7	0.0082		0.0364		
3/17/2017	EV_GT1	E206231										
3/18/2017	EV_GT1	E206231										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
3/18/2017	EV_GT1	E206231										
3/19/2017	EV_GT1	E206231										
3/19/2017	EV_GT1	E206231										
3/20/2017	EV_GT1	E206231										
3/29/2017	EV_GT1	E206231	0.00636	0.00719	7.57	7.71	15.5	0.0276	0.0062	0.017	8.28	8.19
4/5/2017	EV_GT1	E206231	0.00731	0.00764	8.17	8.47	15.5	0.0109	< 0.0050	0.0143	8.32	8.36
4/12/2017	EV_GT1	E206231										
4/20/2017	EV_GT1	E206231										
4/26/2017	EV_GT1	E206231										
5/2/2017	EV_GT1	E206231	0.00604	0.00616	6.52	7.25	13.4	0.0114	< 0.0050	0.003	8.32	8.37
5/10/2017	EV_GT1	E206231										
5/17/2017	EV_GT1	E206231										
5/24/2017	EV_GT1	E206231										
5/31/2017	EV_GT1	E206231										
6/6/2017	EV_GT1	E206231	0.0158	0.0159	40	38.5	25.7	< 0.010	< 0.0050	0.0026	8.18	8.36
6/14/2017	EV_GT1	E206231										
6/21/2017	EV_GT1	E206231										
6/28/2017	EV_GT1	E206231										
7/5/2017	EV_GT1	E206231										
7/12/2017	EV_GT1	E206231	0.0174	0.0177	41.4	40.8	25.8	0.005	0.0083	0.003	8.25	8.32
8/3/2017	EV_GT1	E206231	0.0152	0.0161	36.1	40.3					8.21	
8/3/2017	EV_GT1	E206231					28.2	0.009	< 0.0050	0.002		8.33
9/12/2017	EV_GT1	E206231	0.0144	0.0147	32.4	36.1	28.5	0.0088	0.0136	0.0028	8.29	8.25
10/2/2017	EV_GT1	E206231	0.0161	0.0152	29	33.2	32.8	0.0689	0.0999	< 0.0010	8.12	8.11
10/3/2017	EV_GT1	E206231										
10/4/2017	EV_GT1	E206231										
10/26/2017	EV_GT1	E206231										
10/27/2017	EV_GT1	E206231										
11/2/2017	EV_GT1	E206231										
11/3/2017	EV_GT1	E206231										
11/6/2017	EV_GT1	E206231										
11/7/2017	EV_GT1	E206231										
11/8/2017	EV_GT1	E206231										
11/9/2017	EV_GT1	E206231										
11/10/2017	EV_GT1	E206231										
11/15/2017	EV_GT1	E206231	0.0183	0.0183	26.6	28.4	32.5	0.0149	0.0736	0.0039	8.37	8.19
11/16/2017	EV_GT1	E206231										
11/23/2017	EV_GT1	E206231										
12/6/2017	EV_GT1	E206231	0.0203	0.02	39.9	40.7	30.5	0.0102	0.0371	0.0025	8.15	8.31
1/9/2017	EV_HC1	E102682	0.000924	0.000909	0.7	0.72	1.26	< 0.0050	< 0.0050	0.0076	8.37	8.3
2/21/2017	EV_HC1	E102682	0.000905	0.000932	0.74	0.78	1.21	< 0.0010	0.0052	0.0068	5.51	8.34
3/6/2017	EV_HC1	E102682	0.000992	0.00098	0.59	0.68	1.22	< 0.0050	< 0.0050	0.0059	7.02	8.33
3/15/2017	EV_HC1	E102682	0.000903	0.00094	0.71	0.75	1.25	< 0.0050	0.0114	0.0074	8.26	8.36
3/21/2017	EV_HC1	E102682	0.000905	0.000984	0.84	1.13	1.13	< 0.0010	0.0073	0.0078	8.37	8.34
3/24/2017	EV_HC1	E102682	0.000842	0.000973	0.82	0.94	1.07	< 0.0010	< 0.0050	0.0064	8.33	8.24
3/28/2017	EV_HC1	E102682	0.000914	0.000961	0.7	0.89	1.03	< 0.0010	0.0055	0.0055	8.35	8.36
4/3/2017	EV_HC1	E102682	0.000946	0.000975	0.76	0.87	1.05	< 0.0050	< 0.0050	0.0056	8.32	8.36

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
4/11/2017	EV_HC1	E102682	0.000915	0.000968	0.88	0.98	0.978	< 0.0050	< 0.0050	0.005	8.31	8.34
4/19/2017	EV_HC1	E102682	0.000981	0.000987	0.91	1.03	1.02	< 0.0050	0.0057	0.0046	8.38	8.31
4/24/2017	EV_HC1	E102682	0.00082	0.000863	1.02	1.29	0.851	< 0.0010	< 0.0050	0.0044	8.25	8.27
5/2/2017	EV_HC1	E102682	0.000899	0.000919	0.75	0.98	1.02	< 0.0010	< 0.0050	0.0056	7.99	8.36
5/9/2017	EV_HC1	E102682	0.000637	0.00074	0.81	1.3	0.576	< 0.0010	< 0.0050	0.0071	8.24	8.43
5/16/2017	EV_HC1	E102682	0.000679	0.00074	0.85	1.32	0.729	< 0.0010	< 0.0050	0.0075	8.21	8.32
5/23/2017	EV_HC1	E102682	0.000581	0.000675	0.77	2.18	0.547	< 0.0010	< 0.0050	0.0077	8.19	8.3
5/30/2017	EV_HC1	E102682	0.000561	0.000548	0.68	1.32	0.455	< 0.0010	< 0.0050	0.0056	8.12	8.3
6/6/2017	EV_HC1	E102682	0.000657	0.000597	0.69	0.9	0.498	< 0.0010	< 0.0050	0.0057	7.96	8.37
6/13/2017	EV_HC1	E102682	0.000688	0.000688	0.62	0.77	0.594	< 0.0010	< 0.0050	0.0061	8.24	8.41
6/20/2017	EV_HC1	E102682	0.000784	0.000803	0.86	0.79	0.611	< 0.0010	< 0.0050	0.0046	8.2	8.31
6/27/2017	EV_HC1	E102682	0.000839	0.000866	0.72	0.74	0.656	< 0.0010	< 0.0050	0.0054	8.24	8.42
7/4/2017	EV_HC1	E102682	0.000808	0.00083	0.7	< 1.0	0.692	< 0.0010	< 0.0050	0.0057	8.37	8.33
7/10/2017	EV_HC1	E102682	0.00085	0.000834	0.75	0.79	0.734	< 0.0010	0.0075	0.0054	8.24	8.32
7/25/2017	EV_HC1	E102682	0.000847	0.00085	0.78	0.93	0.791	< 0.0010	< 0.0050	0.0054	8.05	8.43
8/1/2017	EV_HC1	E102682	0.000862	0.000886	0.61	0.86	0.833	< 0.0050	< 0.0050	0.0028	8.25	8.37
8/10/2017	EV_HC1	E102682										
9/11/2017	EV_HC1	E102682	0.000858	0.000883	0.64	0.74	0.747	0.0017	0.021	< 0.0010	8.38	8.39
10/2/2017	EV_HC1	E102682	0.000886	0.000873	< 0.50	0.78	0.864	< 0.0010	0.0238	0.0048	8.02	8.47
10/10/2017	EV_HC1	E102682	0.000859	0.000874	< 0.50	0.55	0.947	< 0.0010	< 0.0050	0.004	7.48	8.36
10/17/2017	EV_HC1	E102682	0.000867	0.000914	0.56	0.62	0.911	0.0022	< 0.0050	0.0034	8.29	8.27
10/24/2017	EV_HC1	E102682	0.000889	0.00088	0.69	0.75	0.967	< 0.0010	< 0.0050	0.0044	8.28	8.34
10/31/2017	EV_HC1	E102682									7.7	
10/31/2017	EV_HC1	E102682	0.000935	0.000901	0.65	0.65	1.02	< 0.0050	< 0.0050	0.0051		8.33
11/14/2017	EV_HC1	E102682	0.00082	0.00092	< 2.5	< 2.5	1.1	0.0013	0.016	0.0056	8.34	8.27
12/1/2017	EV_HC1	E102682	0.000953	0.000925	0.62	0.76	1.1	< 0.0010	0.006	0.0069	8.34	8.29
1/19/2017	EV_LC1	E258135	0.00139	0.0014	1.51	1.59	0.0503	< 0.0010	< 0.0050	0.0022	7.62	7.85
2/20/2017	EV_LC1	E258135	0.00301	0.00333	3.08	3.56	0.207	0.0138	0.0375	0.0057	5.92	8.26
3/7/2017	EV_LC1	E258135	0.00226	0.00234	2.38	3.12	0.151	< 0.0050	0.0208	0.0034	8.23	8.18
3/15/2017	EV_LC1	E258135										
3/16/2017	EV_LC1	E258135										
3/17/2017	EV_LC1	E258135										
3/20/2017	EV_LC1	E258135										
3/28/2017	EV_LC1	E258135	0.00187	0.00188	2.4	2.71	0.181	< 0.0050	0.018	0.0023	8.04	8.05
4/5/2017	EV_LC1	E258135	0.00178	0.00178	2.55	2.76	0.119	< 0.0050	0.0084	0.0014	7.96	8.12
4/11/2017	EV_LC1	E258135										
4/19/2017	EV_LC1	E258135										
4/24/2017	EV_LC1	E258135										
5/2/2017	EV_LC1	E258135	0.00167	0.00171	2.07	2.43	0.07	< 0.0050	0.0054	0.0012	7.91	8.05
5/7/2017	EV_LC1	E258135										
5/11/2017	EV_LC1	E258135										
5/18/2017	EV_LC1	E258135										
5/23/2017	EV_LC1	E258135										
5/30/2017	EV_LC1	E258135										
6/6/2017	EV_LC1	E258135	0.00322	0.00322	4.79	5.2	0.498	0.0066	0.0169	< 0.0010	7.63	8.06
6/13/2017	EV_LC1	E258135										
6/20/2017	EV_LC1	E258135										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
6/27/2017	EV_LC1	E258135										
7/4/2017	EV_LC1	E258135										
7/12/2017	EV_LC1	E258135	0.00395	0.00406	4.48	4.44	0.45	0.0062	0.018	0.0033	7.52	8.04
8/3/2017	EV_LC1	E258135	0.00115	0.00117	2.76	3.15					7.61	
8/3/2017	EV_LC1	E258135					0.029	< 0.0050	< 0.0050	0.0017		7.93
8/9/2017	EV_LC1	E258135									7.49	
9/11/2017	EV_LC1	E258135	0.00096	0.00106	2.64	2.7	< 0.025	< 0.0050	< 0.0050	< 0.0010	7.65	8.1
10/2/2017	EV_LC1	E258135	0.00114	0.00113	0.92	2.8	0.032	< 0.0050	0.0249	< 0.0010	7.72	8.3
11/14/2017	EV_LC1	E258135	0.00134	0.00129	< 2.5	< 2.5	0.114	0.001	0.0104	0.0012	7.88	8.24
12/6/2017	EV_LC1	E258135	0.00135	0.00137	1.89	1.9	0.0897	< 0.0010	< 0.0050	0.0016	7.95	8.16
1/10/2017	EV_MC2	E300091	0.00139	0.00136	2.31	2.35	3.42	< 0.0010	0.011	0.0056	8.13	8.14
1/31/2017	EV_MC2	E300091									8.02	
2/7/2017	EV_MC2	E300091	0.00163	0.00168	2.53	2.74	4.01	< 0.0050	0.0448	0.0059	7.62	8.12
2/21/2017	EV_MC2	E300091	0.00145	0.00147	2.14	2.51	3.5	< 0.0010	0.0075	0.0044	5.62	8.21
3/7/2017	EV_MC2	E300091	0.0015	0.00154	2.05	2.15	4.23	< 0.0050	0.009	0.0038	8.43	8.13
3/16/2017	EV_MC2	E300091	0.00122	0.00132	1.75	2.51	3.06	0.0016	0.0105	0.0193	7.92	7.94
3/17/2017	EV_MC2	E300091										
3/18/2017	EV_MC2	E300091										
3/19/2017	EV_MC2	E300091										
3/20/2017	EV_MC2	E300091	0.000747	0.000817	1.47	1.98	1.67	0.0018	0.0097	0.0084	8.08	7.97
3/22/2017	EV_MC2	E300091										
3/23/2017	EV_MC2	E300091										
3/24/2017	EV_MC2	E300091										
3/29/2017	EV_MC2	E300091	0.000774	0.000909	0.86	1.13	1.81	0.001	0.0053	0.0045	8.12	8.04
4/5/2017	EV_MC2	E300091	0.000894	0.000945	0.98	1.14	1.72	< 0.0010	< 0.0050	0.0033	8.05	8.27
4/12/2017	EV_MC2	E300091	0.000748	0.000739	1.01	1.1	1.45	0.0015	0.0065	0.0026	8.07	8.08
4/20/2017	EV_MC2	E300091	0.000746	0.000691	1.4	1.95	1.33	0.0011	0.0211	0.0028	8.16	8.18
4/24/2017	EV_MC2	E300091	0.000735	0.00066	1.42	1.92	1.06	0.0011	0.0242	0.0041	8.33	8.05
5/2/2017	EV_MC2	E300091	0.000767	0.000751	0.93	1.3	1.07	0.0011	< 0.0050	0.0032	8.15	8.22
5/9/2017	EV_MC2	E300091	0.000542	0.000617	1.05	2.46	0.742	0.0015	0.0082	0.0134	7.87	8.27
5/16/2017	EV_MC2	E300091	0.000761	0.000776	1.6	2.26	1.24	< 0.0010	< 0.0050	0.0136	7.89	8.02
5/23/2017	EV_MC2	E300091	0.000514	0.000677	1.17	5.46	0.521	< 0.0010	0.0056	0.0159	7.85	8.08
5/30/2017	EV_MC2	E300091	0.00062	0.000661	1.24	5.46	0.556	< 0.0010	< 0.0050	0.0173	8.04	8.29
6/6/2017	EV_MC2	E300091	0.000626	0.000636	1.67	2.87	0.746	< 0.0010	< 0.0050	0.014	7.76	8.06
6/14/2017	EV_MC2	E300091	0.000679	0.000717	1.76	3.18	0.996	< 0.0010	< 0.0050	0.0111	8.06	8.07
6/21/2017	EV_MC2	E300091	0.000772	0.000775	2.07	2.45	1.1	0.0014	< 0.0050	0.0063	8.08	8.26
6/28/2017	EV_MC2	E300091	0.000983	0.000923	1.9	2.17	1.42	0.0011	< 0.0050	0.0022	7.94	8.21
7/5/2017	EV_MC2	E300091	0.00115	0.00121	2.24	2.31	1.78	0.0016	0.0053	< 0.0010	8.39	8.35
7/12/2017	EV_MC2	E300091	0.00145	0.00144	2.55	2.58	2.2	0.002	0.0125	0.0017	8.34	8.36
7/25/2017	EV_MC2	E300091	0.00122	0.00127	1.94	2.06	2.21	0.0032	0.0082	< 0.0010	8.27	8.41
8/3/2017	EV_MC2	E300091	0.00126	0.00133	1.84	2.06					7.8	
8/3/2017	EV_MC2	E300091					3.03	0.0029	0.0149	< 0.0010		8.1
9/12/2017	EV_MC2	E300091	0.00152	0.0015	1.95	2.19	4.3	0.0033	0.0099	0.0012	7.93	8.4
10/2/2017	EV_MC2	E300091	0.000853	0.000917	< 0.50	0.91	2.71	0.0017	0.0254	0.0014	7.96	8.26
10/10/2017	EV_MC2	E300091	0.000771	0.000807	< 0.50	< 0.50	2.12	< 0.0010	< 0.0050	< 0.0010	7.82	8.38
10/16/2017	EV_MC2	E300091										
10/17/2017	EV_MC2	E300091	0.000717	0.00073	0.53	0.56	4.94	< 0.0050	< 0.0050	0.0011	7.89	7.93

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
10/24/2017	EV_MC2	E300091	0.000744	0.000798	0.59	0.61	1.97	< 0.0010	< 0.0050	0.0022	8.06	8.28
10/31/2017	EV_MC2	E300091									8.06	
10/31/2017	EV_MC2	E300091	0.00079	0.000729	< 0.50	0.53	2.19	< 0.0010	0.005	0.0014		8.19
11/15/2017	EV_MC2	E300091	0.00121	0.00126	1.02	1.08	4.04	0.0026	0.0177	0.0013	7.96	8.41
12/6/2017	EV_MC2	E300091	0.00128	0.00138	1.84	1.95	3.12	0.0011	0.0093	0.0051	7.97	8.23
1/10/2017	EV_MC2A	E310168	0.000853	0.000789	0.71	0.77	1.53	< 0.0010	0.0127	0.0062	8.36	8.2
1/31/2017	EV_MC2A	E310168									8.29	
2/7/2017	EV_MC2A	E310168	0.000802	0.000826	< 0.50	0.58	1.65	< 0.0010	0.0135	0.0063	8.44	8.2
3/7/2017	EV_MC2A	E310168	0.00084	0.00081	< 0.50	< 0.50	1.55	< 0.0010	0.0142	0.0042	8.29	8.33
3/16/2017	EV_MC2A	E310168					1.06	0.0016		0.0179	8.3	
3/17/2017	EV_MC2A	E310168										
3/18/2017	EV_MC2A	E310168										
3/19/2017	EV_MC2A	E310168										
3/20/2017	EV_MC2A	E310168										
3/29/2017	EV_MC2A	E310168	0.000765	0.000827	0.86	1.11	0.883	0.0016	0.0083	0.0046	8.24	8.17
4/5/2017	EV_MC2A	E310168	0.000893	0.000936	0.98	1.19	0.903	< 0.0010	0.0095	0.0036	8.52	8.32
5/2/2017	EV_MC2A	E310168	0.000728	0.000745	0.81	1.27	0.47	< 0.0010	< 0.0050	0.0034	8.36	8.38
6/6/2017	EV_MC2A	E310168	0.000478	0.000496	1.27	2.88	0.319	< 0.0010	< 0.0050	0.0147	8.08	8.01
7/12/2017	EV_MC2A	E310168	0.00081	0.000796	1.17	1.29	0.642	0.0011	0.0146	< 0.0010	8.41	8.41
8/3/2017	EV_MC2A	E310168	0.000833	0.00083	0.68	0.83					8.26	
8/3/2017	EV_MC2A	E310168					0.982	0.0019	0.0214	< 0.0010		8.33
9/12/2017	EV_MC2A	E310168	0.000835	0.000867	< 0.50	0.51	1.38	0.0037	0.0169	0.0014	8.5	8.45
10/2/2017	EV_MC2A	E310168	0.000853	0.000838	< 0.50	0.64	1.17	0.0012	0.0351	0.0014	8.24	8.43
11/15/2017	EV_MC2A	E310168									8.49	
11/15/2017	EV_MC2A	E310168	0.000804	0.000807	< 0.50	< 0.50	1.21	0.0013	0.019	0.0014		8.45
12/6/2017	EV_MC2A	E310168	0.000714	0.000745	0.66	0.84	0.956	0.0012	0.0126	0.0059	8.15	8.34
1/20/2017	EV_MC3	200203	0.000707	0.000772	0.59	0.63	0.748	< 0.0010	< 0.0050	0.0073	7.78	7.94
2/7/2017	EV_MC3	200203	0.00073	0.000756	< 0.50	0.62	0.735	< 0.0010	0.0081	0.0063	8.76	8.18
3/7/2017	EV_MC3	200203	0.000745	0.000855	< 0.50	0.54	0.605	< 0.0010	< 0.0050	0.0046	8.28	8.36
3/16/2017	EV_MC3	200203	0.000795	0.000927	0.89	3.76	0.728	0.0018	0.037	0.0173	8.36	8.16
3/19/2017	EV_MC3	200203										
3/20/2017	EV_MC3	200203	0.000676	0.000723	1.55	2.76	0.541	0.0019	0.0055	0.0103	8.85	8.09
3/29/2017	EV_MC3	200203	0.000723	0.000771	1.01	1.25	0.525	0.0012	< 0.0050	0.0068	8.31	8.18
4/4/2017	EV_MC3	200203	0.000773	0.000854	1.04	2.12	0.52	< 0.0010	< 0.0050	0.0054	8.09	8.36
4/12/2017	EV_MC3	200203	0.000695	0.000711	1.03	1.29	0.386	0.0014	0.0505	0.0042	8.19	8.29
4/20/2017	EV_MC3	200203	0.000667	0.000701	1.74	2.49	0.394	0.0012	0.0477	0.0041	8.32	8.28
4/26/2017	EV_MC3	200203	0.000681	0.000654	1.47	2.43	0.285	< 0.0010	< 0.0050	0.006	8.26	8.28
5/3/2017	EV_MC3	200203	0.000652	0.00064	1.18	1.74	0.238	< 0.0010	< 0.0050	0.0041	8.46	8.32
5/10/2017	EV_MC3	200203	0.000513	0.00057	1.44	2.74	0.315	< 0.0010	< 0.0050	0.015	8.05	8.22
5/17/2017	EV_MC3	200203	0.000607	0.000655	1.82	3.78	0.416	< 0.0010	< 0.0050	0.0155	8.07	8.15
5/24/2017	EV_MC3	200203	0.000477	0.00091	1.13	17.1	0.213	< 0.0010	0.0065	0.0213	8.05	8.02
5/30/2017	EV_MC3	200203	0.00045	0.000582	1.32	5.18	0.239	< 0.0010	0.0067	0.0208	8.19	8.07
6/6/2017	EV_MC3	200203	0.000463	0.000499	1.63	3.44	0.224	< 0.0010	< 0.0050	0.0173	8.07	8.01
6/13/2017	EV_MC3	200203	0.000617	0.000558	1.96	2.57	0.251	0.001	< 0.0050	0.0144	8.15	8.04
6/21/2017	EV_MC3	200203	0.00052	0.000528	1.91	2.58	0.199	< 0.0010	< 0.0050	0.0094	8.28	8.19
6/28/2017	EV_MC3	200203	0.000631	0.000595	1.75	2.4	0.121	< 0.0010	< 0.0050	0.0046	8.57	8.41
7/5/2017	EV_MC3	200203	0.000692	0.000715	1.76	1.89	0.195	0.0012	< 0.0050	0.001	8.54	8.36

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
7/11/2017	EV_MC3	200203	0.000751	0.000789	1.7	1.89	0.257	0.0015	0.0066	0.0015	8.3	8.46
8/2/2017	EV_MC3	200203	0.000779	0.000823	0.63	0.79					8.44	
8/2/2017	EV_MC3	200203					0.197	0.0019	0.0055	< 0.0010		8.48
9/12/2017	EV_MC3	200203	0.000765	0.000755	< 0.50	< 0.50	0.192	0.002	0.0072	0.0023	8.54	8.52
10/2/2017	EV_MC3	200203	0.000745	0.000734	< 0.50	0.53	0.236	< 0.0010	0.0248	0.0022	8.4	8.45
11/15/2017	EV_MC3	200203	0.000735	0.000769	< 0.50	< 0.50	0.338	0.003	0.0135	0.0024	8.51	8.43
12/6/2017	EV_MC3	200203	0.000654	0.000688	0.73	0.81	0.378	< 0.0010	0.0069	0.0074	8.13	8.26
1/18/2017	EV_MG1	E208057	0.00282	0.00291	2.65	2.75	0.275	< 0.0050	0.0075	0.0112	7.87	8.23
2/23/2017	EV_MG1	E208057	0.00287	0.00315	2.68	2.83	0.329	< 0.0050	0.0096	0.0226	7.72	8.12
3/8/2017	EV_MG1	E208057	0.00218	0.00236	2.22	2.13	0.315	< 0.0050	0.0156	0.0264	8.21	8.31
3/16/2017	EV_MG1	E208057										
3/19/2017	EV_MG1	E208057										
3/29/2017	EV_MG1	E208057										
4/4/2017	EV_MG1	E208057	0.00237	0.00243	1.9	2.24	0.437	< 0.0050	< 0.0050	0.0419	8.36	8.46
4/12/2017	EV_MG1	E208057										
4/19/2017	EV_MG1	E208057										
4/26/2017	EV_MG1	E208057										
5/2/2017	EV_MG1	E208057										
5/3/2017	EV_MG1	E208057	0.00297	0.00293	2.87	3.25	0.718	< 0.0050	< 0.0050	0.0286	8.41	8.46
5/10/2017	EV_MG1	E208057										
5/17/2017	EV_MG1	E208057										
5/24/2017	EV_MG1	E208057										
5/31/2017	EV_MG1	E208057										
6/7/2017	EV_MG1	E208057									8.19	
6/14/2017	EV_MG1	E208057	0.00323	0.00314	3.32	3.46	0.33	< 0.0050	< 0.0050	0.0129	8.32	8.44
6/21/2017	EV_MG1	E208057										
6/28/2017	EV_MG1	E208057										
7/5/2017	EV_MG1	E208057										
7/11/2017	EV_MG1	E208057	0.00345	0.00351	3.57	3.8	0.026	< 0.0050	0.0087	0.0012	8.18	8.47
8/2/2017	EV_MG1	E208057	0.00405	0.00413	3.98	4.29					7.62	
8/2/2017	EV_MG1	E208057					0.09	0.0066	0.109	< 0.0010		8.28
8/10/2017	EV_MG1	E208057									8.21	
9/12/2017	EV_MG1	E208057	0.00323	0.00322	2.94	3.3	0.099	0.0109	0.0239	0.0035	7.98	8.44
10/3/2017	EV_MG1	E208057	0.00331	0.00332	2.49	2.51	0.413	< 0.0050	0.0103	< 0.0010	8.32	8.28
10/17/2017	EV_MG1	E208057										
10/18/2017	EV_MG1	E208057										
11/15/2017	EV_MG1	E208057	0.00365	0.00376	2.69	2.76	0.173	0.0071	0.0178	< 0.0010	8.22	8.38
11/23/2017	EV_MG1	E208057										
12/6/2017	EV_MG1	E208057	0.00288	0.00288	2.19	2.41	0.799	0.005	0.0086	0.0192	8.17	8.41
1/10/2017	EV_OC1	E102679	0.00739	0.00746	1.04	1.13	0.116	0.0114	0.262	< 0.0010	8.15	8.4
2/8/2017	EV_OC1	E102679	0.00783	0.00797	1.31	1.51	0.061	< 0.0050	0.187	< 0.0010	7.93	8.19
2/20/2017	EV_OC1	E102679	0.00423	0.00474	1.8	3.41	0.143	0.0097	0.106	0.0025	5.26	8.14
2/21/2017	EV_OC1	E102679										
3/6/2017	EV_OC1	E102679	0.00578	0.00545	1.76	2.25	0.084	0.0114	0.123	0.0013	8.18	8.21
3/14/2017	EV_OC1	E102679										
3/15/2017	EV_OC1	E102679										
3/15/2017	EV_OC1	E102679										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
3/16/2017	EV_OC1	E102679										
3/17/2017	EV_OC1	E102679	0.00227	0.00247	1.3	4.96	0.323	0.0048	0.0755	0.0169	7.82	8.07
3/18/2017	EV_OC1	E102679										
3/19/2017	EV_OC1	E102679										
3/20/2017	EV_OC1	E102679										
3/21/2017	EV_OC1	E102679										
3/22/2017	EV_OC1	E102679										
3/28/2017	EV_OC1	E102679										
4/3/2017	EV_OC1	E102679	0.00297	0.00305	1.82	2.35	0.072	< 0.0050	0.0302	< 0.0010	7.86	8.34
4/11/2017	EV_OC1	E102679										
4/20/2017	EV_OC1	E102679										
4/25/2017	EV_OC1	E102679										
5/4/2017	EV_OC1	E102679	0.003	0.00304	1.57	1.82	0.0743	0.0027	0.0276	< 0.0010	7.98	8.35
5/7/2017	EV_OC1	E102679										
5/9/2017	EV_OC1	E102679										
5/16/2017	EV_OC1	E102679										
5/23/2017	EV_OC1	E102679										
5/31/2017	EV_OC1	E102679										
6/5/2017	EV_OC1	E102679	0.00329	0.00342	1.16	1.49	0.052	< 0.0050	0.018	< 0.0010	7.9	8.41
6/13/2017	EV_OC1	E102679										
6/20/2017	EV_OC1	E102679										
6/27/2017	EV_OC1	E102679										
7/4/2017	EV_OC1	E102679										
7/10/2017	EV_OC1	E102679	0.004	0.00395	1.1	1.19	0.0196	0.0014	0.02	0.0012	7.95	8.21
8/1/2017	EV_OC1	E102679	0.0046	0.00463	0.82	1.24	0.0094	< 0.0010	0.0102	< 0.0010	7.97	8.39
9/11/2017	EV_OC1	E102679	0.00452	0.0047	0.92	1.31	0.0067	< 0.0010	0.0123	< 0.0010	8.09	8.26
10/2/2017	EV_OC1	E102679	0.00484	0.00472	0.68	1.22	0.0137	< 0.0010	0.0345	< 0.0010	7.13	8.34
11/14/2017	EV_OC1	E102679	0.00594	0.00621	< 2.5	< 2.5	0.099	0.0026	0.173	< 0.0010	7.89	8.27
12/7/2017	EV_OC1	E102679	0.00446	0.00468	1.38	1.56	0.0565	0.0038	0.125	< 0.0010	7.71	8.21
1/9/2017	EV_SM1	E102681	0.00104	0.00105	< 0.50	< 0.50	0.174	< 0.0010	0.0064	0.009	8.44	8.39
2/23/2017	EV_SM1	E102681	0.00122	0.00118	< 0.50	< 0.50	0.172	< 0.0010	0.005	0.0089	8.64	8.28
3/6/2017	EV_SM1	E102681	0.00133	0.00125	< 0.50	< 0.50	0.155	< 0.0010	< 0.0050	0.0081	4.79	8.33
3/15/2017	EV_SM1	E102681									8.3	
3/19/2017	EV_SM1	E102681										
3/20/2017	EV_SM1	E102681										
3/21/2017	EV_SM1	E102681										
3/22/2017	EV_SM1	E102681										
3/23/2017	EV_SM1	E102681										
3/28/2017	EV_SM1	E102681										
3/29/2017	EV_SM1	E102681										
4/3/2017	EV_SM1	E102681	0.00107	0.00114	< 0.50	0.92	0.138	< 0.0010	< 0.0050	0.0068	8.28	8.41
4/11/2017	EV_SM1	E102681										
4/19/2017	EV_SM1	E102681										
4/25/2017	EV_SM1	E102681										
5/2/2017	EV_SM1	E102681	0.00113	0.00123	< 0.50	1.41	0.162	< 0.0010	< 0.0050	0.0063	8.33	8.44
5/7/2017	EV_SM1	E102681										
5/8/2017	EV_SM1	E102681										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
5/9/2017	EV_SM1	E102681										
5/10/2017	EV_SM1	E102681										
5/11/2017	EV_SM1	E102681										
5/12/2017	EV_SM1	E102681										
5/13/2017	EV_SM1	E102681										
5/14/2017	EV_SM1	E102681										
5/15/2017	EV_SM1	E102681										
5/16/2017	EV_SM1	E102681										
5/17/2017	EV_SM1	E102681										
5/18/2017	EV_SM1	E102681										
5/19/2017	EV_SM1	E102681										
5/20/2017	EV_SM1	E102681										
5/23/2017	EV_SM1	E102681										
5/24/2017	EV_SM1	E102681										
5/25/2017	EV_SM1	E102681										
5/26/2017	EV_SM1	E102681										
5/27/2017	EV_SM1	E102681										
5/28/2017	EV_SM1	E102681										
5/29/2017	EV_SM1	E102681										
5/30/2017	EV_SM1	E102681										
6/5/2017	EV_SM1	E102681	0.000713	0.000775	< 0.50	1.47	0.157	< 0.0010	< 0.0050	0.0129	8.31	8.48
6/13/2017	EV_SM1	E102681										
6/20/2017	EV_SM1	E102681										
6/27/2017	EV_SM1	E102681										
7/4/2017	EV_SM1	E102681										
7/10/2017	EV_SM1	E102681	0.00103	0.00106	< 0.50	< 0.50	< 0.0050	< 0.0010	< 0.0050	< 0.0010	8.32	8.42
8/1/2017	EV_SM1	E102681	0.00118	0.00117	< 0.50	< 0.50	0.166	< 0.0010	< 0.0050	< 0.0010	8.28	8.42
9/11/2017	EV_SM1	E102681	0.00129	0.00131	< 0.50	< 0.50	< 0.0050	< 0.0010	0.0126	< 0.0010	8.41	8.45
10/2/2017	EV_SM1	E102681	0.00134	0.00133	< 0.50	0.57	0.0077	< 0.0010	0.0209	< 0.0010	8.37	8.48
10/4/2017	EV_SM1	E102681										
10/6/2017	EV_SM1	E102681										
10/10/2017	EV_SM1	E102681										
11/14/2017	EV_SM1	E102681	0.00125	0.00126	< 2.5	< 2.5	0.0418	< 0.0010	0.0075	0.0016	8.43	8.37
11/23/2017	EV_SM1	E102681										
12/1/2017	EV_SM1	E102681	0.00135	0.00132	< 0.50	0.56	0.0275	< 0.0010	< 0.0050	0.0022	8.26	8.34
1/18/2017	EV_SP1	E296311	0.00676	0.00691	27.9	28.4	3.92	< 0.010	< 0.0050	< 0.0010	7.41	8.16
2/23/2017	EV_SP1	E296311	0.0074	0.00744	25.8	26.1	3.99	< 0.0050	< 0.0050	< 0.0010	8.77	8.03
3/8/2017	EV_SP1	E296311	0.00572	0.00609	11.2	12.2	3.6	< 0.010	0.016	0.0028	8.24	8.22
3/16/2017	EV_SP1	E296311										
3/19/2017	EV_SP1	E296311										
3/29/2017	EV_SP1	E296311										
4/4/2017	EV_SP1	E296311	0.00535	0.00539	22.5	23.6	3.98	< 0.0050	< 0.0050	< 0.0010	8.1	8.04
4/12/2017	EV_SP1	E296311										
4/19/2017	EV_SP1	E296311										
4/26/2017	EV_SP1	E296311										
5/3/2017	EV_SP1	E296311	0.00581	0.00572	27.9	29.3	4.24	< 0.010	0.0108	< 0.0010	8.35	8.09
5/10/2017	EV_SP1	E296311										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
5/17/2017	EV_SP1	E296311										
5/24/2017	EV_SP1	E296311										
5/31/2017	EV_SP1	E296311										
6/7/2017	EV_SP1	E296311									7.96	
6/14/2017	EV_SP1	E296311	0.00617	0.00631	30.3	33	4.3	< 0.010	< 0.0050	< 0.0010	7.92	8.18
6/21/2017	EV_SP1	E296311										
6/28/2017	EV_SP1	E296311										
7/5/2017	EV_SP1	E296311										
7/11/2017	EV_SP1	E296311	0.00595	0.00608	36.1	35.7	4.45	0.0137	0.0078	< 0.0010	7.87	8.14
8/2/2017	EV_SP1	E296311	0.0059	0.0059	35.2	37.2					7.76	
8/2/2017	EV_SP1	E296311					5.12	0.0132	0.0116	< 0.0010		8.06
9/12/2017	EV_SP1	E296311	0.00566	0.00558	37.3	40.8	5.77	0.0124	< 0.0050	< 0.0010	8.25	8.06
10/3/2017	EV_SP1	E296311	0.00585	0.00619	35.9	40.6	5.83	0.011	0.0072	< 0.0010	8.01	8.07
10/3/2017	EV_SP1	E296311										
10/17/2017	EV_SP1	E296311	0.00591	0.00593	36	37.3	6.55	0.0087	0.0066	< 0.0010	7.83	8.03
11/15/2017	EV_SP1	E296311	0.00619	0.00622	36.6	38.7	6.56	0.0128	0.0218	< 0.0010	8.31	8.13
12/6/2017	EV_SP1	E296311	0.00645	0.00645	34.1	34.6	6.05	< 0.0050	0.0084	< 0.0010	7.69	8
1/10/2017	EV_SPR2	E298594	0.000789	0.000796	< 0.50	< 0.50	1.84	< 0.0050	0.0055	0.0099	7.69	8.32
2/8/2017	EV_SPR2	E298594	0.000737	0.000796	< 0.50	0.59	2.07	< 0.0050	< 0.0050	0.0091	7.07	8.01
2/23/2017	EV_SPR2	E298594	0.000749	0.00077	0.54	0.61	1.66	0.0023	< 0.0050	0.0056	7.95	7.75
3/7/2017	EV_SPR2	E298594	0.000664	0.000691	0.53	0.59	1.74	< 0.0050	< 0.0050	0.0066	7.63	7.89
3/15/2017	EV_SPR2	E298594										
3/22/2017	EV_SPR2	E298594										
3/28/2017	EV_SPR2	E298594	0.000835	0.000874	0.64	0.79	0.802	< 0.0050	0.0073	0.0088	7.44	7.83
4/4/2017	EV_SPR2	E298594	0.000912	0.000936	0.63	0.79	0.655	< 0.0050	< 0.0050	0.0078	7.36	8.32
5/3/2017	EV_SPR2	E298594	0.000896	0.000869	< 0.50	0.61	0.933	< 0.0050	< 0.0050	0.0064	7.4	8.3
6/5/2017	EV_SPR2	E298594	0.000831	0.000773	0.54	0.67	0.647	< 0.0050	0.0072	0.0128	7.23	8.29
7/11/2017	EV_SPR2	E298594	0.00083	0.000829	< 0.50	< 0.50	0.603	0.001	< 0.0050	0.0143	7.24	8.13
8/2/2017	EV_SPR2	E298594	0.0008	0.000832	< 0.50	0.63					7.38	
8/2/2017	EV_SPR2	E298594					0.965	< 0.0010	0.0136	0.0135		7.81
9/12/2017	EV_SPR2	E298594	0.000729	0.000796	< 0.50	0.55	1.48	0.0016	0.0067	0.0111	7.52	8.39
10/3/2017	EV_SPR2	E298594	0.000778	0.000806	0.51	0.59	1.85	0.0015	0.0129	0.0117	7.36	8.23
11/15/2017	EV_SPR2	E298594	0.00083	0.000869	< 0.50	< 0.50	1.45	< 0.0010	0.0109	0.0104	7.54	8.38
12/6/2017	EV_SPR2	E298594	0.000751	0.000801	< 0.50	0.53	1.32	< 0.0010	0.0151	0.0125	7.42	8.21
1/18/2017	EV_TC1	E298593										
2/23/2017	EV_TC1	E298593										
3/8/2017	EV_TC1	E298593										
3/16/2017	EV_TC1	E298593	0.00153	0.00167	1.5	1.87	< 0.0050	0.0011	< 0.0050	0.0374	6.68	7.82
3/19/2017	EV_TC1	E298593										
3/29/2017	EV_TC1	E298593										
4/4/2017	EV_TC1	E298593	0.0018	0.00185	2.48	2.5	0.0199	< 0.0010	0.0116	0.0188	8.09	8.4
4/12/2017	EV_TC1	E298593										
4/19/2017	EV_TC1	E298593										
4/26/2017	EV_TC1	E298593										
5/3/2017	EV_TC1	E298593	0.00162	0.00157	3.53	3.82	0.0236	< 0.0010	< 0.0050	0.0139	8.11	8.36
5/10/2017	EV_TC1	E298593										
5/17/2017	EV_TC1	E298593										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
5/24/2017	EV_TC1	E298593										
5/31/2017	EV_TC1	E298593										
6/7/2017	EV_TC1	E298593									7.92	
6/14/2017	EV_TC1	E298593	0.00217	0.00216	3.3	3.49	< 0.0050	< 0.0010	< 0.0050	0.0128	7.92	8.35
6/21/2017	EV_TC1	E298593										
6/28/2017	EV_TC1	E298593										
7/5/2017	EV_TC1	E298593										
7/11/2017	EV_TC1	E298593										
8/2/2017	EV_TC1	E298593										
9/12/2017	EV_TC1	E298593										
10/3/2017	EV_TC1	E298593										
11/15/2017	EV_TC1	E298593										
12/6/2017	EV_TC1	E298593										
1/31/2017	FR_3PIT	E217403										
2/28/2017	FR_3PIT	E217403										
3/7/2017	FR_3PIT	E217403										
3/16/2017	FR_3PIT	E217403										
3/23/2017	FR_3PIT	E217403										
3/31/2017	FR_3PIT	E217403										
4/3/2017	FR_3PIT	E217403										
4/10/2017	FR_3PIT	E217403										
4/18/2017	FR_3PIT	E217403										
4/24/2017	FR_3PIT	E217403										
5/1/2017	FR_3PIT	E217403										
5/8/2017	FR_3PIT	E217403										
5/15/2017	FR_3PIT	E217403										
5/23/2017	FR_3PIT	E217403										
5/29/2017	FR_3PIT	E217403										
6/6/2017	FR_3PIT	E217403										
6/16/2017	FR_3PIT	E217403										
6/22/2017	FR_3PIT	E217403										
6/29/2017	FR_3PIT	E217403										
7/3/2017	FR_3PIT	E217403										
7/10/2017	FR_3PIT	E217403										
8/7/2017	FR_3PIT	E217403										
9/4/2017	FR_3PIT	E217403										
10/2/2017	FR_3PIT	E217403										
11/6/2017	FR_3PIT	E217403										
12/4/2017	FR_3PIT	E217403										
1/23/2017	FR_CC1	E102481	0.00323	0.00399	36.4	44.3	63.4	0.0095	< 0.0050	0.001	7.78	7.64
2/2/2017	FR_CC1	E102481	0.00311	0.00308	40.1	37.9	73.2	0.0091	< 0.0050	< 0.0010	7.74	7.83
3/9/2017	FR_CC1	E102481	0.00365	0.00376	43.7	41.6	81.4	0.0059	< 0.0050	0.0111	7.89	8.01
3/14/2017	FR_CC1	E102481	0.00329	0.00331	43.7	44.2	80.2	0.0075	< 0.0050	0.0104	7.82	7.79
3/23/2017	FR_CC1	E102481									7.74	
3/28/2017	FR_CC1	E102481									7.82	
4/3/2017	FR_CC1	E102481	0.00344	0.00364	53.3	53.8	88.5	0.0118	0.0127	0.0012	7.82	8.04
4/11/2017	FR_CC1	E102481									7.9	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
4/20/2017	FR_CC1	E102481									7.85	
4/26/2017	FR_CC1	E102481									8.02	
5/1/2017	FR_CC1	E102481	0.004	0.0042	48.9	49.1	87.3	0.0454	0.0278	< 0.0010	8.01	7.96
5/3/2017	FR_CC1	E102481										
5/6/2017	FR_CC1	E102481										
5/10/2017	FR_CC1	E102481									8.03	
5/15/2017	FR_CC1	E102481									8.13	
5/23/2017	FR_CC1	E102481									8.14	
5/29/2017	FR_CC1	E102481									8.09	
6/5/2017	FR_CC1	E102481	0.00381	0.00389	36.8	36.4	52.1	0.048	< 0.0050	0.0014	8.13	8.29
6/15/2017	FR_CC1	E102481									8.13	
6/20/2017	FR_CC1	E102481									8.13	
6/27/2017	FR_CC1	E102481									8.07	
7/3/2017	FR_CC1	E102481	0.00375	0.00401	41.4	41.2	58.8	0.0866	0.0064	< 0.0010	8.09	8.29
7/10/2017	FR_CC1	E102481									8.07	
8/8/2017	FR_CC1	E102481	0.00356	0.0035	42.9	40.5	56.8	0.0833	< 0.0050	< 0.0010	8.11	8.17
9/5/2017	FR_CC1	E102481	0.00266	0.00279	25.1	30.4	40	0.0787	< 0.0050	0.0011	8.17	8.17
10/11/2017	FR_CC1	E102481	0.00215	0.00218	19	20.4	37	0.0425	0.0165	< 0.0010	8.04	8.06
11/20/2017	FR_CC1	E102481	0.00305	0.00308	32.3	32.1	49.4	0.0154	0.0166	< 0.0010	7.87	8.17
12/6/2017	FR_CC1	E102481	0.00301	0.00313	32	29.5	49.9	0.0156	0.009	< 0.0010	7.95	8.21
1/30/2017	FR_EC1	E102480										
2/28/2017	FR_EC1	E102480										
3/8/2017	FR_EC1	E102480										
3/16/2017	FR_EC1	E102480										
3/22/2017	FR_EC1	E102480	0.00438	0.00476	8.21	8.96	5.21	0.04	0.123	< 0.0010	7.89	8.18
3/23/2017	FR_EC1	E102480										
3/27/2017	FR_EC1	E102480									7.93	
4/3/2017	FR_EC1	E102480	0.00496	0.0053	7.69	8.75	3.84	0.0443	0.14	< 0.0010	7.93	8.21
4/10/2017	FR_EC1	E102480									8.17	
4/19/2017	FR_EC1	E102480									7.79	
4/26/2017	FR_EC1	E102480									8.19	
5/1/2017	FR_EC1	E102480	0.00375	0.00411	18.1	18.9	30.9	0.174	0.239	< 0.0010	7.95	7.87
5/3/2017	FR_EC1	E102480										
5/6/2017	FR_EC1	E102480										
5/10/2017	FR_EC1	E102480									8.15	
5/15/2017	FR_EC1	E102480									8.13	
5/23/2017	FR_EC1	E102480									8.15	
5/29/2017	FR_EC1	E102480									8	
6/5/2017	FR_EC1	E102480	0.0038	0.00397	17.8	16.1	39.1	0.141	0.0135	< 0.0010	8.03	8.18
6/13/2017	FR_EC1	E102480									7.99	
6/19/2017	FR_EC1	E102480									8.03	
6/26/2017	FR_EC1	E102480									8.04	
7/3/2017	FR_EC1	E102480	0.00341	0.00368	18.6	19	44.8	0.19	0.0209	< 0.0010	7.95	8.19
7/10/2017	FR_EC1	E102480									7.98	
8/7/2017	FR_EC1	E102480										
9/25/2017	FR_EC1	E102480										
10/31/2017	FR_EC1	E102480										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
11/28/2017	FR_EC1	E102480	0.0041	0.00398	22.3	21.7	37.4	0.107	0.073	0.0048	8.15	8.22
12/31/2017	FR_EC1	E102480										
8/31/2017	FR_EC1H	E310047	0.00293	0.00304	21.6	21.9	45	0.174	0.0322	< 0.0010	7.89	8.21
9/25/2017	FR_EC1H	E310047	0.00317	0.00296	18.6	18.8	44.7	0.152	0.0099	< 0.0010	8.21	8.23
10/30/2017	FR_EC1H	E310047	0.00326	0.00318	19.2	20	40.2	0.113	0.0099	< 0.0010	8.2	8.21
11/23/2017	FR_EC1H	E310047	0.0032	0.00376	23.4	24.9	38.8	0.117	0.0524	0.0011	8.09	8.35
12/11/2017	FR_EC1H	E310047	0.00436	0.00441	22.3	24.7	37.8	0.144	0.0872	0.0021	8.3	8.11
1/17/2017	FR_FR1	200251										
2/28/2017	FR_FR1	200251										
3/8/2017	FR_FR1	200251										
3/14/2017	FR_FR1	200251										
3/22/2017	FR_FR1	200251										
3/27/2017	FR_FR1	200251	0.000641	0.000767	0.89	1	5.55	0.0055	0.0144	0.0015	8.18	8.12
4/4/2017	FR_FR1	200251	0.000793	0.000811	1.23	1.36	7.05	0.0075	0.0145	< 0.0010	8.12	8.09
4/11/2017	FR_FR1	200251									8.2	
4/18/2017	FR_FR1	200251									8.11	
4/26/2017	FR_FR1	200251									8.18	
5/1/2017	FR_FR1	200251	0.000702	0.00077	0.63	0.87	4.63	0.0043	0.0228	0.0014	8.23	8.31
5/5/2017	FR_FR1	200251										
5/6/2017	FR_FR1	200251										
5/7/2017	FR_FR1	200251										
5/10/2017	FR_FR1	200251									8.24	
5/15/2017	FR_FR1	200251									8.28	
5/23/2017	FR_FR1	200251									8.28	
5/29/2017	FR_FR1	200251									8.2	
6/5/2017	FR_FR1	200251	0.000538	0.00058	< 0.50	0.62	1.01	< 0.0010	0.0062	0.0029	8.27	8.31
6/14/2017	FR_FR1	200251									8.26	
6/20/2017	FR_FR1	200251									8.39	
6/28/2017	FR_FR1	200251									8.14	
7/3/2017	FR_FR1	200251	0.000655	0.000721	< 0.50	0.51	1.04	< 0.0010	0.0062	< 0.0010	8.39	8.39
7/11/2017	FR_FR1	200251									8.4	
8/9/2017	FR_FR1	200251	0.000875	0.000855	0.57	0.62	2.82	0.0032	< 0.0050	< 0.0010	8.21	8.26
8/28/2017	FR_FR1	200251	0.000914	0.00102	0.59	0.99	3.39	0.0041	0.0179	< 0.0010	8.25	8.32
9/11/2017	FR_FR1	200251	0.000919	0.000973	0.71	0.81	4.09	0.0073	0.0073	< 0.0010	8.46	8.46
10/11/2017	FR_FR1	200251	0.00083	0.000859	0.59	0.75	3.65	0.0054	0.0139	< 0.0010	8.25	8.41
11/29/2017	FR_FR1	200251	0.000894	0.000832	0.63	0.68	4.37	0.0024	< 0.0050	0.0014	8.3	8.24
12/4/2017	FR_FR1	200251										
1/16/2017	FR_FR2	200201	0.00141	0.00146	2.81	3.13	17.5	0.0058	< 0.0050	0.0012	8.18	8.1
2/1/2017	FR_FR2	200201	0.00125	0.00134	2.74	2.92	18.7	0.0029	< 0.0050	0.0021	8.11	8.13
3/9/2017	FR_FR2	200201	0.00119	0.00124	2.87	2.7	21.3	< 0.0050	0.0063	0.0025	8.3	8.29
3/15/2017	FR_FR2	200201	0.00138	0.00142	3	3.42	20.1	0.0031	< 0.0050	0.0132	8.28	8.24
3/22/2017	FR_FR2	200201	0.00138	0.00165	3.17	3.85	18.1	0.0064	< 0.0050	< 0.0010	8.24	8.27
3/29/2017	FR_FR2	200201	0.00131	0.00137	3.53	3.81	15.4	0.0027	< 0.0050	< 0.0010	8.22	8.32
4/5/2017	FR_FR2	200201	0.00159	0.00135	3.69	3.81	18	0.004	0.0075	< 0.0010	8.25	8.34
4/5/2017	FR_FR2	200201	0.00153	0.00153	3.91	4.01	18.4	0.0091	< 0.0050	< 0.0010		8.33
4/12/2017	FR_FR2	200201	0.00128	0.00126	3.83	3.9	17.7	0.004	< 0.0050	< 0.0010	8.32	8.25
4/20/2017	FR_FR2	200201	0.00113	0.00132	2.34	12.1	12.7	0.0031	0.0111	0.0045	7.87	8.25

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
4/25/2017	FR_FR2	200201	0.00114	0.00106	3.62	4.61	12	0.0052	0.0076	0.0044	8.09	8.07
5/2/2017	FR_FR2	200201	0.00137	0.00142	3.92	4.42	16.1	< 0.0050	< 0.0050	0.0014	8.23	8.35
5/8/2017	FR_FR2	200201	0.0011	0.00113	3.93	4.43	6.78	0.0027	0.0196	0.0079	8.2	8.06
5/16/2017	FR_FR2	200201	0.000929	0.0011	2.58	2.66	5.79	0.0028	< 0.0050	0.0034	8.2	8.38
5/23/2017	FR_FR2	200201	0.000841	0.000885	1.54	2.22	3.31	0.0018	< 0.0050	0.0017	8.46	8.26
5/30/2017	FR_FR2	200201	0.000794	0.000874	1.28	2.87	2.53	0.0019	< 0.0050	0.0017	8.2	8.25
6/6/2017	FR_FR2	200201	0.000834	0.000859	1.42	1.65	2.74	0.0018	0.0151	0.0022	8.09	8.31
6/6/2017	FR_FR2	200201	0.000842	0.000851	1.37	1.62	2.81	0.0011	< 0.0050	0.0022		7.9
6/13/2017	FR_FR2	200201	0.000864	0.000903	1.5	1.6	3.19	0.0017	< 0.0050	< 0.0010	8.25	8.35
6/20/2017	FR_FR2	200201	0.000917	0.000938	1.62	1.82	3.73	0.0021	< 0.0050	< 0.0010	8.35	8.36
6/26/2017	FR_FR2	200201	0.000917	0.000939	1.55	1.68	4.07	0.003	< 0.0050	< 0.0010	8.35	8.36
7/5/2017	FR_FR2	200201	0.000956	0.00101	1.7	1.7	5.01	0.0043	0.0079	< 0.0010	8.29	8.51
7/5/2017	FR_FR2	200201	0.000961	0.000995	1.68	1.85	5.01	0.0045	0.0074	0.002		8.48
7/11/2017	FR_FR2	200201	0.000994	0.00102	1.8	1.89	5.66	0.0047	0.0056	< 0.0010	8.33	8.36
7/17/2017	FR_FR2	200201										
8/10/2017	FR_FR2	200201	0.00115	0.00111	2.07	2.32	10.4	0.0066	0.0055	< 0.0010	8.28	8.32
8/28/2017	FR_FR2	200201	0.00116	0.00131	2.28	2.83	11.7	0.0064	0.0118	< 0.0010	8.2	8.25
9/6/2017	FR_FR2	200201	0.00119	0.0012	2.95	2.83	13.5	0.0067	0.0059	< 0.0010	8.31	8.23
9/20/2017	FR_FR2	200201										
10/4/2017	FR_FR2	200201	0.0012	0.00119	2.37	2.51	13.4	0.0075	0.0103	< 0.0010	8.31	8.13
10/19/2017	FR_FR2	200201	0.00114	0.0012	1.88	2.08	11.9	0.004	< 0.0050	< 0.0010	8.33	8.13
10/31/2017	FR_FR2	200201	0.00114	0.00104	2.07	2.04	11.7	0.003	< 0.0050	< 0.0010		8.31
11/1/2017	FR_FR2	200201	0.00103	0.00112	< 2.5	2.27	12	0.0039	< 0.0050	< 0.0010	8.24	8.31
11/2/2017	FR_FR2	200201	0.00139	0.00096	2.1	< 2.5	12.1	0.0032	< 0.0050	< 0.0010	8.3	8.36
11/16/2017	FR_FR2	200201										
12/5/2017	FR_FR2	200201	0.00121	0.00124	1.92	2.16	11.8	0.0028	0.0119	< 0.0010	8.3	8.18
1/19/2017	FR_FRCP1	E300071										
2/21/2017	FR_FRCP1	E300071	0.00165	0.00171	9.71	10.2	20.4	0.0198	0.0066	< 0.0010	8.18	8.29
2/28/2017	FR_FRCP1	E300071	0.00158	0.00172	9.66	10.2	23	0.0103	0.0081	0.0016	8.23	8.11
3/7/2017	FR_FRCP1	E300071	0.00223	0.00233	20.3	19.7	25.7	0.0067	< 0.0050	0.0033	8.12	8.23
3/14/2017	FR_FRCP1	E300071	0.00167	0.00148	10.5	9.82	23	0.0081	< 0.0050	0.0147	8.25	8.11
3/21/2017	FR_FRCP1	E300071	0.00165	0.00193	6.24	7.11	17.7	0.0092	< 0.0050	0.0011	8.21	8.26
3/28/2017	FR_FRCP1	E300071	0.00153	0.0016	5.46	5.53	18.1	0.0137	< 0.0050	< 0.0010	8.4	8.31
4/5/2017	FR_FRCP1	E300071	0.00164	0.00159	6.95	6.41	18.5	0.0063	0.0131	< 0.0010	8.36	8.3
4/10/2017	FR_FRCP1	E300071	0.00171	0.0016	5.92	6.4	17.2	0.0071	< 0.0050	< 0.0010	8.27	8.37
4/20/2017	FR_FRCP1	E300071	0.00122	0.00121	3.14	6.86	13.1	0.0037	0.0058	0.0036	8.14	8.3
4/24/2017	FR_FRCP1	E300071	0.00119	0.00146	4.07	5.6	12	0.0045	0.0261	0.0028	8.24	8.35
5/2/2017	FR_FRCP1	E300071	0.00156	0.00164	5.94	6.67	15.7	0.0061	0.0105	0.0012	8.3	8.35
5/9/2017	FR_FRCP1	E300071	0.00122	0.00122	3.89	4.77	7.07	0.0037	0.0179	0.0023	8.21	8.29
5/16/2017	FR_FRCP1	E300071	0.00104	0.00117	2.83	3.08	11.1	0.0036	< 0.0050	0.0024	8.17	8.34
5/23/2017	FR_FRCP1	E300071	0.000981	0.00107	1.72	3.61	8.23	0.0013	< 0.0050	0.003	8.15	8.26
5/30/2017	FR_FRCP1	E300071	0.00108	0.00115	1.6	3.99	8.5	0.003	< 0.0050	0.0022	8.12	8.23
6/6/2017	FR_FRCP1	E300071	0.00129	0.00126	2.58	3.07	8.42	0.004	< 0.0050	0.0024	8.09	8.25
6/13/2017	FR_FRCP1	E300071	0.00129	0.00128	2.32	2.55	8.43	0.0109	< 0.0050	< 0.0010	8.16	8.38
6/20/2017	FR_FRCP1	E300071	0.0012	0.00126	1.85	2.07	8.11	0.0021	< 0.0050	< 0.0010	8.15	8.35
6/26/2017	FR_FRCP1	E300071	0.00118	0.00116	1.89	1.98	7.92	0.0021	< 0.0050	< 0.0010	8.11	8.34
7/5/2017	FR_FRCP1	E300071	0.00128	0.00126	2.4	2.58	8.73	0.006	0.0058	< 0.0010	8.28	8.49

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
7/11/2017	FR_FRCP1	E300071	0.00127	0.0013	2.6	2.76	8.89	0.0038	< 0.0050	0.0011	8.24	8.36
7/25/2017	FR_FRCP1	E300071	0.00126	0.0013	4.49	4.97	8.88	0.0041	0.0084	0.002	8.17	8.31
8/1/2017	FR_FRCP1	E300071	0.00141	0.00144	6.6	6.77	10.9	0.0064	< 0.0050	< 0.0010	8.35	8.32
8/8/2017	FR_FRCP1	E300071	0.00139	0.00141	8.13	7.63	11.6	0.0062	0.0053	< 0.0010	8.32	8.3
8/15/2017	FR_FRCP1	E300071	0.00133	0.00135	6.64	7.47	11.9	0.0067	< 0.0050	< 0.0010	8.26	8.34
8/22/2017	FR_FRCP1	E300071	0.00134	0.00152	8.1	8.17	12.5	0.0075	0.0078	0.0016	8.26	8.22
9/11/2017	FR_FRCP1	E300071	0.00146	0.00155	10.3	10.2	16	0.0066	0.0057	< 0.0010	8.24	8.12
10/2/2017	FR_FRCP1	E300071	0.00125	0.00132	8.2	8.82	15.1	0.0082	0.0051	< 0.0010	8.23	8.16
10/10/2017	FR_FRCP1	E300071	0.00134	0.0013	8.64	9.83	15.1	0.0053	0.0097	< 0.0010	8.16	8.11
10/17/2017	FR_FRCP1	E300071	0.00136	0.00142	9.16	9.91	15.7	0.0052	< 0.0050	< 0.0010	8.24	8.18
10/24/2017	FR_FRCP1	E300071	0.00137	0.00137	8.01	8.54	14.6	0.01	0.0068	< 0.0010	8.4	8.3
10/31/2017	FR_FRCP1	E300071	0.00141	0.0014	8.99	8.81	15.4	< 0.0050	< 0.0050	< 0.0010	8.3	8.29
11/15/2017	FR_FRCP1	E300071	0.00151	0.00163	8.79	10	16.8	0.0055	< 0.0050	< 0.0010	8.33	8.23
12/5/2017	FR_FRCP1	E300071	0.00162	0.00169	10.6	11.9	16.6	0.006	0.0074	0.0018	8.21	8.19
12/6/2017	FR_FRCP1	E300071	0.00163	0.00171	11.6	11.4	16.5	0.0055	0.0208	< 0.0010	8.23	8.29
12/12/2017	FR_FRCP1	E300071	0.00194	0.0019	16.2	17.5	19	0.0096	< 0.0050	< 0.0010	8.1	8.14
12/28/2017	FR_FRCP1	E300071	0.00199	0.00205	14.3	14.5	18.2	0.0033	0.0111	< 0.0010	8	7.95
1/19/2017	FR_FRRD	E300097	0.000624	0.00064	< 0.50	< 0.50	31	0.0056	< 0.0050	0.0069	7.86	7.86
2/22/2017	FR_FRRD	E300097	0.000542	0.000568	< 0.50	< 0.50	29.3	< 0.0050	< 0.0050	0.0021	7.82	8.3
3/15/2017	FR_FRRD	E300097	0.000503	0.000573	0.51	0.7	33.1	< 0.0050	< 0.0050	0.0201	7.97	8.07
4/25/2017	FR_FRRD	E300097	0.00111	0.00118	3.65	5.28	15.2	0.0066	0.0306	0.0029	8.17	8.1
5/3/2017	FR_FRRD	E300097	0.00133	0.00142	4.26	4.85	18.1	0.006	0.0244	< 0.0010	8.12	8.24
5/3/2017	FR_FRRD	E300097	0.00163	0.00134	4.63	4.77	18.5	0.0075	< 0.0050	< 0.0010		8.39
5/18/2017	FR_FRRD	E300097	0.00117	0.00128	2.71	3.09	14.6	0.0081	0.007	0.0017	8.12	8.37
6/13/2017	FR_FRRD	E300097	0.00117	0.00126	1.98	2.54	11.2	0.0043	< 0.0050	< 0.0010	8.03	8.37
7/13/2017	FR_FRRD	E300097	0.00118	0.00116	2.22	2.3	13.3	0.0039	0.0064	0.001	8.03	8.29
7/13/2017	FR_FRRD	E300097	0.00105	0.00106	2.01	2.27	14	< 0.0050	< 0.0050	< 0.0010	8.03	8.39
8/10/2017	FR_FRRD	E300097	0.000915	0.000933	2.47	2.85	24.2	0.005	< 0.0050	0.0019	8	8.28
9/13/2017	FR_FRRD	E300097	0.000987	0.00103	3.74	5.16	16.9	0.0067	0.0058	< 0.0010	7.73	8.09
10/18/2017	FR_FRRD	E300097	0.00125	0.00131	7.46	7.24	17.9	0.0059	< 0.0050	< 0.0010	8.15	8.14
11/6/2017	FR_FRRD	E300097	0.00084	0.000873	3.4	3.74	25.8	0.0071	< 0.0050	0.0011	7.96	8.2
12/5/2017	FR_FRRD	E300097	0.00066	0.000699	1.05	1.16	26.8	0.0065	0.006	0.0029	7.7	8.01
1/9/2017	FR_HC1	E216778	0.000913	0.00101	1.21	1.37	6.03	0.0072	0.0107	0.0023	7.86	7.93
2/14/2017	FR_HC1	E216778	0.000881	0.000951	1.42	1.47	6.27	0.0059	0.0124	0.0016	7.94	7.9
3/7/2017	FR_HC1	E216778	0.000947	0.00101	1.49	1.66	6.6	0.0047	0.0151	0.0023	7.95	7.97
3/14/2017	FR_HC1	E216778	0.000944	0.000892	1.43	1.53	6.7	0.0068	0.0152	0.0098	7.95	7.87
3/22/2017	FR_HC1	E216778	0.000862	0.000959	1.78	2.06	8.16	0.0075	0.0175	< 0.0010	7.8	8.01
3/28/2017	FR_HC1	E216778	0.000809	0.000859	1.5	1.48	8.36	0.0102	0.0161	< 0.0010	7.85	8.04
4/4/2017	FR_HC1	E216778	0.000836	0.000823	1.78	1.83	8.47	0.0077	0.0118	< 0.0010	7.83	7.86
4/11/2017	FR_HC1	E216778	0.000899	0.000809	1.77	1.59	9.58	0.0096	0.0214	< 0.0010	7.85	8.01
4/18/2017	FR_HC1	E216778	0.000959	0.00101	1.71	1.82	10.4	0.0105	0.0221	< 0.0010	7.69	7.87
4/26/2017	FR_HC1	E216778	0.00093	0.000945	1.71	1.97	8.72	0.0082	0.0171	< 0.0010	7.74	8.17
5/1/2017	FR_HC1	E216778	0.000917	0.000911	1.77	1.85	9.96	0.0094	0.0477	< 0.0010	7.72	8.01
5/5/2017	FR_HC1	E216778										
5/6/2017	FR_HC1	E216778										
5/7/2017	FR_HC1	E216778										
5/9/2017	FR_HC1	E216778	0.000712	0.0007	0.95	0.9	4.01	0.0017	0.0062	< 0.0010	8.07	8.12

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
5/15/2017	FR_HC1	E216778	0.000474	0.000615	0.66	0.81	2.89	0.0013	< 0.0050	< 0.0010	8.22	8.31
5/23/2017	FR_HC1	E216778	0.000506	0.000524	< 0.50	0.78	1.22	< 0.0010	< 0.0050	0.012	8.14	8.14
5/29/2017	FR_HC1	E216778	0.000479	0.000508	< 0.50	0.97	1.09	0.0013	0.0105	0.002	8.07	8.2
6/5/2017	FR_HC1	E216778	0.000538	0.000568	0.63	0.83	1.52	0.001	0.0129	0.0029	8.01	8.24
6/14/2017	FR_HC1	E216778	0.000716	0.000591	< 0.50	0.55	0.938	0.001	< 0.0050	< 0.0010	8.06	8.27
6/20/2017	FR_HC1	E216778	0.000622	0.000658	0.59	0.78	1.61	0.0016	0.0073	< 0.0010	8.05	8.23
6/27/2017	FR_HC1	E216778	0.000621	0.000634	0.53	0.52	1.32	0.0012	0.0051	< 0.0010	8.06	8.17
7/3/2017	FR_HC1	E216778	0.000653	0.000695	0.51	0.59	1.36	0.0013	0.0084	< 0.0010	8.08	8.27
7/11/2017	FR_HC1	E216778	0.000737	0.000748	0.57	0.64	1.74	0.0016	0.0079	< 0.0010	8.1	8.22
8/8/2017	FR_HC1	E216778	0.000902	0.000905	0.87	0.76	3.54	0.0033	0.0082	< 0.0010	7.85	8.31
9/5/2017	FR_HC1	E216778	0.000918	0.000981	1.07	1.26	4.91	0.0071	0.0164	0.0011	8.14	8.21
10/11/2017	FR_HC1	E216778	0.000951	0.000903	0.85	1.02	4.76	0.006	0.0097	< 0.0010	7.93	8.37
10/30/2017	FR_HC1	E216778										
11/7/2017	FR_HC1	E216778	0.000965	0.000984	0.83	0.94	4.68	0.0032	0.0109	< 0.0010	8.05	8.18
11/14/2017	FR_HC1	E216778										
12/6/2017	FR_HC1	E216778	0.000965	0.000886	0.81	0.79	5.68	0.0027	0.011	< 0.0010	8.04	8.27
1/17/2017	FR_HC3	E300096	0.000553	0.00058	< 0.50	< 0.50	0.312	< 0.0010	< 0.0050	< 0.0010	8.2	8.19
2/14/2017	FR_HC3	E300096	0.000571	0.000613	< 0.50	< 0.50	0.309	< 0.0010	< 0.0050	0.0017	8.07	8.04
3/1/2017	FR_HC3	E300096	0.000608	0.000619	< 0.50	< 0.50	0.306	< 0.0010	< 0.0050	< 0.0010	8.22	8
3/16/2017	FR_HC3	E300096									8.28	
3/23/2017	FR_HC3	E300096									8.18	
3/27/2017	FR_HC3	E300096									7.98	
4/4/2017	FR_HC3	E300096	0.000596	0.000554	< 0.50	< 0.50	0.296	< 0.0010	< 0.0050	< 0.0010	8.03	8.03
4/4/2017	FR_HC3	E300096	0.000646	0.000673	< 0.50	< 0.50	0.301	< 0.0010	< 0.0050	< 0.0010		8.24
4/11/2017	FR_HC3	E300096									8.12	
4/18/2017	FR_HC3	E300096									7.93	
4/26/2017	FR_HC3	E300096									8	
5/1/2017	FR_HC3	E300096	0.000556	0.00056	< 0.50	< 0.50	0.281	< 0.0010	< 0.0050	< 0.0010	7.67	8.17
5/1/2017	FR_HC3	E300096	0.000553	0.000574	< 0.50	< 0.50	0.273	< 0.0010	< 0.0050	< 0.0010		8.27
5/10/2017	FR_HC3	E300096									8.4	
5/15/2017	FR_HC3	E300096									8.29	
5/24/2017	FR_HC3	E300096									8.18	
5/29/2017	FR_HC3	E300096									8.19	
6/5/2017	FR_HC3	E300096	0.000348	0.00037	< 0.50	< 0.50	0.142	< 0.0010	< 0.0050	0.0021	8.13	8.27
6/5/2017	FR_HC3	E300096	0.000363	0.000377	< 0.50	< 0.50	0.145	< 0.0010	< 0.0050	0.0011		8.15
6/14/2017	FR_HC3	E300096									8.1	
6/21/2017	FR_HC3	E300096									8.18	
6/27/2017	FR_HC3	E300096									8.5	
7/3/2017	FR_HC3	E300096	0.000438	0.000464	< 0.50	< 0.50	0.0865	< 0.0010	< 0.0050	< 0.0010		8.22
7/3/2017	FR_HC3	E300096	0.000428	0.00042	< 0.50	< 0.50	0.0889	< 0.0010	< 0.0050	< 0.0010	8.14	8.27
7/11/2017	FR_HC3	E300096									8.1	
8/9/2017	FR_HC3	E300096	0.000555	0.000571	< 0.50	< 0.50	0.168	< 0.0010	< 0.0050	< 0.0010	8.23	8.21
9/5/2017	FR_HC3	E300096	0.000569	0.000623	< 0.50	< 0.50	0.178	< 0.0010	< 0.0050	0.0014	7.87	8.22
10/11/2017	FR_HC3	E300096	0.000609	0.000642	< 0.50	< 0.50	0.285	< 0.0010	0.009	< 0.0010	8.16	8.28
11/14/2017	FR_HC3	E300096	0.000667	0.000661	< 0.50	< 0.50	0.293	< 0.0010	< 0.0050	0.001	8.2	8.3
12/21/2017	FR_HC3	E300096	0.000601	0.000627	< 0.50	< 0.50	0.302	0.0022	< 0.0050	< 0.0010	8.09	8
1/31/2017	FR_HP1	E216781										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
2/28/2017	FR_HP1	E216781										
3/8/2017	FR_HP1	E216781										
3/15/2017	FR_HP1	E216781										
3/22/2017	FR_HP1	E216781										
3/31/2017	FR_HP1	E216781										
4/3/2017	FR_HP1	E216781										
4/10/2017	FR_HP1	E216781										
4/17/2017	FR_HP1	E216781										
4/24/2017	FR_HP1	E216781										
5/1/2017	FR_HP1	E216781										
5/8/2017	FR_HP1	E216781										
5/15/2017	FR_HP1	E216781										
5/22/2017	FR_HP1	E216781										
5/29/2017	FR_HP1	E216781										
6/5/2017	FR_HP1	E216781										
6/15/2017	FR_HP1	E216781										
6/22/2017	FR_HP1	E216781										
6/29/2017	FR_HP1	E216781										
7/3/2017	FR_HP1	E216781										
7/10/2017	FR_HP1	E216781										
8/7/2017	FR_HP1	E216781										
9/4/2017	FR_HP1	E216781										
10/2/2017	FR_HP1	E216781										
11/6/2017	FR_HP1	E216781										
12/4/2017	FR_HP1	E216781										
1/19/2017	FR_KC1	200252	0.00136	0.00135	18	18.5	78.8	0.0051	< 0.0050	0.0018	7.94	7.92
2/1/2017	FR_KC1	200252	0.00135	0.00134	21.3	21.5	82.1	0.0075	< 0.0050	< 0.0010	7.86	7.98
3/6/2017	FR_KC1	200252	0.00132	0.00145	22.4	26.4	88.2	0.0074	< 0.0050	< 0.0010	8	8
3/15/2017	FR_KC1	200252									7.99	
3/22/2017	FR_KC1	200252									7.89	
3/29/2017	FR_KC1	200252									7.91	
4/5/2017	FR_KC1	200252	0.00125	0.00116	28.5	26.2	95.1	0.0086	< 0.0050	< 0.0010	7.85	8.08
4/12/2017	FR_KC1	200252									7.88	
4/20/2017	FR_KC1	200252									7.6	
4/25/2017	FR_KC1	200252									7.74	
5/2/2017	FR_KC1	200252	0.00136	0.00141	25.6	25.6	95.3	0.006	< 0.0050	< 0.0010	7.57	8
5/7/2017	FR_KC1	200252										
5/8/2017	FR_KC1	200252									7.89	
5/16/2017	FR_KC1	200252									7.65	
5/23/2017	FR_KC1	200252									7.68	
5/30/2017	FR_KC1	200252									7.4	
6/6/2017	FR_KC1	200252	0.00292	0.00313	13.2	13.4	21.3	0.0043	< 0.0050	< 0.0010	7.55	8.29
6/13/2017	FR_KC1	200252									7.57	
6/19/2017	FR_KC1	200252									7.72	
6/26/2017	FR_KC1	200252									7.27	
7/5/2017	FR_KC1	200252	0.00195	0.00197	14.1	13.8	28.3	0.0437	0.0057	< 0.0010	7.4	8.26
7/10/2017	FR_KC1	200252									7.24	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
8/8/2017	FR_KC1	200252	0.00155	0.00164	17.2	18.7	40.9	0.0056	< 0.0050	< 0.0010	7.88	8.01
9/6/2017	FR_KC1	200252	0.00149	0.00158	23.2	21.6	52.8	< 0.0050	< 0.0050	< 0.0010	7.81	7.97
9/20/2017	FR_KC1	200252										
10/4/2017	FR_KC1	200252	0.00143	0.0015	24.5	24.7	65.8	< 0.0050	< 0.0050	< 0.0010	7.92	8.05
10/19/2017	FR_KC1	200252	0.00151	0.00153	24.5	25.5	69.3	0.0185	< 0.0050	< 0.0010	7.94	7.95
11/1/2017	FR_KC1	200252	0.00163	0.00143	24.9	27.2	68.3	< 0.0050	< 0.0050	< 0.0010	7.96	8.14
11/16/2017	FR_KC1	200252										
12/12/2017	FR_KC1	200252	0.0015	0.0013	31.2	29.2	77	< 0.0050	0.0059	< 0.0010	7.93	8.06
1/10/2017	FR_LMP1	E306924	0.00335	0.00348	2.86	3.11	0.728	0.0048	0.0182	0.0061	8.13	8.11
1/10/2017	FR_LMP1	E306924		0.00345		2.88	0.764	0.006	0.0165	0.0079	8.28	8.24
1/11/2017	FR_LMP1	E306924	0.00312	0.00339	2.36	2.69	0.809	0.0047	0.017	0.0073	8.18	8.22
1/12/2017	FR_LMP1	E306924	0.0032	0.00341	2.53	2.79	0.81	0.0034	0.0201	0.0081	8.25	8.21
1/13/2017	FR_LMP1	E306924	0.00342	0.00362	2.54	2.9	0.712	0.0035	0.0274	0.0062	8.16	8.29
1/14/2017	FR_LMP1	E306924	0.00341	0.00366	2.53	2.82	0.625	0.0057	0.0482	0.0065	8.2	8.19
1/15/2017	FR_LMP1	E306924	0.00346	0.00358	2.66	2.98	0.6	0.0061	0.0674	0.0052	8.16	8.17
1/16/2017	FR_LMP1	E306924	0.00371	0.00379	3.02	3.32	0.538	0.0079	0.123	0.0058	8.17	8.15
1/17/2017	FR_LMP1	E306924	0.00396	0.00407	3.45	4.13	0.472	0.0078	0.148	0.0049	8.11	8.28
1/24/2017	FR_LMP1	E306924	0.00403	0.00406	5.51	5.17	0.554	0.0053	0.0799	0.0045	8.22	8
2/15/2017	FR_LMP1	E306924	0.00319	0.00327	3.29	3.61	0.883	0.0024	0.0086	0.0065	8.3	8.34
3/2/2017	FR_LMP1	E306924	0.00328	0.00373	2.36	2.7	1.03	0.0017	0.0086	0.0052	8.32	8.26
3/14/2017	FR_LMP1	E306924									8.31	
3/18/2017	FR_LMP1	E306924										
3/19/2017	FR_LMP1	E306924										
3/22/2017	FR_LMP1	E306924									8.16	
3/27/2017	FR_LMP1	E306924									8.26	
4/3/2017	FR_LMP1	E306924	0.00213	0.00223	1.71	3.13	0.932	0.0027	0.0142	0.0096	8.14	8.28
4/3/2017	FR_LMP1	E306924	0.00258	0.00259	1.56	2.99	0.93	0.004	0.0128	0.0086		8.37
4/8/2017	FR_LMP1	E306924										
4/8/2017	FR_LMP1	E306924										
4/9/2017	FR_LMP1	E306924										
4/10/2017	FR_LMP1	E306924									8.09	
4/11/2017	FR_LMP1	E306924										
4/14/2017	FR_LMP1	E306924										
4/17/2017	FR_LMP1	E306924										
4/18/2017	FR_LMP1	E306924									7.74	
4/19/2017	FR_LMP1	E306924	0.00171	0.00205	1.29	8.99	0.944	0.0021	0.025	0.0164	7.88	8.13
4/19/2017	FR_LMP1	E306924										
4/20/2017	FR_LMP1	E306924										
4/20/2017	FR_LMP1	E306924	0.00152	0.00252	1.16	17.2	0.893	0.0027	0.0119	0.0206		8.21
4/20/2017	FR_LMP1	E306924										
4/21/2017	FR_LMP1	E306924										
4/21/2017	FR_LMP1	E306924	0.00146	0.00172	1.29	9.38	0.954	0.0025	0.0358	0.0187	7.84	8.18
4/21/2017	FR_LMP1	E306924										
4/22/2017	FR_LMP1	E306924										
4/22/2017	FR_LMP1	E306924										
4/23/2017	FR_LMP1	E306924	0.00159	0.00184	1.56	4.85	1.1	0.0032	0.0303	0.0155	7.68	8.27
4/25/2017	FR_LMP1	E306924									8	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
4/27/2017	FR_LMP1	E306924	0.00199	0.00227	1.57	5.96	1.21	0.0041	0.0682	0.0154	7.93	8.33
4/27/2017	FR_LMP1	E306924										
5/1/2017	FR_LMP1	E306924	0.00201	0.00211	1.81	3.65	1.3	0.0039	0.0218	0.0143	8.1	8.15
5/1/2017	FR_LMP1	E306924	0.00218	0.00223	1.77	3.79	1.26	0.0028	0.0127	0.0126		8.33
5/2/2017	FR_LMP1	E306924										
5/3/2017	FR_LMP1	E306924										
5/4/2017	FR_LMP1	E306924										
5/5/2017	FR_LMP1	E306924										
5/5/2017	FR_LMP1	E306924	0.00137	0.00152	1.28	9	0.739	0.0028	0.0305	0.0234	8.18	8.16
5/5/2017	FR_LMP1	E306924										
5/5/2017	FR_LMP1	E306924										
5/6/2017	FR_LMP1	E306924										
5/6/2017	FR_LMP1	E306924	0.00191	0.0018	1.93	3.66	1.02	0.0056	0.0628	0.0138		7.98
5/6/2017	FR_LMP1	E306924										
5/7/2017	FR_LMP1	E306924										
5/7/2017	FR_LMP1	E306924										
5/8/2017	FR_LMP1	E306924										
5/9/2017	FR_LMP1	E306924										
5/10/2017	FR_LMP1	E306924	0.00272	0.00243	2.51	3.95	1.02	0.005	0.0916	0.0122	8.32	8.12
5/15/2017	FR_LMP1	E306924									8.29	
5/23/2017	FR_LMP1	E306924									8.18	
5/29/2017	FR_LMP1	E306924									8.15	
6/5/2017	FR_LMP1	E306924	0.0027	0.00284	3.63	4.46	0.809	0.002	< 0.0050	0.0052	8.18	8.32
6/5/2017	FR_LMP1	E306924	0.00272	0.00279	3.5	4.43	0.84	0.0013	< 0.0050	0.0035		8.31
6/15/2017	FR_LMP1	E306924									8.15	
6/20/2017	FR_LMP1	E306924									8.29	
6/26/2017	FR_LMP1	E306924									8.33	
7/3/2017	FR_LMP1	E306924	0.00284	0.00304	2.53	2.98	0.775	0.0021	0.0141	0.0032	8.34	8.45
7/3/2017	FR_LMP1	E306924	0.00294	0.00301	2.48	2.76	0.772	0.0018	< 0.0050	0.0022		8.48
7/10/2017	FR_LMP1	E306924									8.48	
8/8/2017	FR_LMP1	E306924	0.00319	0.00319	2.32	2.34	0.699	0.0038	0.0115	0.001	8.57	8.45
9/4/2017	FR_LMP1	E306924										
10/2/2017	FR_LMP1	E306924										
11/20/2017	FR_LMP1	E306924	0.00273	0.00283	2.1	2.22	1.27	0.0028	0.0139	0.0048	8.45	8.47
12/11/2017	FR_LMP1	E306924	0.00256	0.00242	1.8	2.25	1.64	0.0021	0.0229	0.0073	8.29	8.28
12/14/2017	FR_LMP1	E306924										
1/11/2017	FR_LP1	E304835										
1/11/2017	FR_LP1	E304835										
1/12/2017	FR_LP1	E304835										
1/16/2017	FR_LP1	E304835	0.00251	0.00263	5.24	6.13	3.65	0.0135	0.0352	0.0045	8.2	8.19
2/16/2017	FR_LP1	E304835	0.00247	0.00263	3	4.08	2.95	0.0118	0.041	0.0105	8.29	8.33
3/2/2017	FR_LP1	E304835	0.00223	0.00263	3.86	4.76	3.42	0.0176	0.0076	0.0038	8.32	8.23
3/9/2017	FR_LP1	E304835										
3/14/2017	FR_LP1	E304835	0.00228	0.00201	3.79	3.63	3.58	0.0158	0.0071	0.029	8.12	8.1
3/18/2017	FR_LP1	E304835										
3/19/2017	FR_LP1	E304835										
3/20/2017	FR_LP1	E304835									8.35	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
3/29/2017	FR_LP1	E304835									8.33	
4/3/2017	FR_LP1	E304835	0.00296	0.00299	4.83	5.04	3.26	0.0144	0.0706	0.0016	8.31	8.33
4/3/2017	FR_LP1	E304835	0.00328	0.00339	4.47	4.75	3.26	0.0121	0.0643	0.0019		8.41
4/10/2017	FR_LP1	E304835									8.29	
4/19/2017	FR_LP1	E304835									8.24	
4/26/2017	FR_LP1	E304835									8.31	
5/1/2017	FR_LP1	E304835	0.00217	0.00228	3.07	3.29	3.92	0.0137	0.0111	< 0.0010	8.29	8.23
5/1/2017	FR_LP1	E304835	0.00235	0.00243	2.86	3.15	4.04	0.0083	0.0061	< 0.0010		8.28
5/7/2017	FR_LP1	E304835										
5/10/2017	FR_LP1	E304835									8.31	
5/15/2017	FR_LP1	E304835									8.3	
5/23/2017	FR_LP1	E304835									8.4	
5/29/2017	FR_LP1	E304835									8.34	
6/5/2017	FR_LP1	E304835	0.00192	0.00203	2.28	2.32	3.48	0.0136	0.0241	0.0025	8.54	8.54
6/5/2017	FR_LP1	E304835	0.00199	0.00202	2.2	2.28	3.78	0.0122	0.0198	0.0024		8.51
6/13/2017	FR_LP1	E304835									8.53	
6/19/2017	FR_LP1	E304835									8.43	
6/26/2017	FR_LP1	E304835										
7/3/2017	FR_LP1	E304835										
7/10/2017	FR_LP1	E304835										
8/7/2017	FR_LP1	E304835										
9/25/2017	FR_LP1	E304835	0.00315	0.0032	5.82	6.06	4.83	0.284	0.0257	0.002	8.23	8.41
10/2/2017	FR_LP1	E304835										
11/20/2017	FR_LP1	E304835	0.00377	0.00362	7.73	8.38	4.35	0.0292	0.0724	0.0089	8.38	8.21
12/11/2017	FR_LP1	E304835	0.00381	0.00362	5.96	6.82	5.16	0.0277	0.072	0.0213	8.35	8.29
12/14/2017	FR_LP1	E304835										
12/18/2017	FR_LP1	E304835	0.00341	0.00355	6.43	8.67	5.08	0.0374	0.0841	0.0294	8.06	8.2
12/19/2017	FR_LP1	E304835	0.00319	0.00311	12.8	13.2	3.69	0.0178	0.102	0.0165	8.18	8.16
12/20/2017	FR_LP1	E304835	0.00246	0.00238	18	19.8	2.36	0.0148	0.129	0.0074	8.09	8.08
12/21/2017	FR_LP1	E304835	0.00211	0.00202	19.4	22.7	1.37	0.0102	0.188	0.0022		8
7/26/2017	FR_LP1H	E310052	0.00157	0.00154	2.67	3.1	4.5	0.0332	0.0082	< 0.0010	8.11	8.32
8/28/2017	FR_LP1H	E310052	0.00299	0.00302	4.55	5.96	4.01	0.0823	0.0354	< 0.0010	8.06	8.18
10/30/2017	FR_LP1H	E310052	0.00344	0.0027	4.39	4.19	4.97	0.0398	0.0192	0.0076	8.47	8.28
1/31/2017	FR_MS1	E102478										
2/28/2017	FR_MS1	E102478										
3/7/2017	FR_MS1	E102478										
3/16/2017	FR_MS1	E102478										
3/23/2017	FR_MS1	E102478										
3/31/2017	FR_MS1	E102478										
4/4/2017	FR_MS1	E102478										
4/10/2017	FR_MS1	E102478										
4/17/2017	FR_MS1	E102478										
4/24/2017	FR_MS1	E102478										
5/1/2017	FR_MS1	E102478										
5/8/2017	FR_MS1	E102478										
5/15/2017	FR_MS1	E102478										
5/25/2017	FR_MS1	E102478										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
5/29/2017	FR_MS1	E102478										
6/5/2017	FR_MS1	E102478										
6/16/2017	FR_MS1	E102478										
6/22/2017	FR_MS1	E102478										
6/27/2017	FR_MS1	E102478										
7/3/2017	FR_MS1	E102478										
7/10/2017	FR_MS1	E102478										
8/7/2017	FR_MS1	E102478										
9/4/2017	FR_MS1	E102478										
10/2/2017	FR_MS1	E102478										
11/6/2017	FR_MS1	E102478										
12/4/2017	FR_MS1	E102478										
1/31/2017	FR_NL1	E102476										
2/28/2017	FR_NL1	E102476										
3/7/2017	FR_NL1	E102476										
3/11/2017	FR_NL1	E102476										
3/21/2017	FR_NL1	E102476										
3/28/2017	FR_NL1	E102476	0.00209	0.00234	1.97	2.28	0.561	0.0171	0.107	< 0.0010	7.11	7.91
4/4/2017	FR_NL1	E102476	0.00224	0.00228	1.93	2.26	0.0623	0.0044	0.135	0.0011	7.11	7.89
4/11/2017	FR_NL1	E102476									7.66	
4/18/2017	FR_NL1	E102476										
4/25/2017	FR_NL1	E102476										
5/1/2017	FR_NL1	E102476										
5/8/2017	FR_NL1	E102476										
5/17/2017	FR_NL1	E102476										
5/25/2017	FR_NL1	E102476										
5/29/2017	FR_NL1	E102476										
6/5/2017	FR_NL1	E102476										
6/16/2017	FR_NL1	E102476										
6/22/2017	FR_NL1	E102476										
6/26/2017	FR_NL1	E102476										
7/3/2017	FR_NL1	E102476										
7/10/2017	FR_NL1	E102476										
8/7/2017	FR_NL1	E102476										
9/4/2017	FR_NL1	E102476										
10/2/2017	FR_NL1	E102476										
11/27/2017	FR_NL1	E102476	0.0095	0.00826	6.68	6.79	7.54	0.0895	0.418	0.0842	8.07	8.22
12/4/2017	FR_NL1	E102476	0.00611	0.00593	4.01	4.27	3.9	0.0323	0.125	0.0116	7.9	7.93
7/26/2017	FR_NL1H	E310046	0.004	0.00386	1.92	2.28	4.71	0.0753	0.0395	< 0.0010	8.38	8.45
8/28/2017	FR_NL1H	E310046	0.00292	0.00311	1.26	1.51	3.78	0.0267	0.0085	< 0.0010	8.49	8.43
9/25/2017	FR_NL1H	E310046	0.00212	0.00212	0.93	0.99	3.71	0.0174	0.0068	< 0.0010	8.52	8.35
10/23/2017	FR_NL1H	E310046	0.00199	0.00207	0.91	1.13	3.76	0.0297	0.0113	< 0.0010	8.36	8.22
9/4/2017	FR_PP1	E304750										
1/31/2017	FR_SKP1	E208394										
2/28/2017	FR_SKP1	E208394										
3/6/2017	FR_SKP1	E208394										
3/15/2017	FR_SKP1	E208394										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
3/21/2017	FR_SKP1	E208394										
3/28/2017	FR_SKP1	E208394										
4/3/2017	FR_SKP1	E208394										
4/10/2017	FR_SKP1	E208394										
4/17/2017	FR_SKP1	E208394										
4/24/2017	FR_SKP1	E208394										
5/1/2017	FR_SKP1	E208394										
5/9/2017	FR_SKP1	E208394										
5/17/2017	FR_SKP1	E208394										
5/23/2017	FR_SKP1	E208394										
5/31/2017	FR_SKP1	E208394										
6/5/2017	FR_SKP1	E208394										
6/16/2017	FR_SKP1	E208394										
6/19/2017	FR_SKP1	E208394										
6/27/2017	FR_SKP1	E208394										
7/3/2017	FR_SKP1	E208394										
7/10/2017	FR_SKP1	E208394										
8/7/2017	FR_SKP1	E208394										
9/4/2017	FR_SKP1	E208394										
10/2/2017	FR_SKP1	E208394										
11/6/2017	FR_SKP1	E208394										
12/4/2017	FR_SKP1	E208394										
7/26/2017	FR_SKP1H	E310049	0.00201	0.00203	11.4	11.3	33.3	0.155	0.027	< 0.0010	8.04	8.38
8/28/2017	FR_SKP1H	E310049	0.00155	0.00195	13.3	15.6	41.8	0.159	0.0362	< 0.0010	8.17	8.21
9/25/2017	FR_SKP1H	E310049	0.00151	0.00167	17.1	17.5	54.8	0.13	0.009	< 0.0010	8.25	8.24
10/23/2017	FR_SKP1H	E310049	0.00157	0.00158	20.5	19.7	55.5	0.123	0.0053	< 0.0010	8.27	8.09
11/22/2017	FR_SKP1H	E310049	0.00172	0.00189	24.4	22.4	66.5	0.0928	0.0138	< 0.0010	8.03	8.2
12/12/2017	FR_SKP1H	E310049	0.0019	0.00174	24.1	24.7	72.3	0.0701	0.016	< 0.0010	7.77	8.01
1/31/2017	FR_SKP2	E208395										
2/28/2017	FR_SKP2	E208395										
3/6/2017	FR_SKP2	E208395										
3/15/2017	FR_SKP2	E208395										
3/21/2017	FR_SKP2	E208395										
3/28/2017	FR_SKP2	E208395										
4/3/2017	FR_SKP2	E208395										
4/10/2017	FR_SKP2	E208395										
4/17/2017	FR_SKP2	E208395										
4/24/2017	FR_SKP2	E208395										
5/2/2017	FR_SKP2	E208395										
5/9/2017	FR_SKP2	E208395										
5/16/2017	FR_SKP2	E208395										
5/23/2017	FR_SKP2	E208395										
5/30/2017	FR_SKP2	E208395	0.00294	0.00316	11.3	12	36.2	0.0075	< 0.0050	< 0.0010	7.83	8.27
6/6/2017	FR_SKP2	E208395	0.00276	0.00293	12.9	13.4	23.3	0.004	< 0.0050	0.001	7.7	8.24
6/13/2017	FR_SKP2	E208395									8.03	
6/19/2017	FR_SKP2	E208395									8.07	
6/27/2017	FR_SKP2	E208395										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
7/3/2017	FR_SKP2	E208395										
7/10/2017	FR_SKP2	E208395										
8/7/2017	FR_SKP2	E208395										
9/4/2017	FR_SKP2	E208395										
10/2/2017	FR_SKP2	E208395										
11/6/2017	FR_SKP2	E208395										
12/4/2017	FR_SKP2	E208395										
7/26/2017	FR_SKP2H	E310050	0.00151	0.00145	12.5	12.5	33.9	0.0257	0.0104	< 0.0010	7.93	8.13
8/28/2017	FR_SKP2H	E310050	0.0017	0.00179	15.8	19.2	48	0.0378	0.0078	< 0.0010	8.12	7.98
9/25/2017	FR_SKP2H	E310050	0.00153	0.00154	18.8	21	60.1	0.0448	0.0147	< 0.0010	8.21	8.12
10/23/2017	FR_SKP2H	E310050	0.00149	0.00153	23.6	26.4	65	0.0594	< 0.0050	< 0.0010	8.31	8.01
11/22/2017	FR_SKP2H	E310050	0.00136	0.00154	24.8	27	71.8	0.0078	0.0088	< 0.0010	8.24	8.04
12/12/2017	FR_SKP2H	E310050	0.00135	0.00133	27.8	31.1	77.8	< 0.0050	< 0.0050	< 0.0010	8.22	8.12
1/18/2017	FR_SP1	E261897	0.000502	0.000521	5.75	5.82	0.17	< 0.0050	0.0146	0.0026	7.57	7.65
2/15/2017	FR_SP1	E261897	0.000507	0.000515	6.08	5.74	0.139	0.008	0.0184	0.0013	7.55	7.64
3/2/2017	FR_SP1	E261897	0.000524	0.000561	5.92	6.29	0.145	0.0096	0.0096	0.002	7.75	7.83
3/16/2017	FR_SP1	E261897									7.75	
3/22/2017	FR_SP1	E261897	0.000506	0.000593	6.5	7.01	0.151	< 0.0050	0.0125	0.0011	7.6	7.93
3/27/2017	FR_SP1	E261897									7.62	
4/3/2017	FR_SP1	E261897	0.000528	0.000569	6.79	6.64	0.593	< 0.0050	0.0288	0.0015	7.54	7.92
4/10/2017	FR_SP1	E261897									7.45	
4/20/2017	FR_SP1	E261897									7.25	
4/26/2017	FR_SP1	E261897									7.29	
5/1/2017	FR_SP1	E261897	0.000483	0.000489	5.77	5.8	0.524	< 0.0050	0.0137	< 0.0010	7.35	7.53
5/2/2017	FR_SP1	E261897										
5/7/2017	FR_SP1	E261897										
5/8/2017	FR_SP1	E261897									7.65	
5/15/2017	FR_SP1	E261897									7.5	
5/24/2017	FR_SP1	E261897									7.18	
5/29/2017	FR_SP1	E261897									7.17	
6/5/2017	FR_SP1	E261897	0.00037	0.000422	4.68	4.7	0.599	< 0.0050	0.0075	< 0.0010	7.21	8.09
6/13/2017	FR_SP1	E261897									7.16	
6/19/2017	FR_SP1	E261897									7.35	
6/26/2017	FR_SP1	E261897									7.19	
7/3/2017	FR_SP1	E261897	0.000402	0.00041	4.99	5.08	0.187	0.006	0.0064	< 0.0010	7.2	8.04
7/10/2017	FR_SP1	E261897									7.14	
8/8/2017	FR_SP1	E261897	0.000433	0.000445	6.19	5.46	0.144	< 0.0050	0.0127	< 0.0010	7.37	7.65
9/6/2017	FR_SP1	E261897	0.000451	0.00044	4.92	5.08	0.21	0.004	0.0086	< 0.0010	7.43	8.05
10/11/2017	FR_SP1	E261897	0.000435	0.000471	4.31	4.58	0.341	< 0.0050	0.0234	< 0.0010	7.62	8.2
11/20/2017	FR_SP1	E261897	0.0005	0.000477	4.09	4.27	0.122	0.0051	0.0315	< 0.0010	7.95	8
12/11/2017	FR_SP1	E261897	0.000604	0.000558	4.01	4.39	0.228	< 0.0050	0.0254	< 0.0010	7.45	7.96
1/31/2017	FR_TP1	E102475										
3/31/2017	FR_TP1	E102475										
10/2/2017	FR_TP1	E102475										
1/31/2017	FR_TP3	E206660										
3/31/2017	FR_TP3	E206660										
1/9/2017	FR_UFR1	E216777	0.00057	0.000606	< 0.50	< 0.50	0.199	0.0016	< 0.0050	0.0043	8.02	8.1

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
2/21/2017	FR_UFR1	E216777	0.000617	0.000619	< 0.50	< 0.50	0.218	< 0.0010	< 0.0050	0.0049	8.17	8.31
2/28/2017	FR_UFR1	E216777	0.000522	0.000568	< 0.50	< 0.50	0.214	0.0018	< 0.0050	0.005	8.25	8.11
3/7/2017	FR_UFR1	E216777	0.00061	0.000626	< 0.50	< 0.50	0.213	< 0.0010	< 0.0050	0.0046	8.17	8.21
3/14/2017	FR_UFR1	E216777	0.000645	0.000562	< 0.50	< 0.50	0.209	< 0.0010	< 0.0050	0.0134	8.1	8.1
3/21/2017	FR_UFR1	E216777	0.00053	0.000733	< 0.50	< 0.50	0.197	< 0.0010	< 0.0050	0.0043	8.19	8.25
3/27/2017	FR_UFR1	E216777									8.21	
4/4/2017	FR_UFR1	E216777	0.000485	0.000527	< 0.50	< 0.50	0.157	< 0.0010	< 0.0050	0.0049	8.19	8.11
4/11/2017	FR_UFR1	E216777									8.3	
4/18/2017	FR_UFR1	E216777									8.12	
4/24/2017	FR_UFR1	E216777	0.000476	0.000499	0.52	0.69	0.098	< 0.0010	0.011	0.0087	7.95	8.25
5/2/2017	FR_UFR1	E216777	0.000509	0.000527	< 0.50	< 0.50	0.0481	< 0.0010	< 0.0050	0.0047	8.28	8.29
5/5/2017	FR_UFR1	E216777										
5/6/2017	FR_UFR1	E216777										
5/7/2017	FR_UFR1	E216777										
5/9/2017	FR_UFR1	E216777	0.000499	0.000527	< 0.50	0.51	0.098	< 0.0010	0.0069	0.011	8.26	8.27
5/16/2017	FR_UFR1	E216777	0.000474	0.000507	< 0.50	< 0.50	0.072	0.0057	< 0.0050	0.0051	8.34	8.35
5/23/2017	FR_UFR1	E216777	0.000493	0.000537	< 0.50	0.81	0.0746	< 0.0010	< 0.0050	0.0066	8.29	8.22
5/30/2017	FR_UFR1	E216777	0.000504	0.000546	< 0.50	0.87	0.0733	< 0.0010	< 0.0050	0.0041	8.15	8.2
6/6/2017	FR_UFR1	E216777	0.000532	0.000561	< 0.50	< 0.50	0.0341	< 0.0010	0.0063	0.0036	8.24	8.28
6/14/2017	FR_UFR1	E216777									8.28	
6/20/2017	FR_UFR1	E216777									8.39	
6/27/2017	FR_UFR1	E216777									8.31	
7/3/2017	FR_UFR1	E216777	0.000655	0.000683	< 0.50	< 0.50	< 0.0050	< 0.0010	0.006	0.0014	8.36	8.4
7/11/2017	FR_UFR1	E216777									8.37	
7/25/2017	FR_UFR1	E216777	0.000643	0.000679	< 0.50	< 0.50	0.0107	< 0.0010	0.0103	0.0027	8.35	8.37
8/1/2017	FR_UFR1	E216777	0.000639	0.000698	< 0.50	< 0.50	0.012	< 0.0010	< 0.0050	0.0023	7.91	8.3
8/8/2017	FR_UFR1	E216777	0.000659	0.000676	< 0.50	< 0.50	0.0115	< 0.0010	< 0.0050	0.0027	8.04	8.42
8/15/2017	FR_UFR1	E216777	0.000586	0.00064	< 0.50	< 0.50	0.0157	< 0.0010	< 0.0050	0.0023	8.42	8.36
8/22/2017	FR_UFR1	E216777	0.000614	0.000637	< 0.50	< 0.50	0.0179	< 0.0010	< 0.0050	0.0031	8.21	8.43
9/5/2017	FR_UFR1	E216777	0.000704	0.000649	< 0.50	< 0.50	0.0126	< 0.0010	0.0139	0.0029	8.56	8.43
10/2/2017	FR_UFR1	E216777	0.000551	0.000539	< 0.50	< 0.50	0.0094	0.0011	< 0.0050	0.0016	8.4	8.43
10/10/2017	FR_UFR1	E216777	0.000586	0.000595	< 0.50	< 0.50	0.0133	< 0.0010	< 0.0050	< 0.0010	8.2	8.41
10/17/2017	FR_UFR1	E216777	0.000564	0.000596	< 0.50	< 0.50	0.0319	< 0.0010	0.0059	0.0015	8.16	8.43
10/24/2017	FR_UFR1	E216777	0.000588	0.0006	< 0.50	< 0.50	0.0411	0.001	< 0.0050	0.0016	8.6	8.36
10/31/2017	FR_UFR1	E216777	0.000584	0.000596	< 0.50	< 0.50	0.0616	< 0.0010	< 0.0050	0.0016	8.52	8.33
11/7/2017	FR_UFR1	E216777	0.000603	0.000641	< 0.50	< 0.50	0.116	< 0.0010	0.012	0.003	8.17	8.26
12/21/2017	FR_UFR1	E216777	0.000544	0.000588	< 0.50	< 0.50	0.159	< 0.0010	< 0.0050	0.0034	8.78	8.13
1/16/2017	GH_BR_F	E287437										
2/14/2017	GH_BR_F	E287437										
3/6/2017	GH_BR_F	E287437										
3/16/2017	GH_BR_F	E287437										
3/21/2017	GH_BR_F	E287437	0.000388	0.000426	0.81	0.87	0.271	< 0.0010	< 0.0050	0.0212	8.59	8.22
3/27/2017	GH_BR_F	E287437									8.36	
4/4/2017	GH_BR_F	E287437									8.42	
4/10/2017	GH_BR_F	E287437									8.21	
4/18/2017	GH_BR_F	E287437	0.000326	0.000344	1.11	1.25	0.265	< 0.0010	< 0.0050	0.0152	8.23	8.19
4/25/2017	GH_BR_F	E287437									7.98	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
5/1/2017	GH_BR_F	E287437	0.00027	0.00031	0.99	1.22	0.288	< 0.0010	< 0.0050	0.0045	7.94	8.24
5/8/2017	GH_BR_F	E287437									8.03	
5/15/2017	GH_BR_F	E287437									7.98	
5/24/2017	GH_BR_F	E287437									8.34	
5/29/2017	GH_BR_F	E287437									8.31	
6/5/2017	GH_BR_F	E287437	0.000346	0.000464	0.79	0.83	0.0332	< 0.0010	0.009	0.0164	8.4	8.36
6/12/2017	GH_BR_F	E287437									8.46	
6/20/2017	GH_BR_F	E287437										
6/27/2017	GH_BR_F	E287437										
7/4/2017	GH_BR_F	E287437										
7/10/2017	GH_BR_F	E287437										
8/1/2017	GH_BR_F	E287437										
9/12/2017	GH_BR_F	E287437										
10/3/2017	GH_BR_F	E287437										
11/6/2017	GH_BR_F	E287437										
12/6/2017	GH_BR_F	E287437										
1/10/2017	GH_CC1	E0200384	0.00303	0.00312	43.9	43.7	30.4	0.027	0.0054	0.0014	7.99	8.11
2/9/2017	GH_CC1	E0200384	0.00329	0.00336	43	42.8	27.6	0.0052	< 0.0050	< 0.0010	8.03	7.96
3/6/2017	GH_CC1	E0200384	0.00312	0.00327	36.9	43.8	30.3	< 0.0050	< 0.0050	< 0.0010	7.99	8
3/15/2017	GH_CC1	E0200384									8.03	
3/21/2017	GH_CC1	E0200384	0.00265	0.00303	38.5	39.9	28	0.0101	< 0.0050	< 0.0010	7.98	8.06
3/29/2017	GH_CC1	E0200384									8.06	
4/5/2017	GH_CC1	E0200384	0.00306	0.00284	41.4	34.5	26.3	0.0091	< 0.0050	0.001	8.02	8.06
4/5/2017	GH_CC1	E0200384	0.00312	0.00313	36.7	33.9	25.5	0.03	< 0.0050	< 0.0010		8.12
4/12/2017	GH_CC1	E0200384									8.09	
4/20/2017	GH_CC1	E0200384									7.85	
4/25/2017	GH_CC1	E0200384									8.01	
5/2/2017	GH_CC1	E0200384										
5/3/2017	GH_CC1	E0200384	0.00315	0.00341	37.6	36.9	24.7	0.0139	< 0.0050	< 0.0010	7.9	8.11
5/3/2017	GH_CC1	E0200384	0.00326	0.00324	37.2	39.7	24.8	< 0.020	< 0.0050	< 0.0010		7.97
5/7/2017	GH_CC1	E0200384										
5/8/2017	GH_CC1	E0200384	0.00276	0.00288	36.5	36	19.9	0.008	0.014	0.001	8.11	8
5/17/2017	GH_CC1	E0200384									7.93	
5/23/2017	GH_CC1	E0200384									8.08	
5/31/2017	GH_CC1	E0200384									8	
6/6/2017	GH_CC1	E0200384	0.00264	0.00279	50.2	49.7	24.8	0.0152	< 0.0050	0.0013	8.09	7.88
6/6/2017	GH_CC1	E0200384	0.00269	0.0027	47.8	48.6	25.8	< 0.020	< 0.0050	< 0.0010		7.84
6/13/2017	GH_CC1	E0200384									8.04	
6/19/2017	GH_CC1	E0200384									7.94	
6/27/2017	GH_CC1	E0200384									7.95	
7/5/2017	GH_CC1	E0200384	0.00248	0.00267	49.5	51.6	26.3	0.0153	0.0053	< 0.0010	7.95	7.78
7/5/2017	GH_CC1	E0200384	0.00236	0.00261	47.7	50.6	28.2	< 0.020	< 0.0050	< 0.0010		7.91
7/10/2017	GH_CC1	E0200384									7.93	
8/8/2017	GH_CC1	E0200384	0.0023	0.00227	59.1	56.2	29.5	< 0.020	0.0099	< 0.0010	8.03	7.83
9/6/2017	GH_CC1	E0200384	0.00218	0.00233	62.7	56.5	29.3	0.0073	< 0.0050	0.0012	7.88	7.73
9/20/2017	GH_CC1	E0200384										
10/4/2017	GH_CC1	E0200384	0.00219	0.00232	51.6	53.3	31	0.0085	0.0076	< 0.0010	7.88	7.85

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
10/19/2017	GH_CC1	E0200384	0.00232	0.00242	49.5	52.5	30.9	0.0084	< 0.0050	< 0.0010	8.07	7.89
11/1/2017	GH_CC1	E0200384	0.00287	0.00261	48.8	51.4	29.4	< 0.0050	< 0.0050	< 0.0010	8.09	7.92
11/16/2017	GH_CC1	E0200384										
12/5/2017	GH_CC1	E0200384	0.00308	0.00302	48.1	50.8	30.8	0.0073	0.0076	< 0.0010	8.06	8.07
1/16/2017	GH_COUGAR	E287432										
2/15/2017	GH_COUGAR	E287432										
3/6/2017	GH_COUGAR	E287432										
3/16/2017	GH_COUGAR	E287432	0.00102	0.001	0.53	0.84	0.609	< 0.0010	0.0099	0.0423	8.26	8.22
3/22/2017	GH_COUGAR	E287432									8.28	
3/27/2017	GH_COUGAR	E287432									8.26	
4/4/2017	GH_COUGAR	E287432									8.36	
4/10/2017	GH_COUGAR	E287432									8.26	
4/18/2017	GH_COUGAR	E287432	0.000592	0.000653	0.75	1.52	1.07	< 0.0010	0.0063	0.0052	8.3	8.24
4/25/2017	GH_COUGAR	E287432									8.33	
5/1/2017	GH_COUGAR	E287432	0.000602	0.00065	0.66	1.55	1.16	< 0.0010	< 0.0050	0.0047	8.36	8.4
5/8/2017	GH_COUGAR	E287432									8.4	
5/15/2017	GH_COUGAR	E287432									8.44	
5/24/2017	GH_COUGAR	E287432									8.49	
5/29/2017	GH_COUGAR	E287432									8.47	
6/5/2017	GH_COUGAR	E287432	0.000757	0.000784	0.62	0.77	0.353	< 0.0010	< 0.0050	0.0052	8.48	8.49
6/12/2017	GH_COUGAR	E287432									8.52	
6/20/2017	GH_COUGAR	E287432										
6/27/2017	GH_COUGAR	E287432										
7/4/2017	GH_COUGAR	E287432										
7/10/2017	GH_COUGAR	E287432										
8/2/2017	GH_COUGAR	E287432										
9/12/2017	GH_COUGAR	E287432										
10/3/2017	GH_COUGAR	E287432										
11/6/2017	GH_COUGAR	E287432										
12/6/2017	GH_COUGAR	E287432										
1/16/2017	GH_ER1	206661	0.000872	0.000961	< 0.50	< 0.50	0.513	< 0.0010	< 0.0050	< 0.0010	8.19	8.27
2/14/2017	GH_ER1	206661	0.00074	0.000762	< 0.50	< 0.50	0.47	< 0.0010	< 0.0050	< 0.0010	8.23	8.21
2/21/2017	GH_ER1	206661					0.443	< 0.0010		< 0.0010		8.3
3/6/2017	GH_ER1	206661	0.000941	0.00095	< 0.50	< 0.50	0.391	< 0.0010	< 0.0050	< 0.0010	8.03	8.15
3/16/2017	GH_ER1	206661	0.00093	0.00101	< 0.50	< 0.50	0.341	< 0.0010	0.0157	< 0.0010	8.19	8.19
3/21/2017	GH_ER1	206661	0.000957	0.000977	< 0.50	< 0.50	0.326	< 0.0010	< 0.0050	< 0.0010	8.28	8.27
3/27/2017	GH_ER1	206661	0.000943	0.00108	< 0.50	< 0.50	0.416	< 0.0010	< 0.0050	< 0.0010	8.28	8.35
4/4/2017	GH_ER1	206661	0.000966	0.001	< 0.50	< 0.50	0.485	< 0.0010	< 0.0050	< 0.0010	8.37	8.36
4/10/2017	GH_ER1	206661	0.000953	0.00107	< 0.50	< 0.50	0.516	< 0.0010	< 0.0050	< 0.0010	8.22	8.37
4/20/2017	GH_ER1	206661	0.000969	0.0009	< 0.50	0.84	0.614	0.0011	< 0.0050	< 0.0010	8.22	8.28
4/25/2017	GH_ER1	206661	0.000957	0.000937	< 0.50	< 0.50	0.493	< 0.0010	< 0.0050	< 0.0010	8.27	8.37
5/1/2017	GH_ER1	206661	0.00101	0.000989	< 0.50	0.52	0.704	< 0.0010	< 0.0050	< 0.0010	8.24	8.34
5/8/2017	GH_ER1	206661	0.000932	0.00109	< 0.50	1.93	0.493	< 0.0010	< 0.0050	0.0011	8.21	8.27
5/15/2017	GH_ER1	206661	0.000954	0.00104	< 0.50	1.3	0.424	< 0.0010	< 0.0050	0.0013	8.22	8.27
5/24/2017	GH_ER1	206661	0.00103	0.00144	< 0.50	11.6	0.289	< 0.0010	0.0089	0.0028	8.24	8.18
5/29/2017	GH_ER1	206661	0.000913	0.0011	< 0.50	3.66	0.239	< 0.0010	< 0.0050	0.0019	8.25	8.37
6/6/2017	GH_ER1	206661	0.000939	0.00104	< 0.50	2.73	0.206	< 0.0010	< 0.0050	0.0023	8.17	8.3

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
6/12/2017	GH_ER1	206661	0.000923	0.00107	< 0.50	2.08	0.224	< 0.0010	0.0079	0.0021	8.26	8.32
6/20/2017	GH_ER1	206661	0.000984	0.000962	< 0.50	2.03	0.197	< 0.0010	< 0.0050	< 0.0010	8.23	8.22
6/27/2017	GH_ER1	206661	0.000967	0.000979	< 0.50	0.86	0.154	< 0.0010	< 0.0050	< 0.0010	8.24	8.24
7/4/2017	GH_ER1	206661	0.000907	0.000967	< 0.50	0.65	0.149	< 0.0010	0.0052	< 0.0010	8.26	8.35
7/11/2017	GH_ER1	206661	0.000954	0.00095	< 0.50	0.51	0.171	< 0.0010	0.06	0.0013	8.29	8.28
8/2/2017	GH_ER1	206661	0.00097	0.00101	< 0.50	< 0.50	0.211	< 0.0010	< 0.0050	< 0.0010	7.48	8.24
9/5/2017	GH_ER1	206661	0.00104	0.00107	< 0.50	< 0.50	0.222	< 0.0010	0.0145	< 0.0010	8.29	8.28
9/11/2017	GH_ER1	206661	0.000951	0.00099	< 0.50	< 0.50	0.208	< 0.0010	0.0082	< 0.0010	8.27	8.4
10/4/2017	GH_ER1	206661	0.001	0.00104	< 0.50	< 0.50	0.252	< 0.0010	< 0.0050	< 0.0010	8.33	8.3
11/6/2017	GH_ER1	206661	0.00094	0.00102	< 0.50	< 2.5	0.28	< 0.0010	< 0.0050	< 0.0010	8.41	8.4
12/5/2017	GH_ER1	206661	0.00101	0.00127	< 0.50	< 0.50	0.302	< 0.0010	0.0051	< 0.0010	8.07	8.28
1/16/2017	GH_ER1A	E305876	0.000896	0.001	< 0.50	< 0.50	0.134	< 0.0010	< 0.0050	< 0.0010	8.25	8.31
2/15/2017	GH_ER1A	E305876	0.001	0.000993	< 0.50	< 0.50	0.12	< 0.0010	< 0.0050	< 0.0010	8.32	8.34
3/6/2017	GH_ER1A	E305876										
3/16/2017	GH_ER1A	E305876										
3/21/2017	GH_ER1A	E305876										
3/27/2017	GH_ER1A	E305876										
4/4/2017	GH_ER1A	E305876									7.78	
4/10/2017	GH_ER1A	E305876									7.99	
4/18/2017	GH_ER1A	E305876	0.00143	0.00139	1.44	1.48	4.15	< 0.0010	< 0.0050	0.0017	8.05	8.35
4/25/2017	GH_ER1A	E305876									8.22	
5/1/2017	GH_ER1A	E305876	0.00174	0.00179	1.68	2.02	3.29	< 0.0010	< 0.0050	< 0.0010	8.14	8.34
5/8/2017	GH_ER1A	E305876									8.27	
5/15/2017	GH_ER1A	E305876									8.28	
5/24/2017	GH_ER1A	E305876									8.09	
5/29/2017	GH_ER1A	E305876									8.24	
6/6/2017	GH_ER1A	E305876	0.00104	0.00106	< 0.50	2.31	0.582	< 0.0010	< 0.0050	0.0015	8.11	8.24
6/12/2017	GH_ER1A	E305876									8.28	
6/19/2017	GH_ER1A	E305876	0.00103	0.00106	< 0.50	1.16	0.484	< 0.0010	0.0062	0.0015	8.28	8.39
6/27/2017	GH_ER1A	E305876										
7/11/2017	GH_ER1A	E305876	0.000978	0.000965	< 0.50	0.71	0.303	< 0.0010	0.0058	0.0018	8.29	8.28
8/2/2017	GH_ER1A	E305876	0.000993	0.000996	< 0.50	< 0.50	0.122	< 0.0010	< 0.0050	< 0.0010	7.59	8.32
9/8/2017	GH_ER1A	E305876	0.000895	0.00103	< 0.50	< 0.50	0.0075	< 0.0010	0.0154	< 0.0010	7.79	8.47
9/12/2017	GH_ER1A	E305876	0.000987	0.00102	< 0.50	< 0.50	0.0195	0.001	< 0.0050	< 0.0010	8.24	8.44
10/3/2017	GH_ER1A	E305876	0.00103	0.00104	< 0.50	< 0.50	0.0225	< 0.0010	0.0053	< 0.0010	8.45	8.42
11/28/2017	GH_ER1A	E305876	0.00107	0.0011	< 0.50	< 0.50	0.0601	< 0.0010	< 0.0050	< 0.0010	8.28	8.33
12/12/2017	GH_ER1A	E305876										
1/16/2017	GH_ER2	200389	0.000932	0.000981	< 0.50	< 0.50	0.128	< 0.0010	< 0.0050	< 0.0010	8.29	8.27
2/14/2017	GH_ER2	200389	0.000983	0.00101	< 0.50	< 0.50	0.116	< 0.0010	< 0.0050	< 0.0010	8.28	8.26
2/21/2017	GH_ER2	200389					0.114	< 0.0010		< 0.0010		8.31
3/6/2017	GH_ER2	200389	0.001	0.00106	< 0.50	< 0.50	0.108	< 0.0010	< 0.0050	0.0011	8.47	8.24
3/16/2017	GH_ER2	200389	0.00101	0.000942	< 0.50	< 0.50	0.115	< 0.0010	0.0178	< 0.0010	8.52	8.27
3/21/2017	GH_ER2	200389									8.59	
3/27/2017	GH_ER2	200389									8.32	
4/4/2017	GH_ER2	200389									8.5	
4/10/2017	GH_ER2	200389									7.55	
4/18/2017	GH_ER2	200389	0.000981	0.00101	< 0.50	< 0.50	0.11	< 0.0010	< 0.0050	< 0.0010	7.81	8.24

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
4/24/2017	GH_ER2	200389									8.21	
4/25/2017	GH_ER2	200389	0.000941	0.000952	< 0.50	< 0.50	0.122	< 0.0010	< 0.0050	< 0.0010	8.21	8.42
5/2/2017	GH_ER2	200389	0.000992	0.000891	< 0.50	< 0.50	0.104	< 0.0010	< 0.0050	< 0.0010	8.24	8.2
5/9/2017	GH_ER2	200389	0.000838	0.000936	< 0.50	0.74	0.143	< 0.0010	< 0.0050	0.001	8.2	8.41
5/16/2017	GH_ER2	200389	0.000902	0.000937	< 0.50	0.63	0.119	< 0.0010	< 0.0050	0.0014	8.02	8.26
5/23/2017	GH_ER2	200389	0.000881	0.000991	< 0.50	2.12	0.109	< 0.0010	< 0.0050	0.0016	8.21	8.41
5/30/2017	GH_ER2	200389	0.000831	0.00106	< 0.50	5.01	0.0922	< 0.0010	0.0052	0.0032	8.27	8.34
6/11/2017	GH_ER2	200389	0.000789	0.000926	< 0.50	2.27	0.0798	< 0.0010	< 0.0050	0.0023	8.32	8.35
6/13/2017	GH_ER2	200389	0.000893	0.00091	< 0.50	0.98	0.0791	< 0.0010	0.0056	< 0.0010	8.32	8.29
6/20/2017	GH_ER2	200389									8.23	
6/27/2017	GH_ER2	200389									8.22	
7/4/2017	GH_ER2	200389									8.27	
7/10/2017	GH_ER2	200389	0.000891	0.000915	< 0.50	< 0.50	0.0299	< 0.0010	< 0.0050	0.001	8.16	8.29
7/25/2017	GH_ER2	200389	0.000957	0.000978	< 0.50	< 0.50	0.0367	< 0.0010	0.0069	0.001	7.31	8.35
8/1/2017	GH_ER2	200389	0.00103	0.00105	< 0.50	< 0.50	0.0367	< 0.0010	< 0.0050	< 0.0010	8.23	8.28
8/8/2017	GH_ER2	200389	0.000969	0.00101	< 0.50	< 0.50	0.0433	< 0.0010	< 0.0050	0.0012	8.44	8.12
8/15/2017	GH_ER2	200389	0.000987	0.000965	< 0.50	< 0.50	0.0441	< 0.0010	< 0.0050	< 0.0010	9.59	8.17
8/22/2017	GH_ER2	200389	0.00101	0.000999	< 0.50	< 0.50	0.054	< 0.0010	0.0084	0.0028	6.94	8.18
9/10/2017	GH_ER2	200389	0.00085	0.000998	< 0.50	< 0.50	0.021	< 0.0010	0.0051	< 0.0010	7.89	8.39
9/12/2017	GH_ER2	200389	0.000947	0.000951	< 0.50	< 0.50	0.0332	< 0.0010	< 0.0050	< 0.0010	8.21	8.42
10/2/2017	GH_ER2	200389	0.00113	0.00106	< 0.50	< 0.50	0.0367	< 0.0010	0.0089	< 0.0010	8.28	8.43
10/10/2017	GH_ER2	200389	0.00104	0.000935	< 0.50	< 0.50	0.0377	< 0.0010	< 0.0050	< 0.0010	8.19	8.41
10/16/2017	GH_ER2	200389	0.00108	0.0011	< 0.50	< 0.50	0.0522	< 0.0010	0.0112	< 0.0010	8.23	8.22
10/17/2017	GH_ER2	200389	0.00103	0.00103	< 0.50	< 0.50	0.0457	< 0.0010	0.0081	< 0.0010	8.39	8.41
10/24/2017	GH_ER2	200389	0.000971	0.000992	< 0.50	< 0.50	0.0661	< 0.0010	0.0075	< 0.0010		8.44
10/31/2017	GH_ER2	200389	0.00108	0.00105	< 0.50	< 0.50	0.0632	< 0.0010	< 0.0050	< 0.0010	8.32	8.36
11/6/2017	GH_ER2	200389	0.00101	0.00113	< 0.50	< 2.5	0.0694	< 0.0010	< 0.0050	< 0.0010	8.37	8.38
12/6/2017	GH_ER2	200389	0.00108	0.00102	< 0.50	< 0.50	0.0927	< 0.0010	< 0.0050	< 0.0010	8.26	8.27
1/16/2017	GH_ERC	E300090	0.000889	0.000959	< 0.50	< 0.50	0.575	< 0.0010	< 0.0050	0.001	7.97	8.22
2/1/2017	GH_ERC	E300090	0.000949	0.000964	< 0.50	< 0.50	0.532	< 0.0010	0.0329	< 0.0010		8.27
2/14/2017	GH_ERC	E300090	0.000912	0.000971	< 0.50	< 0.50	0.477	< 0.0010	< 0.0050	< 0.0010	7.92	8.17
2/21/2017	GH_ERC	E300090	0.00099	0.000992	< 0.50	< 0.50	0.445	< 0.0010	< 0.0050	0.001		8.18
3/6/2017	GH_ERC	E300090	0.000966	0.00099	< 0.50	< 0.50	0.348	< 0.0010	< 0.0050	0.0011	7.98	8.07
3/16/2017	GH_ERC	E300090	0.000986	0.00101	< 0.50	0.66	0.276	< 0.0010	< 0.0050	0.0117	8.14	8.15
3/21/2017	GH_ERC	E300090	0.000995	0.00102	< 0.50	< 0.50	0.259	< 0.0010	< 0.0050	0.0011	8.23	8.24
3/28/2017	GH_ERC	E300090	0.00108	0.00112	0.6	0.84	0.429	< 0.0010	< 0.0050	< 0.0010	8.34	8.32
4/4/2017	GH_ERC	E300090	0.00107	0.00114	0.58	0.66	0.482	< 0.0010	< 0.0050	0.0011	8.24	8.32
4/10/2017	GH_ERC	E300090	0.00103	0.00106	0.59	0.56	0.527	< 0.0010	< 0.0050	0.0011	8.13	8.34
4/20/2017	GH_ERC	E300090	0.00101	0.00103	0.62	1.16	0.648	< 0.0010	< 0.0050	< 0.0010	8.17	8.2
4/24/2017	GH_ERC	E300090	0.000968	0.00105	< 0.50	< 0.50	0.502	< 0.0010	< 0.0050	< 0.0010	8.11	8.37
5/2/2017	GH_ERC	E300090	0.00106	0.000975	< 0.50	0.67	0.762	< 0.0010	< 0.0050	< 0.0010	8.14	8.22
5/9/2017	GH_ERC	E300090	0.00096	0.00108	< 0.50	1.52	0.56	< 0.0010	< 0.0050	0.001	8.08	8.4
5/16/2017	GH_ERC	E300090	0.000998	0.00105	< 0.50	1.12	0.45	< 0.0010	< 0.0050	0.0015	8.18	8.28
5/23/2017	GH_ERC	E300090	0.000881	0.00107	< 0.50	2.71	0.31	< 0.0010	< 0.0050	0.0016	8.22	8.41
5/30/2017	GH_ERC	E300090	0.000926	0.00111	< 0.50	5.32	0.28	< 0.0010	0.0053	0.0029	8.19	8.36
6/11/2017	GH_ERC	E300090	0.000927	0.00106	< 0.50	2.81	0.299	< 0.0010	0.0056	0.0019	8.26	8.33
6/13/2017	GH_ERC	E300090	0.000926	0.00103	< 0.50	1.88	0.23	< 0.0010	< 0.0050	< 0.0010	8.26	8.31

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
6/19/2017	GH_ERC	E300090	0.000921	0.000994	< 0.50	0.87	0.24	< 0.0010	< 0.0050	0.0014	8.21	8.3
6/27/2017	GH_ERC	E300090	0.000907	0.00102	< 0.50	0.95	0.174	< 0.0010	< 0.0050	< 0.0010	8.21	8.22
7/4/2017	GH_ERC	E300090	0.000921	0.000919	< 0.50	0.8	0.175	< 0.0010	< 0.0050	< 0.0010	8.12	8.34
7/11/2017	GH_ERC	E300090	0.000955	0.000963	< 0.50	0.66	0.179	< 0.0010	0.0066	0.0011	8.25	8.28
7/25/2017	GH_ERC	E300090	0.000992	0.00101	< 0.50	< 0.50	0.191	< 0.0010	0.0063	< 0.0010	7.78	8.35
8/1/2017	GH_ERC	E300090	0.00107	0.00107	< 0.50	< 0.50	0.181	< 0.0010	< 0.0050	< 0.0010	7.98	8.24
9/5/2017	GH_ERC	E300090	0.00107	0.00109	< 0.50	< 0.50	0.225	< 0.0010	< 0.0050	< 0.0010	8.06	8.25
9/11/2017	GH_ERC	E300090	0.000984	0.000989	< 0.50	< 0.50	0.207	< 0.0010	< 0.0050	< 0.0010	8.15	8.38
10/2/2017	GH_ERC	E300090	0.00109	0.00107	< 0.50	< 0.50	0.251	0.0022	< 0.0050	< 0.0010	8.12	8.43
10/10/2017	GH_ERC	E300090	0.00103	0.00108	< 0.50	< 0.50	0.229	< 0.0010	< 0.0050	< 0.0010	8.08	8.41
10/17/2017	GH_ERC	E300090	0.000971	0.00106	< 0.50	< 0.50	0.236	< 0.0010	0.0096	< 0.0010	8.38	8.43
10/24/2017	GH_ERC	E300090	0.00101	0.00108	< 0.50	< 0.50	0.275	0.0012	0.0177	< 0.0010		8.43
10/31/2017	GH_ERC	E300090	0.00112	0.00109	< 0.50	< 0.50	0.243	< 0.0010	< 0.0050	< 0.0010	8.12	8.36
11/14/2017	GH_ERC	E300090	0.00104	0.00109	< 0.50	< 0.50	0.293	< 0.0010	0.01	0.0012	8.05	8.26
12/5/2017	GH_ERC	E300090	0.00107	0.00126	< 0.50	< 0.50	0.32	< 0.0010	< 0.0050	< 0.0010	7.83	8.27
1/16/2017	GH_ERSC2	E305877										
2/15/2017	GH_ERSC2	E305877										
3/6/2017	GH_ERSC2	E305877										
3/16/2017	GH_ERSC2	E305877										
3/22/2017	GH_ERSC2	E305877										
3/29/2017	GH_ERSC2	E305877										
4/5/2017	GH_ERSC2	E305877										
4/10/2017	GH_ERSC2	E305877										
4/20/2017	GH_ERSC2	E305877										
4/25/2017	GH_ERSC2	E305877	0.0012	0.00122	1.13	1.73	2.88	< 0.0050	< 0.0050	0.0045	8.39	8.39
5/3/2017	GH_ERSC2	E305877	0.00131	0.00125	1.41	1.46	3.01	0.0016	< 0.0050	0.0029	8.38	8.36
5/10/2017	GH_ERSC2	E305877									8.21	
5/15/2017	GH_ERSC2	E305877									8.23	
5/24/2017	GH_ERSC2	E305877									8.22	
5/29/2017	GH_ERSC2	E305877									8.25	
6/7/2017	GH_ERSC2	E305877	0.000629	0.00108	1.1	1.6	0.693	< 0.0010	< 0.0050	0.0012	8.23	8.3
6/12/2017	GH_ERSC2	E305877									8.34	
6/19/2017	GH_ERSC2	E305877	0.00103	0.00105	< 0.50	1.3	0.607	< 0.0010	< 0.0050	0.001	8.3	8.39
6/27/2017	GH_ERSC2	E305877										
7/4/2017	GH_ERSC2	E305877										
7/11/2017	GH_ERSC2	E305877	0.000967	0.000967	< 0.50	1.15	0.457	< 0.0010	0.0087	0.002	8.31	8.3
8/2/2017	GH_ERSC2	E305877	0.00104	0.00103	< 0.50	0.87	0.396	< 0.0010	< 0.0050	< 0.0010	7.5	8.32
9/13/2017	GH_ERSC2	E305877										
10/3/2017	GH_ERSC2	E305877										
11/14/2017	GH_ERSC2	E305877										
12/18/2017	GH_ERSC2	E305877										
1/16/2017	GH_ERSC4	E305878	0.00168	0.00188	< 0.50	< 0.50	0.228	< 0.0010	0.0083	0.0018	8.36	8.3
2/15/2017	GH_ERSC4	E305878	0.00104	0.00103	< 0.50	< 0.50	0.12	< 0.0010	< 0.013	< 0.0010	8.52	8.38
3/6/2017	GH_ERSC4	E305878										
3/16/2017	GH_ERSC4	E305878										
3/21/2017	GH_ERSC4	E305878										
3/29/2017	GH_ERSC4	E305878										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
4/4/2017	GH_ERSC4	E305878										
4/10/2017	GH_ERSC4	E305878										
4/20/2017	GH_ERSC4	E305878	0.00102	0.00108	1.44	1.83	0.344	< 0.0010	0.0094	< 0.0010	8.39	8.3
4/25/2017	GH_ERSC4	E305878									8.16	
5/1/2017	GH_ERSC4	E305878	0.00107	0.0011	0.96	1.15	0.418	< 0.0010	< 0.0050	< 0.0010	8.44	8.38
5/10/2017	GH_ERSC4	E305878									8.15	
5/15/2017	GH_ERSC4	E305878									8.33	
5/24/2017	GH_ERSC4	E305878									8.29	
5/29/2017	GH_ERSC4	E305878									8.27	
6/5/2017	GH_ERSC4	E305878	0.000878	0.000987	< 0.50	3.2	0.132	< 0.0010	< 0.0050	0.0015	8.31	8.31
6/12/2017	GH_ERSC4	E305878									8.34	
6/19/2017	GH_ERSC4	E305878										
6/27/2017	GH_ERSC4	E305878										
7/10/2017	GH_ERSC4	E305878	0.000954	0.000984	< 0.50	< 0.50	0.0805	< 0.0010	< 0.0050	0.001	8.38	8.35
8/2/2017	GH_ERSC4	E305878	0.00102	0.00102	< 0.50	0.52	0.125	< 0.0010	< 0.0050	< 0.0010	7.66	8.31
9/8/2017	GH_ERSC4	E305878	0.00115	0.00101	< 0.50	< 0.50	0.0123	< 0.0010	0.0062	< 0.0010	7.46	8.45
9/12/2017	GH_ERSC4	E305878	0.000994	0.00097	< 0.50	< 0.50	0.0677	0.0024	< 0.0050	< 0.0010	8.13	8.43
10/3/2017	GH_ERSC4	E305878	0.00103	0.0011	< 0.50	< 0.50	0.0341	< 0.0010	0.0062	< 0.0010	8.37	8.37
11/14/2017	GH_ERSC4	E305878	0.000972	0.00106	< 0.50	< 0.50	0.0939	< 0.0010	< 0.0050	< 0.0010	8.34	8.22
12/12/2017	GH_ERSC4	E305878	0.00108	0.00109	< 0.50	< 0.50	0.0954	< 0.0010	< 0.0050	< 0.0010	8.23	8.29
1/9/2017	GH_FR1	200378	0.000886	0.000933	1.93	2.25	13	< 0.0050	< 0.0050	0.0017	8.14	8.31
2/1/2017	GH_FR1	200378	0.000915	0.000971	1.9	2.04	12.7	< 0.0050	< 0.0050	< 0.0010		8.31
2/14/2017	GH_FR1	200378	0.000811	0.000808	1.31	1.32	13.5	< 0.0050	< 0.0050	0.0014	7.8	8.22
2/21/2017	GH_FR1	200378	0.000814	0.000837	1.38	1.32	13	< 0.0050	< 0.0050	0.0011		8.27
2/28/2017	GH_FR1	200378	0.00078	0.000838	1.41	1.4	13.4	< 0.0050	< 0.0050	0.0032		8.3
3/7/2017	GH_FR1	200378	0.000897	0.000931	1.58	1.62	12.7	< 0.0050	0.0079	< 0.0010	8.46	8.31
3/14/2017	GH_FR1	200378	0.000765	0.000826	1.19	1.22	12	< 0.0050	< 0.0050	0.0011	8.12	8.25
3/16/2017	GH_FR1	200378	0.00109	0.0011	2.85	3.46	11.7	0.0038	< 0.0050	0.0028	8.42	8.22
3/21/2017	GH_FR1	200378	0.000927	0.000917	1.71	1.8	12.3	< 0.0050	< 0.0050	0.0036	8.19	8.28
3/27/2017	GH_FR1	200378	0.000844	0.000886	1.38	1.63	13.6	< 0.0050	< 0.0050	0.0022	8.25	8.38
4/4/2017	GH_FR1	200378	0.00104	0.00107	1.89	2.07	12.5	0.0059	< 0.0050	0.0026	8.39	8.38
4/11/2017	GH_FR1	200378	0.000988	0.000993	2	2.29	11.9	< 0.0050	< 0.0050	0.0016	8.2	8.28
4/18/2017	GH_FR1	200378	0.00102	0.00105	2.74	2.81	10.2	< 0.0050	< 0.0050	< 0.0010	8.32	8.46
4/24/2017	GH_FR1	200378	0.00121	0.00135	3.13	4.78	6.71	< 0.0050	< 0.0050	0.0038	8.12	8.39
5/2/2017	GH_FR1	200378	0.00103	0.000997	2.47	2.76	8.75	< 0.0050	< 0.0050	< 0.0010	8.2	8.25
5/9/2017	GH_FR1	200378	0.00122	0.00122	2.09	3.44	5.25	0.0018	< 0.0050	0.0042	8.03	8.39
5/16/2017	GH_FR1	200378	0.00104	0.0011	1.84	2.46	6.2	0.0028	< 0.0050	0.0047	8.2	8.25
5/23/2017	GH_FR1	200378	0.000999	0.000952	1.63	3.58	5.65	0.0019	< 0.0050	0.0026	8.2	8.43
5/30/2017	GH_FR1	200378	0.000848	0.000905	1.32	3.63	5.14	0.0017	< 0.0050	0.0038	8.2	8.37
6/11/2017	GH_FR1	200378	0.00103	0.00112	1.94	2.73	6.87	0.0038	0.0117	0.0011	8.33	8.37
6/13/2017	GH_FR1	200378	0.00104	0.00111	1.95	2.4	7.12	0.0028	< 0.0050	< 0.0010	8.3	8.34
6/19/2017	GH_FR1	200378	0.00107	0.00107	2.46	2.64	6.81	0.0026	0.0072	< 0.0010	8.34	8.43
6/27/2017	GH_FR1	200378	0.00105	0.00103	2.25	2.5	7.5	0.0034	< 0.0050	< 0.0010	8.24	8.25
7/4/2017	GH_FR1	200378	0.00103	0.00104	2.37	2.43	7.83	0.0043	0.0067	< 0.0010	8.28	8.38
7/11/2017	GH_FR1	200378	0.00104	0.00103	2.72	3.16	8.6	0.0064	0.0125	0.0012	8.47	8.37
7/25/2017	GH_FR1	200378	0.000938	0.001	2.53	2.76	9.45	0.0072	0.0074	< 0.0010	8.12	8.4
8/1/2017	GH_FR1	200378	0.00103	0.00107	2.48	2.79	10.7	0.0068	< 0.0050	< 0.0010	6.61	8.38

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
8/8/2017	GH_FR1	200378	0.000975	0.000994	2.38	2.5	10.8	0.0076	< 0.0050	< 0.0010	7.58	8.26
8/15/2017	GH_FR1	200378	0.00094	0.000983	2.65	2.69	10.8	0.0058	< 0.0050	< 0.0010	9.01	8.3
8/22/2017	GH_FR1	200378	0.000949	0.000916	2.22	2.21	10.6	0.0063	0.0064	0.0012	8.01	8.32
9/5/2017	GH_FR1	200378	0.00103	0.000952	1.96	2.09	10.6	0.0066	0.0079	< 0.0010	8.14	8.3
9/11/2017	GH_FR1	200378	0.000839	0.000839	1.29	1.88	10.7	0.0072	0.0053	< 0.0010	7.96	8.4
10/2/2017	GH_FR1	200378	0.000885	0.000922	1.71	1.84	10.5	0.0057	0.0067	< 0.0010	8.39	8.22
10/10/2017	GH_FR1	200378	0.00113	0.00113	4.31	4.75	9.81	0.0063	< 0.0050	< 0.0010	8.47	8.25
10/17/2017	GH_FR1	200378	0.000969	0.000997	2.84	3.1	9.87	0.0049	0.0114	< 0.0010	8.15	8.44
10/24/2017	GH_FR1	200378	0.00131	0.0014	2.73	2.88	9.9	0.0052	0.0061	< 0.0010	8.24	8.51
10/31/2017	GH_FR1	200378	0.00115	0.00107	1.61	1.5	10.6	0.0059	< 0.0050	< 0.0010	8.22	8.42
11/7/2017	GH_FR1	200378	0.00168	0.00176	2.56	2.69	10.3	0.0045	< 0.0050	< 0.0010	8.24	8.32
11/14/2017	GH_FR1	200378	0.0013	0.0014	1.96	2.15	10.8	0.004	0.0147	< 0.0010	8.28	8.28
11/21/2017	GH_FR1	200378	0.0013	0.00133	1.42	1.69	11.3	0.0092	< 0.0050	0.0016	8.3	8.4
12/5/2017	GH_FR1	200378	0.00102	0.00127	0.98	1.21	10.7	< 0.0050	< 0.0050	< 0.0010	8.09	8.34
1/9/2017	GH_GH1	E102709	0.00267	0.00276	18.7	20.7	7.26	< 0.010	0.0091	0.003	8.24	8.33
2/15/2017	GH_GH1	E102709	0.00273	0.00286	18.7	19.2	7.58	< 0.010	< 0.0050	0.0035	8.24	8.33
3/7/2017	GH_GH1	E102709	0.00253	0.00252	15.1	14.8	6.64	< 0.010	0.0074	0.0048	8.27	8.34
3/14/2017	GH_GH1	E102709	0.00236	0.0025	14.4	14.3	6.61	< 0.010	0.007	0.0046	8.26	8.21
3/16/2017	GH_GH1	E102709									8.07	
3/21/2017	GH_GH1	E102709									8.18	
3/27/2017	GH_GH1	E102709									8.25	
4/4/2017	GH_GH1	E102709									8.46	
4/11/2017	GH_GH1	E102709									8.3	
4/18/2017	GH_GH1	E102709	0.00176	0.00185	9.19	9.59	2.85	< 0.0050	0.0057	0.0038	8.36	8.46
4/24/2017	GH_GH1	E102709									8.41	
4/27/2017	GH_GH1	E102709										
5/2/2017	GH_GH1	E102709	0.00144	0.00136	5.8	6.74	1.72	0.0012	0.0118	0.0048	8.42	8.31
5/3/2017	GH_GH1	E102709										
5/9/2017	GH_GH1	E102709	0.0019	0.00208	5.92	9.19	1.71	0.001	0.006	0.0092	8.28	8.37
5/10/2017	GH_GH1	E102709										
5/15/2017	GH_GH1	E102709									8.39	
5/24/2017	GH_GH1	E102709									8.51	
5/29/2017	GH_GH1	E102709									8.55	
6/7/2017	GH_GH1	E102709	0.00267	0.00271	26.9	29.3	7.02	< 0.0050	0.0114	0.0047		8.5
6/8/2017	GH_GH1	E102709	0.00275	0.00295	27	28.4	8.82	1.31	0.0578	0.0021	8.58	8.51
6/12/2017	GH_GH1	E102709									8.65	
6/19/2017	GH_GH1	E102709									8.64	
6/27/2017	GH_GH1	E102709									8.48	
7/4/2017	GH_GH1	E102709									8.33	
7/11/2017	GH_GH1	E102709	0.00328	0.00317	39	40.2	8.23	0.0221	0.0124	< 0.0010	8.36	8.3
8/3/2017	GH_GH1	E102709	0.00337	0.00351	35.5	37.8	8.42	0.0306	0.0109	< 0.0010	8.13	8.33
9/11/2017	GH_GH1	E102709	0.00283	0.00301	24.6	27.4	7.95	0.0395	0.0171	< 0.0010	8.02	8.41
10/4/2017	GH_GH1	E102709	0.00264	0.0028	21.4	22	7.77	0.017	0.0065	< 0.0010	8.5	8.34
11/7/2017	GH_GH1	E102709	0.00266	0.00268	19.2	20.4	7.59	0.0207	0.0062	< 0.0010	8.48	8.33
12/11/2017	GH_GH1	E102709	0.00266	0.00247	16.9	19.8	6.74	0.0097	< 0.0050	< 0.0010	8.24	8.33
5/9/2017	GH_GH2	E309911	0.00193	0.00209	5.44	9.07	1.74	0.0012	< 0.0050	0.0089	8.3	8.38
6/7/2017	GH_GH2	E309911	0.00261	0.0027	22.7	24.1	6.74	< 0.0050	0.0058	0.005	8.54	8.49

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
6/19/2017	GH_GH2	E309911	0.00309	0.00317	34.1	34.5	7.15	0.007	0.0065	< 0.0010	8.56	8.5
7/11/2017	GH_GH2	E309911	0.00322	0.00315	34.1	34.2	7.98	0.0177	0.016	0.0011	8.35	8.3
8/3/2017	GH_GH2	E309911									8.14	
8/7/2017	GH_GH2	E309911	0.0032	0.0033	30.1	31.3	8.23	0.0211	0.0163	< 0.0010		8.33
9/12/2017	GH_GH2	E309911	0.00292	0.00294	22	23.4	8	0.025	0.0079	< 0.0010	8.26	8.38
10/25/2017	GH_GH2	E309911	0.00548	0.00526	18.4	17.9	7.5	0.0172	< 0.0050	< 0.0010	8.28	8.3
11/7/2017	GH_GH2	E309911	0.00783	0.00784	17.4	17.9	7.51	0.0175	0.005	< 0.0010	8.51	8.27
12/11/2017	GH_GH2	E309911	0.00772	0.00701	15.5	17.4	7.09	0.0074	< 0.0050	0.0033	8.11	8.28
1/16/2017	GH_LC1	E257796										
2/14/2017	GH_LC1	E257796	0.0122	0.0116	50.8	49.7	14.8	< 0.010	< 0.0050	0.007	8.45	8.19
2/21/2017	GH_LC1	E257796	0.0151	0.0157	49.3	48.2	17.8	< 0.0050	< 0.0050	0.0087		8.21
3/6/2017	GH_LC1	E257796	0.017	0.0173	61.6	70.7	14.7	< 0.010	< 0.0050	0.007	8.37	8.16
3/16/2017	GH_LC1	E257796									8.48	
3/21/2017	GH_LC1	E257796									8.46	
3/27/2017	GH_LC1	E257796									8.36	
4/4/2017	GH_LC1	E257796									8.36	
4/10/2017	GH_LC1	E257796									8.25	
4/18/2017	GH_LC1	E257796	0.0109	0.012	87.2	92.9	20.3	< 0.010	< 0.0050	0.0029	8.19	8.12
4/25/2017	GH_LC1	E257796									8.16	
5/1/2017	GH_LC1	E257796	0.0157	0.0166	77.2	80.7	27.4	0.012	< 0.0050	0.0027	8.35	8.12
5/8/2017	GH_LC1	E257796									8.25	
5/15/2017	GH_LC1	E257796									8.26	
5/24/2017	GH_LC1	E257796									8.17	
5/29/2017	GH_LC1	E257796									8.22	
6/5/2017	GH_LC1	E257796	0.0176	0.0175	73.5	72.5	39.8	0.07	< 0.0050	< 0.0010	8.12	8.23
6/12/2017	GH_LC1	E257796									8.21	
6/19/2017	GH_LC1	E257796									8.17	
6/20/2017	GH_LC1	E257796										
6/27/2017	GH_LC1	E257796									8.13	
7/4/2017	GH_LC1	E257796									8.07	
7/10/2017	GH_LC1	E257796	0.0194	0.0198	82.5	83.2	35.6	0.0701	0.0146	< 0.0010	8.11	8.17
8/2/2017	GH_LC1	E257796	0.0188	0.019	96.9	96.6	45.8	0.072	0.0056	< 0.0010	7.49	8.21
9/11/2017	GH_LC1	E257796	0.0168	0.0179	77.5	80.8	52.6	0.13	< 0.0050	< 0.0010	8.21	8.24
10/3/2017	GH_LC1	E257796	0.0164	0.0169	70.3	67.6	62.1	0.107	0.0309	< 0.0010	8.32	8.16
11/6/2017	GH_LC1	E257796										
12/12/2017	GH_LC1	E257796										
1/16/2017	GH_MC1	200388										
2/15/2017	GH_MC1	200388										
3/6/2017	GH_MC1	200388										
3/16/2017	GH_MC1	200388	0.00292	0.003	3.84	3.89	0.821	0.0015	0.027	0.0197	8.33	8.26
3/22/2017	GH_MC1	200388	0.00331	0.00414	4.49	5.23	0.774	< 0.0050	0.0099	0.0115	8.42	8.42
3/27/2017	GH_MC1	200388									8.45	
4/4/2017	GH_MC1	200388									8.48	
4/10/2017	GH_MC1	200388									8.4	
4/18/2017	GH_MC1	200388	0.002	0.00205	3.59	4.03	0.623	< 0.0010	< 0.0050	0.0073	8.45	8.51
4/25/2017	GH_MC1	200388									8.44	
5/1/2017	GH_MC1	200388	0.00171	0.00168	2.89	3.32	0.48	< 0.0010	< 0.0050	0.0056	8.45	8.44

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
5/8/2017	GH_MC1	200388									8.45	
5/15/2017	GH_MC1	200388									8.52	
5/24/2017	GH_MC1	200388									8.56	
5/29/2017	GH_MC1	200388									8.6	
6/5/2017	GH_MC1	200388	0.00255	0.00248	2.62	2.55	0.174	< 0.0010	< 0.0050	0.0058	8.6	8.52
6/12/2017	GH_MC1	200388									8.64	
6/20/2017	GH_MC1	200388									8.64	
6/27/2017	GH_MC1	200388									8.64	
7/4/2017	GH_MC1	200388									8.64	
7/10/2017	GH_MC1	200388	0.00364	0.00369	2.06	2.16	0.0641	< 0.0010	0.0175	0.006	8.56	8.58
8/2/2017	GH_MC1	200388										
9/12/2017	GH_MC1	200388										
10/3/2017	GH_MC1	200388										
11/28/2017	GH_MC1	200388	0.00319	0.00323	2.39	2.58	0.253	< 0.0010	< 0.0050	0.0101	8.4	8.47
12/6/2017	GH_MC1	200388	0.00349	0.00351	1.84	1.92	0.29	< 0.0010	< 0.0050	0.0095	8.2	8.2
1/16/2017	GH_NNC	E305875	0.000736	0.000813	< 0.50	< 0.50	0.585	< 0.0010	0.006	0.0035	8.04	8.36
2/15/2017	GH_NNC	E305875										
3/6/2017	GH_NNC	E305875	0.000886	0.000993	< 0.50	0.82	0.901	< 0.0010	< 0.0050	0.0033	8.08	8.14
3/16/2017	GH_NNC	E305875									8	
3/22/2017	GH_NNC	E305875									8.04	
3/28/2017	GH_NNC	E305875										
4/4/2017	GH_NNC	E305875										
4/10/2017	GH_NNC	E305875										
4/20/2017	GH_NNC	E305875	0.000649	0.000705	< 0.50	0.83	1.31	< 0.0010	0.0057	0.003	7.97	8.14
4/25/2017	GH_NNC	E305875									8.03	
5/1/2017	GH_NNC	E305875	0.000652	0.000688	< 0.50	< 0.50	1.03	< 0.0010	< 0.0050	0.002	8.06	8.31
5/8/2017	GH_NNC	E305875									8.08	
5/15/2017	GH_NNC	E305875									8.01	
5/24/2017	GH_NNC	E305875									8.06	
5/29/2017	GH_NNC	E305875									8.11	
6/5/2017	GH_NNC	E305875	0.000862	0.000823	< 0.50	0.58	1.18	< 0.0010	0.0065	0.0022	7.99	8.38
6/12/2017	GH_NNC	E305875									8.07	
6/19/2017	GH_NNC	E305875										
6/26/2017	GH_NNC	E305875										
7/4/2017	GH_NNC	E305875										
7/10/2017	GH_NNC	E305875	0.00107	0.00109	< 0.50	< 0.50	1.63	< 0.0010	0.0117	0.0029	8.01	8.18
8/2/2017	GH_NNC	E305875	0.000687	0.000675	< 0.50	0.54	0.117	< 0.0010	0.0091	0.0024	7.47	8.47
9/12/2017	GH_NNC	E305875										
10/3/2017	GH_NNC	E305875										
11/28/2017	GH_NNC	E305875	0.000996	0.00104	< 0.50	< 0.50	1.15	0.0017	0.0078	0.0033	8.04	
12/6/2017	GH_NNC	E305875	0.00111	0.00104	< 0.50	< 0.50	1.29	0.0025	0.0138	0.0014	8.03	8.13
1/9/2017	GH_PC1	200385	0.00315	0.00309	1.12	1.13	3.04	< 0.0050	< 0.0050	0.004	8.34	8.32
2/9/2017	GH_PC1	200385	0.00322	0.00338	1.11	1.14	2.5	< 0.0010	< 0.0050	0.0017	8.28	8.26
2/9/2017	GH_PC1	200385										
3/6/2017	GH_PC1	200385	0.00282	0.00328	0.88	1.1	2.56	< 0.0050	< 0.0050	0.0036	8.35	8.32
3/15/2017	GH_PC1	200385									8.35	
3/21/2017	GH_PC1	200385	0.00278	0.00336	1.13	1.32	2.42	< 0.0010	< 0.0050	0.0032	8.34	8.29

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
3/29/2017	GH_PC1	200385									8.45	
4/5/2017	GH_PC1	200385	0.00294	0.00289	1.12	1.13	2.44	< 0.0050	< 0.0050	0.0027	8.36	8.38
4/12/2017	GH_PC1	200385									8.48	
4/20/2017	GH_PC1	200385									8.16	
4/25/2017	GH_PC1	200385									8.31	
5/3/2017	GH_PC1	200385	0.00258	0.00253	1.23	1.19	2.18	< 0.0050	< 0.0050	0.0042	8.2	8.44
5/8/2017	GH_PC1	200385	0.00218	0.00229	1.3	3.04	1.66	< 0.0010	0.006	0.0039	8.37	8.25
5/17/2017	GH_PC1	200385									8.17	
5/23/2017	GH_PC1	200385									8.35	
5/31/2017	GH_PC1	200385									8.21	
6/6/2017	GH_PC1	200385	0.00235	0.00246	1.65	1.77	3.13	< 0.0050	< 0.0050	0.0044	8.53	8.46
6/13/2017	GH_PC1	200385									8.32	
6/19/2017	GH_PC1	200385									8.2	
6/27/2017	GH_PC1	200385									8.19	
7/5/2017	GH_PC1	200385	0.00273	0.00268	1.44	1.44	2.37	< 0.0050	< 0.0050	0.0024	8.31	8.41
7/10/2017	GH_PC1	200385									8.35	
7/27/2017	GH_PC1	200385	0.0028	0.00284	1.37	1.37	2.54	< 0.0050	< 0.0050	0.0032	8.18	8.43
8/8/2017	GH_PC1	200385										
8/8/2017	GH_PC1	200385	0.00271	0.00279	1.31	1.27	2.47	< 0.0050	0.0107	0.0019	8.25	8.35
12/5/2017	GH_PC1	200385										
1/9/2017	GH_RLP	E207437										
2/7/2017	GH_RLP	E207437										
3/16/2017	GH_RLP	E207437	0.00349	0.0034	1.01	9.68	0.0366	0.0274	0.0413	0.0386	8.43	7.68
3/21/2017	GH_RLP	E207437									8.16	
3/27/2017	GH_RLP	E207437									8.11	
4/4/2017	GH_RLP	E207437										
4/11/2017	GH_RLP	E207437									8.15	
4/18/2017	GH_RLP	E207437	0.00636	0.00627	1.13	1.51	0.0905	0.0147	0.0593	0.0179	8.14	8.15
4/25/2017	GH_RLP	E207437									8.37	
5/3/2017	GH_RLP	E207437	0.00717	0.00654	1.32	1.84	0.219	0.0218	0.0182	0.0012	7.9	8.38
5/10/2017	GH_RLP	E207437									8.66	
5/15/2017	GH_RLP	E207437									8.44	
5/24/2017	GH_RLP	E207437									8.58	
5/29/2017	GH_RLP	E207437										
6/7/2017	GH_RLP	E207437										
6/12/2017	GH_RLP	E207437										
6/22/2017	GH_RLP	E207437										
6/27/2017	GH_RLP	E207437										
7/4/2017	GH_RLP	E207437									8.47	
7/11/2017	GH_RLP	E207437										
7/27/2017	GH_RLP	E207437	0.014	0.0138	2.13	2.26	< 0.0050	< 0.0010	0.0152	0.0057	8.27	8.16
8/3/2017	GH_RLP	E207437										
9/27/2017	GH_RLP	E207437										
10/25/2017	GH_RLP	E207437										
11/14/2017	GH_RLP	E207437										
12/7/2017	GH_RLP	E207437	0.0215	0.0215	2.79	3.06	2.34	0.549	0.275	< 0.0010	8.17	8.26
1/10/2017	GH_SC1	E221329	0.0049	0.00537	52.6	53.3	23.8	0.0075	< 0.0050	0.0028	8.03	7.95

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
2/9/2017	GH_SC1	E221329	0.00513	0.00559	51.5	53.8	24.9	0.0103	0.0055	< 0.0010	8.08	7.97
3/6/2017	GH_SC1	E221329	0.00532	0.00523	47.5	54.3	27.5	0.0133	< 0.0050	< 0.0010	8.03	7.98
3/15/2017	GH_SC1	E221329									8.05	
3/21/2017	GH_SC1	E221329	0.00406	0.00499	37	38	20	0.0082	< 0.0050	0.0024	8.11	8.12
3/29/2017	GH_SC1	E221329									8.15	
4/5/2017	GH_SC1	E221329	0.00467	0.00441	37.5	32.8	19.1	0.008	0.0245	0.0012	8.1	8.23
4/12/2017	GH_SC1	E221329									8.21	
4/20/2017	GH_SC1	E221329									7.99	
4/25/2017	GH_SC1	E221329									8.11	
5/2/2017	GH_SC1	E221329										
5/3/2017	GH_SC1	E221329	0.00555	0.00577	36.8	34.5	19.6	0.0157	< 0.0050	< 0.0010	7.97	8.18
5/8/2017	GH_SC1	E221329	0.00604	0.00637	33.2	33.6	16.4	0.0453	0.0161	0.0015	8.21	8.01
5/17/2017	GH_SC1	E221329									7.99	
5/17/2017	GH_SC1	E221329										
5/17/2017	GH_SC1	E221329										
5/18/2017	GH_SC1	E221329										
5/23/2017	GH_SC1	E221329									8.24	
5/31/2017	GH_SC1	E221329									8.22	
6/6/2017	GH_SC1	E221329	0.00467	0.00471	31.8	31.3	11.8	< 0.0050	< 0.0050	< 0.0010	8.19	8.39
6/13/2017	GH_SC1	E221329									8.23	
6/19/2017	GH_SC1	E221329									8.19	
6/27/2017	GH_SC1	E221329									8.21	
7/5/2017	GH_SC1	E221329	0.00476	0.00481	34.2	34.1	15.1	0.0199	0.0051	< 0.0010	8.1	8.19
7/10/2017	GH_SC1	E221329									8.08	
8/8/2017	GH_SC1	E221329	0.00448	0.00447	44.4	42.3	18	0.021	< 0.0050	< 0.0010	8.2	8.1
9/6/2017	GH_SC1	E221329	0.00435	0.00451	48.8	46.7	20.6	0.0352	< 0.0050	< 0.0010	8.01	8.04
9/20/2017	GH_SC1	E221329										
10/4/2017	GH_SC1	E221329	0.00448	0.00455	49.6	51.1	24.1	0.0212	< 0.0050	< 0.0010	7.96	8.12
10/19/2017	GH_SC1	E221329	0.00431	0.00442	43.5	47	24.2	0.0218	0.0247	< 0.0010	8.09	8.02
11/1/2017	GH_SC1	E221329	0.00485	0.00471	44.9	47.3	23.2	0.0165	< 0.0050	< 0.0010	8.07	8.19
11/16/2017	GH_SC1	E221329										
12/5/2017	GH_SC1	E221329	0.00507	0.00475	51.7	53.2	25.9	0.011	0.0124	0.0012	8.07	8.08
1/1/2017	GH_SC2	E105061										
2/1/2017	GH_SC2	E105061										
3/1/2017	GH_SC2	E105061										
4/1/2017	GH_SC2	E105061										
5/1/2017	GH_SC2	E105061										
6/1/2017	GH_SC2	E105061										
7/1/2017	GH_SC2	E105061										
8/1/2017	GH_SC2	E105061										
9/4/2017	GH_SC2	E105061										
10/2/2017	GH_SC2	E105061										
11/6/2017	GH_SC2	E105061										
12/4/2017	GH_SC2	E105061										
1/10/2017	GH_TC1	E102714	0.00117	0.00121	1.94	1.96	10	0.0131	0.0235	0.0106	8.33	8.27
2/15/2017	GH_TC1	E102714	0.00134	0.00138	2.08	2.38	12.7	0.0275	< 0.0050	0.0121	8.32	8.36
3/6/2017	GH_TC1	E102714	0.00137	0.00139	1.8	2.18	12.2	0.0102	0.0177	0.0112	8.29	8.23

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
3/16/2017	GH_TC1	E102714									8.28	
3/21/2017	GH_TC1	E102714									8.37	
3/27/2017	GH_TC1	E102714									8.4	
4/4/2017	GH_TC1	E102714									8.42	
4/10/2017	GH_TC1	E102714									8.36	
4/20/2017	GH_TC1	E102714	0.00101	0.00101	1.36	2.29	3.58	0.0027	0.019	0.005	8.4	8.31
4/25/2017	GH_TC1	E102714									8.42	
5/3/2017	GH_TC1	E102714	0.00129	0.00118	0.9	1.45	3.26	< 0.0050	< 0.0050	0.0042	8.38	8.35
5/10/2017	GH_TC1	E102714									8.37	
5/15/2017	GH_TC1	E102714									8.48	
5/24/2017	GH_TC1	E102714									8.56	
5/29/2017	GH_TC1	E102714									8.62	
6/7/2017	GH_TC1	E102714	0.00137	0.00136	1.74	2.09	6.7	< 0.0050	0.0069	0.002	8.54	8.43
6/12/2017	GH_TC1	E102714									8.62	
6/19/2017	GH_TC1	E102714	0.00135	0.00141	1.86	2.16	7.23	0.0108	0.0122	< 0.0010	8.61	8.51
6/27/2017	GH_TC1	E102714									8.56	
7/4/2017	GH_TC1	E102714									8.48	
7/10/2017	GH_TC1	E102714	0.00145	0.00151	1.8	2.14	10.5	0.0347	0.0216	0.0013	8.53	8.42
8/2/2017	GH_TC1	E102714	0.00151	0.00149	2.22	2.72	12.4	0.019	0.0134	< 0.0010	7.42	8.33
9/13/2017	GH_TC1	E102714	0.00149	0.00161	2.07	2.46	17.3	0.0076	0.0068	< 0.0010	8.16	8.37
10/4/2017	GH_TC1	E102714	0.00128	0.0013	1.79	2.04	16.8	< 0.010	< 0.0050	< 0.0010	8.42	8.27
11/6/2017	GH_TC1	E102714	0.0013	0.00118	1.81	< 2.5	16.2	0.0121	< 0.0050	0.0013	8.36	8.39
12/12/2017	GH_TC1	E102714	0.00124	0.00119	1.24	1.64	13.6	0.0106	0.0058	0.0039	8.1	8.31
1/10/2017	GH_TC2	E207436	0.00114	0.00125	1.9	1.94	9.84	0.0138	0.0317	0.0088	8.24	8.24
2/9/2017	GH_TC2	E207436	0.00115	0.00114	2.33	2.54	11.4	0.0267	0.0515	0.0113	8.17	8.06
2/15/2017	GH_TC2	E207436	0.0013	0.00135	2.25	2.42	12.1	0.0198	< 0.0050	0.0112	8.23	8.3
3/6/2017	GH_TC2	E207436	0.0014	0.0014	1.97	2.38	12.3	< 0.010	0.039	0.011	8.24	8.16
3/16/2017	GH_TC2	E207436									8.24	
3/21/2017	GH_TC2	E207436									8.35	
3/28/2017	GH_TC2	E207436									8.4	
4/4/2017	GH_TC2	E207436									8.41	
4/10/2017	GH_TC2	E207436									8.29	
4/20/2017	GH_TC2	E207436	0.00103	0.00103	1.35	2.3	3.5	0.0026	0.0151	0.005	8.32	8.27
4/25/2017	GH_TC2	E207436									8.34	
5/3/2017	GH_TC2	E207436	0.00126	0.0012	0.88	1.48	3.28	< 0.0050	0.0055	0.0047	8.35	8.34
5/10/2017	GH_TC2	E207436									8.31	
5/15/2017	GH_TC2	E207436									8.39	
5/24/2017	GH_TC2	E207436									8.48	
5/29/2017	GH_TC2	E207436									8.56	
6/7/2017	GH_TC2	E207436	0.00136	0.00139	1.7	2.04	6.65	0.0076	0.0129	< 0.0010	8.5	8.41
6/12/2017	GH_TC2	E207436									8.56	
6/19/2017	GH_TC2	E207436	0.00135	0.0014	2.05	2.64	7.35	0.0148	0.0061	< 0.0010	8.51	8.46
6/27/2017	GH_TC2	E207436									8.49	
7/4/2017	GH_TC2	E207436									8.49	
7/10/2017	GH_TC2	E207436	0.00147	0.0015	1.88	2.07	10.3	0.0548	0.0198	0.0015	8.61	8.48
8/2/2017	GH_TC2	E207436	0.00156	0.00154	2.57	2.6	13	0.045	0.0294	< 0.0010	8.69	8.08
9/12/2017	GH_TC2	E207436	0.00148	0.00152	2.27	2.52	17.1	0.0176	0.0138	< 0.0010	8.05	8.35

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
10/3/2017	GH_TC2	E207436	0.00129	0.00138	2.19	2.1	17.7	0.012	0.0117	< 0.0010	8.4	8.41
11/14/2017	GH_TC2	E207436	0.00114	0.00121	1.61	1.74	16.6	0.0158	0.0174	0.0028	8.18	8.23
12/6/2017	GH_TC2	E207436	0.00124	0.00119	1.61	1.7	14.3	< 0.010	0.0089	0.0046	8.19	8.22
6/7/2017	GH_TPS	E287438	0.0254	0.0258	5.58	6.14	0.812	0.0606	0.0542	0.0028	8.58	8.41
6/19/2017	GH_TPS	E287438	0.0299	0.0304	6.23	6.6	0.818	0.0419	0.153	0.007	8.35	8.41
11/21/2017	GH_TPS	E287438	0.0521	0.0672	12.1	13.7	9.65	0.74	2.33	< 0.0010		8.35
1/10/2017	GH_WADE	E287433										
2/14/2017	GH_WADE	E287433										
3/6/2017	GH_WADE	E287433										
3/16/2017	GH_WADE	E287433	0.000945	0.0011	1.04	2.77	0.313	0.0012	0.005	0.0401	8.22	8.18
3/22/2017	GH_WADE	E287433	0.000894	0.000898	1.37	1.77	0.694	< 0.0010	< 0.0050	0.0174	8.16	8.32
3/27/2017	GH_WADE	E287433									8.38	
3/28/2017	GH_WADE	E287433										
3/30/2017	GH_WADE	E287433										
4/4/2017	GH_WADE	E287433									8.44	
4/4/2017	GH_WADE	E287433										
4/10/2017	GH_WADE	E287433									8.32	
4/18/2017	GH_WADE	E287433	0.000938	0.000962	0.8	1.09	1.35	< 0.0010	< 0.0050	0.0138	8.4	8.48
4/25/2017	GH_WADE	E287433									8.41	
5/1/2017	GH_WADE	E287433	0.00093	0.000879	0.85	1.18	1.06	< 0.0010	< 0.0050	0.014	8.42	8.43
5/8/2017	GH_WADE	E287433									8.44	
5/15/2017	GH_WADE	E287433									8.47	
5/24/2017	GH_WADE	E287433									8.58	
5/29/2017	GH_WADE	E287433									8.56	
6/5/2017	GH_WADE	E287433	0.00132	0.00129	0.71	0.75	0.509	< 0.0010	0.0073	0.0111	8.56	8.54
6/12/2017	GH_WADE	E287433									8.66	
6/20/2017	GH_WADE	E287433									8.58	
6/27/2017	GH_WADE	E287433									8.58	
7/4/2017	GH_WADE	E287433									8.57	
7/10/2017	GH_WADE	E287433	0.00147	0.00153	0.65	0.73	0.138	< 0.0010	0.0104	0.0097	8.54	8.53
8/2/2017	GH_WADE	E287433										
9/12/2017	GH_WADE	E287433										
10/3/2017	GH_WADE	E287433										
11/28/2017	GH_WADE	E287433	0.00148	0.00147	0.59	0.66	0.425	< 0.0010	< 0.0050	0.0124	8.47	8.48
12/6/2017	GH_WADE	E287433										
1/10/2017	GH_WC1	E257795										
2/15/2017	GH_WC1	E257795										
3/6/2017	GH_WC1	E257795										
3/16/2017	GH_WC1	E257795										
3/21/2017	GH_WC1	E257795										
3/27/2017	GH_WC1	E257795	0.00458	0.00435	15.1	15.5	15.9	0.0233	0.0807	0.0249	8.41	8.36
4/4/2017	GH_WC1	E257795									8.48	
4/10/2017	GH_WC1	E257795									8.44	
4/20/2017	GH_WC1	E257795	0.0121	0.0115	54.2	49.1	25.9	0.0225	< 0.0050	0.0026	8.48	8.42
4/25/2017	GH_WC1	E257795									8.46	
5/1/2017	GH_WC1	E257795	0.022	0.0225	36.5	36.7	31.9	0.0283	0.0051	0.0023	8.52	8.5
5/3/2017	GH_WC1	E257795										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
5/8/2017	GH_WC1	E257795									8.52	
5/15/2017	GH_WC1	E257795									8.5	
5/24/2017	GH_WC1	E257795									8.31	
5/29/2017	GH_WC1	E257795									8.35	
6/5/2017	GH_WC1	E257795	0.0129	0.0136	60.5	56.3	46.1	0.059	< 0.0050	< 0.0010	8.31	8.37
6/12/2017	GH_WC1	E257795									8.37	
6/19/2017	GH_WC1	E257795										
6/27/2017	GH_WC1	E257795										
7/4/2017	GH_WC1	E257795										
7/10/2017	GH_WC1	E257795										
8/2/2017	GH_WC1	E257795										
9/11/2017	GH_WC1	E257795										
10/3/2017	GH_WC1	E257795										
11/6/2017	GH_WC1	E257795										
12/12/2017	GH_WC1	E257795	0.0356	0.036	83.6	88.6	36.5	< 0.010	< 0.0050	0.0024	8.34	8.35
1/16/2017	GH_WILLOW_SP1	E305854										
2/14/2017	GH_WILLOW_SP1	E305854										
3/6/2017	GH_WILLOW_SP1	E305854										
3/16/2017	GH_WILLOW_SP1	E305854										
3/22/2017	GH_WILLOW_SP1	E305854										
3/27/2017	GH_WILLOW_SP1	E305854										
4/4/2017	GH_WILLOW_SP1	E305854									8.27	
4/10/2017	GH_WILLOW_SP1	E305854									8.14	
4/18/2017	GH_WILLOW_SP1	E305854	0.000383	0.000493	0.53	0.58	0.126	< 0.0010	< 0.0050	0.0087	8.13	8.24
4/25/2017	GH_WILLOW_SP1	E305854									8.13	
5/3/2017	GH_WILLOW_SP1	E305854	0.00045	0.000377	0.54	0.56	0.131	< 0.0010	0.0054	0.0089	8.08	8.32
5/8/2017	GH_WILLOW_SP1	E305854									8.1	
5/15/2017	GH_WILLOW_SP1	E305854									8.25	
5/24/2017	GH_WILLOW_SP1	E305854									8.37	
5/29/2017	GH_WILLOW_SP1	E305854									8.41	
6/5/2017	GH_WILLOW_SP1	E305854	0.000504	0.000436	< 0.50	0.51	0.0219	< 0.0010	< 0.0050	0.0051	8.45	8.46
6/12/2017	GH_WILLOW_SP1	E305854									8.56	
6/20/2017	GH_WILLOW_SP1	E305854										
6/27/2017	GH_WILLOW_SP1	E305854										
7/4/2017	GH_WILLOW_SP1	E305854										
7/10/2017	GH_WILLOW_SP1	E305854										
8/2/2017	GH_WILLOW_SP1	E305854										
9/12/2017	GH_WILLOW_SP1	E305854										
10/3/2017	GH_WILLOW_SP1	E305854										
11/6/2017	GH_WILLOW_SP1	E305854										
12/6/2017	GH_WILLOW_SP1	E305854										
1/10/2017	GH_WOLF_SP1	E305855										
2/14/2017	GH_WOLF_SP1	E305855										
3/6/2017	GH_WOLF_SP1	E305855										
3/16/2017	GH_WOLF_SP1	E305855										
3/22/2017	GH_WOLF_SP1	E305855										
3/27/2017	GH_WOLF_SP1	E305855										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
4/4/2017	GH_WOLF_SP1	E305855										
4/10/2017	GH_WOLF_SP1	E305855										
4/20/2017	GH_WOLF_SP1	E305855										
4/24/2017	GH_WOLF_SP1	E305855										
5/1/2017	GH_WOLF_SP1	E305855										
5/8/2017	GH_WOLF_SP1	E305855										
5/15/2017	GH_WOLF_SP1	E305855										
5/22/2017	GH_WOLF_SP1	E305855										
5/29/2017	GH_WOLF_SP1	E305855										
6/5/2017	GH_WOLF_SP1	E305855										
6/12/2017	GH_WOLF_SP1	E305855										
6/20/2017	GH_WOLF_SP1	E305855										
6/27/2017	GH_WOLF_SP1	E305855										
7/4/2017	GH_WOLF_SP1	E305855										
7/10/2017	GH_WOLF_SP1	E305855										
8/1/2017	GH_WOLF_SP1	E305855										
9/12/2017	GH_WOLF_SP1	E305855										
10/3/2017	GH_WOLF_SP1	E305855										
11/6/2017	GH_WOLF_SP1	E305855										
12/6/2017	GH_WOLF_SP1	E305855										
1/12/2017	LC_LC1	E216142										
2/14/2017	LC_LC1	E216142										
3/9/2017	LC_LC1	E216142										
3/14/2017	LC_LC1	E216142										
3/21/2017	LC_LC1	E216142										
3/29/2017	LC_LC1	E216142										
4/5/2017	LC_LC1	E216142										
4/11/2017	LC_LC1	E216142										
4/20/2017	LC_LC1	E216142										
4/25/2017	LC_LC1	E216142	0.000812	0.000916	0.53	0.64	0.216	< 0.0010	< 0.0050	0.0015	7.93	8.21
5/1/2017	LC_LC1	E216142	0.00087	0.000899	< 0.50	0.65	0.187	< 0.0010	0.0158	0.0022	7.95	8.24
5/5/2017	LC_LC1	E216142										
5/6/2017	LC_LC1	E216142										
5/9/2017	LC_LC1	E216142									7.92	
5/9/2017	LC_LC1	E216142										
5/16/2017	LC_LC1	E216142									7.99	
5/24/2017	LC_LC1	E216142									8.33	
5/30/2017	LC_LC1	E216142									8.12	
6/6/2017	LC_LC1	E216142										
6/7/2017	LC_LC1	E216142	0.000498	0.000527	0.54	0.59	0.156	< 0.0010	< 0.0050	0.0033	8.39	8.19
6/13/2017	LC_LC1	E216142									8.35	
6/20/2017	LC_LC1	E216142									8.36	
6/20/2017	LC_LC1	E216142										
6/26/2017	LC_LC1	E216142									8	
7/6/2017	LC_LC1	E216142	0.000681	0.000666	0.54	0.71	0.126	< 0.0010	< 0.0050	0.0018	8.43	8.27
7/10/2017	LC_LC1	E216142										
7/11/2017	LC_LC1	E216142									8.4	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
8/2/2017	LC_LC1	E216142	0.000857	0.000832	< 0.50	< 0.50	0.0891	< 0.0010	0.0068	0.0015	8.46	8.33
8/2/2017	LC_LC1	E216142										
8/8/2017	LC_LC1	E216142									8.49	
8/15/2017	LC_LC1	E216142									8.55	
8/18/2017	LC_LC1	E216142									8.51	
8/18/2017	LC_LC1	E216142										
8/21/2017	LC_LC1	E216142									8.52	
8/24/2017	LC_LC1	E216142										
8/24/2017	LC_LC1	E216142									8.55	
8/27/2017	LC_LC1	E216142									8.41	
8/30/2017	LC_LC1	E216142									8.57	
9/2/2017	LC_LC1	E216142									8.41	
9/5/2017	LC_LC1	E216142	0.000913	0.000947	< 0.50	< 0.50	0.0525	< 0.0010	< 0.0050	< 0.0010	8.55	8.36
9/5/2017	LC_LC1	E216142										
9/8/2017	LC_LC1	E216142										
10/3/2017	LC_LC1	E216142	0.000958	0.00105	< 0.50	0.57	0.121	< 0.0010	0.0147	< 0.0010	8.47	8.34
11/8/2017	LC_LC1	E216142	0.000956	0.001	< 0.50	0.54	0.208	< 0.0010	0.0054	< 0.0010	8.25	8.2
11/8/2017	LC_LC1	E216142										
11/30/2017	LC_LC1	E216142										
12/4/2017	LC_LC1	E216142	0.00102	0.000999	< 0.50	< 0.50	0.23	< 0.0010	0.0083	0.003	8.45	8.26
12/4/2017	LC_LC1	E216142										
1/9/2017	LC_LC12	E223240										
2/15/2017	LC_LC12	E223240										
3/6/2017	LC_LC12	E223240										
3/14/2017	LC_LC12	E223240										
3/20/2017	LC_LC12	E223240										
3/27/2017	LC_LC12	E223240										
4/3/2017	LC_LC12	E223240										
4/10/2017	LC_LC12	E223240										
4/17/2017	LC_LC12	E223240										
4/24/2017	LC_LC12	E223240										
5/1/2017	LC_LC12	E223240										
5/9/2017	LC_LC12	E223240	0.00115	0.00115	6.81	7.38	14.1	0.0025	0.0068	0.0022	7.88	8.12
5/16/2017	LC_LC12	E223240									7.98	
5/23/2017	LC_LC12	E223240									7.81	
5/30/2017	LC_LC12	E223240									7.67	
6/6/2017	LC_LC12	E223240	0.000992	0.00104	5.27	5.02	2.31	< 0.0010	0.0088	0.0033	7.85	8.29
6/13/2017	LC_LC12	E223240									7.84	
6/20/2017	LC_LC12	E223240									7.86	
6/26/2017	LC_LC12	E223240									7.73	
7/5/2017	LC_LC12	E223240	0.000913	0.00091	1.44	1.5	4.47	< 0.0010	< 0.0050	0.0013	7.81	8.07
7/11/2017	LC_LC12	E223240									7.71	
1/9/2017	LC_LC2	200335	0.000686	0.000746	< 0.50	< 0.50	0.381	< 0.0010	< 0.0050	0.0037	7.78	8.26
2/14/2017	LC_LC2	200335	0.000686	0.000738	< 0.50	< 0.50	0.399	0.001	0.0182	0.0026	8.22	8.1
3/6/2017	LC_LC2	200335	0.000708	0.000688	< 0.50	< 0.50	0.389	< 0.0010	< 0.0050	0.0028	8.26	8.17
3/13/2017	LC_LC2	200335									8.27	
3/16/2017	LC_LC2	200335										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
3/17/2017	LC_LC2	200335	0.000699	0.000728	< 0.50	< 0.50	0.395	0.0011	0.0221	0.0017	8.34	8.24
3/18/2017	LC_LC2	200335										
3/19/2017	LC_LC2	200335										
3/20/2017	LC_LC2	200335									8.22	
3/21/2017	LC_LC2	200335										
3/22/2017	LC_LC2	200335										
3/23/2017	LC_LC2	200335										
3/24/2017	LC_LC2	200335										
3/25/2017	LC_LC2	200335										
3/26/2017	LC_LC2	200335										
3/27/2017	LC_LC2	200335									8.28	
4/4/2017	LC_LC2	200335	0.000735	0.000722	< 0.50	< 0.50	0.445	< 0.0010	0.0089	0.0024	8.16	8.17
4/4/2017	LC_LC2	200335										
4/10/2017	LC_LC2	200335									8.13	
4/18/2017	LC_LC2	200335									8.11	
4/25/2017	LC_LC2	200335									8.03	
5/1/2017	LC_LC2	200335	0.000688	0.000694	< 0.50	< 0.50	0.644	< 0.0010	0.0156	0.0021	8.13	8.18
5/5/2017	LC_LC2	200335										
5/6/2017	LC_LC2	200335										
5/7/2017	LC_LC2	200335										
5/9/2017	LC_LC2	200335									8.1	
5/11/2017	LC_LC2	200335										
5/13/2017	LC_LC2	200335										
5/16/2017	LC_LC2	200335									8.02	
5/18/2017	LC_LC2	200335										
5/23/2017	LC_LC2	200335									8.33	
5/24/2017	LC_LC2	200335										
5/25/2017	LC_LC2	200335										
5/30/2017	LC_LC2	200335									8.24	
6/1/2017	LC_LC2	200335										
6/5/2017	LC_LC2	200335										
6/6/2017	LC_LC2	200335	0.000549	0.000613	< 0.50	0.51	0.175	< 0.0010	< 0.0050	0.0046	8.34	8.19
6/13/2017	LC_LC2	200335									8.33	
6/20/2017	LC_LC2	200335									7.8	
6/26/2017	LC_LC2	200335									8.06	
7/5/2017	LC_LC2	200335	0.000687	0.000684	< 0.50	< 0.50	0.149	< 0.0010	0.0074	0.0017	8.34	8.28
7/6/2017	LC_LC2	200335										
7/10/2017	LC_LC2	200335										
7/11/2017	LC_LC2	200335									8.2	
8/2/2017	LC_LC2	200335	0.000734	0.000744	< 0.50	< 0.50	0.295	< 0.0010	0.009	0.0023	8.22	8.26
8/2/2017	LC_LC2	200335										
9/6/2017	LC_LC2	200335	0.000665	0.000711	< 0.50	< 0.50	0.324	< 0.0010	< 0.0050	0.0012	8.21	8.42
10/3/2017	LC_LC2	200335	0.000696	0.000816	< 0.50	< 0.50	0.355	< 0.0010	0.0081	0.0021	8.17	8.41
11/8/2017	LC_LC2	200335	0.00073	0.000693	< 0.50	< 0.50	0.369	< 0.0010	0.0081	0.0017	8.2	8.23
11/8/2017	LC_LC2	200335										
12/4/2017	LC_LC2	200335	0.00069	0.000663	< 0.50	< 0.50	0.374	0.0011	< 0.0050	0.003	8.55	8.29
1/2/2017	LC_LC3	200337	0.00222	0.00272	10.2	12.4	17	0.0099	< 0.0050	0.0027	8.25	8.14

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
1/2/2017	LC_LC3	200337										
1/9/2017	LC_LC3	200337	0.00239	0.00253	8.63	9.2	15.3	< 0.0050	< 0.0050	0.0084	8	8.3
1/16/2017	LC_LC3	200337	0.00241	0.00267	8.67	9.29	14.9	< 0.0050	< 0.0050	0.0056	8.22	8.21
1/23/2017	LC_LC3	200337	0.00242	0.00252	8.07	8.41	15	< 0.0050	< 0.0050	0.0087	8.13	8.35
1/31/2017	LC_LC3	200337	0.00227	0.0024	7.84	8.32	14.7	< 0.0050	0.0064	0.0076	8.17	8.22
2/7/2017	LC_LC3	200337	0.00238	0.00238	7.92	8.33	13.6	0.002	< 0.0050	0.0044	8.15	8.11
2/14/2017	LC_LC3	200337	0.00491	0.005	7.4	7.44	14.1	0.0069	< 0.0050	0.0067	8.12	8.04
2/20/2017	LC_LC3	200337	0.00394	0.00414	7.55	7.92	15.2	0.0015	< 0.0050	0.0068	8.12	8.11
2/24/2017	LC_LC3	200337	0.00396	0.0041	7.82	8.41	15.3	0.0011	< 0.0050	0.0069	8.17	8.19
2/27/2017	LC_LC3	200337	0.00349	0.00379	7.43	7.82	14.7	0.0021	< 0.0050	0.0107	8.15	8
3/1/2017	LC_LC3	200337										
3/6/2017	LC_LC3	200337	0.00311	0.0031	7.55	7.3	14.7	< 0.0050	< 0.0050	0.0091	8.09	8.09
3/13/2017	LC_LC3	200337	0.00312	0.00328	8.03	7.18	14.3	0.0022	0.0118	0.0211	8.13	8.08
3/16/2017	LC_LC3	200337										
3/16/2017	LC_LC3	200337										
3/17/2017	LC_LC3	200337	0.00273	0.00289	9.6	11.8	19.6	0.0022	< 0.0050	0.0185	8.53	8.19
3/18/2017	LC_LC3	200337										
3/19/2017	LC_LC3	200337										
3/20/2017	LC_LC3	200337	0.0024	0.00282	8.97	9.76	17.6	0.0024	< 0.0050	0.0057	8.14	8
3/21/2017	LC_LC3	200337										
3/22/2017	LC_LC3	200337										
3/23/2017	LC_LC3	200337										
3/24/2017	LC_LC3	200337										
3/25/2017	LC_LC3	200337										
3/26/2017	LC_LC3	200337										
3/27/2017	LC_LC3	200337	0.00282	0.0033	8.93	9.98	17.3	0.0149	< 0.0050	0.0063	8.09	8.12
3/28/2017	LC_LC3	200337										
3/29/2017	LC_LC3	200337										
3/30/2017	LC_LC3	200337										
4/3/2017	LC_LC3	200337	0.00284	0.00267	9.44	9.36	18.9	0.0026	0.0265	0.0071	8.06	8.07
4/4/2017	LC_LC3	200337										
4/10/2017	LC_LC3	200337	0.00296	0.00286	10.9	10.4	21.8	< 0.0050	0.0353	0.0042	8.09	8.04
4/18/2017	LC_LC3	200337	0.00271	0.00269	10.5	10.6	21.1	0.0074	< 0.0050	0.0046	8.11	8
4/25/2017	LC_LC3	200337	0.00264	0.00274	9.74	10.4	21.9	< 0.0050	< 0.0050	0.0032	8.03	8.02
5/1/2017	LC_LC3	200337	0.00248	0.00239	9.13	9.35	22.7	0.0061	0.0063	0.0039	8.13	8.11
5/4/2017	LC_LC3	200337										
5/7/2017	LC_LC3	200337										
5/9/2017	LC_LC3	200337	0.00207	0.00206	9.13	9.37	11.8	< 0.0010	0.0101	0.0013	8.15	8.15
5/16/2017	LC_LC3	200337	0.00165	0.00168	8.76	8.29	8.98	< 0.0010	< 0.0050	< 0.0010	8.17	8.32
5/18/2017	LC_LC3	200337										
5/23/2017	LC_LC3	200337	0.00192	0.00192	9.03	9.23	11	< 0.0010	< 0.0050	0.0013	7.92	8.34
5/30/2017	LC_LC3	200337	0.00177	0.00184	9.23	8.89	8.52	< 0.0010	< 0.0050	0.0016	7.91	8.32
6/6/2017	LC_LC3	200337										
6/7/2017	LC_LC3	200337	0.00163	0.0017	11	9.75	8.86	0.0013	0.0068	0.0021	7.88	8.35
6/13/2017	LC_LC3	200337	0.00187	0.00187	11.9	11.7	10.7	< 0.0010	< 0.0050	< 0.0010	7.85	8.17
6/19/2017	LC_LC3	200337	0.0019	0.00196	11.9	11.4	10.9	< 0.0010	< 0.0050	< 0.0010	7.72	8.06
6/26/2017	LC_LC3	200337	0.00191	0.00184	12.4	11.4	12.1	0.0017	0.0057	0.0011	7.76	8.13

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
7/6/2017	LC_LC3	200337										
7/6/2017	LC_LC3	200337	0.00185	0.00189	10.4	11.3	13	0.0029	0.006	0.0017	7.94	8.09
7/11/2017	LC_LC3	200337										
7/11/2017	LC_LC3	200337	0.00194	0.00188	13.1	12.6	14	0.0016	< 0.0050	0.0024	7.85	7.96
7/13/2017	LC_LC3	200337										
7/14/2017	LC_LC3	200337	0.002	0.00198	15.5	15.9	15	< 0.0050	0.0109	0.0025		
7/14/2017	LC_LC3	200337									7.81	
7/18/2017	LC_LC3	200337	0.00201	0.00195	13.3	12.4	15.5	< 0.0050	0.0178	0.003	7.94	8.35
7/25/2017	LC_LC3	200337										
7/25/2017	LC_LC3	200337	0.00201	0.002	11.9	11.3	14.9	0.0032	0.01	0.0023	7.93	8.24
7/26/2017	LC_LC3	200337	0.00205	0.00189	11.9	12	15.4		0.0096			
8/2/2017	LC_LC3	200337										
8/2/2017	LC_LC3	200337	0.00208	0.00205	12.1	12.8	16.2	< 0.0050	0.0118	0.0023	7.92	8.11
8/8/2017	LC_LC3	200337										
8/8/2017	LC_LC3	200337	0.00189	0.00195	13.3	13.6	14.6	< 0.0050	0.0077	0.002	7.97	8.23
8/12/2017	LC_LC3	200337	0.00204	0.00206	11.7	11.6	12.9	< 0.0050	0.0136	0.0021		
8/12/2017	LC_LC3	200337									7.77	
8/15/2017	LC_LC3	200337										
8/15/2017	LC_LC3	200337	0.00166	0.00192	11	11.7	12.8	< 0.0050	< 0.0050	0.0023	8.06	8.13
8/18/2017	LC_LC3	200337									7.94	
8/21/2017	LC_LC3	200337	0.0019	0.00194	11.9	11.2	13.2	< 0.0050	0.0073	0.0025	7.91	8.07
8/24/2017	LC_LC3	200337										
8/24/2017	LC_LC3	200337									7.91	
8/25/2017	LC_LC3	200337									7.61	
8/27/2017	LC_LC3	200337										
8/27/2017	LC_LC3	200337									7.9	
8/30/2017	LC_LC3	200337										
8/30/2017	LC_LC3	200337	0.00178	0.00181	10.4	9.68	12.2	< 0.0050	0.0178	0.0012	7.92	8.19
9/2/2017	LC_LC3	200337										
9/2/2017	LC_LC3	200337									7.89	
9/5/2017	LC_LC3	200337										
9/5/2017	LC_LC3	200337	0.00179	0.00191	9.51	10	11.2	0.0036	< 0.0050	< 0.0010	7.9	8.41
9/5/2017	LC_LC3	200337									7.9	
9/8/2017	LC_LC3	200337									7.84	
9/12/2017	LC_LC3	200337	0.00176	0.00183	12.9	14.1	13.4	0.0059	< 0.0050	0.0016	7.96	8.3
9/20/2017	LC_LC3	200337										
9/20/2017	LC_LC3	200337	0.00192	0.00197	10.5	10.5	13.8	0.0052	< 0.0050	< 0.0010	7.96	8.21
9/21/2017	LC_LC3	200337	0.00183	0.002	10.9	11	12.8	< 0.0010	< 0.0050	0.0021		
9/25/2017	LC_LC3	200337										
9/25/2017	LC_LC3	200337	0.00169	0.00186	10.1	10.7	12.8	< 0.0010	< 0.0050	0.0016		
9/25/2017	LC_LC3	200337	0.00185	0.00198	9.8	10.1	13.6	0.007	< 0.0050	0.0032	7.96	8.13
10/2/2017	LC_LC3	200337	0.00193	0.00203	9.84	12.1	13.3	0.0078	0.0084	0.0013	7.83	8.16
10/10/2017	LC_LC3	200337	0.00195	0.00227	9.13	9.82	14.7	0.007	< 0.0050	0.0018	8.03	8.16
10/10/2017	LC_LC3	200337										
10/17/2017	LC_LC3	200337	0.00193	0.00206	12.5	13.2	18.9	< 0.0050	0.01	0.0016	8.1	8.2
10/24/2017	LC_LC3	200337	0.00217	0.00221	13	12.7	16.6	0.0024	< 0.0050	0.0023	8.05	8.18
10/24/2017	LC_LC3	200337										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
10/31/2017	LC_LC3	200337	0.00213	0.00221	11.9	11.9	16.8	0.0171	< 0.0050	0.002	8.06	8.08
10/31/2017	LC_LC3	200337										
11/6/2017	LC_LC3	200337	0.0026	0.00251	11.7	11.9	17.8	0.0026	0.0125	0.0013	8.2	8.26
11/8/2017	LC_LC3	200337										
11/9/2017	LC_LC3	200337	0.00245	0.00243	11.4	10.9	16.7	0.014	< 0.0050	0.0019	8.04	8.28
11/14/2017	LC_LC3	200337	0.00232	0.00261	10.8	11.5	15.6	0.006	0.0127	0.0015	8.14	8.29
11/21/2017	LC_LC3	200337	0.00239	0.00258	11	10.9	16.2	< 0.0050	0.0055	0.0025	8.05	8.35
11/28/2017	LC_LC3	200337	0.00261	0.00287	11.5	11.8	18.2	0.0013	< 0.0050	0.0028	8.09	8.23
12/4/2017	LC_LC3	200337	0.00257	0.00259	10.9	11.5	17.9	0.0013	< 0.0050	0.003	8.12	8.33
12/12/2017	LC_LC3	200337	0.00278	0.00259	10.5	10.9	17.2	0.0013	0.0073	0.0019	8.17	8.03
12/18/2017	LC_LC3	200337	0.00258	0.00253	10.9	11.3	18	0.0018	0.0058	0.0019	8.17	8.15
12/27/2017	LC_LC3	200337	0.00275	0.00282	10.3	10.4	16.3	0.0014	0.0052	0.0019	8.28	8.01
12/27/2017	LC_LC3	200337										
1/9/2017	LC_LC4	200044	0.00162	0.00173	2.81	3.07	8.65	< 0.0050	< 0.0050	0.0038	8.13	8.37
2/14/2017	LC_LC4	200044	0.00208	0.00196	2.24	2.22	8.16	0.0013	0.0077	0.0029	8.52	8.26
2/24/2017	LC_LC4	200044	0.00223	0.00209	2.21	2.53	8.57	0.0019	0.0114	0.0029	8.64	8.37
2/27/2017	LC_LC4	200044	0.00178	0.00198	2.21	2.53	8.64	0.0027	< 0.0050	0.0093	8.56	8.31
3/6/2017	LC_LC4	200044	0.00189	0.00182	2.27	2.38	8.6	< 0.0050	< 0.0050	0.0024	8.65	8.36
3/13/2017	LC_LC4	200044	0.00182	0.00194	2.06	2.21	8.24	0.0017	0.0056	0.0161	7.98	8.4
3/15/2017	LC_LC4	200044										
3/16/2017	LC_LC4	200044										
3/17/2017	LC_LC4	200044	0.00184	0.00181	2.56	3.27	9.47	0.0011	< 0.0050	0.0184	8.63	8.32
3/18/2017	LC_LC4	200044										
3/19/2017	LC_LC4	200044										
3/20/2017	LC_LC4	200044	0.00163	0.00182	2.71	3.15	9	< 0.0010	0.0272	0.004	7.95	8.26
3/21/2017	LC_LC4	200044										
3/22/2017	LC_LC4	200044										
3/23/2017	LC_LC4	200044										
3/24/2017	LC_LC4	200044										
3/25/2017	LC_LC4	200044										
3/26/2017	LC_LC4	200044										
3/27/2017	LC_LC4	200044	0.00174	0.00192	3.07	3.35	9.92	0.0022	< 0.0050	0.0026	8.52	8.31
4/3/2017	LC_LC4	200044	0.00194	0.00177	3.05	3.3	10.4	0.0021	0.0618	0.0024	8.56	8.36
4/10/2017	LC_LC4	200044	0.00191	0.00188	2.98	3.03	10.7	0.005	0.0209	< 0.0010	8.58	8.38
4/18/2017	LC_LC4	200044	0.0018	0.00171	3	3.02	11.3	0.0041	< 0.0050	< 0.0010	8.56	8.4
4/24/2017	LC_LC4	200044	0.00175	0.00183	3.57	3.92	10.2	0.0013	< 0.0050	0.0018	8.56	8.27
4/27/2017	LC_LC4	200044										
5/1/2017	LC_LC4	200044	0.0018	0.00185	3.54	3.75	12.1	0.0054	0.0172	0.0022	8.49	8.37
5/5/2017	LC_LC4	200044										
5/6/2017	LC_LC4	200044										
5/7/2017	LC_LC4	200044										
5/8/2017	LC_LC4	200044										
5/8/2017	LC_LC4	200044	0.00144	0.0015	3.81	5.11	6.72	< 0.0010	0.0103	0.0028	8.44	8.26
5/10/2017	LC_LC4	200044										
5/11/2017	LC_LC4	200044										
5/13/2017	LC_LC4	200044										
5/14/2017	LC_LC4	200044										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
5/15/2017	LC_LC4	200044	0.00124	0.00137	3.96	4.88	5.04	< 0.0010	< 0.0050	0.0034	8.39	8.35
5/16/2017	LC_LC4	200044										
5/17/2017	LC_LC4	200044										
5/18/2017	LC_LC4	200044										
5/19/2017	LC_LC4	200044										
5/23/2017	LC_LC4	200044	0.00102	0.00104	2.74	3.71	4.04	0.0011	< 0.0050	0.0034	8.31	8.37
5/24/2017	LC_LC4	200044										
5/25/2017	LC_LC4	200044										
5/30/2017	LC_LC4	200044	0.000991	0.00103	2.75	4.29	3.32	0.0018	< 0.0050	0.0033	8.48	8.37
5/31/2017	LC_LC4	200044										
6/1/2017	LC_LC4	200044										
6/2/2017	LC_LC4	200044										
6/7/2017	LC_LC4	200044	0.001	0.00109	4.15	4.4	4.15	< 0.0010	0.0072	0.0043	8.39	8.29
6/13/2017	LC_LC4	200044	0.00123	0.00142	4.59	4.48	5.07	0.0013	< 0.0050	0.0038	8.38	8.32
6/19/2017	LC_LC4	200044	0.00132	0.00131	4.4	4.49	5.43	0.0015	< 0.0050	0.0019	8.54	8.36
6/26/2017	LC_LC4	200044	0.00124	0.00126	4.55	4.54	5.69	< 0.0010	0.0097	0.0016	8.38	8.31
7/5/2017	LC_LC4	200044	0.00133	0.00133	4.77	4.61	6.95	< 0.0010	0.0056	< 0.0010	8.48	8.36
7/11/2017	LC_LC4	200044	0.00142	0.0014	4.18	4.11	7.12	0.0021	< 0.0050	0.0023	8.68	8.54
7/18/2017	LC_LC4	200044	0.00154	0.00146	4.29	4.64	8.28	0.0031	0.0081	0.0017	8.69	8.48
7/25/2017	LC_LC4	200044	0.00159	0.00145	4.06	4.27	8.19	0.0016	0.0131	0.0019	8.52	8.44
8/2/2017	LC_LC4	200044	0.0016	0.00151	3.9	< 4.5	8.3	0.0021	0.0068	0.0016	8.54	8.44
8/8/2017	LC_LC4	200044	0.00151	0.00145	4.57	4.51	8.46	0.0026	0.0086	0.0017	8.53	8.46
8/15/2017	LC_LC4	200044	0.00143	0.00153	3.98	4.14	7.32	0.0019	0.0061	0.0024	8.53	8.36
8/18/2017	LC_LC4	200044									8.51	
8/21/2017	LC_LC4	200044	0.00149	0.00149	4.21	4.05	7.71	0.0026	0.0118	0.0023	8.54	8.38
8/24/2017	LC_LC4	200044									8.46	
8/27/2017	LC_LC4	200044									8.62	
8/30/2017	LC_LC4	200044	0.00149	0.0015	3.44	3.27	7.5	< 0.0050	0.0239	0.0012	8.53	8.46
9/2/2017	LC_LC4	200044									8.51	
9/5/2017	LC_LC4	200044									8.54	
9/5/2017	LC_LC4	200044	0.00145	0.00159	3.14	3.36	7.09	0.0022	< 0.0050	0.0021	8.54	8.45
9/8/2017	LC_LC4	200044									8.48	
9/12/2017	LC_LC4	200044	0.00149	0.00154	3.35	3.58	7.25	0.0024	< 0.0050	0.0026	8.47	8.48
9/20/2017	LC_LC4	200044	0.00153	0.00159	3.79	3.93	8.24	0.0015	< 0.0050	< 0.0010	8.51	8.24
9/25/2017	LC_LC4	200044	0.00142	0.00166	3.69	3.91	8.12	0.0053	< 0.0050	0.0024	8.44	8.38
10/2/2017	LC_LC4	200044	0.00151	0.00166	3.42	3.95	7.73	0.0019	0.0109	0.0016	8.48	8.17
10/10/2017	LC_LC4	200044	0.00146	0.00169	2.84	3.26	7.85	0.0032	0.0089	0.0017	8.57	8.29
10/17/2017	LC_LC4	200044	0.00149	0.00157	3.11	3.34	8.46	0.0025	0.0087	0.0011	8.52	8.41
10/24/2017	LC_LC4	200044	0.00154	0.00156	3.99	4.2	9.01	0.0019	< 0.0050	0.003	8.47	8.29
10/31/2017	LC_LC4	200044	0.00166	0.00164	4.37	4.23	9.65	0.0011	< 0.0050	0.0019	8.46	8.05
11/6/2017	LC_LC4	200044	0.00181	0.00176	3.88	4.02	9.62	0.0019	0.0098	0.0015	8.38	8.37
11/10/2017	LC_LC4	200044	0.00173	0.00167	3.38	3.8	9.35	0.0021	< 0.0050	0.0018	8.38	8.43
11/14/2017	LC_LC4	200044	0.00174	0.00177	3.45	3.76	9.32	0.0021	0.0097	0.0022	8.51	8.39
11/21/2017	LC_LC4	200044	0.00175	0.0019	3.33	3.35	9.26	0.0019	0.0085	0.0034	8.58	8.47
11/23/2017	LC_LC4	200044										
11/28/2017	LC_LC4	200044	0.00183	0.00179	3.7	4.12	9.65	0.0012	< 0.0050	0.0034	8.47	8.32
12/4/2017	LC_LC4	200044	0.00184	0.00194	3.78	4.26	10.8	0.0015	0.0072	0.0028	8.46	8.39

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
12/12/2017	LC_LC4	200044	0.00185	0.00186	3.64	7.41	10.3	0.0014	0.0063	0.0021	8.52	8.27
12/18/2017	LC_LC4	200044	0.00185	0.00172	3.74	3.87	10.3	0.0012	0.0069	0.0022	8.58	8.32
12/27/2017	LC_LC4	200044	0.002	0.00189	3.19	3.29	9.44	0.0015	0.0103	0.0024	8.41	8.15
1/2/2017	LC_LC5	200028	0.00112	0.00117	0.92	1.11	11.6	0.0026	0.064	0.0013	8.4	8.23
1/9/2017	LC_LC5	200028	0.000977	0.00103	0.8	0.85	11.1	< 0.0050	< 0.0050	0.0017	7.79	8.35
1/16/2017	LC_LC5	200028	0.000989	0.00108	0.74	1.07	10.7	< 0.0050	< 0.0050	0.0011	8.47	8.29
2/14/2017	LC_LC5	200028	0.00104	0.00109	0.69	0.85	11.1	0.0035	0.015	< 0.0010	8.45	8.25
3/6/2017	LC_LC5	200028	0.00108	0.00104	0.79	0.84	11.1	< 0.0050	< 0.0050	0.0012	8.55	8.3
3/13/2017	LC_LC5	200028	0.00104	0.00114	0.69	0.82	11	0.0036	0.0147	0.0158	8.55	8.32
3/16/2017	LC_LC5	200028										
3/20/2017	LC_LC5	200028	0.00109	0.00111	1.13	1.8	10.3	0.0025	0.0427	0.0021	8.47	8.23
3/27/2017	LC_LC5	200028	0.000976	0.00104	1.02	1.19	11.9	0.0044	< 0.0050	< 0.0010	8.56	8.31
4/3/2017	LC_LC5	200028	0.00109	0.00105	0.99	1.35	11.4	0.0031	< 0.0050	< 0.0010	8.52	8.32
4/10/2017	LC_LC5	200028	0.00108	0.00104	0.99	1.08	11.2	0.0054	0.0267	< 0.0010	8.49	8.34
4/18/2017	LC_LC5	200028	0.00106	0.000976	1.02	1.21	7.97	0.0028	0.0146	< 0.0010	8.53	8.34
4/25/2017	LC_LC5	200028	0.00108	0.00103	1.15	1.54	9.48	0.0047	< 0.0050	0.0041	8.45	8.36
5/1/2017	LC_LC5	200028	0.00113	0.00121	1.3	1.45	10.2	0.0056	0.014	< 0.0010	8.42	8.4
5/8/2017	LC_LC5	200028	0.00102	0.0011	1.66	2.75	5.42	0.0018	0.0063	< 0.0010	8.37	8.27
5/15/2017	LC_LC5	200028	0.000956	0.00105	1.63	2.65	5.23	0.0012	0.0126	0.0027	8.43	8.36
5/24/2017	LC_LC5	200028	0.000861	0.00107	0.95	9.51	4.37	0.0018	< 0.0050	< 0.0010	8.32	8.27
5/31/2017	LC_LC5	200028	0.000908	0.00106	1.19	4.89	5.36	< 0.0050	0.0071	0.004	8.22	8.37
6/6/2017	LC_LC5	200028	0.001	0.00101	1.73	2.29	5.43	0.0015	0.167	0.0025	8.4	8.34
6/13/2017	LC_LC5	200028	0.00121	0.00122	4.55	4.67	5.85	0.0023	< 0.0050	< 0.0010	8.43	8.33
6/19/2017	LC_LC5	200028	0.00111	0.00114	1.74	1.9	5.88	0.0029	< 0.0050	< 0.0010	8.58	8.37
6/26/2017	LC_LC5	200028	0.00105	0.00107	1.48	1.63	6.59	0.0048	0.0069	0.0011	8.37	8.41
7/6/2017	LC_LC5	200028	0.00106	0.00103	1.65	1.69	7.16	0.0044	0.0106	< 0.0010	8.56	8.42
7/10/2017	LC_LC5	200028	0.00111	0.0011	1.4	1.53	7.52	0.0077	0.006	0.0013		8.43
7/18/2017	LC_LC5	200028	0.00109	0.00104	1.52	1.52	8.19	0.0041	0.0102	< 0.0010	8.48	8.45
7/25/2017	LC_LC5	200028	0.00116	0.00106	1.28	1.39	8.57	0.005	0.0081	0.0013	8.49	8.45
8/2/2017	LC_LC5	200028	0.00116	0.00111	1.13	< 1.5	9.07	0.0082	0.0091	< 0.0010		8.45
8/8/2017	LC_LC5	200028									8.5	
8/15/2017	LC_LC5	200028	0.00102	0.00107	1.16	1.19	8.81	0.0081	< 0.0050	< 0.0010	8.5	8.4
8/18/2017	LC_LC5	200028									8.42	
8/21/2017	LC_LC5	200028									8.48	
8/24/2017	LC_LC5	200028									8.34	
8/27/2017	LC_LC5	200028									8.44	
8/30/2017	LC_LC5	200028									8.36	
9/2/2017	LC_LC5	200028									8.39	
9/5/2017	LC_LC5	200028									8.36	
9/5/2017	LC_LC5	200028	0.00102	0.00112	1.02	1.17	8.73	0.0047	< 0.0050	< 0.0010	8.36	8.47
9/8/2017	LC_LC5	200028									8.41	
9/12/2017	LC_LC5	200028	0.00104	0.00151	0.97	3.51	8.94	0.0043	< 0.0050	< 0.0010	8.47	8.43
10/2/2017	LC_LC5	200028	0.00106	0.00111	0.95	1.28	8.88	0.0041	< 0.0050	< 0.0010	8.63	8.2
11/7/2017	LC_LC5	200028	0.00125	0.00118	1.1	1.82	9.4	0.0029	0.009	< 0.0010	8.44	8.34
11/28/2017	LC_LC5	200028	0.00124	0.0028	1.3	12	9.66	0.0019	0.0061	< 0.0010	8.47	8.28
11/30/2017	LC_LC5	200028										
12/4/2017	LC_LC5	200028	0.00138	0.00132	1.5	1.69	10.2	0.0025	0.0063	0.0019	8.48	8.4

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
1/9/2017	LC_LC7	E216144										
2/14/2017	LC_LC7	E216144										
3/6/2017	LC_LC7	E216144										
3/13/2017	LC_LC7	E216144										
3/17/2017	LC_LC7	E216144										
3/18/2017	LC_LC7	E216144										
3/19/2017	LC_LC7	E216144										
3/20/2017	LC_LC7	E216144										
3/21/2017	LC_LC7	E216144	0.00222	0.00245	11.1	15.4	2.19	0.0099	0.121	0.0097	8.22	8.15
3/21/2017	LC_LC7	E216144										
3/22/2017	LC_LC7	E216144										
3/23/2017	LC_LC7	E216144										
3/25/2017	LC_LC7	E216144										
3/26/2017	LC_LC7	E216144										
3/27/2017	LC_LC7	E216144	0.00253	0.00273	14.1	15.3	1.65	0.008	0.0715	0.007	8.3	8.28
3/28/2017	LC_LC7	E216144										
3/29/2017	LC_LC7	E216144										
3/30/2017	LC_LC7	E216144										
3/31/2017	LC_LC7	E216144										
4/4/2017	LC_LC7	E216144	0.00299	0.00273	13.4	12.9	1.75	0.0056	0.0954	0.0035	8.13	8.31
4/11/2017	LC_LC7	E216144										
4/18/2017	LC_LC7	E216144										
4/25/2017	LC_LC7	E216144										
5/1/2017	LC_LC7	E216144	0.00282	0.00285	12.5	12.9	1.89	0.0046	0.0628	< 0.0010	8.46	8.32
5/1/2017	LC_LC7	E216144										
5/5/2017	LC_LC7	E216144										
5/6/2017	LC_LC7	E216144	0.00226	0.00232	5.09	8.08	1.79	0.0038	0.0193	0.0209		8.15
5/7/2017	LC_LC7	E216144										
5/8/2017	LC_LC7	E216144										
5/11/2017	LC_LC7	E216144										
5/16/2017	LC_LC7	E216144										
5/23/2017	LC_LC7	E216144										
5/30/2017	LC_LC7	E216144										
5/31/2017	LC_LC7	E216144										
6/6/2017	LC_LC7	E216144	0.00107	0.00111	1.76	1.9	0.312	< 0.0010	0.01	0.0084	8.45	8.25
6/13/2017	LC_LC7	E216144										
6/20/2017	LC_LC7	E216144										
6/26/2017	LC_LC7	E216144										
7/5/2017	LC_LC7	E216144	0.000927	0.000937	1	1.13	0.0867	< 0.0010	0.0109	< 0.0010	8.56	8.42
7/7/2017	LC_LC7	E216144										
7/11/2017	LC_LC7	E216144										
7/11/2017	LC_LC7	E216144									8.47	
7/13/2017	LC_LC7	E216144										
8/2/2017	LC_LC7	E216144	0.000949	0.000964	0.58	< 1.0	0.0484	< 0.0010	0.0075	< 0.0010	8.57	8.43
8/2/2017	LC_LC7	E216144										
8/8/2017	LC_LC7	E216144					0.0551	< 0.0010	0.0095	< 0.0010	8.53	8.44
8/8/2017	LC_LC7	E216144	0.000965	0.000898	0.71	0.81						

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
9/6/2017	LC_LC7	E216144	0.000906	0.000976	0.71	0.82	0.014	< 0.0010	< 0.0050	< 0.0010	8.57	8.41
9/6/2017	LC_LC7	E216144										
10/3/2017	LC_LC7	E216144	0.000938	0.00093	0.88	1.18	0.0536	< 0.0010	0.0052	< 0.0010	8.47	8.34
10/3/2017	LC_LC7	E216144										
11/8/2017	LC_LC7	E216144	0.00118	0.00116	2.43	2.43	0.236	0.0011	0.0077	< 0.0010	8.4	8.29
12/4/2017	LC_LC7	E216144	0.0014	0.00136	4	4.32	0.514	0.0026	0.0132	0.0019	8.33	8.28
12/21/2017	LC_LC7	E216144										
5/23/2017	LC_LC7DSTF	E304613										
6/6/2017	LC_LC7DSTF	E304613	0.000929	0.00107	1.56	1.69	< 0.0050	< 0.0010	0.0057	0.0064		8.25
7/6/2017	LC_LC7DSTF	E304613	0.000941	0.000953	1.05	1.29	0.0786	< 0.0010	< 0.0050	< 0.0010	8.59	8.47
8/2/2017	LC_LC7DSTF	E304613					0.0465	< 0.0010	0.0078	< 0.0010		8.46
8/8/2017	LC_LC7DSTF	E304613					0.07	< 0.0010	< 0.0050	< 0.0010	8.55	8.47
8/8/2017	LC_LC7DSTF	E304613	0.000916	0.000905	0.7	0.82						
1/9/2017	LC_LC8	E219411										
2/14/2017	LC_LC8	E219411										
3/6/2017	LC_LC8	E219411										
3/13/2017	LC_LC8	E219411										
3/21/2017	LC_LC8	E219411										
3/27/2017	LC_LC8	E219411										
4/3/2017	LC_LC8	E219411										
4/11/2017	LC_LC8	E219411										
4/18/2017	LC_LC8	E219411										
4/25/2017	LC_LC8	E219411										
5/1/2017	LC_LC8	E219411										
5/9/2017	LC_LC8	E219411										
5/16/2017	LC_LC8	E219411										
5/23/2017	LC_LC8	E219411										
5/30/2017	LC_LC8	E219411										
6/6/2017	LC_LC8	E219411										
6/13/2017	LC_LC8	E219411										
6/19/2017	LC_LC8	E219411										
6/26/2017	LC_LC8	E219411										
10/3/2017	LC_LC8	E219411										
11/8/2017	LC_LC8	E219411										
12/4/2017	LC_LC8	E219411										
1/9/2017	LC_LC9	E221268										
2/14/2017	LC_LC9	E221268										
3/13/2017	LC_LC9	E221268										
3/16/2017	LC_LC9	E221268										
3/17/2017	LC_LC9	E221268										
3/18/2017	LC_LC9	E221268										
3/19/2017	LC_LC9	E221268										
3/21/2017	LC_LC9	E221268	0.0046	0.00526	5.5	6.91	17.6	0.0579	0.157	0.0169	8.26	7.95
3/21/2017	LC_LC9	E221268										
3/22/2017	LC_LC9	E221268										
3/23/2017	LC_LC9	E221268										
3/24/2017	LC_LC9	E221268										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
3/25/2017	LC_LC9	E221268										
3/26/2017	LC_LC9	E221268										
3/27/2017	LC_LC9	E221268										
3/28/2017	LC_LC9	E221268										
3/29/2017	LC_LC9	E221268										
3/30/2017	LC_LC9	E221268										
3/31/2017	LC_LC9	E221268										
4/4/2017	LC_LC9	E221268	0.00455	0.00448	7.24	6.99	24.6	0.135	0.0314	< 0.0010	8.01	7.98
4/5/2017	LC_LC9	E221268										
4/11/2017	LC_LC9	E221268										
4/18/2017	LC_LC9	E221268										
4/25/2017	LC_LC9	E221268										
5/1/2017	LC_LC9	E221268										
5/9/2017	LC_LC9	E221268										
5/16/2017	LC_LC9	E221268										
5/23/2017	LC_LC9	E221268										
5/30/2017	LC_LC9	E221268										
6/6/2017	LC_LC9	E221268										
6/13/2017	LC_LC9	E221268										
6/19/2017	LC_LC9	E221268										
6/26/2017	LC_LC9	E221268										
10/3/2017	LC_LC9	E221268										
11/8/2017	LC_LC9	E221268										
12/4/2017	LC_LC9	E221268										
1/2/2017	LC_LCDSSLCC	E297110	0.00202	0.00211	5.74	5.82	11.7	0.0019	0.0259	0.0021	8.46	8.25
1/5/2017	LC_LCDSSLCC	E297110										
1/9/2017	LC_LCDSSLCC	E297110	0.00173	0.00182	4.11	4.21	11.1	< 0.0050	< 0.0050	0.0027	8.16	8.36
1/13/2017	LC_LCDSSLCC	E297110										
1/16/2017	LC_LCDSSLCC	E297110	0.00182	0.00196	4.35	4.53	11.1	< 0.0050	< 0.0050	0.0027	8.42	8.32
1/18/2017	LC_LCDSSLCC	E297110										
1/23/2017	LC_LCDSSLCC	E297110	0.00173	0.00181	4.02	4.03	11.4	< 0.0050	< 0.0050	0.0022	8.44	8.4
1/31/2017	LC_LCDSSLCC	E297110	0.0017	0.00183	3.86	3.93	11.3	< 0.0050	< 0.0050	0.0022	7.88	8.3
2/7/2017	LC_LCDSSLCC	E297110	0.00169	0.00169	3.72	3.86	10.2	0.0021	< 0.0050	0.0026	8.48	8.27
2/14/2017	LC_LCDSSLCC	E297110	0.00259	0.0027	3.43	3.73	11.2	0.0052	0.0149	0.0023	8.38	8.24
2/21/2017	LC_LCDSSLCC	E297110	0.00223	0.0023	3.9	3.81	12	< 0.0050	< 0.0050	0.0024		8.28
2/21/2017	LC_LCDSSLCC	E297110									8.42	
2/22/2017	LC_LCDSSLCC	E297110										
2/27/2017	LC_LCDSSLCC	E297110	0.00214	0.00231	3.28	3.61	11.8	0.003	< 0.0050	0.0083	8.52	8.24
3/6/2017	LC_LCDSSLCC	E297110	0.00207	0.00201	3.25	3.38	11.7	< 0.0050	< 0.0050	0.0025	8.55	8.31
3/9/2017	LC_LCDSSLCC	E297110										
3/13/2017	LC_LCDSSLCC	E297110	0.00218	0.00236	3.2	3.74	11.3	0.0045	0.0065	0.0328	8.54	8.28
3/15/2017	LC_LCDSSLCC	E297110										
3/20/2017	LC_LCDSSLCC	E297110	0.00183	0.00196	4.12	4.24	12.3	0.0033	0.0282	0.0029	8.41	8.16
3/21/2017	LC_LCDSSLCC	E297110										
3/27/2017	LC_LCDSSLCC	E297110	0.00195	0.00224	4.48	4.6	13.3	0.0159	< 0.0050	0.0025	8.42	8.27
4/3/2017	LC_LCDSSLCC	E297110	0.00211	0.00207	4.95	4.79	14	0.004	0.0382	0.0039	8.44	8.29
4/10/2017	LC_LCDSSLCC	E297110	0.00217	0.00208	5.29	4.97	15	< 0.0050	0.0293	0.0017	8.39	8.2

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
4/18/2017	LC_LCDSSLCC	E297110	0.00201	0.00181	5.25	5.08	13.9	0.0056	< 0.0050	< 0.0010	8.35	8.27
4/24/2017	LC_LCDSSLCC	E297110									8.28	
4/25/2017	LC_LCDSSLCC	E297110	0.00202	0.00198	5.17	5.52	14.6	0.004	< 0.0050	0.0016		8.26
4/27/2017	LC_LCDSSLCC	E297110										
5/2/2017	LC_LCDSSLCC	E297110	0.00195	0.00193	5	5.44	15.7	0.0017	0.0159	0.0021	8.31	8.29
5/5/2017	LC_LCDSSLCC	E297110										
5/9/2017	LC_LCDSSLCC	E297110	0.00153	0.00151	5.09	5.56	7.72	0.0015	0.0054	0.0013	8.22	8.3
5/16/2017	LC_LCDSSLCC	E297110	0.00128	0.00128	5.35	4.97	5.97	< 0.0010	< 0.0050	0.0015	8.27	8.37
5/17/2017	LC_LCDSSLCC	E297110										
5/23/2017	LC_LCDSSLCC	E297110	0.0011	0.00113	3.8	4.02	5.11	< 0.0010	< 0.0050	< 0.0010	8.18	8.3
5/30/2017	LC_LCDSSLCC	E297110	0.00106	0.00107	3.9	3.93	4.07	< 0.0010	0.0078	0.0016	8.32	8.36
6/7/2017	LC_LCDSSLCC	E297110	0.00113	0.0012	5.61	5.45	5.18	0.0011	< 0.0050	0.0017	8.29	8.31
6/12/2017	LC_LCDSSLCC	E297110	0.00122	0.00129	5.72	5.86	6.07	< 0.0010	< 0.0050	< 0.0010	7.88	8.16
6/13/2017	LC_LCDSSLCC	E297110									8.32	
6/19/2017	LC_LCDSSLCC	E297110	0.00136	0.00143	5.98	12.6	6.44	< 0.0010	< 0.0050	< 0.0010	8.25	8.23
6/20/2017	LC_LCDSSLCC	E297110										
6/20/2017	LC_LCDSSLCC	E297110	0.00138	0.0014	5.99	5.93	6.65	0.0014	< 0.0050	< 0.0010		8.25
6/26/2017	LC_LCDSSLCC	E297110	0.00137	0.00136	5.92	5.6	7.04	0.0011	0.0118	< 0.0010	8.23	8.31
7/6/2017	LC_LCDSSLCC	E297110	0.00138	0.00139	6.15	5.61	8.35	0.0023	0.0067	< 0.0010	8.39	8.35
7/11/2017	LC_LCDSSLCC	E297110										
7/11/2017	LC_LCDSSLCC	E297110	0.0015	0.00149	6.21	6.05	8.74	0.0021	< 0.0050	0.0022	8.35	8.28
7/13/2017	LC_LCDSSLCC	E297110										
7/18/2017	LC_LCDSSLCC	E297110	0.00157	0.00152	6.79	6.43	9.95	0.0037	0.0085	0.0015	8.38	8.41
7/21/2017	LC_LCDSSLCC	E297110									8.41	
7/25/2017	LC_LCDSSLCC	E297110										
7/25/2017	LC_LCDSSLCC	E297110	0.00165	0.00155	6.12	5.94	10.1	0.0041	0.0067	0.0021	8.35	8.41
8/2/2017	LC_LCDSSLCC	E297110										
8/2/2017	LC_LCDSSLCC	E297110	0.00167	0.00161	5.89	6.26	10.3	0.0014	0.0156	< 0.0010	8.32	8.33
8/8/2017	LC_LCDSSLCC	E297110										
8/8/2017	LC_LCDSSLCC	E297110	0.00153	0.00152	7.53	7.31	10.7	0.0018	< 0.0050	0.0012	8.33	8.35
8/15/2017	LC_LCDSSLCC	E297110										
8/15/2017	LC_LCDSSLCC	E297110	0.00149	0.00163	5.54	6	9.09	0.0041	< 0.0050	0.0017	8.37	8.33
8/18/2017	LC_LCDSSLCC	E297110									8.33	
8/21/2017	LC_LCDSSLCC	E297110	0.00154	0.00162	5.83	5.99	9.42	0.0024	0.0068	0.0017	8.36	8.26
8/24/2017	LC_LCDSSLCC	E297110										
8/24/2017	LC_LCDSSLCC	E297110									8.3	
8/27/2017	LC_LCDSSLCC	E297110										
8/27/2017	LC_LCDSSLCC	E297110									8.37	
8/30/2017	LC_LCDSSLCC	E297110										
8/30/2017	LC_LCDSSLCC	E297110	0.00152	0.00157	5.45	5.59	9.31	< 0.0050	0.0054	< 0.0010	8.35	8.37
9/2/2017	LC_LCDSSLCC	E297110									8.28	
9/5/2017	LC_LCDSSLCC	E297110										
9/5/2017	LC_LCDSSLCC	E297110	0.0016	0.00164	4.98	5.51	8.85	0.0021	0.0072	< 0.0010	8.36	8.41
9/8/2017	LC_LCDSSLCC	E297110									8.29	
9/12/2017	LC_LCDSSLCC	E297110										
9/12/2017	LC_LCDSSLCC	E297110	0.00149	0.00159	5.22	5.03	8.88	0.0022	< 0.0050	< 0.0010	8.33	8.38
9/13/2017	LC_LCDSSLCC	E297110									8.38	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
9/20/2017	LC_LCDSSLCC	E297110										
9/20/2017	LC_LCDSSLCC	E297110	0.00156	0.00164	5.22	5.42	10.2	< 0.0010	0.0066	< 0.0010	8.38	8.38
9/25/2017	LC_LCDSSLCC	E297110	0.00157	0.00159	5.09	5.3	10.1	0.002	< 0.0050	0.0017	8.33	8.32
9/25/2017	LC_LCDSSLCC	E297110										
9/26/2017	LC_LCDSSLCC	E297110										
10/2/2017	LC_LCDSSLCC	E297110	0.00157	0.00162	5.3	5.74	9.57	0.0013	0.0066	< 0.0010	8.42	8.18
10/3/2017	LC_LCDSSLCC	E297110										
10/10/2017	LC_LCDSSLCC	E297110	0.00156	0.00174	4.73	5.14	9.86	0.0012	0.0173	< 0.0010	8.28	8.23
10/10/2017	LC_LCDSSLCC	E297110										
10/17/2017	LC_LCDSSLCC	E297110	0.00155	0.00163	5.04	5.16	11.6	0.0016	0.006	< 0.0010	8.37	8.3
10/18/2017	LC_LCDSSLCC	E297110										
10/24/2017	LC_LCDSSLCC	E297110	0.00177	0.0017	6.29	6.45	11.6	0.0021	< 0.0050	0.001	8.34	8.26
10/24/2017	LC_LCDSSLCC	E297110										
10/31/2017	LC_LCDSSLCC	E297110	0.00179	0.00179	6.43	6.35	12.1	0.0013	< 0.0050	0.0013	8.34	8.32
11/6/2017	LC_LCDSSLCC	E297110	0.00188	0.00186	5.54	5.66	12	0.0019	< 0.0050	< 0.0010	8.4	8.31
11/10/2017	LC_LCDSSLCC	E297110	0.00189	0.00183	5.62	5.9	11.7	< 0.0010	0.0094	0.0014	8.16	8.34
11/14/2017	LC_LCDSSLCC	E297110	0.00185	0.00199	5.4	5.75	11.8	0.0052	0.0053	< 0.0010	8.37	8.32
11/16/2017	LC_LCDSSLCC	E297110										
11/21/2017	LC_LCDSSLCC	E297110	0.00184	0.00204	5.72	5.83	11.7	< 0.0010	0.005	0.0016	8.35	8.42
11/28/2017	LC_LCDSSLCC	E297110										
11/28/2017	LC_LCDSSLCC	E297110	0.00197	0.00211	5.46	5.6	12.1	0.0012	0.005	0.0021	8.35	8.26
11/30/2017	LC_LCDSSLCC	E297110										
12/4/2017	LC_LCDSSLCC	E297110	0.00196	0.00205	5.98	6.41	13.8	0.0022	0.005	0.002	8.36	8.38
12/12/2017	LC_LCDSSLCC	E297110	0.00209	0.00207	5.42	5.56	12.9	0.0012	< 0.0050	0.0016	8.37	8.19
12/12/2017	LC_LCDSSLCC	E297110										
12/14/2017	LC_LCDSSLCC	E297110										
12/18/2017	LC_LCDSSLCC	E297110	0.00193	0.00192	5.48	5.92	13.3	0.0012	0.0061	0.0011	8.41	8.26
12/18/2017	LC_LCDSSLCC	E297110										
12/27/2017	LC_LCDSSLCC	E297110										
12/27/2017	LC_LCDSSLCC	E297110	0.00225	0.00215	5.16	5.12	12.3	0.0017	0.0054	0.0011	8.32	8.12
1/2/2017	LC_LCUSWLC	E293369	0.00244	0.00277	11.8	13.8	16.3	0.0012	< 0.0050	0.0021	8.07	8.05
1/9/2017	LC_LCUSWLC	E293369	0.00238	0.0023	12.7	12.5	20.8	< 0.0050	< 0.0050	0.002	8.01	8.29
1/16/2017	LC_LCUSWLC	E293369	0.00237	0.00256	11.6	12	18.6	< 0.0050	< 0.0050	0.0022	8.14	8.26
2/14/2017	LC_LCUSWLC	E293369	0.00206	0.00202	10.4	10.5	21.5	< 0.0050	< 0.0050	0.0028	8.19	8.09
2/24/2017	LC_LCUSWLC	E293369	0.00223	0.00239	10.7	11.4	22.3	< 0.0010	< 0.0050	0.0029	8.19	8.16
2/27/2017	LC_LCUSWLC	E293369	0.00199	0.00211	10.1	10.3	22.3	0.0015	< 0.0050	0.0084	8.22	8.02
3/6/2017	LC_LCUSWLC	E293369	0.00217	0.00205	10.7	10.5	22.3	< 0.0050	< 0.0050	0.0035	8.34	8.15
3/13/2017	LC_LCUSWLC	E293369	0.00216	0.00231	10.3	10.7	22.3	< 0.0010	< 0.0050	0.0174	8.24	8.07
3/16/2017	LC_LCUSWLC	E293369										
3/18/2017	LC_LCUSWLC	E293369										
3/19/2017	LC_LCUSWLC	E293369										
3/20/2017	LC_LCUSWLC	E293369	0.00252	0.00257	10.1	11.2	19.6	< 0.0010	< 0.0050	0.0039	8.17	7.9
3/22/2017	LC_LCUSWLC	E293369										
3/23/2017	LC_LCUSWLC	E293369										
3/24/2017	LC_LCUSWLC	E293369										
3/25/2017	LC_LCUSWLC	E293369										
3/26/2017	LC_LCUSWLC	E293369										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
3/27/2017	LC_LCUSWLC	E293369	0.00238	0.00257	11.7	12.4	22.3	< 0.0010	< 0.0050	0.003	8.03	8.09
3/28/2017	LC_LCUSWLC	E293369										
3/29/2017	LC_LCUSWLC	E293369										
3/30/2017	LC_LCUSWLC	E293369										
4/3/2017	LC_LCUSWLC	E293369	0.00252	0.00239	12.7	11.9	24.7	< 0.0050	< 0.0050	0.0036	7.97	7.99
4/10/2017	LC_LCUSWLC	E293369	0.00262	0.00233	12.5	10.8	24.3	< 0.0050	0.0146	0.0025	8.01	7.93
4/18/2017	LC_LCUSWLC	E293369	0.00251	0.00232	13.3	12.2	26.3	< 0.0050	< 0.0050	0.0028	8.05	7.88
4/25/2017	LC_LCUSWLC	E293369	0.00266	0.00271	11.4	11.4	23	< 0.0050	< 0.0050	0.0035	8.07	7.86
5/1/2017	LC_LCUSWLC	E293369	0.00245	0.00243	10.3	10.4	22.6	< 0.0010	< 0.0050	0.0036	8.01	8.06
5/9/2017	LC_LCUSWLC	E293369	0.00194	0.00195	9.02	9.31	11.3	< 0.0010	< 0.0050	0.0013	7.99	8.14
5/16/2017	LC_LCUSWLC	E293369	0.00148	0.00156	8.14	7.36	7.53	< 0.0010	< 0.0050	0.0018	8.09	8.35
5/23/2017	LC_LCUSWLC	E293369	0.00173	0.00175	8.36	8.48	9.5	< 0.0010	< 0.0050	0.0014	8.07	8.34
5/30/2017	LC_LCUSWLC	E293369	0.00169	0.00156	7.42	7.51	6.5	< 0.0010	< 0.0050	0.0032	7.85	8.28
6/7/2017	LC_LCUSWLC	E293369	0.00148	0.0015	9.14	8.29	7.12	< 0.0010	< 0.0050	0.0026	7.73	8.28
6/13/2017	LC_LCUSWLC	E293369	0.00175	0.00175	9.73	9.15	9.2	< 0.0010	< 0.0050	0.001	7.71	8.03
6/19/2017	LC_LCUSWLC	E293369	0.00186	0.00186	9.7	9.07	9.9	< 0.0010	< 0.0050	0.0019	7.68	7.99
6/26/2017	LC_LCUSWLC	E293369	0.00187	0.00182	11.1	10.1	11.1	< 0.0010	< 0.0050	0.0019	7.76	8.01
7/6/2017	LC_LCUSWLC	E293369	0.00188	0.00185	10.9	10	12.1	< 0.0010	0.0058	0.0021	7.73	7.93
7/11/2017	LC_LCUSWLC	E293369	0.00193	0.002	12.2	11.7	13.3	< 0.0010	< 0.0050	0.0031	7.57	7.76
7/18/2017	LC_LCUSWLC	E293369	0.00202	0.00194	12.5	11.8	14.7	< 0.0010	0.0111	0.0044	7.59	8.3
7/25/2017	LC_LCUSWLC	E293369	0.00205	0.00207	12.6	12.5	15.7	< 0.0010	0.007	0.0032	7.61	8.11
8/2/2017	LC_LCUSWLC	E293369	0.00218	0.00214	13.7	14.1	16.7	< 0.0010	0.0063	0.0028	7.63	7.89
8/8/2017	LC_LCUSWLC	E293369	0.00201	0.00192	14.4	13.8	16.4	< 0.0050	< 0.0050	0.0029	7.66	8.05
8/15/2017	LC_LCUSWLC	E293369	0.00144	0.00162	52.2	57	12.8	< 0.0010	< 0.0050	0.003	7.73	8.02
8/18/2017	LC_LCUSWLC	E293369									7.74	
8/21/2017	LC_LCUSWLC	E293369	0.00181	0.00194	12.2	12.6	13.2	< 0.0010	< 0.0050	0.0029	7.68	7.85
8/24/2017	LC_LCUSWLC	E293369									7.63	
8/27/2017	LC_LCUSWLC	E293369									7.63	
8/30/2017	LC_LCUSWLC	E293369	0.00175	0.00191	12.6	12.8	13	< 0.0050	< 0.0050	0.0018	7.62	8.08
9/2/2017	LC_LCUSWLC	E293369									7.6	
9/5/2017	LC_LCUSWLC	E293369									7.66	
9/5/2017	LC_LCUSWLC	E293369	0.00187	0.00188	12.1	12.8	12.3	< 0.0010	< 0.0050	0.0013	7.66	8.04
9/8/2017	LC_LCUSWLC	E293369									7.55	
9/12/2017	LC_LCUSWLC	E293369	0.00178	0.00183	12.5	11.9	13.2	< 0.0050	< 0.0050	0.0018	7.6	8.04
9/20/2017	LC_LCUSWLC	E293369	0.00188	0.00204	11.2	11.6	14.5	< 0.0010	0.005	< 0.0010	7.72	8.23
9/25/2017	LC_LCUSWLC	E293369	0.00178	0.00197	11.8	11.6	14.4	< 0.0010	< 0.0050	0.0028	7.69	8.03
10/2/2017	LC_LCUSWLC	E293369	0.00187	0.00194	11.1	11.4	13.6	< 0.0010	0.0111	0.002	7.79	8.2
10/10/2017	LC_LCUSWLC	E293369	0.00191	0.00209	11.2	11.7	15.7	< 0.0010	0.0262	0.0022	7.85	8.09
10/17/2017	LC_LCUSWLC	E293369	0.00181	0.00187	11.7	11.7	18.1	< 0.0010	0.0054	0.0024	7.89	8.4
10/24/2017	LC_LCUSWLC	E293369	0.00219	0.00233	13	13.1	17.4	0.0011	< 0.0050	0.0026	7.78	8.11
10/31/2017	LC_LCUSWLC	E293369	0.00223	0.00218	12.6	11.9	16.8	< 0.0050	< 0.0050	0.002	7.78	8.12
11/6/2017	LC_LCUSWLC	E293369	0.00249	0.00236	12.4	12.4	18.6	< 0.0010	< 0.0050	0.0018	7.96	8.19
11/9/2017	LC_LCUSWLC	E293369	0.00245	0.00264	11.3	11.2	15.6	< 0.0010	0.0055	0.002	7.87	8.22
11/14/2017	LC_LCUSWLC	E293369	0.00225	0.00246	11.2	11.5	15	0.003	< 0.0050	0.0019	7.88	8.19
11/21/2017	LC_LCUSWLC	E293369	0.0023	0.00246	11.8	11.9	15.9	< 0.0010	< 0.0050	0.0028	7.89	8.35
11/28/2017	LC_LCUSWLC	E293369	0.00267	0.00191	11.8	3.76	18.1	< 0.0010	0.0091	0.0031	7.81	8.03
12/4/2017	LC_LCUSWLC	E293369	0.00252	0.00249	11.4	11.9	17.9	0.0014	0.0054	0.0026	7.95	8.28

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
12/12/2017	LC_LCUSWLC	E293369	0.00264	0.0025	11.5	11.6	18.5	< 0.0010	< 0.0050	0.0021	7.97	7.96
12/18/2017	LC_LCUSWLC	E293369	0.00246	0.00247	12	12.6	19	< 0.0010	0.0062	0.0016	8.01	8.05
12/27/2017	LC_LCUSWLC	E293369	0.00261	0.00268	11.3	11.5	17.3	< 0.0010	< 0.0050	0.0016	7.74	7.93
1/9/2017	LC_SLC	E282149										
1/9/2017	LC_SLC	E282149	0.00134	0.00128	< 0.50	< 0.50	0.156	< 0.0010	< 0.0050	0.0026	7.91	8.29
2/14/2017	LC_SLC	E282149	0.00128	0.00128	< 0.50	< 0.50	0.156	< 0.0010	0.0103	0.0027	8.35	8.18
2/14/2017	LC_SLC	E282149										
3/6/2017	LC_SLC	E282149	0.00137	0.00132	< 0.50	< 0.50	0.12	< 0.0010	< 0.0050	0.0026	8.4	8.24
3/9/2017	LC_SLC	E282149										
4/3/2017	LC_SLC	E282149	0.00125	0.00121	< 0.50	< 0.50	0.0919	< 0.0010	0.0074	0.0026	8.36	8.21
4/3/2017	LC_SLC	E282149										
5/1/2017	LC_SLC	E282149	0.00102	0.00101	< 0.50	< 0.50	0.0678	< 0.0010	< 0.0050	0.0014	8.09	8.31
5/6/2017	LC_SLC	E282149										
5/7/2017	LC_SLC	E282149										
5/17/2017	LC_SLC	E282149										
5/24/2017	LC_SLC	E282149										
6/7/2017	LC_SLC	E282149	0.00041	0.000447	< 0.50	< 0.50	0.0488	< 0.0010	< 0.0050	0.0023	8.39	8.21
6/22/2017	LC_SLC	E282149										
7/6/2017	LC_SLC	E282149	0.000828	0.0008	< 0.50	< 0.50	0.0351	< 0.0010	0.0091	0.0011	8.55	8.38
7/13/2017	LC_SLC	E282149										
8/2/2017	LC_SLC	E282149	0.00114	0.00109	< 0.50	< 0.50	0.0584	< 0.0010	0.0091	0.0017	8.43	8.33
8/8/2017	LC_SLC	E282149									8.48	
8/15/2017	LC_SLC	E282149									8.36	
8/18/2017	LC_SLC	E282149									8.41	
8/21/2017	LC_SLC	E282149									8.42	
8/24/2017	LC_SLC	E282149									8.4	
8/24/2017	LC_SLC	E282149										
8/27/2017	LC_SLC	E282149									8.32	
8/30/2017	LC_SLC	E282149									8.39	
9/2/2017	LC_SLC	E282149									8.32	
9/5/2017	LC_SLC	E282149										
9/5/2017	LC_SLC	E282149	0.00118	0.00128	< 0.50	< 0.50	0.0534	< 0.0010	< 0.0050	< 0.0010	8.36	8.42
9/5/2017	LC_SLC	E282149									8.36	
9/8/2017	LC_SLC	E282149									8.35	
9/29/2017	LC_SLC	E282149										
10/2/2017	LC_SLC	E282149	0.00125	0.00125	< 0.50	< 0.50	0.137	< 0.0010	0.0061	0.0017	8.19	8.38
10/18/2017	LC_SLC	E282149										
11/8/2017	LC_SLC	E282149	0.00138	0.00133	0.51	< 0.50	0.109	< 0.0010	< 0.0050	< 0.0010	8.3	8.28
11/8/2017	LC_SLC	E282149										
11/16/2017	LC_SLC	E282149										
12/4/2017	LC_SLC	E282149	0.00128	0.0012	< 0.50	< 0.50	0.132	0.0015	0.0062	0.0021	8.38	8.3
12/14/2017	LC_SLC	E282149										
1/9/2017	LC_WLC	E261958	0.00485	0.005	18.3	21.2	24.5	< 0.010	< 0.0050	0.0064	8.25	8.36
2/14/2017	LC_WLC	E261958	0.005	0.0052	20	20.8	24.6	< 0.0050	< 0.0050	0.0049	8.3	8.19
3/6/2017	LC_WLC	E261958	0.00523	0.00508	20	20.5	26.3	< 0.020	< 0.0050	0.0054	8.32	8.2
3/13/2017	LC_WLC	E261958	0.0052	0.00535	19.6	19.6	25.7	< 0.0050	0.0051	0.0245	8.36	8.14
3/18/2017	LC_WLC	E261958										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
3/19/2017	LC_WLC	E261958										
3/20/2017	LC_WLC	E261958	0.0045	0.00507	16.6	19.1	23.9	< 0.0050	< 0.0050	0.0085	8.35	8.14
3/21/2017	LC_WLC	E261958										
3/25/2017	LC_WLC	E261958										
3/26/2017	LC_WLC	E261958										
3/27/2017	LC_WLC	E261958	0.00471	0.00517	20.8	20.5	25.2	0.01	< 0.0050	0.0057	8.32	8.19
4/3/2017	LC_WLC	E261958	0.00491	0.00502	21.2	27	25	< 0.0050	< 0.0050	0.0069	8.28	8.15
4/10/2017	LC_WLC	E261958	0.00483	0.00458	20.9	18.9	25.3	< 0.0050	0.0305	0.0054	8.24	8.13
4/18/2017	LC_WLC	E261958	0.0048	0.00451	21.7	19.9	26.3	< 0.0050	< 0.0050	0.005	8.2	8.12
4/25/2017	LC_WLC	E261958	0.00484	0.00492	20.5	20.2	26.1	< 0.0050	< 0.0050	0.0052	8.19	8.11
4/26/2017	LC_WLC	E261958										
5/1/2017	LC_WLC	E261958	0.00474	0.00478	18.3	19	25.7	< 0.0050	0.0071	0.0061	8.15	8.2
5/1/2017	LC_WLC	E261958										
5/9/2017	LC_WLC	E261958	0.00492	0.00515	20	20.6	23.2	< 0.0050	0.0078	0.0045	8.17	8.27
5/16/2017	LC_WLC	E261958	0.00336	0.00352	18.7	17.6	18.5	< 0.0050	< 0.0050	0.0052	8.11	8.2
5/23/2017	LC_WLC	E261958	0.00275	0.00286	21	21.3	20.1	< 0.0010	< 0.0050	0.0041	7.68	8.2
5/30/2017	LC_WLC	E261958	0.00203	0.00189	24.4	25.1	12	0.0086	< 0.0050	0.0037	7.84	8.3
6/6/2017	LC_WLC	E261958	0.00153	0.00149	30.7	29.2	9.72	0.0084	< 0.0050	0.0035	7.66	8.32
6/13/2017	LC_WLC	E261958	0.00157	0.00153	32.9	31	10.7	< 0.0050	< 0.0050	0.0019	7.69	8.06
6/19/2017	LC_WLC	E261958	0.00158	0.0016	33	31.3	12.3	< 0.0050	< 0.0050	0.0025	7.83	8.06
6/26/2017	LC_WLC	E261958	0.00144	0.00145	37.7	36.1	13.4	< 0.0050	< 0.0050	0.0028	7.97	8.08
7/6/2017	LC_WLC	E261958										
7/6/2017	LC_WLC	E261958	0.0014	0.00138	41.9	41.2	14.8	0.0054	< 0.0050	0.0028	7.88	8.05
7/11/2017	LC_WLC	E261958										
7/11/2017	LC_WLC	E261958	0.00133	0.00135	43.8	42.9	14.8	< 0.0050	< 0.0050	0.0044	7.73	7.87
7/18/2017	LC_WLC	E261958	0.00132	0.00132	48.6	45.8	15.8	< 0.0050	0.0059	0.0042	7.75	8.29
7/25/2017	LC_WLC	E261958										
7/25/2017	LC_WLC	E261958	0.00137	0.00145	47.4	47.1	16	< 0.0050	< 0.0050	0.0043	7.82	8.18
8/2/2017	LC_WLC	E261958	0.00161	0.00157	50.4	52.1	17.2	< 0.0050	< 0.0050	0.0036	7.79	8.03
8/3/2017	LC_WLC	E261958										
8/8/2017	LC_WLC	E261958										
8/8/2017	LC_WLC	E261958	0.00155	0.0015	53.8	51.3	17.9	< 0.0050	< 0.0050	0.0038	7.82	8.12
8/15/2017	LC_WLC	E261958										
8/15/2017	LC_WLC	E261958	0.00182	0.00201	11.9	12.3	17.9	< 0.0050	< 0.0050	0.0044	7.89	8.01
8/21/2017	LC_WLC	E261958	0.00159	0.00163	58.2	55.1	19.2	< 0.0050	< 0.0050	0.0042	7.85	7.96
8/30/2017	LC_WLC	E261958										
8/30/2017	LC_WLC	E261958	0.0018	0.00179	52.4	47.4	19.6	< 0.0050	0.0104	0.0034	7.9	8.15
9/5/2017	LC_WLC	E261958										
9/5/2017	LC_WLC	E261958	0.00169	0.00189	54	58.6	19.9	< 0.0050	< 0.0050	0.0027	7.88	8.13
9/5/2017	LC_WLC	E261958									7.88	
9/12/2017	LC_WLC	E261958	0.00166	0.00177	56	55.6	20.8	< 0.0050	< 0.0050	0.0036	7.87	8.17
9/20/2017	LC_WLC	E261958										
9/20/2017	LC_WLC	E261958	0.00234	0.00241	44.6	45.8	22.5	0.006	0.0121	0.0029	7.99	8.08
9/25/2017	LC_WLC	E261958										
9/25/2017	LC_WLC	E261958	0.00262	0.00258	42.8	40.8	22	< 0.0050	0.0111	0.0043	8	8.2
10/3/2017	LC_WLC	E261958	0.00249	0.0026	38.4	41.5	22.7	< 0.0050	0.014	0.0044	8.11	8.08
10/10/2017	LC_WLC	E261958	0.00278	0.00295	36.4	38.7	23.5	0.013	0.0059	0.0054	8.1	8.12

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
10/10/2017	LC_WLC	E261958										
10/17/2017	LC_WLC	E261958	0.00318	0.0033	32.9	33.4	23.3	< 0.0050	0.0073	0.0048	8.18	8.13
10/24/2017	LC_WLC	E261958	0.00346	0.00364	31.8	34.4	21.7	0.0011	< 0.0050	0.0051	8.08	8.15
10/31/2017	LC_WLC	E261958										
10/31/2017	LC_WLC	E261958	0.0035	0.00357	29.7	31.5	22.9	0.0199	< 0.0050	0.0048	8.21	8.19
11/8/2017	LC_WLC	E261958	0.00479	0.00447	27.3	29.5	22.8	< 0.0050	< 0.0050	0.005	8.28	8.23
11/8/2017	LC_WLC	E261958										
11/14/2017	LC_WLC	E261958	0.0044	0.00487	26.5	28	24.5	0.0174	0.0101	0.0057	8.2	8.3
11/21/2017	LC_WLC	E261958	0.0047	0.00489	27	25.7	23.6	0.0083	0.0051	0.0068	8.21	8.35
11/28/2017	LC_WLC	E261958	0.0046	0.00444	24.2	25.8	24.4	< 0.0050	< 0.0050	0.0065	8.17	8.24
11/28/2017	LC_WLC	E261958										
12/4/2017	LC_WLC	E261958	0.00474	0.00454	23.6	25	24	0.0061	0.0063	0.0063	8.27	8.26
12/12/2017	LC_WLC	E261958	0.00527	0.00486	22.7	22.9	24.3	< 0.0050	< 0.0050	0.0051	8.31	8.16
12/18/2017	LC_WLC	E261958	0.00512	0.00503	21.9	23.7	23.5	0.001	< 0.0050	0.0059	8.34	8.24
12/18/2017	LC_WLC	E261958										
12/27/2017	LC_WLC	E261958	0.00579	0.00555	21.3	22.2	24.3	< 0.0050	< 0.0050	0.0051	8.23	8.1
4/11/2017	RG_BORDER	E300094	0.000668	0.00081	0.93	1.35	0.337	0.0015	0.0585	< 0.0010	6.52	8.25
4/11/2017	RG_BORDER	E300094	0.000706	0.000811	0.65	1.22	0.335	0.0015	0.0542	< 0.0010	7.84	8.24
4/11/2017	RG_BORDER	E300094	0.000781	0.000818	< 0.50	1.32	0.334	0.0017	0.0543	< 0.0010	7.86	8.24
4/17/2017	RG_BORDER	E300094	0.00074	0.000789	< 0.50	1.34	0.303	0.0014	0.0925	0.0022	7.9	8.27
4/17/2017	RG_BORDER	E300094	0.000726	0.000785	< 0.50	1.35	0.306	< 0.0010	0.0874	0.0013	7.91	8.26
4/17/2017	RG_BORDER	E300094	0.000723	0.000846	< 0.50	1.29	0.308	< 0.0010	0.0817	0.0014	7.92	8.25
4/24/2017	RG_BORDER	E300094	0.000826	0.000901	< 0.50	2.08	0.313	0.0012	0.0936	0.0022	7.57	8.28
4/24/2017	RG_BORDER	E300094	0.000795	0.000905	< 0.50	1.77	0.323	< 0.0010	0.0897	0.0015	7.65	8.28
4/24/2017	RG_BORDER	E300094	0.000815	0.000917	< 0.50	1.7	0.325	< 0.0010	0.0896	0.0015	7.67	8.24
5/2/2017	RG_BORDER	E300094	0.000654	0.000741	< 0.50	1.93	0.298	0.0015	0.0592	0.0034	6.81	8.3
5/2/2017	RG_BORDER	E300094	0.000699	0.000784	< 0.50	1.7	0.32	0.0012	0.0601	0.0032	7.62	8.3
5/9/2017	RG_BORDER	E300094	0.000559	0.000653	< 0.50	3.42	0.328	0.0011	0.0467	0.0037	7.87	8.13
5/9/2017	RG_BORDER	E300094	0.000608	0.000672	< 0.50	3.58	0.33	0.0011	0.0459	0.0034	7.84	8.13
5/9/2017	RG_BORDER	E300094	0.000549	0.000659	< 0.50	3.56	0.333	0.0011	0.0455	0.0031	7.61	8.15
5/16/2017	RG_BORDER	E300094	0.000491	0.000523	< 0.50	1.48	0.318	< 0.0010	0.0127	0.0029	8.06	8.14
5/16/2017	RG_BORDER	E300094	0.00045	0.000484	< 0.50	1.48	0.295	< 0.0010	0.011	0.0035	8.08	8.13
5/16/2017	RG_BORDER	E300094	0.000567	0.000512	< 0.50	1.39	0.304	< 0.0010	0.0119	0.0029	8.05	8.14
5/23/2017	RG_BORDER	E300094	0.000549	0.000545	< 0.50	0.59	0.36	< 0.0010	0.0065	0.0023		8.32
5/23/2017	RG_BORDER	E300094	0.000527	0.000549	< 0.50	0.71	0.337	< 0.0010	< 0.0050	0.0023	8.22	8.3
5/23/2017	RG_BORDER	E300094	0.000545	0.000546	< 0.50	< 0.50	0.354	< 0.0010	0.0053	0.0023	7.83	8.32
5/30/2017	RG_BORDER	E300094	0.000538	0.000577	< 0.50	1.46	0.369	< 0.0010	< 0.0050	0.0029	8.28	8.16
5/30/2017	RG_BORDER	E300094	0.000544	0.000543	< 0.50	1.34	0.323	< 0.0010	< 0.0050	0.0031	8.23	8.15
5/30/2017	RG_BORDER	E300094	0.000519	0.000481	1.12	0.93	0.25	< 0.0010	< 0.0050	0.001	8.28	8.14
6/6/2017	RG_BORDER	E300094	0.000556	0.000463	< 0.50	1.57	0.225	< 0.0010	< 0.0050	0.0017	8.27	8.13
6/6/2017	RG_BORDER	E300094	0.000478	0.000491	< 0.50	1.72	0.204	< 0.0010	< 0.0050	0.0015	8.26	8.15
6/6/2017	RG_BORDER	E300094	0.000502	0.000483	< 0.50	< 0.50	0.199	0.0013	< 0.0050	< 0.0010	8.47	8.24
6/13/2017	RG_BORDER	E300094	0.000616	0.000542	< 0.50	1.31	0.199	< 0.0010	< 0.0050	< 0.0010	8.32	8.23
6/13/2017	RG_BORDER	E300094	0.000494	0.000508	< 0.50	< 0.50	0.202	< 0.0010	< 0.0050	< 0.0010	8.41	8.28
6/13/2017	RG_BORDER	E300094	0.000505	0.000575	< 0.50	1.68	0.196	< 0.0010	< 0.0050	0.0015	8.39	8.23
6/20/2017	RG_BORDER	E300094	0.000536	0.000526	< 0.50	0.93	0.244	< 0.0010	0.0058	0.0019	7.99	8.17
6/20/2017	RG_BORDER	E300094	0.0005	0.000493	< 0.50	0.6	0.182	< 0.0010	0.0053	< 0.0010	7.9	8.18

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
6/20/2017	RG_BORDER	E300094	0.000497	0.000492	< 0.50	< 0.50	0.206	< 0.0010	0.0059	< 0.0010	8.09	8.21
6/27/2017	RG_BORDER	E300094	0.000521	0.000549	< 0.50	0.54	0.293	0.0041	0.0097	0.0019	7.88	8.34
6/27/2017	RG_BORDER	E300094	0.000572	0.000543	< 0.50	< 0.50	0.231	< 0.0010	< 0.0050	< 0.0010	8.1	8.35
6/27/2017	RG_BORDER	E300094	0.000456	0.000497	< 0.50	< 0.50	0.185	0.0015	0.0087	< 0.0010	8.35	8.36
7/4/2017	RG_BORDER	E300094	0.000562	0.000583	< 0.50	0.57	0.318	< 0.0010	0.0051	< 0.0010	6.68	8.24
7/4/2017	RG_BORDER	E300094	0.00053	0.000551	< 0.50	< 0.50	0.155	< 0.0010	< 0.0050	< 0.0010	7.96	8.25
7/4/2017	RG_BORDER	E300094	0.000497	0.00053	< 0.50	< 0.50	0.164	0.0014	0.0071	< 0.0010	8.55	8.34
7/11/2017	RG_BORDER	E300094	0.000616	0.000598	< 0.50	< 0.50	0.308	< 0.0010	0.0052	< 0.0010	8.1	8.19
7/11/2017	RG_BORDER	E300094	0.000571	0.000593	< 0.50	< 0.50	0.174	< 0.0010	< 0.0050	< 0.0010	8.2	8.18
7/11/2017	RG_BORDER	E300094	0.000504	0.000536	< 0.50	< 0.50	0.136	0.0018	0.0065	< 0.0010	8.29	8.34
8/8/2017	RG_BORDER	E300094	0.000551	0.000583	< 0.50	< 0.50	0.217	0.0028	< 0.0050	< 0.0010	7.83	8.19
8/8/2017	RG_BORDER	E300094	0.000538	0.000588	< 0.50	< 0.50	0.319	< 0.0010	< 0.0050	< 0.0010	7.86	8.15
8/8/2017	RG_BORDER	E300094	0.000592	0.000587	< 0.50	< 0.50	0.126	0.0014	< 0.0050	< 0.0010	8.67	8.47
9/18/2017	RG_BORDER	E300094	0.000566	0.00054	< 0.50	< 0.50	0.32	0.0013	< 0.0050	< 0.0010	7.75	8.14
9/18/2017	RG_BORDER	E300094	0.00065	0.000665	< 0.50	< 0.50	0.137	0.0021	< 0.0050	< 0.0010	8.51	8.25
9/18/2017	RG_BORDER	E300094	0.000624	0.000636	< 0.50	< 0.50	0.117	0.0019	< 0.0050	< 0.0010	8.6	8.25
10/3/2017	RG_BORDER	E300094	0.000733	0.000737	< 0.50	< 0.50	0.158	0.0019	0.0092	< 0.0010	8.36	8.31
10/3/2017	RG_BORDER	E300094	0.000658	0.000631	< 0.50	< 0.50	0.126	0.0019	< 0.0050	< 0.0010	8.55	8.29
10/3/2017	RG_BORDER	E300094	0.000617	0.00064	< 0.50	< 0.50	0.126	0.0019	< 0.0050	< 0.0010	8.57	8.31
11/8/2017	RG_BORDER	E300094	0.000741	0.000795	< 0.50	< 0.50	0.168	0.0012	< 0.0050	< 0.0010	8.07	8.3
11/8/2017	RG_BORDER	E300094	0.000713	0.000833	< 0.50	< 0.50	0.172	0.0014	< 0.0050	< 0.0010	8.29	8.31
11/8/2017	RG_BORDER	E300094	0.000705	0.00079	< 0.50	< 0.50	0.173	0.0013	< 0.0050	< 0.0010	8.41	8.3
12/5/2017	RG_BORDER	E300094	0.000778	0.000758	< 0.50	< 0.50	0.231	0.0019	< 0.0050	< 0.0010	7.13	8.19
12/5/2017	RG_BORDER	E300094	0.000736	0.000703	< 0.50	< 0.50	0.21	0.0018	< 0.0050	< 0.0010	8.23	8.18
12/5/2017	RG_BORDER	E300094	0.000639	0.000691	< 0.50	< 0.50	0.207	0.0014	< 0.0050	< 0.0010	8.17	8.19
4/4/2017	RG_DSELK	E300230	0.000836	0.00107	< 0.50	3.26	0.362	0.0013	0.0471	0.0024	7.26	8.23
4/11/2017	RG_DSELK	E300230	0.000854	0.000944	< 0.50	5.31	0.336	0.0015	0.0863	0.0026	7.91	8.23
4/17/2017	RG_DSELK	E300230	0.000832	0.00045	< 0.50	2.96	0.323	0.0012	0.0664	0.0025	7.56	8.16
4/24/2017	RG_DSELK	E300230	0.000793	0.0011	< 0.50	14.9	0.339	0.0014	0.11	0.0029	7.73	8.31
5/2/2017	RG_DSELK	E300230	0.000661	0.000831	< 0.50	4.96	0.328	0.0013	0.0308	0.0023	8.12	8.33
5/9/2017	RG_DSELK	E300230	0.000559	0.000745	< 0.50	9.11	0.339	0.0011	0.038	0.0028	8	8.19
5/16/2017	RG_DSELK	E300230	0.000492	0.000551	< 0.50	2.08	0.272	< 0.0010	0.012	0.0023	8.09	8.15
5/23/2017	RG_DSELK	E300230	0.000503	0.000526	< 0.50	1.95	0.211	< 0.0010	0.0076	0.002	8.05	8.22
5/30/2017	RG_DSELK	E300230	0.000627	0.000682	< 0.50	4.68	0.355	< 0.0010	0.0066	0.0039	8.19	8.11
6/6/2017	RG_DSELK	E300230	0.000555	0.000565	< 0.50	1.85	0.409	< 0.0010	< 0.0050	0.0028	7.61	8.27
6/6/2017	RG_DSELK	E300230	0.000479	0.000388	< 0.50	1.18	0.197	< 0.0010	< 0.0050	0.0017	7.97	8.24
6/6/2017	RG_DSELK	E300230	0.000469	0.000468	< 0.50	1.57	0.191	< 0.0010	< 0.0050	0.0013	8.1	8.24
6/13/2017	RG_DSELK	E300230	0.00046	0.000552	< 0.50	1.88	0.13	< 0.0010	< 0.0050	0.0012	8.32	8.23
6/13/2017	RG_DSELK	E300230	0.00049	0.000542	< 0.50	1.71	0.178	< 0.0010	< 0.0050	0.0017	8.3	8.23
6/13/2017	RG_DSELK	E300230	0.000651	0.000721	< 0.50	1.5	0.531	< 0.0010	< 0.0050	0.0029	8.36	8.28
6/20/2017	RG_DSELK	E300230	0.000573	0.000555	< 0.50	0.81	0.223	< 0.0010	< 0.0050	0.0015	8.07	8.17
6/20/2017	RG_DSELK	E300230	0.000609	0.000524	< 0.50	0.66	0.242	< 0.0010	< 0.0050	0.0016	8.08	8.15
6/20/2017	RG_DSELK	E300230	0.000514	0.000474	< 0.50	< 0.50	0.162	< 0.0010	< 0.0050	0.0012	8.09	8.13
6/27/2017	RG_DSELK	E300230	0.000496	0.000509	< 0.50	< 0.50	0.166	0.0012	0.006	< 0.0010	8.45	8.35
6/27/2017	RG_DSELK	E300230	0.00053	0.00053	< 0.50	< 0.50	0.156	< 0.0010	< 0.0050	< 0.0010	8.3	8.33
6/27/2017	RG_DSELK	E300230	0.000548	0.000564	< 0.50	< 0.50	0.208	< 0.0010	< 0.0050	< 0.0010	8.31	8.34
7/4/2017	RG_DSELK	E300230	0.000557	0.000551	< 0.50	< 0.50	0.13	< 0.0010	< 0.0050	< 0.0010	8.28	8.25

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
7/4/2017	RG_DSELK	E300230	0.000607	0.000595	< 0.50	< 0.50	0.266	< 0.0010	0.0062	< 0.0010	8.38	8.32
7/4/2017	RG_DSELK	E300230	0.000499	0.000519	< 0.50	< 0.50	0.156	0.0015	0.0052	< 0.0010	8.59	8.34
7/11/2017	RG_DSELK	E300230	0.000617	0.000585	< 0.50	< 0.50	0.161	< 0.0010	< 0.0050	< 0.0010	8.28	8.2
7/11/2017	RG_DSELK	E300230	0.000766	0.000745	< 0.50	< 0.50	0.365	0.0013	< 0.0050	< 0.0010	8.44	8.26
7/11/2017	RG_DSELK	E300230	0.000525	0.000538	< 0.50	< 0.50	0.136	0.0015	< 0.0050	< 0.0010	8.61	8.32
8/8/2017	RG_DSELK	E300230	0.000709	0.000698	< 0.50	< 0.50	0.239	0.0015	< 0.0050	< 0.0010	8.49	8.37
8/8/2017	RG_DSELK	E300230	0.00062	0.000637	< 0.50	< 0.50	0.284	0.001	< 0.0050	< 0.0010	7.97	8.14
9/18/2017	RG_DSELK	E300230	0.000766	0.000765	< 0.50	< 0.50	0.212	0.0026	0.0107	< 0.0010	8.37	8.24
9/18/2017	RG_DSELK	E300230	0.0007	0.000712	< 0.50	< 0.50	0.147	0.0024	0.0056	< 0.0010	8.55	8.28
9/18/2017	RG_DSELK	E300230	0.000698	0.000709	< 0.50	< 0.50	0.145	0.0023	0.0052	< 0.0010	8.57	8.25
10/3/2017	RG_DSELK	E300230	0.000774	0.000808	< 0.50	< 0.50	0.338	0.0019	0.0076	< 0.0010	8.44	8.32
10/3/2017	RG_DSELK	E300230	0.000645	0.000687	< 0.50	< 0.50	0.123	0.0022	0.0054	< 0.0010	8.59	8.31
10/3/2017	RG_DSELK	E300230	0.000686	0.000812	< 0.50	< 0.50	0.124	0.0018	< 0.0050	< 0.0010	8.61	8.32
11/8/2017	RG_DSELK	E300230	0.000785	0.000888	< 0.50	< 0.50	0.21	< 0.0010	0.0075	< 0.0010	8.47	8.36
11/8/2017	RG_DSELK	E300230	0.000796	0.000905	< 0.50	< 0.50	0.202	< 0.0010	0.0073	< 0.0010	8.48	8.32
11/8/2017	RG_DSELK	E300230	0.000774	0.000798	< 0.50	< 0.50	0.176	0.0012	0.0058	< 0.0010	8.5	8.31
12/5/2017	RG_DSELK	E300230	0.000832	0.000784	< 0.50	< 0.50	0.499	0.0012	0.0058	< 0.0010	8.02	8.22
12/5/2017	RG_DSELK	E300230	0.000834	0.000764	< 0.50	< 0.50	0.339	0.0015	0.0052	< 0.0010	8.24	8.21
12/5/2017	RG_DSELK	E300230	0.000811	0.000732	< 0.50	< 0.50	0.262	0.0019	0.0069	0.0016	8.21	8.17
1/3/2017	RG_ELKORES	E294312	0.0012	0.00122	2.1	2.69	2.05	0.0058	0.0388	0.0019	8.19	8.29
2/8/2017	RG_ELKORES	E294312	0.00114	0.00123	0.59	1.03	2.05	0.0252	0.0449	0.0019	7.15	8.18
3/7/2017	RG_ELKORES	E294312	0.00098	0.00102	0.63	1.06	1.67	0.0042	0.0204	0.0039	7.53	8.2
3/14/2017	RG_ELKORES	E294312	0.000619	0.000509	< 0.50	1.01	1.39	0.0059	0.0802	0.0013	7.59	8.17
3/21/2017	RG_ELKORES	E294312	0.000685	0.000807	0.57	1.65	0.831	0.0047	0.0182	0.0065	7.51	8.27
3/28/2017	RG_ELKORES	E294312	0.000802	0.000892	0.71	0.68	1.12	0.0012	0.0063	0.0015	8	8.36
4/4/2017	RG_ELKORES	E294312	0.000874	0.000943	< 0.50	0.69	1.06	0.0012	< 0.0050	< 0.0010	7.96	8.37
4/11/2017	RG_ELKORES	E294312	0.000847	0.00091	< 0.50	0.64	1.09	< 0.0010	< 0.0050	< 0.0010	7.32	8.25
4/18/2017	RG_ELKORES	E294312	0.000926	0.000944	< 0.50	0.7	1.16	< 0.0010	< 0.0050	0.0012	8.41	8.28
4/25/2017	RG_ELKORES	E294312	0.000835	0.000855	0.59	1.47	1.16	0.0013	< 0.0050	0.001	8.32	8.36
5/1/2017	RG_ELKORES	E294312	0.000873	0.00089	0.54	0.86	1.13	0.0013	< 0.0050	< 0.0010	8.39	8.36
5/9/2017	RG_ELKORES	E294312	0.000804	0.000893	0.61	2.45	1.09	0.0022	0.0126	0.0064	8.25	8.36
5/16/2017	RG_ELKORES	E294312	0.000896	0.000997	0.61	1.78	1.15	< 0.0010	0.0082	0.0067	8.29	8.29
5/23/2017	RG_ELKORES	E294312	0.000562	0.00098	1.49	2.96	0.975	< 0.0010	< 0.0050	0.0085	8.21	8.27
5/30/2017	RG_ELKORES	E294312	0.000725	0.000932	0.58	6.52	0.886	< 0.0010	0.0057	0.0085	8.2	8.15
6/6/2017	RG_ELKORES	E294312	0.000795	0.000957	0.54	3.58	0.963	< 0.0010	0.005	0.0067	8.23	8.23
6/13/2017	RG_ELKORES	E294312	0.000925	0.000968	0.56	1.95	1.12	< 0.0010	< 0.0050	0.0046	8.28	8.34
6/20/2017	RG_ELKORES	E294312	0.000937	0.000911	0.59	1.32	1.02	< 0.0010	0.0058	0.0029	8.24	8.27
6/27/2017	RG_ELKORES	E294312	0.00099	0.000977	< 0.50	0.93	1.06	0.0019	0.0054	< 0.0010	8.3	8.26
7/4/2017	RG_ELKORES	E294312	0.00102	0.00101	0.5	0.74	1.07	0.0011	< 0.0050	< 0.0010	8.17	8.32
7/11/2017	RG_ELKORES	E294312	0.00114	0.00133	< 0.50	1.54	1.16	0.0022	< 0.0050	< 0.0010	8.33	8.39
8/1/2017	RG_ELKORES	E294312	0.00115	0.00117	< 0.50	0.6	1.44	0.0036	< 0.0050	< 0.0010	8.18	8.33
9/19/2017	RG_ELKORES	E294312	0.00118	0.00138	< 0.50	< 0.50	1.6	0.0037	0.0074	< 0.0010	8.23	8.38
10/3/2017	RG_ELKORES	E294312	0.00109	0.00117	< 0.50	< 0.50	1.55	0.0018	< 0.0050	< 0.0010	8.12	8.39
11/8/2017	RG_ELKORES	E294312	0.00128	0.00132	< 0.50	< 0.50	1.63	0.0026	0.0097	< 0.0010	8.22	8.39
12/5/2017	RG_ELKORES	E294312	0.00106	0.00112	< 0.50	0.53	1.52	0.0016	0.01	< 0.0010	8.23	8.22
4/4/2017	RG_GRASMERE	E300092	0.000803	0.000878	< 0.50	1.45	0.335	0.0015	0.0515	0.002	7.86	8.27
4/4/2017	RG_GRASMERE	E300092	0.000798	0.000888	< 0.50	1.52	0.344	0.0014	0.0519	0.0026	7.99	8.26

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
4/11/2017	RG_GRASMERE	E300092	0.000826	0.000894	< 0.50	2.37	0.336	0.0012	0.078	0.0028	7.96	8.25
4/17/2017	RG_GRASMERE	E300092	0.00076	0.000826	< 0.50	2.1	0.325	< 0.0010	0.0732	0.002	7.93	8.27
4/24/2017	RG_GRASMERE	E300092	0.00108	0.00118	0.65	2.5	0.324	0.0029	0.146	0.0017	7.73	8.31
5/2/2017	RG_GRASMERE	E300092	0.000718	0.00105	< 0.50	13.8	0.327	0.002	0.0487	0.0032	8.03	8.3
5/9/2017	RG_GRASMERE	E300092	0.000562	0.000736	< 0.50	7.31	0.346	< 0.0010	0.038	0.0028	8.03	8.18
5/16/2017	RG_GRASMERE	E300092	0.000509	0.000534	< 0.50	1.12	0.295	< 0.0010	0.011	0.0024	8.09	8.15
5/23/2017	RG_GRASMERE	E300092	0.000518	0.00051	< 0.50	0.75	0.229	< 0.0010	0.006	0.002	7.92	8.24
5/30/2017	RG_GRASMERE	E300092	0.000517	0.000522	< 0.50	2.16	0.171	< 0.0010	< 0.0050	0.0021	8.21	8.11
6/6/2017	RG_GRASMERE	E300092	0.000517	0.000421	< 0.50	1.2	0.297	< 0.0010	< 0.0050	0.0024	8.23	8.15
6/6/2017	RG_GRASMERE	E300092	0.000497	0.000494	< 0.50	1.7	0.187	< 0.0010	< 0.0050	0.0015	8.32	8.14
6/6/2017	RG_GRASMERE	E300092	0.000479	0.000394	< 0.50	1.03	0.127	< 0.0010	< 0.0050	0.0011	8.33	8.24
6/13/2017	RG_GRASMERE	E300092	0.00048	0.000551	< 0.50	2.14	0.179	< 0.0010	< 0.0050	0.0016	8.29	8.24
6/13/2017	RG_GRASMERE	E300092	0.000517	0.000578	< 0.50	1.87	0.217	< 0.0010	< 0.0050	0.0013	8.33	8.24
6/13/2017	RG_GRASMERE	E300092	0.000586	0.000566	< 0.50	1.01	0.285	< 0.0010	< 0.0050	< 0.0010	8.47	8.27
6/20/2017	RG_GRASMERE	E300092	0.000575	0.000559	< 0.50	0.84	0.287	< 0.0010	< 0.0050	0.0017	8.05	8.17
6/20/2017	RG_GRASMERE	E300092	0.000496	0.000504	< 0.50	0.57	0.174	< 0.0010	< 0.0050	0.0013	8.05	8.16
6/20/2017	RG_GRASMERE	E300092	0.000499	0.000514	< 0.50	< 0.50	0.197	< 0.0010	0.011	0.0016	8.17	8.18
6/27/2017	RG_GRASMERE	E300092	0.000596	0.000609	< 0.50	< 0.50	0.302	< 0.0010	< 0.0050	0.0017	8.27	8.36
6/27/2017	RG_GRASMERE	E300092	0.000572	0.000579	< 0.50	< 0.50	0.239	< 0.0010	< 0.0050	< 0.0010	8.34	8.35
6/27/2017	RG_GRASMERE	E300092	0.000545	0.000488	< 0.50	< 0.50	0.162	< 0.0010	0.0072	< 0.0010	8.46	8.34
7/4/2017	RG_GRASMERE	E300092	0.00058	0.000567	< 0.50	< 0.50	0.194	< 0.0010	< 0.0050	< 0.0010	8.28	8.26
7/4/2017	RG_GRASMERE	E300092	0.000447	0.000569	< 0.50	< 0.50	0.153	< 0.0010	< 0.0050	< 0.0010	8.41	8.33
7/4/2017	RG_GRASMERE	E300092	0.000505	0.000497	< 0.50	< 0.50	0.15	0.0013	0.0085	< 0.0010	8.58	8.36
7/11/2017	RG_GRASMERE	E300092	0.000633	0.000636	< 0.50	< 0.50	0.226	0.0017	0.0066	< 0.0010	8.21	8.19
7/11/2017	RG_GRASMERE	E300092	0.000561	0.000562	< 0.50	< 0.50	0.0961	< 0.0010	< 0.0050	< 0.0010	8.25	8.15
7/11/2017	RG_GRASMERE	E300092	0.000526	0.000568	< 0.50	< 0.50	0.135	0.0015	0.0126	< 0.0010	8.64	8.3
8/8/2017	RG_GRASMERE	E300092	0.00066	0.000703	< 0.50	< 0.50	0.253	0.0011	< 0.0050	< 0.0010	8.09	8.25
8/8/2017	RG_GRASMERE	E300092	0.00066	0.000626	< 0.50	< 0.50	0.146	0.0013	< 0.0050	< 0.0010	8.61	8.42
9/18/2017	RG_GRASMERE	E300092	0.000751	0.000766	< 0.50	< 0.50	0.216	0.0029	0.0079	< 0.0010	8.41	8.25
9/18/2017	RG_GRASMERE	E300092	0.000659	0.000714	< 0.50	< 0.50	0.136	0.0023	< 0.0050	< 0.0010	8.57	8.33
9/18/2017	RG_GRASMERE	E300092	0.00068	0.000662	< 0.50	< 0.50	0.131	0.0021	< 0.0050	< 0.0010	8.58	8.28
10/3/2017	RG_GRASMERE	E300092	0.000732	0.000717	< 0.50	< 0.50	0.182	0.0019	0.006	< 0.0010	8.51	8.33
10/3/2017	RG_GRASMERE	E300092	0.00065	0.000653	< 0.50	< 0.50	0.127	0.0019	< 0.0050	< 0.0010	8.56	8.32
10/3/2017	RG_GRASMERE	E300092	0.000655	0.000663	< 0.50	< 0.50	0.127	0.0022	< 0.0050	< 0.0010	8.57	8.33
11/8/2017	RG_GRASMERE	E300092	0.000792	0.000784	< 0.50	< 0.50	0.192	< 0.0010	0.0072	< 0.0010	8.47	8.31
11/8/2017	RG_GRASMERE	E300092	0.000748	0.000885	< 0.50	< 0.50	0.172	0.0012	0.005	< 0.0010	8.5	8.32
11/8/2017	RG_GRASMERE	E300092	0.000747	0.000799	< 0.50	< 0.50	0.174	0.0013	< 0.0050	< 0.0010	8.52	8.33
12/5/2017	RG_GRASMERE	E300092	0.000794	0.000763	< 0.50	< 0.50	0.183	0.0012	< 0.0050	< 0.0010	8.28	8.22
12/5/2017	RG_GRASMERE	E300092	0.000802	0.000762	< 0.50	< 0.50	0.245	0.0018	0.0176	< 0.0010	8.3	8.2
12/5/2017	RG_GRASMERE	E300092	0.000715	0.000702	< 0.50	< 0.50	0.217	0.0022	< 0.0050	< 0.0010	8.23	8.25
4/24/2017	RG_KERRRD	E300095	0.000549	0.000631	< 0.50	2.11	0.0825	< 0.0010	0.0075	0.0013	8.03	8.34
5/2/2017	RG_KERRRD	E300095	0.000558	0.000607	< 0.50	0.84	0.0793	< 0.0010	< 0.0050	0.001	8.29	8.34
5/9/2017	RG_KERRRD	E300095	0.000436	0.000574	< 0.50	3.26	0.215	< 0.0010	0.0098	0.0015	8.11	8.22
5/16/2017	RG_KERRRD	E300095	0.000458	0.000503	< 0.50	1.25	0.19	< 0.0010	< 0.0050	0.0012	8.15	8.15
5/23/2017	RG_KERRRD	E300095	0.000459	0.000572	< 0.50	3.57	0.165	< 0.0010	< 0.0050	0.0013	8.02	8.21
5/30/2017	RG_KERRRD	E300095	0.000432	0.000541	< 0.50	4.18	0.132	< 0.0010	0.0051	0.0015	8.22	8.02
6/6/2017	RG_KERRRD	E300095	0.000461	0.000513	< 0.50	2.14	0.1	< 0.0010	< 0.0050	< 0.0010	8.22	8.22

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
6/6/2017	RG_KERRRD	E300095	0.000538	0.00052	< 0.50	2.26	0.0999	< 0.0010	< 0.0050	0.0012	8.23	8.13
6/13/2017	RG_KERRRD	E300095	0.000478	0.000529	< 0.50	1.59	0.0934	< 0.0010	< 0.0050	0.0153	8.4	8.23
6/13/2017	RG_KERRRD	E300095	0.000467	0.000547	< 0.50	1.52	0.0941	< 0.0010	< 0.0050	< 0.0010	8.26	8.24
6/20/2017	RG_KERRRD	E300095	0.000497	0.000507	< 0.50	0.65	0.0881	< 0.0010	< 0.0050	0.0012	8.05	8.13
6/20/2017	RG_KERRRD	E300095	0.000493	0.000514	< 0.50	0.67	0.09	< 0.0010	< 0.0050	0.0013	8.06	8.13
6/20/2017	RG_KERRRD	E300095	0.000498	0.000519	< 0.50	0.6	0.0888	< 0.0010	< 0.0050	0.001	8.07	8.14
6/27/2017	RG_KERRRD	E300095	0.000531	0.000535	< 0.50	< 0.50	0.0784	< 0.0010	< 0.0050	< 0.0010	8.22	8.32
6/27/2017	RG_KERRRD	E300095	0.000537	0.000532	< 0.50	< 0.50	0.0791	< 0.0010	< 0.0050	< 0.0010	8.23	8.32
6/27/2017	RG_KERRRD	E300095	0.000514	0.000564	< 0.50	< 0.50	0.0812	< 0.0010	< 0.0050	< 0.0010	8.24	8.32
7/4/2017	RG_KERRRD	E300095	0.000516	0.000519	< 0.50	< 0.50	0.0687	< 0.0010	< 0.0050	< 0.0010	8.27	8.23
7/4/2017	RG_KERRRD	E300095	0.000539	0.000497	< 0.50	< 0.50	0.0675	< 0.0010	< 0.0050	< 0.0010	8.27	8.23
7/4/2017	RG_KERRRD	E300095	0.000511	0.000543	< 0.50	< 0.50	0.0934	< 0.0010	< 0.0050	< 0.0010	8.4	8.28
7/11/2017	RG_KERRRD	E300095	0.000559	0.000577	< 0.50	< 0.50	0.0638	< 0.0010	< 0.0050	< 0.0010	8.28	8.21
7/11/2017	RG_KERRRD	E300095	0.000582	0.00057	< 0.50	< 0.50	0.0557	< 0.0010	< 0.0050	< 0.0010	8.32	8.2
7/11/2017	RG_KERRRD	E300095	0.00051	0.000562	< 0.50	< 0.50	0.0984	0.0012	0.0065	< 0.0010	8.54	8.27
8/8/2017	RG_KERRRD	E300095	0.000714	0.000712	< 0.50	< 0.50	0.111	0.0033	0.0206	< 0.0010	8.05	8.15
8/8/2017	RG_KERRRD	E300095	0.000696	0.00072	< 0.50	< 0.50	0.0593	< 0.0010	< 0.0050	< 0.0010	8.31	8.28
8/8/2017	RG_KERRRD	E300095	0.000612	0.000607	< 0.50	< 0.50	0.0537	0.0012	< 0.0050	< 0.0010	8.51	8.38
9/18/2017	RG_KERRRD	E300095	0.000749	0.00075	< 0.50	< 0.50	0.0522	0.0011	0.008	< 0.0010	8.39	8.26
9/18/2017	RG_KERRRD	E300095	0.000685	0.000703	< 0.50	< 0.50	0.0599	0.0017	0.0053	< 0.0010	8.6	8.24
9/18/2017	RG_KERRRD	E300095	0.000682	0.00069	< 0.50	< 0.50	0.0598	0.0015	< 0.0050	< 0.0010	8.6	8.22
10/3/2017	RG_KERRRD	E300095	0.000777	0.000783	< 0.50	< 0.50	0.0627	< 0.0010	0.0052	< 0.0010	8.38	8.31
10/3/2017	RG_KERRRD	E300095	0.000702	0.000757	< 0.50	< 0.50	0.112	0.0021	< 0.0050	< 0.0010	8.59	8.3
10/3/2017	RG_KERRRD	E300095	0.000693	0.000674	< 0.50	< 0.50	0.115	0.0022	< 0.0050	< 0.0010	8.59	8.34
11/8/2017	RG_KERRRD	E300095	0.000781	0.000853	< 0.50	< 0.50	0.0706	< 0.0010	0.0114	< 0.0010	8.43	8.31
11/8/2017	RG_KERRRD	E300095	0.000766	0.0008	< 0.50	6.09	0.0724	< 0.0010	0.0107	< 0.0010	8.44	8.31
11/8/2017	RG_KERRRD	E300095	0.000825	0.000835	< 0.50	< 0.50	0.0735	< 0.0010	0.0099	< 0.0010	8.41	8.34
12/5/2017	RG_KERRRD	E300095	0.000752	0.00084	< 0.50	< 0.50	0.101	0.001	0.0056	< 0.0010	7.11	8.18
12/5/2017	RG_KERRRD	E300095	0.000778	0.000708	< 0.50	< 0.50	0.103	0.0013	0.0062	< 0.0010	7.88	8.17
12/5/2017	RG_KERRRD	E300095	0.000776	0.000734	< 0.50	< 0.50	0.104	0.0011	0.0054	< 0.0010	7.94	8.16
4/4/2017	RG_USGOLD	E300093	0.000788	0.000874	< 0.50	1.2	0.356	0.0016	0.0457	0.0025	8.01	8.25
4/4/2017	RG_USGOLD	E300093	0.000769	0.000893	< 0.50	1	0.366	0.0014	0.0426	0.0027	8.07	8.25
4/11/2017	RG_USGOLD	E300093	0.000814	0.000782	< 0.50	1.42	0.328	0.0013	0.0785	0.0029	7.95	8.25
4/17/2017	RG_USGOLD	E300093	0.0008	0.00073	< 0.50	1.41	0.323	< 0.0010	0.0735	0.0026	8	8.31
4/24/2017	RG_USGOLD	E300093	0.000817	0.000965	< 0.50	6.21	0.34	0.001	0.0993	0.0029	7.71	8.28
5/2/2017	RG_USGOLD	E300093	0.000836	0.00101	< 0.50	4.47	0.404	0.0016	0.0426	0.0041	7.96	8.28
5/9/2017	RG_USGOLD	E300093	0.000562	0.000645	< 0.50	3.28	0.344	< 0.0010	0.0367	0.0028	8.02	8.2
5/16/2017	RG_USGOLD	E300093	0.000485	0.00055	< 0.50	1.38	0.313	< 0.0010	0.0108	0.0024	8.1	8.14
5/23/2017	RG_USGOLD	E300093	0.000563	0.000498	< 0.50	1.09	0.28	< 0.0010	0.0059	0.0024	8.11	8.24
5/30/2017	RG_USGOLD	E300093	0.000533	0.000568	< 0.50	2.4	0.312	< 0.0010	0.005	0.0033	8.28	8.15
5/30/2017	RG_USGOLD	E300093	0.000584	0.000601	< 0.50	2.27	0.385	< 0.0010	< 0.0050	0.0035	8.27	8.12
5/30/2017	RG_USGOLD	E300093	0.000549	0.000576	< 0.50	1.8	0.411	< 0.0010	< 0.0050	0.0042	8.22	8.13
6/6/2017	RG_USGOLD	E300093	0.000578	0.000502	< 0.50	1.6	0.394	< 0.0010	< 0.0050	0.0025	8.26	8.11
6/6/2017	RG_USGOLD	E300093	0.000452	0.000464	< 0.50	1.51	0.133	< 0.0010	< 0.0050	0.0012	8.38	8.13
6/6/2017	RG_USGOLD	E300093	0.000521	0.000539	< 0.50	0.82	0.237	< 0.0010	< 0.0050	0.0011	8.47	8.18
6/13/2017	RG_USGOLD	E300093	0.000468	0.000573	< 0.50	2.27	0.163	< 0.0010	< 0.0050	0.0017	8.26	8.23
6/13/2017	RG_USGOLD	E300093	0.000516	0.000577	< 0.50	1.5	0.265	< 0.0010	< 0.0050	0.0011	8.31	8.25

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
6/13/2017	RG_USGOLD	E300093	0.000479	0.000493	< 0.50	< 0.50	0.193	< 0.0010	< 0.0050	< 0.0010	8.43	8.28
6/20/2017	RG_USGOLD	E300093	0.000546	0.00058	< 0.50	0.91	0.295	< 0.0010	< 0.0050	0.0023	8.01	8.16
6/20/2017	RG_USGOLD	E300093	0.000545	0.000468	< 0.50	< 0.50	0.184	< 0.0010	0.0077	< 0.0010	8.07	8.16
6/20/2017	RG_USGOLD	E300093	0.000498	0.000498	< 0.50	< 0.50	0.199	0.001	0.0076	0.0012	8.19	8.23
6/27/2017	RG_USGOLD	E300093	0.000658	0.000628	< 0.50	0.52	0.369	< 0.0010	0.0058	0.0019	8.19	8.37
6/27/2017	RG_USGOLD	E300093	0.000523	0.000521	< 0.50	< 0.50	0.176	< 0.0010	< 0.0050	< 0.0010	8.31	8.34
6/27/2017	RG_USGOLD	E300093	0.000492	0.000491	< 0.50	< 0.50	0.176	0.0011	0.0053	< 0.0010	8.48	8.35
7/4/2017	RG_USGOLD	E300093	0.000569	0.000529	< 0.50	< 0.50	0.185	< 0.0010	< 0.0050	< 0.0010	8.3	8.26
7/4/2017	RG_USGOLD	E300093	0.000533	0.000559	< 0.50	< 0.50	0.185	< 0.0010	< 0.0050	< 0.0010	8.35	8.29
7/4/2017	RG_USGOLD	E300093	0.000491	0.000502	< 0.50	< 0.50	0.157	0.0017	0.0074	< 0.0010	8.61	8.36
7/11/2017	RG_USGOLD	E300093	0.000619	0.000621	< 0.50	< 0.50	0.317	0.0044	0.0064	< 0.0010	8.21	8.19
7/11/2017	RG_USGOLD	E300093	0.000591	0.000597	< 0.50	< 0.50	0.132	< 0.0010	0.0074	< 0.0010	8.25	8.18
7/11/2017	RG_USGOLD	E300093	0.000528	0.000532	< 0.50	< 0.50	0.127	0.0019	< 0.0050	< 0.0010	8.66	8.34
8/8/2017	RG_USGOLD	E300093	0.000564	0.000577	< 0.50	< 0.50	0.297	< 0.0010	< 0.0050	< 0.0010	7.96	8.15
8/8/2017	RG_USGOLD	E300093	0.000785	0.00081	< 0.50	< 0.50	0.423	0.0021	< 0.0050	< 0.0010	8.35	8.32
8/8/2017	RG_USGOLD	E300093	0.000591	0.000693	< 0.50	< 0.50	0.147	0.0012	< 0.0050	< 0.0010	8.61	8.43
9/18/2017	RG_USGOLD	E300093	0.000707	0.000717	< 0.50	< 0.50	0.373	0.0035	0.0091	< 0.0010	8.11	8.19
9/18/2017	RG_USGOLD	E300093	0.000674	0.000703	< 0.50	< 0.50	0.134	0.0021	0.0055	< 0.0010	8.58	8.26
9/18/2017	RG_USGOLD	E300093	0.000647	0.000671	< 0.50	< 0.50	0.118	0.002	0.0051	< 0.0010	8.62	8.35
10/3/2017	RG_USGOLD	E300093	0.00076	0.000775	< 0.50	< 0.50	0.167	0.0015	0.0096	< 0.0010	8.35	8.35
10/3/2017	RG_USGOLD	E300093	0.000644	0.000675	< 0.50	< 0.50	0.125	0.002	< 0.0050	< 0.0010	8.55	8.33
10/3/2017	RG_USGOLD	E300093	0.00065	0.000681	< 0.50	< 0.50	0.126	0.002	< 0.0050	< 0.0010	8.57	8.34
11/8/2017	RG_USGOLD	E300093	0.000727	0.000793	< 0.50	< 0.50	0.17	< 0.0010	0.0383	< 0.0010	8.45	8.34
11/8/2017	RG_USGOLD	E300093	0.000711	0.000864	< 0.50	< 0.50	0.175	< 0.0010	0.0054	< 0.0010	8.5	8.3
11/8/2017	RG_USGOLD	E300093	0.000779	0.000804	< 0.50	< 0.50	0.174	< 0.0010	< 0.0050	< 0.0010	8.51	8.31
12/5/2017	RG_USGOLD	E300093	0.000779	0.000747	< 0.50	< 0.50	0.272	0.0015	0.0075	< 0.0010	8.23	8.24
12/5/2017	RG_USGOLD	E300093	0.00073	0.00069	< 0.50	< 0.50	0.219	0.0023	< 0.0050	< 0.0010	8.27	8.23
12/5/2017	RG_USGOLD	E300093	0.000739	0.000709	< 0.50	< 0.50	0.213	0.002	< 0.0050	< 0.0010	8.28	8.22
1/1/2017	WL_BFWB_OUT_SP21	E291569	0.00294	0.00295	4.51	4.7	0.0116		0.0172			
1/2/2017	WL_BFWB_OUT_SP21	E291569	0.00299	0.003	4.7	4.69	0.0129		0.0115			
1/3/2017	WL_BFWB_OUT_SP21	E291569	0.00288	0.00297	4.86	5.04	< 0.025		0.0096			
1/4/2017	WL_BFWB_OUT_SP21	E291569										
1/5/2017	WL_BFWB_OUT_SP21	E291569	0.00324	0.00359	4.3	4.15	0.033		0.0071			
1/6/2017	WL_BFWB_OUT_SP21	E291569										
1/7/2017	WL_BFWB_OUT_SP21	E291569										
1/8/2017	WL_BFWB_OUT_SP21	E291569	0.00338	0.00366	3.71	4.3	0.0136		0.0072			
1/9/2017	WL_BFWB_OUT_SP21	E291569	0.00339	0.00354	3.6	3.81	0.135	0.0254	0.008	0.0229		
1/10/2017	WL_BFWB_OUT_SP21	E291569	0.00339	0.00355	3.82	4.1	< 0.0050		0.0117			
1/11/2017	WL_BFWB_OUT_SP21	E291569										
1/12/2017	WL_BFWB_OUT_SP21	E291569	0.00345	0.0037	3.89	4.39	0.0095		0.0077			
1/12/2017	WL_BFWB_OUT_SP21	E291569										
1/13/2017	WL_BFWB_OUT_SP21	E291569										
1/14/2017	WL_BFWB_OUT_SP21	E291569										
1/15/2017	WL_BFWB_OUT_SP21	E291569	0.00335	0.00359	3.55	3.72	0.0112		0.0098			
1/16/2017	WL_BFWB_OUT_SP21	E291569	0.00338	0.00367	3.99	4.29	0.036		< 0.0050			
1/17/2017	WL_BFWB_OUT_SP21	E291569	0.00311	0.00357	3.76	3.92	0.0121		0.0149			
1/18/2017	WL_BFWB_OUT_SP21	E291569										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
1/19/2017	WL_BFWB_OUT_SP21	E291569	0.00333	0.00348	3.73	3.69	0.038		0.0215			
1/20/2017	WL_BFWB_OUT_SP21	E291569										
1/21/2017	WL_BFWB_OUT_SP21	E291569										
1/22/2017	WL_BFWB_OUT_SP21	E291569	0.00336	0.00346	3.53	3.81	0.0086		0.0177			
1/23/2017	WL_BFWB_OUT_SP21	E291569	0.00338	0.00355	3.55	3.66	0.057		0.0078			
1/24/2017	WL_BFWB_OUT_SP21	E291569	0.00353	0.00371	3.6	3.76	0.0126		0.0181			
1/25/2017	WL_BFWB_OUT_SP21	E291569										
1/26/2017	WL_BFWB_OUT_SP21	E291569	0.00327	0.00313	3.63	3.53	< 0.025		0.0121			
1/27/2017	WL_BFWB_OUT_SP21	E291569										
1/28/2017	WL_BFWB_OUT_SP21	E291569										
1/29/2017	WL_BFWB_OUT_SP21	E291569	0.00318	0.00325	3.72	3.85	0.025		0.011			
1/30/2017	WL_BFWB_OUT_SP21	E291569	0.00556	0.00307	4.1	3.8	0.026		0.01			
1/31/2017	WL_BFWB_OUT_SP21	E291569	0.00307	0.00316	4.3	3.8	0.035		0.0074		7.71	
1/31/2017	WL_BFWB_OUT_SP21	E291569										
2/1/2017	WL_BFWB_OUT_SP21	E291569									7.72	
2/1/2017	WL_BFWB_OUT_SP21	E291569									7.81	
2/2/2017	WL_BFWB_OUT_SP21	E291569	0.00318	0.00326	3.56	3.75	0.064		0.0505		7.66	
2/2/2017	WL_BFWB_OUT_SP21	E291569									7.8	
2/3/2017	WL_BFWB_OUT_SP21	E291569									7.66	
2/3/2017	WL_BFWB_OUT_SP21	E291569									7.72	
2/4/2017	WL_BFWB_OUT_SP21	E291569									7.72	
2/4/2017	WL_BFWB_OUT_SP21	E291569									7.73	
2/5/2017	WL_BFWB_OUT_SP21	E291569	0.00323	0.00316	3	2.95	0.037		< 0.0050		7.66	
2/6/2017	WL_BFWB_OUT_SP21	E291569	0.00309	0.00332	3.41	3.34	< 0.025		< 0.0050		7.59	
2/6/2017	WL_BFWB_OUT_SP21	E291569									7.7	
2/7/2017	WL_BFWB_OUT_SP21	E291569	0.00316	0.0036	3.62	3.44	< 0.025	< 0.0050	< 0.0050	0.0117	7.58	
2/8/2017	WL_BFWB_OUT_SP21	E291569					0.031				7.48	
2/8/2017	WL_BFWB_OUT_SP21	E291569										
2/9/2017	WL_BFWB_OUT_SP21	E291569	0.00339	0.00344	3.84	4.04	< 0.025		< 0.0050		7.53	
2/10/2017	WL_BFWB_OUT_SP21	E291569									7.7	
2/10/2017	WL_BFWB_OUT_SP21	E291569									7.61	
2/11/2017	WL_BFWB_OUT_SP21	E291569									7.53	
2/11/2017	WL_BFWB_OUT_SP21	E291569									7.65	
2/12/2017	WL_BFWB_OUT_SP21	E291569	0.00726	0.00751	3.59	3.79	0.025		< 0.0050		7.57	
2/12/2017	WL_BFWB_OUT_SP21	E291569									7.65	
2/13/2017	WL_BFWB_OUT_SP21	E291569	0.00938	0.00985	3.58	3.76	0.028		< 0.0050		7.53	
2/13/2017	WL_BFWB_OUT_SP21	E291569									7.63	
2/14/2017	WL_BFWB_OUT_SP21	E291569	0.0122	0.0123	3.42	3.36	0.032		< 0.0050		7.62	
2/14/2017	WL_BFWB_OUT_SP21	E291569									7.62	
2/15/2017	WL_BFWB_OUT_SP21	E291569					0.086				7.51	
2/16/2017	WL_BFWB_OUT_SP21	E291569	0.00951	0.00963	3.48	3.57	< 0.025		< 0.0050		7.47	
2/16/2017	WL_BFWB_OUT_SP21	E291569									7.63	
2/17/2017	WL_BFWB_OUT_SP21	E291569					< 0.025				7.5	
2/17/2017	WL_BFWB_OUT_SP21	E291569									7.57	
2/18/2017	WL_BFWB_OUT_SP21	E291569									7.46	
2/18/2017	WL_BFWB_OUT_SP21	E291569									7.63	
2/19/2017	WL_BFWB_OUT_SP21	E291569									7.4	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
2/19/2017	WL_BFWB_OUT_SP21	E291569	0.00889	0.00967	3.52	4.42	0.029		< 0.0050			
2/19/2017	WL_BFWB_OUT_SP21	E291569									7.66	
2/20/2017	WL_BFWB_OUT_SP21	E291569	0.00794	0.00794	3.64	3.83	0.032		< 0.0050		7.49	
2/20/2017	WL_BFWB_OUT_SP21	E291569									7.6	
2/21/2017	WL_BFWB_OUT_SP21	E291569										
2/21/2017	WL_BFWB_OUT_SP21	E291569	0.00873	0.00928	2.88	3.26	< 0.025		< 0.0050		7.54	
2/21/2017	WL_BFWB_OUT_SP21	E291569									7.62	
2/22/2017	WL_BFWB_OUT_SP21	E291569									7.54	
2/22/2017	WL_BFWB_OUT_SP21	E291569									7.66	
2/23/2017	WL_BFWB_OUT_SP21	E291569	0.0089	0.00955	3.49	3.58	< 0.025		< 0.0050		7.57	
2/23/2017	WL_BFWB_OUT_SP21	E291569									7.65	
2/24/2017	WL_BFWB_OUT_SP21	E291569									7.58	
2/24/2017	WL_BFWB_OUT_SP21	E291569									7.74	
2/25/2017	WL_BFWB_OUT_SP21	E291569									7.58	
2/25/2017	WL_BFWB_OUT_SP21	E291569									7.61	
2/26/2017	WL_BFWB_OUT_SP21	E291569	0.00701	0.00788	3.1	3.09	0.035		< 0.0050		7.61	
2/26/2017	WL_BFWB_OUT_SP21	E291569									7.67	
2/27/2017	WL_BFWB_OUT_SP21	E291569	0.0072	0.00762	3.26	4.42	0.031		< 0.0050		7.61	
2/27/2017	WL_BFWB_OUT_SP21	E291569									7.75	
2/28/2017	WL_BFWB_OUT_SP21	E291569	0.00604	0.00642	3.21	3.36	0.035		< 0.0050		7.57	
2/28/2017	WL_BFWB_OUT_SP21	E291569									7.38	
3/1/2017	WL_BFWB_OUT_SP21	E291569									7.58	
3/2/2017	WL_BFWB_OUT_SP21	E291569	0.00487	0.00554	3.72	3.79	< 0.025		< 0.0050		7.44	
3/2/2017	WL_BFWB_OUT_SP21	E291569									7.55	
3/3/2017	WL_BFWB_OUT_SP21	E291569									7.41	
3/3/2017	WL_BFWB_OUT_SP21	E291569									7.63	
3/4/2017	WL_BFWB_OUT_SP21	E291569									7.37	
3/4/2017	WL_BFWB_OUT_SP21	E291569									7.75	
3/5/2017	WL_BFWB_OUT_SP21	E291569									7.46	
3/5/2017	WL_BFWB_OUT_SP21	E291569	0.00688	0.00731	3.82	4.38	0.034		0.0125			
3/5/2017	WL_BFWB_OUT_SP21	E291569									7.58	
3/6/2017	WL_BFWB_OUT_SP21	E291569	0.00554	0.00609	3.97	4.14	0.061	< 0.0050	0.0073	0.0148	7.27	
3/6/2017	WL_BFWB_OUT_SP21	E291569									7.67	
3/7/2017	WL_BFWB_OUT_SP21	E291569	0.00532	0.0055	3.92	3.89	0.055		0.0063		7.6	
3/7/2017	WL_BFWB_OUT_SP21	E291569									7.75	
3/8/2017	WL_BFWB_OUT_SP21	E291569										
3/8/2017	WL_BFWB_OUT_SP21	E291569									7.61	
3/8/2017	WL_BFWB_OUT_SP21	E291569									7.68	
3/9/2017	WL_BFWB_OUT_SP21	E291569										
3/9/2017	WL_BFWB_OUT_SP21	E291569	0.00579	0.00621	3.12	3.28	0.033		0.0086			
3/9/2017	WL_BFWB_OUT_SP21	E291569									7.78	
3/10/2017	WL_BFWB_OUT_SP21	E291569	0.00559	0.00606	3.31	3.52					7.7	
3/10/2017	WL_BFWB_OUT_SP21	E291569									7.73	
3/11/2017	WL_BFWB_OUT_SP21	E291569	0.00518	0.00559	3.57	3.4					7.62	
3/11/2017	WL_BFWB_OUT_SP21	E291569									7.53	
3/12/2017	WL_BFWB_OUT_SP21	E291569	0.00546	0.00556	4.03	3.42					7.58	
3/12/2017	WL_BFWB_OUT_SP21	E291569					0.143		0.0164			

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
3/12/2017	WL_BFWB_OUT_SP21	E291569									7.52	
3/13/2017	WL_BFWB_OUT_SP21	E291569	0.00531	0.00521	3.6	3.51	0.104		0.0122		7.58	
3/13/2017	WL_BFWB_OUT_SP21	E291569									7.64	
3/14/2017	WL_BFWB_OUT_SP21	E291569	0.00509	0.00549	3.23	3.28	0.057		0.0104		7.55	
3/14/2017	WL_BFWB_OUT_SP21	E291569									7.61	
3/15/2017	WL_BFWB_OUT_SP21	E291569	0.00545	0.00565	3.38	3.22					7.67	
3/15/2017	WL_BFWB_OUT_SP21	E291569									7.74	
3/16/2017	WL_BFWB_OUT_SP21	E291569	0.00434	0.00528	3.3	3.62	0.178		< 0.0050		7.74	
3/16/2017	WL_BFWB_OUT_SP21	E291569									7.75	
3/20/2017	WL_BFWB_OUT_SP21	E291569	0.00416	0.00459	3.07	3.5					8.14	
3/20/2017	WL_BFWB_OUT_SP21	E291569					0.081		< 0.0050			
3/21/2017	WL_BFWB_OUT_SP21	E291569										
3/21/2017	WL_BFWB_OUT_SP21	E291569	0.00505	0.00665	3.14	4.06	0.116		0.0112		8.09	
3/21/2017	WL_BFWB_OUT_SP21	E291569									8.05	
3/22/2017	WL_BFWB_OUT_SP21	E291569	0.00605	0.00658	3.53	3.52					7.99	
3/22/2017	WL_BFWB_OUT_SP21	E291569									8.06	
3/23/2017	WL_BFWB_OUT_SP21	E291569	0.00646	0.00673	3.35	3.53	0.187		0.0132		7.99	
3/23/2017	WL_BFWB_OUT_SP21	E291569									7.97	
3/24/2017	WL_BFWB_OUT_SP21	E291569	0.00622	0.00679	3.28	3.36					7.99	
3/24/2017	WL_BFWB_OUT_SP21	E291569									8.08	
3/25/2017	WL_BFWB_OUT_SP21	E291569	0.00591	0.00652	3.47	3.29					7.85	
3/25/2017	WL_BFWB_OUT_SP21	E291569									7.9	
3/26/2017	WL_BFWB_OUT_SP21	E291569					0.071		< 0.0050			
3/26/2017	WL_BFWB_OUT_SP21	E291569									7.89	
3/27/2017	WL_BFWB_OUT_SP21	E291569	0.00469	0.00556	3.77	3.93	0.056		< 0.0050		7.82	
3/27/2017	WL_BFWB_OUT_SP21	E291569									7.86	
3/28/2017	WL_BFWB_OUT_SP21	E291569	0.00514	0.00537	3.73	3.71	0.058		< 0.0050		7.84	
3/28/2017	WL_BFWB_OUT_SP21	E291569									7.83	
3/29/2017	WL_BFWB_OUT_SP21	E291569	0.0052	0.00571	3.47	3.54					7.81	
3/29/2017	WL_BFWB_OUT_SP21	E291569									7.86	
3/30/2017	WL_BFWB_OUT_SP21	E291569	0.00575	0.00606	3.42	4.11	0.068		< 0.0050		7.82	
3/31/2017	WL_BFWB_OUT_SP21	E291569	0.00477	0.00533	3.83	4.02						
3/31/2017	WL_BFWB_OUT_SP21	E291569									7.8	
4/1/2017	WL_BFWB_OUT_SP21	E291569	0.00437	0.0048	3.45	3.54					7.86	
4/1/2017	WL_BFWB_OUT_SP21	E291569									7.87	
4/2/2017	WL_BFWB_OUT_SP21	E291569	0.00437	0.00483	3.33	3.52					7.8	
4/2/2017	WL_BFWB_OUT_SP21	E291569					0.041		< 0.0050			
4/2/2017	WL_BFWB_OUT_SP21	E291569									7.88	
4/3/2017	WL_BFWB_OUT_SP21	E291569	0.00449	0.00499	3.35	3.49	0.044	< 0.0050	< 0.0050	0.0206	7.73	
4/3/2017	WL_BFWB_OUT_SP21	E291569									7.77	
4/4/2017	WL_BFWB_OUT_SP21	E291569	0.00416	0.00467	3.53	3.57	0.051		0.0053		7.74	
4/4/2017	WL_BFWB_OUT_SP21	E291569									7.85	
4/5/2017	WL_BFWB_OUT_SP21	E291569	0.00451	0.005	3.39	3.51					7.78	
4/5/2017	WL_BFWB_OUT_SP21	E291569									7.83	
4/6/2017	WL_BFWB_OUT_SP21	E291569	0.00443	0.00504	3.35	3.74	0.036		0.0213		7.74	
4/6/2017	WL_BFWB_OUT_SP21	E291569									7.67	
4/7/2017	WL_BFWB_OUT_SP21	E291569	0.00478	0.00528	4.03	4.1					7.7	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
4/7/2017	WL_BFWB_OUT_SP21	E291569									7.63	
4/8/2017	WL_BFWB_OUT_SP21	E291569	0.00458	0.00507	3.94	3.95					7.65	
4/8/2017	WL_BFWB_OUT_SP21	E291569									7.76	
4/9/2017	WL_BFWB_OUT_SP21	E291569	0.00477	0.00527	3.89	4.33	0.026		< 0.0050		7.64	
4/9/2017	WL_BFWB_OUT_SP21	E291569									7.64	
4/10/2017	WL_BFWB_OUT_SP21	E291569	0.00505	0.00543	4.1	3.91	0.028		< 0.0050		7.72	
4/10/2017	WL_BFWB_OUT_SP21	E291569									7.74	
4/11/2017	WL_BFWB_OUT_SP21	E291569	0.00518	0.00546	3.67	3.94	0.044		< 0.0050		7.64	
4/11/2017	WL_BFWB_OUT_SP21	E291569									8.08	
4/12/2017	WL_BFWB_OUT_SP21	E291569	0.0053	0.00546	3.95	4.23					7.86	
4/12/2017	WL_BFWB_OUT_SP21	E291569									7.86	
4/13/2017	WL_BFWB_OUT_SP21	E291569	0.0043	0.00457	4.14	4.15	0.049		0.0069		7.56	
4/13/2017	WL_BFWB_OUT_SP21	E291569									7.76	
4/14/2017	WL_BFWB_OUT_SP21	E291569	0.00407	0.0042	3.9	3.97					7.76	
4/14/2017	WL_BFWB_OUT_SP21	E291569									7.79	
4/15/2017	WL_BFWB_OUT_SP21	E291569	0.00435	0.00467	4.24	4.46					7.85	
4/15/2017	WL_BFWB_OUT_SP21	E291569									7.84	
4/16/2017	WL_BFWB_OUT_SP21	E291569	0.00432	0.00437	4.02	4.15	0.044		< 0.0050		7.8	
4/16/2017	WL_BFWB_OUT_SP21	E291569									7.84	
4/17/2017	WL_BFWB_OUT_SP21	E291569	0.00372	0.00402	3.52	3.87	0.048		< 0.0050		7.76	
4/17/2017	WL_BFWB_OUT_SP21	E291569									7.75	
4/18/2017	WL_BFWB_OUT_SP21	E291569	0.00367	0.00383	3.91	3.74	0.063		< 0.0050		7.49	
4/18/2017	WL_BFWB_OUT_SP21	E291569							0.015		7.74	
4/19/2017	WL_BFWB_OUT_SP21	E291569	0.00362	0.00368	3.6	3.81					7.8	
4/19/2017	WL_BFWB_OUT_SP21	E291569									7.75	
4/20/2017	WL_BFWB_OUT_SP21	E291569	0.00386	0.00378	3.78	3.66	0.037		< 0.0050		7.82	
4/20/2017	WL_BFWB_OUT_SP21	E291569									7.81	
4/21/2017	WL_BFWB_OUT_SP21	E291569	0.00389	0.00399	3.8	3.55					7.75	
4/21/2017	WL_BFWB_OUT_SP21	E291569									7.74	
4/22/2017	WL_BFWB_OUT_SP21	E291569	0.00362	0.00378	3.65	3.44					7.78	
4/22/2017	WL_BFWB_OUT_SP21	E291569									7.82	
4/23/2017	WL_BFWB_OUT_SP21	E291569	0.00349	0.00367	3.64	3.31	0.067		< 0.0050		7.79	
4/23/2017	WL_BFWB_OUT_SP21	E291569									7.92	
4/24/2017	WL_BFWB_OUT_SP21	E291569	0.00347	0.0037	3.48	3.51	0.048		< 0.0050		7.78	
4/24/2017	WL_BFWB_OUT_SP21	E291569									7.74	
4/25/2017	WL_BFWB_OUT_SP21	E291569	0.00372	0.00387	3.44	3.49	0.062		< 0.0050		7.82	
4/25/2017	WL_BFWB_OUT_SP21	E291569									7.8	
4/26/2017	WL_BFWB_OUT_SP21	E291569	0.00383	0.00391	3.39	3.48					7.71	
4/27/2017	WL_BFWB_OUT_SP21	E291569	0.00375	0.00374	3.19	3.34	0.036		< 0.0050		7.87	
4/27/2017	WL_BFWB_OUT_SP21	E291569									7.89	
4/28/2017	WL_BFWB_OUT_SP21	E291569	0.00364	0.00362	3.01	3.16					7.79	
4/28/2017	WL_BFWB_OUT_SP21	E291569									7.78	
4/29/2017	WL_BFWB_OUT_SP21	E291569	0.00373	0.0038	3.41	3.15					7.86	
4/29/2017	WL_BFWB_OUT_SP21	E291569									7.8	
4/30/2017	WL_BFWB_OUT_SP21	E291569	0.00371	0.00373	3.39	3.24	0.09		< 0.0050		7.83	
4/30/2017	WL_BFWB_OUT_SP21	E291569									7.84	
5/1/2017	WL_BFWB_OUT_SP21	E291569	0.00357	0.0035	3.44	3.26	0.098	< 0.0050	< 0.0050	0.0101	7.76	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
5/1/2017	WL_BFWB_OUT_SP21	E291569									7.78	
5/2/2017	WL_BFWB_OUT_SP21	E291569	0.00359	0.00343	3.69	3.29						
5/2/2017	WL_BFWB_OUT_SP21	E291569					0.069		< 0.0050		7.68	
5/2/2017	WL_BFWB_OUT_SP21	E291569									7.79	
5/3/2017	WL_BFWB_OUT_SP21	E291569	0.00365	0.00352	4.13	3.99					7.66	
5/3/2017	WL_BFWB_OUT_SP21	E291569									7.79	
5/4/2017	WL_BFWB_OUT_SP21	E291569	0.00237	0.00357	10.3	3.69	0.07		< 0.0050		7.7	
5/4/2017	WL_BFWB_OUT_SP21	E291569									7.72	
5/5/2017	WL_BFWB_OUT_SP21	E291569	0.00288	0.00371	3.48	3.94						
5/5/2017	WL_BFWB_OUT_SP21	E291569									7.72	
5/5/2017	WL_BFWB_OUT_SP21	E291569									7.94	
5/6/2017	WL_BFWB_OUT_SP21	E291569	0.00356	0.00384	3.64	3.44					7.67	
5/6/2017	WL_BFWB_OUT_SP21	E291569									7.74	
5/7/2017	WL_BFWB_OUT_SP21	E291569	0.00382	0.00402	4.13	4.03	0.057		< 0.0050		7.6	
5/7/2017	WL_BFWB_OUT_SP21	E291569									7.79	
5/8/2017	WL_BFWB_OUT_SP21	E291569	0.00425	0.00417	4.19	3.87	0.05		< 0.0050		7.7	
5/8/2017	WL_BFWB_OUT_SP21	E291569									7.72	
5/9/2017	WL_BFWB_OUT_SP21	E291569	0.0044	0.00363	3.5	3.6	0.062		< 0.0050		7.73	
5/9/2017	WL_BFWB_OUT_SP21	E291569									7.74	
5/10/2017	WL_BFWB_OUT_SP21	E291569	0.00421	0.00402	3.64	3.91					7.73	
5/10/2017	WL_BFWB_OUT_SP21	E291569									7.73	
5/11/2017	WL_BFWB_OUT_SP21	E291569	0.00423	0.00404	4.16	3.86	0.05		< 0.0050		7.69	
5/11/2017	WL_BFWB_OUT_SP21	E291569									7.7	
5/12/2017	WL_BFWB_OUT_SP21	E291569	0.00416	0.00396	3.95	4.02					7.7	
5/12/2017	WL_BFWB_OUT_SP21	E291569									7.71	
5/13/2017	WL_BFWB_OUT_SP21	E291569	0.00414	0.00416	3.95	3.05					7.7	
5/13/2017	WL_BFWB_OUT_SP21	E291569									7.73	
5/14/2017	WL_BFWB_OUT_SP21	E291569	0.00423	0.00406	3.63	4.07	0.073		< 0.0050		7.74	
5/14/2017	WL_BFWB_OUT_SP21	E291569									7.79	
5/15/2017	WL_BFWB_OUT_SP21	E291569		0.00404		3.56						
5/15/2017	WL_BFWB_OUT_SP21	E291569					0.072		< 0.0050		7.71	
5/15/2017	WL_BFWB_OUT_SP21	E291569									7.8	
5/16/2017	WL_BFWB_OUT_SP21	E291569	0.00443	0.00358	3.7	3.4	0.056		< 0.0050		7.56	
5/16/2017	WL_BFWB_OUT_SP21	E291569									7.66	
5/17/2017	WL_BFWB_OUT_SP21	E291569	0.0036	0.00331	3.44	3.3					7.57	
5/17/2017	WL_BFWB_OUT_SP21	E291569									7.6	
5/18/2017	WL_BFWB_OUT_SP21	E291569	0.00371	0.00376	3.55	3.47	0.094		< 0.0050		7.42	
5/18/2017	WL_BFWB_OUT_SP21	E291569									7.55	
5/19/2017	WL_BFWB_OUT_SP21	E291569	0.00364	0.00369	3.71	3.46					7.61	
5/19/2017	WL_BFWB_OUT_SP21	E291569									7.68	
5/20/2017	WL_BFWB_OUT_SP21	E291569		0.00349		3.99					7.63	
5/20/2017	WL_BFWB_OUT_SP21	E291569									7.66	
5/21/2017	WL_BFWB_OUT_SP21	E291569	0.00345	0.0035	3.96	4.04	0.119		< 0.0050		7.63	
5/21/2017	WL_BFWB_OUT_SP21	E291569									7.66	
5/22/2017	WL_BFWB_OUT_SP21	E291569	0.0034	0.00357	3.97	4.23	0.16		< 0.0050		7.56	
5/22/2017	WL_BFWB_OUT_SP21	E291569									7.67	
5/23/2017	WL_BFWB_OUT_SP21	E291569	0.00337	0.00323	3.96	3.4	0.159		< 0.0050		7.61	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
5/23/2017	WL_BFWB_OUT_SP21	E291569									7.77	
5/24/2017	WL_BFWB_OUT_SP21	E291569	0.00334	0.0031	3.89	3.38					7.66	
5/24/2017	WL_BFWB_OUT_SP21	E291569									7.75	
5/25/2017	WL_BFWB_OUT_SP21	E291569	0.00286		3.66		0.125		< 0.0050			
5/25/2017	WL_BFWB_OUT_SP21	E291569									7.66	
5/25/2017	WL_BFWB_OUT_SP21	E291569									7.6	
5/26/2017	WL_BFWB_OUT_SP21	E291569									7.08	
5/26/2017	WL_BFWB_OUT_SP21	E291569	0.00257	0.00253	3.75	3.66						
5/26/2017	WL_BFWB_OUT_SP21	E291569									7.42	
5/27/2017	WL_BFWB_OUT_SP21	E291569	0.00234	0.00241	3.76	3.83					7.52	
5/27/2017	WL_BFWB_OUT_SP21	E291569									7.55	
5/28/2017	WL_BFWB_OUT_SP21	E291569	0.00237	0.00236	4.02	4.04	0.007		< 0.0050		7.55	
5/28/2017	WL_BFWB_OUT_SP21	E291569									7.59	
5/29/2017	WL_BFWB_OUT_SP21	E291569	0.00227	0.00232	4.1	4.26	0.142		< 0.0050		7.5	
5/29/2017	WL_BFWB_OUT_SP21	E291569									7.61	
5/30/2017	WL_BFWB_OUT_SP21	E291569	0.00195	0.00219	4.32	4.28	0.124		< 0.0050		7.35	
5/30/2017	WL_BFWB_OUT_SP21	E291569									7.36	
5/31/2017	WL_BFWB_OUT_SP21	E291569	0.00184	0.00174	4.35	4.51						
5/31/2017	WL_BFWB_OUT_SP21	E291569									7.42	
5/31/2017	WL_BFWB_OUT_SP21	E291569									7.4	
6/1/2017	WL_BFWB_OUT_SP21	E291569	0.00193	0.00179	4.74	4.91	0.115		< 0.0050		7.22	
6/1/2017	WL_BFWB_OUT_SP21	E291569									7.53	
6/2/2017	WL_BFWB_OUT_SP21	E291569	0.00184	0.00188	4.79	4.9					7.46	
6/2/2017	WL_BFWB_OUT_SP21	E291569									7.6	
6/3/2017	WL_BFWB_OUT_SP21	E291569									7.54	
6/3/2017	WL_BFWB_OUT_SP21	E291569	0.00162	0.00163	4.23	4.34					7.64	
6/4/2017	WL_BFWB_OUT_SP21	E291569	0.00147	0.00149	4.15	4.21	0.121		< 0.0050		7.52	
6/4/2017	WL_BFWB_OUT_SP21	E291569									7.6	
6/5/2017	WL_BFWB_OUT_SP21	E291569	0.00139	0.00139	4.3	4.19	0.034	< 0.0050	< 0.0050	0.0049	7.27	
6/5/2017	WL_BFWB_OUT_SP21	E291569									7.54	
6/6/2017	WL_BFWB_OUT_SP21	E291569	0.00143	0.00133	3.85	4.08	0.162		< 0.0050		7.7	
6/6/2017	WL_BFWB_OUT_SP21	E291569									7.72	
6/7/2017	WL_BFWB_OUT_SP21	E291569	0.00136	0.00135	4.67	4.24					7.37	
6/7/2017	WL_BFWB_OUT_SP21	E291569									7.52	
6/8/2017	WL_BFWB_OUT_SP21	E291569	0.00145	0.00147	4.44	4.34	0.158		< 0.0050		7.44	
6/8/2017	WL_BFWB_OUT_SP21	E291569									7.59	
6/9/2017	WL_BFWB_OUT_SP21	E291569	0.00149	0.00142	4.74	5.09					7.54	
6/9/2017	WL_BFWB_OUT_SP21	E291569									7.58	
6/10/2017	WL_BFWB_OUT_SP21	E291569	0.00136	0.00138	4.84	4.24					7.78	
6/10/2017	WL_BFWB_OUT_SP21	E291569									7.72	
6/11/2017	WL_BFWB_OUT_SP21	E291569	0.00123	0.00119	6.85	5.63	0.186		< 0.0050		7.56	
6/11/2017	WL_BFWB_OUT_SP21	E291569									7.59	
6/12/2017	WL_BFWB_OUT_SP21	E291569	0.00118	0.00122	6.58	5.7	0.213	< 0.0050	< 0.0050	0.0029	7.52	
6/12/2017	WL_BFWB_OUT_SP21	E291569										
6/12/2017	WL_BFWB_OUT_SP21	E291569									7.57	
6/13/2017	WL_BFWB_OUT_SP21	E291569	0.00125	0.00125	6.25	6.43	0.284		< 0.0050		7.76	
6/13/2017	WL_BFWB_OUT_SP21	E291569									7.55	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
6/14/2017	WL_BFWB_OUT_SP21	E291569	0.00139	0.0013	6.57	6.61					7.27	
6/14/2017	WL_BFWB_OUT_SP21	E291569									7.5	
6/15/2017	WL_BFWB_OUT_SP21	E291569	0.0013	0.0013	6.73	6.98	0.251		< 0.0050		7.39	
6/15/2017	WL_BFWB_OUT_SP21	E291569									7.5	
6/16/2017	WL_BFWB_OUT_SP21	E291569	0.00128	0.00136	6.61	6.96					7.4	
6/16/2017	WL_BFWB_OUT_SP21	E291569									7.59	
6/17/2017	WL_BFWB_OUT_SP21	E291569	0.00137	0.00133	6.06	5.87					7.45	
6/17/2017	WL_BFWB_OUT_SP21	E291569									7.53	
6/18/2017	WL_BFWB_OUT_SP21	E291569	0.00134		5.9		0.173		0.0058		7.64	
6/18/2017	WL_BFWB_OUT_SP21	E291569									7.65	
6/19/2017	WL_BFWB_OUT_SP21	E291569	0.0013	0.00134	6.36	5.9	0.23		< 0.0050		7.51	
6/19/2017	WL_BFWB_OUT_SP21	E291569									7.63	
6/20/2017	WL_BFWB_OUT_SP21	E291569	0.00141	0.00138	5.89	6.17	0.075		0.0059		7.11	
6/22/2017	WL_BFWB_OUT_SP21	E291569	0.00323	0.00277	7.01	6.62	0.233		< 0.0050		7.61	
6/22/2017	WL_BFWB_OUT_SP21	E291569									7.72	
6/23/2017	WL_BFWB_OUT_SP21	E291569	0.00279	0.00287	6.27	6.34					7.61	
6/23/2017	WL_BFWB_OUT_SP21	E291569									7.57	
6/24/2017	WL_BFWB_OUT_SP21	E291569	0.00234	0.00252	5.86	6.35					7.4	
6/24/2017	WL_BFWB_OUT_SP21	E291569									7.61	
6/25/2017	WL_BFWB_OUT_SP21	E291569	0.00199	0.00197	5.63	6.12	0.247		0.008		7.45	
6/25/2017	WL_BFWB_OUT_SP21	E291569						0.015			7.56	
6/26/2017	WL_BFWB_OUT_SP21	E291569	0.0019	0.0019	5.86	6.47	0.29		< 0.0050		7.51	
6/27/2017	WL_BFWB_OUT_SP21	E291569	0.00188	0.00188	6.5	6.18	0.069		0.0051		7.33	
6/28/2017	WL_BFWB_OUT_SP21	E291569	0.00186	0.00183	5.92	6.01					7.57	
6/29/2017	WL_BFWB_OUT_SP21	E291569	0.00177	0.00176	5.37	5.23	< 0.025		< 0.0050			
6/29/2017	WL_BFWB_OUT_SP21	E291569									7.49	
6/30/2017	WL_BFWB_OUT_SP21	E291569	0.00165	0.0017	4.84	4.99					7.69	
7/1/2017	WL_BFWB_OUT_SP21	E291569	0.00159	0.00151	5.3	6.19					7.57	
7/2/2017	WL_BFWB_OUT_SP21	E291569	0.00151	0.00149	4.79	5.11	< 0.025		< 0.0050		7.68	
7/3/2017	WL_BFWB_OUT_SP21	E291569	0.00149	0.00141	4.95	5.2	< 0.025		0.0053			
7/3/2017	WL_BFWB_OUT_SP21	E291569									7.7	
7/4/2017	WL_BFWB_OUT_SP21	E291569	0.0016	0.00158	4.73	4.88	< 0.025		< 0.0050		7.67	
7/5/2017	WL_BFWB_OUT_SP21	E291569	0.00154	0.0016	5.2	5.15					7.63	
7/6/2017	WL_BFWB_OUT_SP21	E291569	0.00164	0.00155	5.23	5.09	< 0.025		< 0.0050		7.54	
7/7/2017	WL_BFWB_OUT_SP21	E291569	0.00181	0.0016	5.46	5.37					7.38	
7/8/2017	WL_BFWB_OUT_SP21	E291569	0.00151	0.00162	5.49	5.45					7.48	
7/9/2017	WL_BFWB_OUT_SP21	E291569	0.00153	0.00153	5.44	5.38	0.028		< 0.0050		7.53	
7/10/2017	WL_BFWB_OUT_SP21	E291569										
7/10/2017	WL_BFWB_OUT_SP21	E291569	0.00153	0.00155	5.5	5.54	0.039	< 0.0050	< 0.0050	0.0031	7.52	
7/11/2017	WL_BFWB_OUT_SP21	E291569	0.00157	0.00156	5.65	6.02	0.031		< 0.0050		7.56	
7/12/2017	WL_BFWB_OUT_SP21	E291569	0.00169	0.00183	6.54	6.34						
7/12/2017	WL_BFWB_OUT_SP21	E291569									7.5	
7/13/2017	WL_BFWB_OUT_SP21	E291569	0.00173	0.00177	5.92	5.75	0.039		0.0093		7.54	
7/14/2017	WL_BFWB_OUT_SP21	E291569	0.00177	0.00176	6.01	5.94	< 0.25	< 0.0050	< 0.0050	0.0033		
7/14/2017	WL_BFWB_OUT_SP21	E291569									7.4	
7/14/2017	WL_BFWB_OUT_SP21	E291569										
7/15/2017	WL_BFWB_OUT_SP21	E291569									7.25	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
7/16/2017	WL_BFWB_OUT_SP21	E291569									7.78	
7/16/2017	WL_BFWB_OUT_SP21	E291569									7.89	
7/17/2017	WL_BFWB_OUT_SP21	E291569	0.00193	0.0019	5.85	6.34	< 0.025		0.0063		7.97	
7/18/2017	WL_BFWB_OUT_SP21	E291569	0.00197	0.00188	7.9	7.74	< 0.025		0.0059		7.71	
7/19/2017	WL_BFWB_OUT_SP21	E291569	0.0019	0.0019	7.7	7.52					7.62	
7/20/2017	WL_BFWB_OUT_SP21	E291569	0.0018	0.00181	6.01	6.88	< 0.025		0.0113			
7/20/2017	WL_BFWB_OUT_SP21	E291569									7.73	
7/21/2017	WL_BFWB_OUT_SP21	E291569	0.00182	0.00177	7.01	6.38					7.58	
7/22/2017	WL_BFWB_OUT_SP21	E291569	0.00188	0.00193	5.85	6					7.63	
7/22/2017	WL_BFWB_OUT_SP21	E291569									7.63	
7/23/2017	WL_BFWB_OUT_SP21	E291569	0.00188	0.00187	5.89	5.92	< 0.025		0.0066		7.71	
7/24/2017	WL_BFWB_OUT_SP21	E291569	0.00187	0.00189	5.73	6.25	< 0.025		< 0.0050		7.6	
7/25/2017	WL_BFWB_OUT_SP21	E291569	0.00181	0.00171	6.27	6.42	< 0.025		< 0.0050		7.63	
7/26/2017	WL_BFWB_OUT_SP21	E291569	0.00181	0.00241	6.3	6.8					7.68	
7/27/2017	WL_BFWB_OUT_SP21	E291569	0.00173	0.00174	6.63	6.63	0.042		< 0.0050		7.59	
7/28/2017	WL_BFWB_OUT_SP21	E291569	0.00167	0.00178	6.26	6.87					7.63	
7/29/2017	WL_BFWB_OUT_SP21	E291569	0.00178	0.00181	6.51	6.23					7.32	
7/30/2017	WL_BFWB_OUT_SP21	E291569	0.0019	0.00188	6.61	6.73	0.044		< 0.0050		7.37	
7/31/2017	WL_BFWB_OUT_SP21	E291569	0.0019	0.00197	6.7	6.82	0.051	< 0.0050	0.0068		7.28	
8/1/2017	WL_BFWB_OUT_SP21	E291569	0.00188	0.00198	6.34	6.82	0.055		< 0.0050		7.33	
8/2/2017	WL_BFWB_OUT_SP21	E291569	0.00189	0.00191	6.4	6.66					7.31	
8/3/2017	WL_BFWB_OUT_SP21	E291569	0.00198	0.00188	6.74	6.82	< 0.025		0.0092		7.31	
8/4/2017	WL_BFWB_OUT_SP21	E291569	0.00199	0.00188	6.68	7.4					7.21	
8/5/2017	WL_BFWB_OUT_SP21	E291569	0.00192	0.00187	6.65	6.98					7.2	
8/6/2017	WL_BFWB_OUT_SP21	E291569	0.00192		7.32		< 0.025		< 0.0050		7.23	
8/7/2017	WL_BFWB_OUT_SP21	E291569	0.00185	0.00199	7.48	7.67	< 0.025		0.0086		7.28	
8/8/2017	WL_BFWB_OUT_SP21	E291569	0.00188	0.00188	6.95	6.82	< 0.025	< 0.0050	0.007		7.34	
8/9/2017	WL_BFWB_OUT_SP21	E291569	0.00189	0.00185	8.6	7.84						
8/9/2017	WL_BFWB_OUT_SP21	E291569									7.35	
8/10/2017	WL_BFWB_OUT_SP21	E291569	0.00176	0.00175	9.44	9.24	< 0.050		< 0.0050		7.49	
8/11/2017	WL_BFWB_OUT_SP21	E291569	0.00175	0.00177	9.32	9.03						
8/11/2017	WL_BFWB_OUT_SP21	E291569									7.4	
8/12/2017	WL_BFWB_OUT_SP21	E291569	0.00182	0.00185	8.46	8.02	0.046	< 0.0050	< 0.0050	0.0019	7.34	
8/13/2017	WL_BFWB_OUT_SP21	E291569	0.00181	0.00189	7.86	8.66	0.042		< 0.0050			
8/13/2017	WL_BFWB_OUT_SP21	E291569									7.39	
8/14/2017	WL_BFWB_OUT_SP21	E291569	0.00171	0.00177	7.57	7.24	0.033	< 0.0050	0.0079	0.0056		
8/15/2017	WL_BFWB_OUT_SP21	E291569	0.00181	0.00181	6.56	7.05	< 0.025		< 0.0050		7.43	
8/16/2017	WL_BFWB_OUT_SP21	E291569	0.00192	0.00181	6.63	6.96					7.44	
8/17/2017	WL_BFWB_OUT_SP21	E291569	0.00195	0.00199	6.13	6.16	0.033		< 0.0050		7.37	
8/18/2017	WL_BFWB_OUT_SP21	E291569		0.00207		5.91					7.29	
8/19/2017	WL_BFWB_OUT_SP21	E291569	0.00207	0.0021	6.12	6.36					7.57	
8/20/2017	WL_BFWB_OUT_SP21	E291569	0.00211	0.00207	6.53	6.5	< 0.025		< 0.0050		7.5	
8/21/2017	WL_BFWB_OUT_SP21	E291569	0.0021	0.00215	7.46	7.45	< 0.025	< 0.0050	< 0.0050		7.43	
8/22/2017	WL_BFWB_OUT_SP21	E291569	0.00248	0.00224	6.85	6.91	0.043		< 0.0050		7.48	
8/23/2017	WL_BFWB_OUT_SP21	E291569	0.00204	0.00207	6.58	6.75					7.28	
8/24/2017	WL_BFWB_OUT_SP21	E291569	0.00197	0.0021	5.96	6.04	0.032		< 0.0050		7.48	
8/25/2017	WL_BFWB_OUT_SP21	E291569	0.00211	0.0021	5.76	5.88						

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
8/25/2017	WL_BFWB_OUT_SP21	E291569									7.49	
8/26/2017	WL_BFWB_OUT_SP21	E291569	0.00213	0.00205	5.29	5.16						
8/26/2017	WL_BFWB_OUT_SP21	E291569									7.48	
8/27/2017	WL_BFWB_OUT_SP21	E291569	0.00206	0.00207	5.05	5.23	0.031		< 0.0050		7.4	
8/28/2017	WL_BFWB_OUT_SP21	E291569	0.00205	0.00197	4.94	5.03	0.036	< 0.0050	< 0.0050		7.46	
8/29/2017	WL_BFWB_OUT_SP21	E291569	0.00204	0.00202	4.82	4.76	0.036		0.0174		7.53	
8/30/2017	WL_BFWB_OUT_SP21	E291569	0.00208	0.00229	5.16	4.63					7.19	
8/31/2017	WL_BFWB_OUT_SP21	E291569	0.002	0.00211	6.62	4.52	0.035		< 0.0050		7.46	
9/1/2017	WL_BFWB_OUT_SP21	E291569	0.00206	0.00201	4.67	4.5					7.41	
9/2/2017	WL_BFWB_OUT_SP21	E291569	0.00207	0.00208	4.47	4.61					7.47	
9/3/2017	WL_BFWB_OUT_SP21	E291569	0.00206	0.00198	4.6	5.34	0.04		< 0.0050		7.27	
9/4/2017	WL_BFWB_OUT_SP21	E291569	0.00217	0.00205	4.32	4.33	0.041		0.0073		7.52	
9/5/2017	WL_BFWB_OUT_SP21	E291569	0.00205	0.00232	4.37	4.26	0.053	< 0.0050	< 0.0050		7.45	
9/6/2017	WL_BFWB_OUT_SP21	E291569	0.00197	0.0021	4.44	4.54					7.35	
9/7/2017	WL_BFWB_OUT_SP21	E291569	0.00205	0.00204	4.07	4.24	0.094		< 0.0050		7.37	
9/8/2017	WL_BFWB_OUT_SP21	E291569	0.00203	0.00208	4.4	4.42					7.36	
9/9/2017	WL_BFWB_OUT_SP21	E291569	0.002	0.00194	4.56	4.62					7.41	
9/10/2017	WL_BFWB_OUT_SP21	E291569	0.00213	0.00203	4.47	4.18	0.054		< 0.0050		7.41	
9/11/2017	WL_BFWB_OUT_SP21	E291569	0.00209	0.00208	4.55	4.39	< 0.025		< 0.0050		7.31	
9/12/2017	WL_BFWB_OUT_SP21	E291569	0.00203	0.002	4.44	4.43	< 0.025	< 0.0050	< 0.0050	0.0013	7.49	
9/13/2017	WL_BFWB_OUT_SP21	E291569	0.00218	0.00213	4.26	4.42					7.5	
9/14/2017	WL_BFWB_OUT_SP21	E291569	0.00222	0.00217	4.64	4.63	0.042		< 0.0050		7.65	
9/15/2017	WL_BFWB_OUT_SP21	E291569	0.00221	0.002	4.6	4.67					7.43	
9/16/2017	WL_BFWB_OUT_SP21	E291569	0.00213	0.00208	4.97	4.86					7.68	
9/17/2017	WL_BFWB_OUT_SP21	E291569	0.00207	0.00208	6.76	6.88	0.109		0.0059		7.43	
9/18/2017	WL_BFWB_OUT_SP21	E291569	0.00216	0.00214	8.42	8.18	0.056	< 0.0050	0.013		7.42	
9/19/2017	WL_BFWB_OUT_SP21	E291569	0.0021	0.002	9.13	9.62			< 0.0050		7.29	
9/20/2017	WL_BFWB_OUT_SP21	E291569	0.00214	0.00202	9.99	10					7.35	
9/21/2017	WL_BFWB_OUT_SP21	E291569	0.00225	0.00219	9.28	9.28	0.028	< 0.0050	0.0051	0.0028		
9/21/2017	WL_BFWB_OUT_SP21	E291569									7.4	
9/22/2017	WL_BFWB_OUT_SP21	E291569	0.00233	0.00232	8.9	8.95					7.28	
9/23/2017	WL_BFWB_OUT_SP21	E291569	0.00234	0.0024	8.88	11					7.5	
9/24/2017	WL_BFWB_OUT_SP21	E291569	0.00244	0.00244	8.9	9.18			< 0.0050			
9/24/2017	WL_BFWB_OUT_SP21	E291569									7.17	
9/25/2017	WL_BFWB_OUT_SP21	E291569	0.00251	0.00252	8.64	9	0.23	< 0.0050	< 0.0050		7.47	
9/26/2017	WL_BFWB_OUT_SP21	E291569	0.00253	0.00254	8.84	9.06			< 0.0050			
9/26/2017	WL_BFWB_OUT_SP21	E291569									7.42	
9/27/2017	WL_BFWB_OUT_SP21	E291569	0.00246	0.00253	8.62	8.49					7.12	
9/28/2017	WL_BFWB_OUT_SP21	E291569	0.00247	0.00264	8.29	8.47			0.0075			
9/28/2017	WL_BFWB_OUT_SP21	E291569									7.5	
9/29/2017	WL_BFWB_OUT_SP21	E291569		0.00255		8.43						
9/29/2017	WL_BFWB_OUT_SP21	E291569	0.00248		8.54						7.34	
9/30/2017	WL_BFWB_OUT_SP21	E291569	0.00245	0.00262	8.35	9.05						
9/30/2017	WL_BFWB_OUT_SP21	E291569									7.46	
10/1/2017	WL_BFWB_OUT_SP21	E291569	0.00237	0.00245	9.03	9.21			< 0.0050		7.35	
10/2/2017	WL_BFWB_OUT_SP21	E291569					0.23					
10/2/2017	WL_BFWB_OUT_SP21	E291569	0.00226	0.00239	9.75	8.22	0.046	< 0.0050	0.0087	0.0027	7.44	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
10/3/2017	WL_BFWB_OUT_SP21	E291569	0.00232	0.00242	8.74	9.45		0.015	0.015		7.44	
10/4/2017	WL_BFWB_OUT_SP21	E291569	0.00245	0.00245	9.1	9.11		0.015	0.015		7.54	
10/5/2017	WL_BFWB_OUT_SP21	E291569		0.00257		9.37						
10/5/2017	WL_BFWB_OUT_SP21	E291569	0.00275		8.86			0.015	0.015		7.52	
10/6/2017	WL_BFWB_OUT_SP21	E291569	0.00272	0.00256	8.44	8.81						
10/6/2017	WL_BFWB_OUT_SP21	E291569						0.015	0.015		7.28	
10/7/2017	WL_BFWB_OUT_SP21	E291569	0.00263	0.00261	8.27	8.33						
10/7/2017	WL_BFWB_OUT_SP21	E291569						0.015	0.015		7.28	
10/8/2017	WL_BFWB_OUT_SP21	E291569	0.00258	0.00266	8.14	8		0.015	0.015		7.35	
10/9/2017	WL_BFWB_OUT_SP21	E291569	0.00258	0.00266	7.89	8.06			0.0093			
10/9/2017	WL_BFWB_OUT_SP21	E291569					0.23				7.46	
10/10/2017	WL_BFWB_OUT_SP21	E291569	0.00271	0.00262	7.55	7.66	< 0.025	< 0.0050	0.0126		7.41	
10/11/2017	WL_BFWB_OUT_SP21	E291569	0.00263	0.0027	8.03	7.96			0.0066		7.8	
10/12/2017	WL_BFWB_OUT_SP21	E291569	0.00272	0.00269	8.53	8.27			0.0127		7.35	
10/13/2017	WL_BFWB_OUT_SP21	E291569	0.00273	0.0027	8.05	7.77					7.35	
10/14/2017	WL_BFWB_OUT_SP21	E291569	0.00282	0.00278	8.93	8.95					7.28	
10/15/2017	WL_BFWB_OUT_SP21	E291569	0.00287	0.00292	8.59	9.22			0.0105		7.26	
10/16/2017	WL_BFWB_OUT_SP21	E291569	0.00302	0.00304	8.53	8.77	0.23	0.0271	0.0108		7.48	
10/17/2017	WL_BFWB_OUT_SP21	E291569									7.27	
10/18/2017	WL_BFWB_OUT_SP21	E291569	0.00276	0.00287	7.5	7.91		0.015	0.015		7.46	
10/19/2017	WL_BFWB_OUT_SP21	E291569	0.00277	0.00264	6.93	6.82		0.015	0.015		7.57	
10/20/2017	WL_BFWB_OUT_SP21	E291569	0.00246	0.00243	6.31	6.25		0.015	0.015		7.59	
10/21/2017	WL_BFWB_OUT_SP21	E291569	0.0025	0.0023	5.92	6.34						
10/21/2017	WL_BFWB_OUT_SP21	E291569						0.015	0.015		7.46	
10/22/2017	WL_BFWB_OUT_SP21	E291569	0.00241	0.00215	5.41	5.51			< 0.0050		7.67	
10/23/2017	WL_BFWB_OUT_SP21	E291569	0.00237	0.00227	5.28	5.59	0.23	0.014	< 0.0050		7.52	
10/24/2017	WL_BFWB_OUT_SP21	E291569	0.00234	0.002	4.69	5.11			< 0.0050		7.42	
10/25/2017	WL_BFWB_OUT_SP21	E291569	0.00209	0.00209	4.15	4.74					7.64	
10/26/2017	WL_BFWB_OUT_SP21	E291569	0.00221	0.00221	4.36	4.33			< 0.0050		7.7	
10/27/2017	WL_BFWB_OUT_SP21	E291569	0.0023	0.00227	4.1	3.99					7.56	
10/28/2017	WL_BFWB_OUT_SP21	E291569	0.00231	0.00227	4.21	4.18						
10/28/2017	WL_BFWB_OUT_SP21	E291569									7.57	
10/29/2017	WL_BFWB_OUT_SP21	E291569	0.00227	0.00221	4.08	4.22			< 0.0050		7.57	
10/30/2017	WL_BFWB_OUT_SP21	E291569	0.0024	0.00231	4.23	4	0.23	< 0.0050	< 0.0050		7.54	
10/31/2017	WL_BFWB_OUT_SP21	E291569	0.00244	0.00243	4	4.33			< 0.0050		7.83	
11/1/2017	WL_BFWB_OUT_SP21	E291569	0.00245	0.00217	4.03	4.2					7.48	
11/2/2017	WL_BFWB_OUT_SP21	E291569	0.0022	0.00213	4.17	4.34			< 0.0050		7.77	
11/3/2017	WL_BFWB_OUT_SP21	E291569		0.00214		4.34						
11/3/2017	WL_BFWB_OUT_SP21	E291569	0.00223		4.13						7.83	
11/4/2017	WL_BFWB_OUT_SP21	E291569	0.00216	0.00267	4.21	5.1					7.89	
11/5/2017	WL_BFWB_OUT_SP21	E291569	0.00257	0.00252	4.86	5.05			< 0.0050			
11/5/2017	WL_BFWB_OUT_SP21	E291569									7.84	
11/6/2017	WL_BFWB_OUT_SP21	E291569	0.00248	0.00258	4.9	4.98	0.23	< 0.0050	< 0.0050	0.0011	7.75	
11/7/2017	WL_BFWB_OUT_SP21	E291569	0.00254	0.00252	4.71	4.86			< 0.0050		7.72	
11/8/2017	WL_BFWB_OUT_SP21	E291569									7.77	
11/8/2017	WL_BFWB_OUT_SP21	E291569	0.00235	0.00239	4.65	4.72						
11/9/2017	WL_BFWB_OUT_SP21	E291569	0.00246	0.00251	4.79	4.58			< 0.0050			

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
11/9/2017	WL_BFWB_OUT_SP21	E291569									7.5	
11/10/2017	WL_BFWB_OUT_SP21	E291569	0.00254	0.00258	4.67	4.63						
11/10/2017	WL_BFWB_OUT_SP21	E291569	0.00269	0.00262	5.13	5.49						
11/10/2017	WL_BFWB_OUT_SP21	E291569									7.78	
11/11/2017	WL_BFWB_OUT_SP21	E291569	0.00239	0.00248	4.85	4.88						
11/11/2017	WL_BFWB_OUT_SP21	E291569									7.52	
11/12/2017	WL_BFWB_OUT_SP21	E291569	0.00254	0.00233	4.8	4.89			0.0081			
11/12/2017	WL_BFWB_OUT_SP21	E291569									7.8	
11/13/2017	WL_BFWB_OUT_SP21	E291569	0.00235	0.0022	5.13	4.82			0.0074			
11/13/2017	WL_BFWB_OUT_SP21	E291569					0.23				7.68	
11/14/2017	WL_BFWB_OUT_SP21	E291569	0.00227	0.00223	5.04	4.87	0.216	0.0057	0.0134		7.75	
11/15/2017	WL_BFWB_OUT_SP21	E291569	0.00251	0.00246	4.8	4.36					7.71	
11/16/2017	WL_BFWB_OUT_SP21	E291569	0.00224	0.00239	4.27	4.31			0.0066			
11/16/2017	WL_BFWB_OUT_SP21	E291569	0.0027	0.00249	9.06	4.51					7.71	
11/17/2017	WL_BFWB_OUT_SP21	E291569	0.0024	0.00238	4.16	4.44						
11/17/2017	WL_BFWB_OUT_SP21	E291569	0.00261	0.00262	4.85	4.97					7.56	
11/18/2017	WL_BFWB_OUT_SP21	E291569	0.00238	0.00232	4.24	4.3						
11/18/2017	WL_BFWB_OUT_SP21	E291569									7.72	
11/19/2017	WL_BFWB_OUT_SP21	E291569	0.00245	0.00242	4.13	4.02			0.0087		7.55	
11/20/2017	WL_BFWB_OUT_SP21	E291569	0.00247	0.0024	4.45	4.4	0.335	0.009	< 0.0050		7.74	
11/21/2017	WL_BFWB_OUT_SP21	E291569	0.00251	0.00274	4.27	4.21			0.0157		7.71	
11/22/2017	WL_BFWB_OUT_SP21	E291569	0.00245	0.00257	4.39	4.21					7.65	
11/23/2017	WL_BFWB_OUT_SP21	E291569	0.00239	0.00255	4.6	4.75			0.0057			
11/23/2017	WL_BFWB_OUT_SP21	E291569									7.65	
11/24/2017	WL_BFWB_OUT_SP21	E291569	0.0026	0.00255	4.54	4.76						
11/24/2017	WL_BFWB_OUT_SP21	E291569	0.0025	0.0025	4.41	4.91					7.59	
11/25/2017	WL_BFWB_OUT_SP21	E291569	0.00253	0.00268	4.78	4.7					7.94	
11/26/2017	WL_BFWB_OUT_SP21	E291569	0.00271	0.00265	4.73	4.55			< 0.0050		7.69	
11/27/2017	WL_BFWB_OUT_SP21	E291569	0.00275	0.00262	4.77	4.71			0.0199		7.71	
11/28/2017	WL_BFWB_OUT_SP21	E291569	0.00245	0.00253	< 4.9	4.87						
11/28/2017	WL_BFWB_OUT_SP21	E291569	0.0026	0.00268	4.53	4.93	0.015	< 0.0050	< 0.0050		7.84	
11/29/2017	WL_BFWB_OUT_SP21	E291569	0.00263	0.00267	4.54	4.63					7.9	
11/30/2017	WL_BFWB_OUT_SP21	E291569	0.0025	0.00249	4.54	4.74			< 0.0050			
11/30/2017	WL_BFWB_OUT_SP21	E291569	0.00276	0.00258	4.86	4.5					7.55	
12/1/2017	WL_BFWB_OUT_SP21	E291569	0.00261	0.00265	4.53	4.67					7.63	
12/2/2017	WL_BFWB_OUT_SP21	E291569	0.00264	0.00256	4.34	4.46					7.62	
12/3/2017	WL_BFWB_OUT_SP21	E291569	0.00264	0.00255	4.38	4.3			< 0.0050		7.74	
12/4/2017	WL_BFWB_OUT_SP21	E291569	0.00272	0.00267	4.37	4.26	0.23	< 0.0050	0.0073	0.0018	7.92	
12/5/2017	WL_BFWB_OUT_SP21	E291569	0.00262	0.00258	4.48	4.5			< 0.0050		7.21	
12/6/2017	WL_BFWB_OUT_SP21	E291569	0.00258	0.00254	4.42	4.67						
12/6/2017	WL_BFWB_OUT_SP21	E291569	0.00279	0.00268	4.5	4.54						
12/6/2017	WL_BFWB_OUT_SP21	E291569									7.85	
12/7/2017	WL_BFWB_OUT_SP21	E291569	0.00253	0.0026	4.68	4.73			< 0.0050			
12/7/2017	WL_BFWB_OUT_SP21	E291569									7.33	
12/8/2017	WL_BFWB_OUT_SP21	E291569	0.00256	0.00249	5.22	5.09					7.56	
12/9/2017	WL_BFWB_OUT_SP21	E291569	0.0024		5.73						7.93	
12/10/2017	WL_BFWB_OUT_SP21	E291569	0.00262	0.00258	5.57	5.38			< 0.0050		7.59	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
12/11/2017	WL_BFWB_OUT_SP21	E291569	0.0026	0.00273	5.09	5.1	0.178	0.0013	0.0093		7.59	
12/12/2017	WL_BFWB_OUT_SP21	E291569	0.00292	0.00273	4.94	4.8			0.0068		7.66	
12/13/2017	WL_BFWB_OUT_SP21	E291569	0.0027	0.0027	4.56	4.49					7.64	
12/14/2017	WL_BFWB_OUT_SP21	E291569	0.00273	0.00274	4.94	4.47			0.0066		7.62	
12/15/2017	WL_BFWB_OUT_SP21	E291569	0.00267	0.00276	4.65	4.54					7.62	
12/16/2017	WL_BFWB_OUT_SP21	E291569	0.00258	0.00259	4.13	4.04					7.64	
12/17/2017	WL_BFWB_OUT_SP21	E291569	0.00267	0.00263	4.52	3.97			0.0074		7.73	
12/18/2017	WL_BFWB_OUT_SP21	E291569	0.00255	0.00259	3.84	4.18	0.282	0.0012	0.0068		7.71	
12/19/2017	WL_BFWB_OUT_SP21	E291569	0.00264	0.00274	3.86	3.94		0.015	0.015		7.8	
12/20/2017	WL_BFWB_OUT_SP21	E291569	0.00278	0.00265	3.86	5.05			0.0064			
12/20/2017	WL_BFWB_OUT_SP21	E291569	0.00274	0.00283	3.27	5.27					7.95	
12/21/2017	WL_BFWB_OUT_SP21	E291569	0.00326	0.00263	4.34	3.61			0.007		7.81	
12/22/2017	WL_BFWB_OUT_SP21	E291569	0.00282	0.0026	3.78	3.63					7.74	
12/23/2017	WL_BFWB_OUT_SP21	E291569	0.0028	0.00515	3.72	22					7.77	
12/23/2017	WL_BFWB_OUT_SP21	E291569									7.77	
12/24/2017	WL_BFWB_OUT_SP21	E291569	0.00272	0.00266	3.71	3.9					7.89	
12/25/2017	WL_BFWB_OUT_SP21	E291569	0.00269	0.00266	3.74	3.67	0.28		0.0064		7.96	
12/26/2017	WL_BFWB_OUT_SP21	E291569	0.00271	0.00268	4.1	3.64			< 0.0050		7.9	
12/27/2017	WL_BFWB_OUT_SP21	E291569	0.00265	0.00287	3.62	3.81	0.194	0.0019	0.0054		7.94	
12/28/2017	WL_BFWB_OUT_SP21	E291569	0.00272	0.00263	3.78	3.67					7.87	
12/29/2017	WL_BFWB_OUT_SP21	E291569	0.00253	0.00243	3.67	3.64			< 0.0050		7.83	
12/30/2017	WL_BFWB_OUT_SP21	E291569	0.00277	0.0025	4.53	3.59					7.74	
12/31/2017	WL_BFWB_OUT_SP21	E291569	0.00252	0.00254	3.79	3.81		0.015	0.015		7.6	
1/1/2017	WL_LCI_SP02	E293370	0.00253	0.00261	12.4	13.5	17.1					
1/2/2017	WL_LCI_SP02	E293370	0.00254	0.00253	12.4	12.6	17.3					
1/3/2017	WL_LCI_SP02	E293370	0.00255	0.00267	12.3	13.3	16.6					
1/4/2017	WL_LCI_SP02	E293370										
1/5/2017	WL_LCI_SP02	E293370	0.00252	0.00274	11.7	12.2	18.4					
1/6/2017	WL_LCI_SP02	E293370										
1/7/2017	WL_LCI_SP02	E293370										
1/8/2017	WL_LCI_SP02	E293370	0.00221	0.0024	11.1	12.3	18.4					
1/9/2017	WL_LCI_SP02	E293370	0.00222	0.00244	11	11.8	18.8	0.0016	< 0.0050	0.0028		
1/10/2017	WL_LCI_SP02	E293370	0.00227	0.00229	11.8	12.2	19.4					
1/11/2017	WL_LCI_SP02	E293370										
1/12/2017	WL_LCI_SP02	E293370	0.00233	0.0027	11.5	13.1	18.4					
1/13/2017	WL_LCI_SP02	E293370										
1/14/2017	WL_LCI_SP02	E293370										
1/15/2017	WL_LCI_SP02	E293370	0.00251	0.00265	11.3	11.7	18.3					
1/16/2017	WL_LCI_SP02	E293370	0.00244	0.00241	10.8	10.8	18.9					
1/17/2017	WL_LCI_SP02	E293370	0.00241	0.00244	12	11.2	17.8					
1/18/2017	WL_LCI_SP02	E293370	0.0025	0.00251	11.6	12	19	< 0.0050	< 0.0050	0.0129		8.07
1/19/2017	WL_LCI_SP02	E293370	0.00234	0.0025	10.9	11.3	19.2					
1/20/2017	WL_LCI_SP02	E293370										
1/21/2017	WL_LCI_SP02	E293370										
1/22/2017	WL_LCI_SP02	E293370	0.00224	0.00238	10.8	11.6	20					
1/23/2017	WL_LCI_SP02	E293370	0.00236	0.00238	11	12.3	20					
1/24/2017	WL_LCI_SP02	E293370	0.00233	0.0025	11	11.7	20.1					

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
1/25/2017	WL_LCI_SP02	E293370										
1/26/2017	WL_LCI_SP02	E293370	0.00216	0.00212	11.2	10.4	19.6					
1/27/2017	WL_LCI_SP02	E293370										
1/28/2017	WL_LCI_SP02	E293370										
1/29/2017	WL_LCI_SP02	E293370	0.00217	0.00231	10.9	11.7	21.1				7.93	
1/30/2017	WL_LCI_SP02	E293370	0.00207	0.00222	10.8	11.6	20.9					
1/31/2017	WL_LCI_SP02	E293370	0.00212	0.00219	11.2	11.3	21				7.89	
2/1/2017	WL_LCI_SP02	E293370									7.87	
2/1/2017	WL_LCI_SP02	E293370	0.00218	0.00228	11.1	10.8	21	< 0.0050	< 0.0050	0.0026		8
2/2/2017	WL_LCI_SP02	E293370	0.00207	0.00223	10.3	11.1	20.3				7.96	
2/3/2017	WL_LCI_SP02	E293370									7.72	
2/4/2017	WL_LCI_SP02	E293370									7.69	
2/5/2017	WL_LCI_SP02	E293370	0.0021	0.00218	8.55	8.53	18.9				7.64	
2/6/2017	WL_LCI_SP02	E293370	0.00208	0.00221	9.24	8.83	20				7.65	
2/7/2017	WL_LCI_SP02	E293370	0.00209	0.00209	9.77	9.03	20.1	< 0.0050	< 0.0050	0.0029	7.84	
2/8/2017	WL_LCI_SP02	E293370					18.8				7.59	
2/8/2017	WL_LCI_SP02	E293370	0.00208	0.00219	10.4	10.6	18.8	< 0.0010	< 0.0050	0.0025		8.04
2/9/2017	WL_LCI_SP02	E293370									7.71	
2/10/2017	WL_LCI_SP02	E293370	0.00231	0.00228	10.6	10.6	19.1				7.7	
2/11/2017	WL_LCI_SP02	E293370									7.74	
2/12/2017	WL_LCI_SP02	E293370	0.00207	0.00222	9.99	11.1	20.7				7.73	
2/13/2017	WL_LCI_SP02	E293370	0.00207	0.00223	10.1	10.9	20				7.61	
2/14/2017	WL_LCI_SP02	E293370	0.00209	0.00222	10.2	11	21				7.73	
2/15/2017	WL_LCI_SP02	E293370					20.9				7.56	
2/16/2017	WL_LCI_SP02	E293370	0.00218	0.00211	10.4	11.1	21				7.66	
2/17/2017	WL_LCI_SP02	E293370					20.9				7.68	
2/18/2017	WL_LCI_SP02	E293370									7.83	
2/19/2017	WL_LCI_SP02	E293370	0.00213	0.00237	10.5	11.3	22.5				7.68	
2/20/2017	WL_LCI_SP02	E293370	0.00246	0.0023	11	11.8	22.3				7.76	
2/21/2017	WL_LCI_SP02	E293370	0.00225	0.00236	10.4	11	22.3				7.66	
2/22/2017	WL_LCI_SP02	E293370									7.71	
2/22/2017	WL_LCI_SP02	E293370						0.008		0.0023		
2/23/2017	WL_LCI_SP02	E293370	0.00226	0.00235	10.7	11.7	21.7				7.94	
2/24/2017	WL_LCI_SP02	E293370									7.8	
2/25/2017	WL_LCI_SP02	E293370									7.52	
2/26/2017	WL_LCI_SP02	E293370	0.00201	0.00216	10.1	10.7	21.6				7.46	
2/27/2017	WL_LCI_SP02	E293370	0.00228	0.00238	10.8	11.3	22.5				7.54	
2/28/2017	WL_LCI_SP02	E293370	0.00205	0.00213	9.43	10.1	22.2				7.48	
3/1/2017	WL_LCI_SP02	E293370									7.52	
3/2/2017	WL_LCI_SP02	E293370	0.00205	0.0023	9.91	10.7	21.7					
3/3/2017	WL_LCI_SP02	E293370									7.4	
3/4/2017	WL_LCI_SP02	E293370									7.37	
3/5/2017	WL_LCI_SP02	E293370	0.00224	0.00253	10.8	11.3	22				7.49	
3/6/2017	WL_LCI_SP02	E293370	0.00215	0.0023	8.01	11.5	22	0.015	< 0.0050	0.0021	7.47	
3/7/2017	WL_LCI_SP02	E293370	0.00205	0.00219	10.7	10.8	21.5				7.4	
3/8/2017	WL_LCI_SP02	E293370									7.36	
3/9/2017	WL_LCI_SP02	E293370	0.00218	0.00213	8.34	8.89	19.5				7.38	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
3/10/2017	WL_LCI_SP02	E293370	0.00207	0.00206	9.71	9.81					7.37	
3/11/2017	WL_LCI_SP02	E293370	0.00196	0.00205	9.79	10.1					7.52	
3/12/2017	WL_LCI_SP02	E293370	0.00185	0.00216	9.74	11	22.3				7.7	
3/13/2017	WL_LCI_SP02	E293370	0.00197	0.00207	9.85	10.5	22.1				7.74	
3/14/2017	WL_LCI_SP02	E293370	0.00195	0.00207	9.25	9.54	21.4				7.7	
3/15/2017	WL_LCI_SP02	E293370	0.00203	0.00211	9.9	9.68					7.59	
3/16/2017	WL_LCI_SP02	E293370	0.00207	0.00261	8.88	10.5	18.8				7.75	
3/20/2017	WL_LCI_SP02	E293370	0.00233	0.00252	10.1	10.4						
3/21/2017	WL_LCI_SP02	E293370	0.00238	0.00262	10.1	11.9						
3/22/2017	WL_LCI_SP02	E293370	0.00238	0.0026	10.9	11.6					7.93	
3/23/2017	WL_LCI_SP02	E293370	0.00229	0.00255	10.8	11	22.5				7.95	
3/24/2017	WL_LCI_SP02	E293370	0.00234	0.00256	10.3	11.1					8.01	
3/25/2017	WL_LCI_SP02	E293370	0.0023	0.00263	10.5	10.9					7.88	
3/26/2017	WL_LCI_SP02	E293370	0.0023	0.00254	10.5	10.9	23				7.86	
3/27/2017	WL_LCI_SP02	E293370	0.00218	0.00256	10.3	10.7	23.2	0.015			7.96	
3/28/2017	WL_LCI_SP02	E293370	0.00226	0.0026	10.5	11.2	22.8				7.99	
3/29/2017	WL_LCI_SP02	E293370	0.00216	0.00245	10.4	11.2					7.97	
3/30/2017	WL_LCI_SP02	E293370	0.00225	0.0025	10.5	11.8	24.1				8.1	
3/31/2017	WL_LCI_SP02	E293370	0.00258	0.00263	12.4	13.7					7.97	
4/1/2017	WL_LCI_SP02	E293370	0.00245	0.00265	10.6	11.2					7.93	
4/2/2017	WL_LCI_SP02	E293370	0.00244	0.00269	10.7	11.4	23.1				7.98	
4/3/2017	WL_LCI_SP02	E293370	0.0024	0.00267	10.5	11.5	24.9	< 0.0050	< 0.0050	0.0031	7.92	
4/4/2017	WL_LCI_SP02	E293370	0.00218	0.00244	11.2	11.6	25				7.9	
4/5/2017	WL_LCI_SP02	E293370	0.00255	0.00275	11.2	11.6					7.88	
4/6/2017	WL_LCI_SP02	E293370	0.00239	0.00255	11	12.6	25.1				7.67	
4/7/2017	WL_LCI_SP02	E293370									7.86	
4/7/2017	WL_LCI_SP02	E293370	0.00239	0.00252	11.7	12.7						
4/8/2017	WL_LCI_SP02	E293370	0.00232	0.00268	12.1	13.4					7.89	
4/9/2017	WL_LCI_SP02	E293370	0.00253	0.00263	11.9	13.2	24.9				7.82	
4/10/2017	WL_LCI_SP02	E293370	0.0023	0.00252	11.1	11.5	24.8	0.015			7.82	
4/12/2017	WL_LCI_SP02	E293370	0.00267	0.00278	12	12.4					8.04	
4/13/2017	WL_LCI_SP02	E293370	0.00243	0.00239	11.4	12.2	26.3				7.94	
4/14/2017	WL_LCI_SP02	E293370	0.00246	0.00242	11.3	11.2					7.8	
4/15/2017	WL_LCI_SP02	E293370	0.00252	0.00244	12.3	12.8					7.92	
4/16/2017	WL_LCI_SP02	E293370	0.00248	0.00248	11.9	12.1	25.6				7.81	
4/17/2017	WL_LCI_SP02	E293370	0.00225	0.0025	11.2	12.5	25.9				7.46	
4/18/2017	WL_LCI_SP02	E293370	0.00225	0.00246	11.7	12.1	18.8	0.015			7.46	
4/19/2017	WL_LCI_SP02	E293370	0.00237	0.00247	12	12.6					7.5	
4/20/2017	WL_LCI_SP02	E293370	0.00241	0.00235	11.8	11.2	25.3				7.76	
4/21/2017	WL_LCI_SP02	E293370	0.00249	0.00235	11.9	11.2					7.44	
4/22/2017	WL_LCI_SP02	E293370	0.00264	0.00273	11.4	12.7	25.7				7.94	
4/23/2017	WL_LCI_SP02	E293370	0.00244	0.00255	11.9	11.9	25.2				7.83	
4/24/2017	WL_LCI_SP02	E293370	0.00246	0.00266	11.5	12	25.6				7.59	
4/25/2017	WL_LCI_SP02	E293370	0.00264	0.00268	11.6	11.8	23.8				7.57	
4/26/2017	WL_LCI_SP02	E293370	0.00258	0.00265	11	11.6					7.46	
4/27/2017	WL_LCI_SP02	E293370	0.0025	0.00254	11.1	11.4	23.5				7.53	
4/28/2017	WL_LCI_SP02	E293370	0.00241	0.00252	10.5	11					7.47	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
4/29/2017	WL_LCI_SP02	E293370	0.00242	0.00255	10.6	11.4					7.38	
4/30/2017	WL_LCI_SP02	E293370	0.00247	0.00257	10.7	11.4	25				7.81	
5/1/2017	WL_LCI_SP02	E293370	0.00244	0.00251	10.8	11.3	24	0.001	< 0.0050	0.0025	7.56	
5/2/2017	WL_LCI_SP02	E293370	0.00253	0.0025	10.9	10.6	25.7				7.78	
5/3/2017	WL_LCI_SP02	E293370	0.00251	0.00245	11.5	10.6					7.78	
5/4/2017	WL_LCI_SP02	E293370	0.00245	0.00249	11.6	11.2	24.9				7.76	
5/5/2017	WL_LCI_SP02	E293370	0.00252	0.00233	10.8	8.85					7.7	
5/6/2017	WL_LCI_SP02	E293370	0.0028	0.00294	11.8	12.4					7.72	
5/7/2017	WL_LCI_SP02	E293370	0.00285	0.00291	10.9	11.2	20				7.65	
5/8/2017	WL_LCI_SP02	E293370	0.00259	0.00255	10.3	10.8	16				7.76	
5/9/2017	WL_LCI_SP02	E293370	0.00231	0.00235	8.75	10.2	13.7				7.25	
5/10/2017	WL_LCI_SP02	E293370	0.00222	0.00226	9.22	11					7.71	
5/11/2017	WL_LCI_SP02	E293370	0.00224	0.00233	11	11.2	16.4				7.45	
5/12/2017	WL_LCI_SP02	E293370	0.00221	0.00202	10.7	11.7					7.43	
5/13/2017	WL_LCI_SP02	E293370	0.00222	0.00224	11	11.2					7.23	
5/14/2017	WL_LCI_SP02	E293370	0.00221	0.00224	11.2	11.3	16.8				7.24	
5/15/2017	WL_LCI_SP02	E293370					16.9				7.54	
5/16/2017	WL_LCI_SP02	E293370	0.00192	0.00208	10.2	10.2	10.5				7.06	
5/17/2017	WL_LCI_SP02	E293370	0.00202	0.00206	9.97	10.7					7.74	
5/18/2017	WL_LCI_SP02	E293370	0.00217	0.00212	11.2	10.9	14.4				7.53	
5/19/2017	WL_LCI_SP02	E293370	0.00216	0.00215	10.5	11.4					7.69	
5/20/2017	WL_LCI_SP02	E293370									7.77	
5/21/2017	WL_LCI_SP02	E293370	0.00222	0.00232	11.9	11.5	16.1				7.82	
5/22/2017	WL_LCI_SP02	E293370	0.00216	0.00231	12.2	13.5	17.3				7.73	
5/23/2017	WL_LCI_SP02	E293370	0.00227	0.00221	10.7	12.7	15.7				7.8	
5/24/2017	WL_LCI_SP02	E293370	0.00219	0.00217	11.7	11.2					7.89	
5/25/2017	WL_LCI_SP02	E293370	0.00207	0.00205	10.5	10.4	10.4				7.76	
5/26/2017	WL_LCI_SP02	E293370	0.00192	0.002	9.96	10.8					6.18	
5/27/2017	WL_LCI_SP02	E293370	0.00191	0.0018	11.1	9.68					7.67	
5/28/2017	WL_LCI_SP02	E293370	0.00189	0.00197	11.6	11.6	11.7				7.74	
5/29/2017	WL_LCI_SP02	E293370	0.00185	0.00188	11	11.9	10.6				7.78	
5/30/2017	WL_LCI_SP02	E293370	0.00188	0.0017	11.3	9.78	10.5				7.7	
5/31/2017	WL_LCI_SP02	E293370	0.00177	0.00191	11	11.7					7.69	
6/1/2017	WL_LCI_SP02	E293370	0.0019	0.00201	11.5	13.2	8.72				7.73	
6/2/2017	WL_LCI_SP02	E293370	0.00191	0.00193	12.2	12.1					7.64	
6/3/2017	WL_LCI_SP02	E293370	0.00182	0.00161	12.5	4.48					7.74	
6/4/2017	WL_LCI_SP02	E293370	0.00186	0.00182	12.6	12.8	10.5				7.62	
6/5/2017	WL_LCI_SP02	E293370					10	< 0.0010	< 0.0050	0.0012		
6/5/2017	WL_LCI_SP02	E293370	0.00182	0.0018	12.8	13.1					7.53	
6/6/2017	WL_LCI_SP02	E293370	0.00176	0.00181	13.2	13	9.02				7.87	
6/7/2017	WL_LCI_SP02	E293370	0.00191	0.00187	14.2	13.1					7.56	
6/8/2017	WL_LCI_SP02	E293370	0.00188	0.002	11.6	14.6	11.2				7.66	
6/9/2017	WL_LCI_SP02	E293370	0.00198	0.00187	12.6	13.5						
6/10/2017	WL_LCI_SP02	E293370	0.00179	0.00172	12.9	12.3					7.87	
6/11/2017	WL_LCI_SP02	E293370	0.00186	0.0018	12.9	12.4	10.1				7.72	
6/12/2017	WL_LCI_SP02	E293370	0.00183	0.00179	13.2	12.6	11	< 0.0010	< 0.0050	0.0015	7.46	
6/13/2017	WL_LCI_SP02	E293370	0.00205	0.00207	14.1	14.3	13.2				7.76	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
6/13/2017	WL_LCI_SP02	E293370										
6/14/2017	WL_LCI_SP02	E293370	0.0021	0.0022	14	14.9					7.2	
6/14/2017	WL_LCI_SP02	E293370										
6/15/2017	WL_LCI_SP02	E293370	0.00207	0.00203	14.4	13.6	13.6				7.52	
6/15/2017	WL_LCI_SP02	E293370										
6/16/2017	WL_LCI_SP02	E293370	0.00193	0.00186	11.9	11.8					7.64	
6/16/2017	WL_LCI_SP02	E293370										
6/17/2017	WL_LCI_SP02	E293370	0.00193	0.00194	12.5	12.5					7.6	
6/17/2017	WL_LCI_SP02	E293370										
6/18/2017	WL_LCI_SP02	E293370	0.00202	0.00197	13.2	12.9	12				7.91	
6/18/2017	WL_LCI_SP02	E293370										
6/19/2017	WL_LCI_SP02	E293370	0.002	0.00207	14.2	13.6	13.2				7.63	
6/19/2017	WL_LCI_SP02	E293370										
6/20/2017	WL_LCI_SP02	E293370										
6/21/2017	WL_LCI_SP02	E293370										
6/22/2017	WL_LCI_SP02	E293370	0.00231	0.00227	16.2	15.9	15.3				7.81	
6/22/2017	WL_LCI_SP02	E293370										
6/23/2017	WL_LCI_SP02	E293370	0.00232	0.00216	15.1	14.4					7.94	
6/23/2017	WL_LCI_SP02	E293370										
6/24/2017	WL_LCI_SP02	E293370	0.0022	0.00225	15.4	15.3					7.85	
6/24/2017	WL_LCI_SP02	E293370										
6/25/2017	WL_LCI_SP02	E293370	0.00218	0.00224	15.7	15.3	16.7				7.65	
6/25/2017	WL_LCI_SP02	E293370										
6/26/2017	WL_LCI_SP02	E293370	0.00225	0.00225	15.8	15.7	16.1				7.72	
6/27/2017	WL_LCI_SP02	E293370	0.00217	0.00214	14.3	14.9	12.5				7.64	
6/28/2017	WL_LCI_SP02	E293370	0.00229	0.00212	15.4	14.3					7.83	
6/29/2017	WL_LCI_SP02	E293370	0.00225	0.00215	14.4	13.5	14.4				7.8	
6/30/2017	WL_LCI_SP02	E293370	0.00231	0.00228	14.3	14.7					7.78	
7/1/2017	WL_LCI_SP02	E293370	0.00225	0.00231	15.6	16.2					7.65	
7/2/2017	WL_LCI_SP02	E293370	0.00206	0.00217	14	15.9	16.2				7.86	
7/3/2017	WL_LCI_SP02	E293370	0.00212	0.00205	14.5	14.4	15.3				7.89	
7/4/2017	WL_LCI_SP02	E293370	0.00213	0.00216	16.8	16	15.8				7.84	
7/5/2017	WL_LCI_SP02	E293370	0.00212	0.00256	16.3	15.8					7.79	
7/6/2017	WL_LCI_SP02	E293370	0.00224	0.00228	15.4	15.6	16.3				7.72	
7/7/2017	WL_LCI_SP02	E293370	0.00223	0.00223	15.2	15.8					7.7	
7/8/2017	WL_LCI_SP02	E293370	0.00223	0.00228	15.7	15.2					7.75	
7/9/2017	WL_LCI_SP02	E293370	0.00219	0.00276	14.3	15.2	17				7.66	
7/10/2017	WL_LCI_SP02	E293370	0.00216	0.00225	14.3	15.9	16.9	0.001	< 0.0050	0.0024	7.82	
7/11/2017	WL_LCI_SP02	E293370	0.00214	0.00227	14.8	15.3	17.2				7.83	
7/12/2017	WL_LCI_SP02	E293370	0.00223	0.00217	15.4	15.7					7.65	
7/13/2017	WL_LCI_SP02	E293370	0.0023	0.00222	14.5	14.5	16.2				7.7	
7/14/2017	WL_LCI_SP02	E293370	0.00228	0.0022	14.8	14.8	17.1	< 0.0050	< 0.0050	0.0048	7.55	
7/14/2017	WL_LCI_SP02	E293370										
7/15/2017	WL_LCI_SP02	E293370									7.37	
7/16/2017	WL_LCI_SP02	E293370									7.32	
7/17/2017	WL_LCI_SP02	E293370	0.00234	0.00229	15	14.4	18.8				7.98	
7/18/2017	WL_LCI_SP02	E293370	0.00221	0.00226	15.8	16.1	16.8				7.8	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
7/19/2017	WL_LCI_SP02	E293370	0.00226	0.00218	15.4	15.5					7.84	
7/20/2017	WL_LCI_SP02	E293370	0.00205	0.00218	13.6	14.6	17.2				7.94	
7/21/2017	WL_LCI_SP02	E293370	0.00213	0.00215	14	14.5					7.76	
7/22/2017	WL_LCI_SP02	E293370	0.00218	0.00231	13.4	14.4					7.82	
7/23/2017	WL_LCI_SP02	E293370	0.00223	0.00238	13.7	14.3	18				7.91	
7/24/2017	WL_LCI_SP02	E293370	0.00227	0.00221	13.5	13.6	18.3				7.87	
7/25/2017	WL_LCI_SP02	E293370	0.00214	0.0021	14.6	14.7	18.2				7.85	
7/26/2017	WL_LCI_SP02	E293370	0.00224	0.00207	14.8	14.8					7.93	
7/27/2017	WL_LCI_SP02	E293370	0.00208	0.00212	14.7	15.8	18.3				7.68	
7/28/2017	WL_LCI_SP02	E293370	0.00211	0.00212	14.2	15.6					7.79	
7/29/2017	WL_LCI_SP02	E293370	0.00211	0.00213	14	14.3					7.46	
7/30/2017	WL_LCI_SP02	E293370	0.00211	0.002	13.9	14.4	18.3				7.53	
7/31/2017	WL_LCI_SP02	E293370	0.00213	0.00217	13.9	13.9	19.5				7.41	
8/1/2017	WL_LCI_SP02	E293370	0.00216	0.00215	13.9	13.1	18				7.5	
8/2/2017	WL_LCI_SP02	E293370	0.00213	0.00214	13.1	13.5					7.63	
8/3/2017	WL_LCI_SP02	E293370	0.00226	0.00213	13.7	13.1	18.7				7.56	
8/4/2017	WL_LCI_SP02	E293370	0.00217	0.00226	14.3	14.3					7.54	
8/5/2017	WL_LCI_SP02	E293370	0.00205	0.00195	12.6	12.1					7.52	
8/6/2017	WL_LCI_SP02	E293370	0.00204	0.002	13.1	13.3	16.6				7.55	
8/7/2017	WL_LCI_SP02	E293370	0.00207	0.00205	13.2	13.6	17				7.6	
8/8/2017	WL_LCI_SP02	E293370	0.00201	0.00207	14.2	15	16.9				7.48	
8/9/2017	WL_LCI_SP02	E293370	0.00189	0.00188	19.1	16.8					7.37	
8/11/2017	WL_LCI_SP02	E293370	0.00201	0.00203	14.3	13.6					7.58	
8/12/2017	WL_LCI_SP02	E293370	0.00194	0.00204	13	12.9					7.54	
8/13/2017	WL_LCI_SP02	E293370	0.00194	0.00206	12.6	13.3	14.6					
8/13/2017	WL_LCI_SP02	E293370									7.07	
8/14/2017	WL_LCI_SP02	E293370	0.00195	0.00203	13.1	12.8	15.1	< 0.0050	0.0109	0.002		
8/15/2017	WL_LCI_SP02	E293370	0.00193	0.00204	12.7	12.8	15				7.43	
8/16/2017	WL_LCI_SP02	E293370	0.00202	0.00192	12.9	12.6					7.11	
8/17/2017	WL_LCI_SP02	E293370	0.00206	0.00202	12.7	12.6	14.8				7.38	
8/18/2017	WL_LCI_SP02	E293370									7.27	
8/19/2017	WL_LCI_SP02	E293370	0.00199	0.00206	12.9	12.9					7.78	
8/20/2017	WL_LCI_SP02	E293370	0.00199	0.00207	13.1	13	15.3				7.71	
8/21/2017	WL_LCI_SP02	E293370	0.00214	0.00201	13	12.7	15.6				7.45	
8/22/2017	WL_LCI_SP02	E293370	0.00237	0.00216	12.4	12.6	14.6				7.66	
8/23/2017	WL_LCI_SP02	E293370	0.00198	0.00196	12.9	12.6					7.74	
8/24/2017	WL_LCI_SP02	E293370	0.00198	0.00202	12.8	13.2	16.5				7.19	
8/25/2017	WL_LCI_SP02	E293370	0.00201	0.00204	13.4	13.2					7.42	
8/26/2017	WL_LCI_SP02	E293370	0.00195	0.00198	12.9	13.1					7.08	
8/27/2017	WL_LCI_SP02	E293370	0.00196	0.00195	12.6	12.7	15				7.03	
8/28/2017	WL_LCI_SP02	E293370	0.002	0.0019	12.6	12.6	20.6	0.015			7.41	
8/29/2017	WL_LCI_SP02	E293370	0.00197	0.00193	12.2	12.3	14.9				7.69	
8/30/2017	WL_LCI_SP02	E293370	0.00194	0.00194	12.2	12.2					7.07	
8/31/2017	WL_LCI_SP02	E293370	0.00183	0.00186	12.6	12.1	14.2				7.42	
9/1/2017	WL_LCI_SP02	E293370	0.00189	0.00188	12.5	12.4					7.36	
9/2/2017	WL_LCI_SP02	E293370										
9/2/2017	WL_LCI_SP02	E293370	0.00188	0.00184	12.4	12.5					7.5	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
9/3/2017	WL_LCI_SP02	E293370										
9/3/2017	WL_LCI_SP02	E293370	0.00185	0.00182	12.6	12.6	14.6				7.35	
9/4/2017	WL_LCI_SP02	E293370										
9/4/2017	WL_LCI_SP02	E293370	0.00185	0.00188	12.2	12.7	14.9				7.48	
9/5/2017	WL_LCI_SP02	E293370										
9/5/2017	WL_LCI_SP02	E293370	0.0018	0.00186	12.1	12.6	14	0.015			7.55	
9/6/2017	WL_LCI_SP02	E293370										
9/6/2017	WL_LCI_SP02	E293370	0.00187	0.00185	12.4	12.3						
9/7/2017	WL_LCI_SP02	E293370										
9/7/2017	WL_LCI_SP02	E293370	0.0018	0.00182	11.6	11.4	13.3				7.36	
9/7/2017	WL_LCI_SP02	E293370	0.00196	0.00194	13	12.5	16.9				7.73	
9/8/2017	WL_LCI_SP02	E293370										
9/8/2017	WL_LCI_SP02	E293370	0.00184	0.00189	12.2	12.4					7.29	
9/9/2017	WL_LCI_SP02	E293370										
9/9/2017	WL_LCI_SP02	E293370	0.00182	0.00185	12	12	14.62				7.36	
9/10/2017	WL_LCI_SP02	E293370										
9/10/2017	WL_LCI_SP02	E293370	0.00185	0.00188	12.1	12.5	14.6				7.39	
9/11/2017	WL_LCI_SP02	E293370										
9/11/2017	WL_LCI_SP02	E293370	0.00183	0.00191	12.4	12.2	14.51				7.12	
9/12/2017	WL_LCI_SP02	E293370										
9/12/2017	WL_LCI_SP02	E293370	0.00188	0.00193	12.2	12.4	17.42	0.0137	< 0.0050	< 0.0010	7.39	
9/13/2017	WL_LCI_SP02	E293370										
9/13/2017	WL_LCI_SP02	E293370	0.00186	0.00191	13	13.2	15.3				7.2	
9/14/2017	WL_LCI_SP02	E293370										
9/14/2017	WL_LCI_SP02	E293370	0.00203	0.00197	13.1	13.1	18.46				7.84	
9/15/2017	WL_LCI_SP02	E293370										
9/15/2017	WL_LCI_SP02	E293370	0.00205	0.00204	11.8	12.1	15.06				7.49	
9/16/2017	WL_LCI_SP02	E293370										
9/16/2017	WL_LCI_SP02	E293370	0.00201	0.00199	12.2	12.1	13.9				7.89	
9/17/2017	WL_LCI_SP02	E293370										
9/17/2017	WL_LCI_SP02	E293370	0.00203	0.002	11.9	12.1	16.08				7.48	
9/18/2017	WL_LCI_SP02	E293370										
9/18/2017	WL_LCI_SP02	E293370	0.00202	0.002	12.3	11.9	23				7.5	
9/18/2017	WL_LCI_SP02	E293370										
9/19/2017	WL_LCI_SP02	E293370										
9/19/2017	WL_LCI_SP02	E293370	0.00184	0.00189	10.4	10.7	16.54				7.226	
9/20/2017	WL_LCI_SP02	E293370										
9/20/2017	WL_LCI_SP02	E293370	0.00202	0.00191	12.1	11.8	16.16				7.39	
9/20/2017	WL_LCI_SP02	E293370										
9/21/2017	WL_LCI_SP02	E293370										
9/21/2017	WL_LCI_SP02	E293370	0.00187	0.00196	11.3	11.2	15.88				7.53	
9/21/2017	WL_LCI_SP02	E293370	0.00175	0.00199	11.4	12.1	15.9	0.0015	< 0.0050	0.0019		
9/22/2017	WL_LCI_SP02	E293370										
9/22/2017	WL_LCI_SP02	E293370	0.00187	0.00193	10.9	11.3	16.02				7.32	
9/23/2017	WL_LCI_SP02	E293370										
9/23/2017	WL_LCI_SP02	E293370	0.00159	0.00176	10.4	11	15.7				7.5	
9/24/2017	WL_LCI_SP02	E293370										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
9/24/2017	WL_LCI_SP02	E293370	0.00195	0.00204	11.5	11.9	16.22				7.33	
9/25/2017	WL_LCI_SP02	E293370										
9/25/2017	WL_LCI_SP02	E293370	0.00204	0.00191	11.6	11.8	16.54				7.32	
9/26/2017	WL_LCI_SP02	E293370										
9/26/2017	WL_LCI_SP02	E293370	0.00197	0.00195	11.7	11.9	15.9				7.43	
9/27/2017	WL_LCI_SP02	E293370										
9/27/2017	WL_LCI_SP02	E293370	0.00193	0.00191	11.4	11.6	15.7				7.91	
9/28/2017	WL_LCI_SP02	E293370										
9/28/2017	WL_LCI_SP02	E293370	0.00192	0.00193	11.6	11.4	15.7				7.5	
9/29/2017	WL_LCI_SP02	E293370										
9/29/2017	WL_LCI_SP02	E293370	0.00188	0.00195	11.4	11.7	15.96				7.22	
9/30/2017	WL_LCI_SP02	E293370										
9/30/2017	WL_LCI_SP02	E293370	0.00187	0.00198	11.1	11.9	16.26				7.43	
10/1/2017	WL_LCI_SP02	E293370										
10/1/2017	WL_LCI_SP02	E293370	0.0019	0.00192	11.7	12.2	15.46				7.61	
10/2/2017	WL_LCI_SP02	E293370										
10/2/2017	WL_LCI_SP02	E293370	0.002	0.00197	11.5	11.7	15.8	0.015	< 0.0050	0.0018	7.66	
10/2/2017	WL_LCI_SP02	E293370										
10/3/2017	WL_LCI_SP02	E293370										
10/3/2017	WL_LCI_SP02	E293370	0.00192	0.00193	11.2	11.2	15.9				7.38	
10/4/2017	WL_LCI_SP02	E293370										
10/4/2017	WL_LCI_SP02	E293370	0.00205	0.00203	11.2	11.4	16.1				7.63	
10/5/2017	WL_LCI_SP02	E293370										
10/5/2017	WL_LCI_SP02	E293370	0.00213	0.002	11.1	11.4					7.63	
10/6/2017	WL_LCI_SP02	E293370										
10/6/2017	WL_LCI_SP02	E293370	0.00219	0.00193	11.1	11.4	14.1				7.4	
10/7/2017	WL_LCI_SP02	E293370										
10/7/2017	WL_LCI_SP02	E293370	0.00196	0.00198	11.8	11.1	14.1				7.4	
10/8/2017	WL_LCI_SP02	E293370										
10/8/2017	WL_LCI_SP02	E293370	0.00198	0.0019	11.6	10.9	15.72				7.36	
10/9/2017	WL_LCI_SP02	E293370										
10/9/2017	WL_LCI_SP02	E293370	0.00196	0.00203	11.8	11.7	17.16				7.44	
10/10/2017	WL_LCI_SP02	E293370										
10/10/2017	WL_LCI_SP02	E293370	0.00206	0.00213	11.7	11.8	17.52				7.41	
10/11/2017	WL_LCI_SP02	E293370										
10/11/2017	WL_LCI_SP02	E293370	0.00199	0.002	11.5	11.5	17.54				7.27	
10/12/2017	WL_LCI_SP02	E293370										
10/12/2017	WL_LCI_SP02	E293370	0.00202	0.00204	11.8	11.5	17.72				7.39	
10/13/2017	WL_LCI_SP02	E293370										
10/13/2017	WL_LCI_SP02	E293370	0.00202	0.00193	11.2	11.1	17.9				7.44	
10/14/2017	WL_LCI_SP02	E293370										
10/14/2017	WL_LCI_SP02	E293370	0.002	0.00207	11.5	11.6	21.8				7.33	
10/15/2017	WL_LCI_SP02	E293370										
10/15/2017	WL_LCI_SP02	E293370	0.00198	0.00205	11.5	11.4	18.76				7.35	
10/16/2017	WL_LCI_SP02	E293370										
10/16/2017	WL_LCI_SP02	E293370	0.00198	0.00205	11.6	11.8	19.18				7.64	
10/17/2017	WL_LCI_SP02	E293370										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
10/17/2017	WL_LCI_SP02	E293370	0.00205	0.00205	14.1	14.3	19				7.18	
10/18/2017	WL_LCI_SP02	E293370										
10/18/2017	WL_LCI_SP02	E293370	0.00218	0.00217	14.9	16.2	19.6				6.91	
10/19/2017	WL_LCI_SP02	E293370										
10/19/2017	WL_LCI_SP02	E293370	0.00231	0.00223	14.8	15.1	16.72				7.06	
10/20/2017	WL_LCI_SP02	E293370										
10/20/2017	WL_LCI_SP02	E293370	0.00255	0.00247	14.3	15.1	17.82				6.86	
10/21/2017	WL_LCI_SP02	E293370										
10/21/2017	WL_LCI_SP02	E293370	0.00285	0.00298	13.9	15.1	18.08				6.83	
10/22/2017	WL_LCI_SP02	E293370										
10/22/2017	WL_LCI_SP02	E293370	0.00279	0.00275	13.6	14.4	18.58				7.13	
10/23/2017	WL_LCI_SP02	E293370										
10/23/2017	WL_LCI_SP02	E293370	0.00264	0.0027	14.5	14.6	19.38				7.22	
10/24/2017	WL_LCI_SP02	E293370	0.00239	0.0026	14	13.9	18.2				7.22	
10/25/2017	WL_LCI_SP02	E293370	0.00229	0.00246	13.2	13.5	21.4				7.11	
10/26/2017	WL_LCI_SP02	E293370	0.00248	0.00239	14.4	14.8	18.66				7.11	
10/27/2017	WL_LCI_SP02	E293370	0.0025	0.00248	13.9	13.8	18.66				7.11	
10/28/2017	WL_LCI_SP02	E293370					20.8				6.86	
10/29/2017	WL_LCI_SP02	E293370	0.00235	0.0023	14.1	14.1	19.04				7.09	
10/30/2017	WL_LCI_SP02	E293370	0.00225	0.00231	13.8	13.7	19.06				6.92	
10/31/2017	WL_LCI_SP02	E293370	0.00245	0.00242	13.6	13.5	18.54				7.14	
11/1/2017	WL_LCI_SP02	E293370	0.00254	0.00256	13.9	13.8	18.04				7.1	
11/2/2017	WL_LCI_SP02	E293370	0.00233	0.00235	13.5	14	18.62				6.95	
11/3/2017	WL_LCI_SP02	E293370	0.00233	0.00227	13	13.7	17.92				7.22	
11/4/2017	WL_LCI_SP02	E293370	0.00242	0.00248	12.8	13.2	18.58				7.24	
11/5/2017	WL_LCI_SP02	E293370	0.00244	0.00251	12.1	12.9	18.68				7.15	
11/6/2017	WL_LCI_SP02	E293370	0.00255	0.00237	13	12.4	19.18	< 0.0050	< 0.0050	0.0023	7.12	
11/7/2017	WL_LCI_SP02	E293370	0.00242	0.00245	13.2	13.1	19.84				7.21	
11/8/2017	WL_LCI_SP02	E293370	0.00238	0.00245	11.7	11.6	19.58				7.55	
11/9/2017	WL_LCI_SP02	E293370	0.00278	0.00262	13.3	12.8	18.28				7.27	
11/10/2017	WL_LCI_SP02	E293370	0.00256	0.00266	12.8	12.7	17.3				7.63	
11/11/2017	WL_LCI_SP02	E293370	0.00256	0.00261	12.6	12.4	18.26				7.33	
11/12/2017	WL_LCI_SP02	E293370	0.0026	0.00258	12.6	12.7	17.9				7.8	
11/13/2017	WL_LCI_SP02	E293370	0.00258	0.00253	13.1	12.9	17.48				7.11	
11/14/2017	WL_LCI_SP02	E293370	0.00249	0.00267	13.1	13.2	17.5				7.63	
11/15/2017	WL_LCI_SP02	E293370	0.00255	0.00252	13.1	13.1	17.8				7.21	
11/16/2017	WL_LCI_SP02	E293370	0.0024	0.00251	13.1	13.7	19.52				6.36	
11/17/2017	WL_LCI_SP02	E293370	0.00239	0.0025	12.7	13.1	17.58				6.97	
11/18/2017	WL_LCI_SP02	E293370	0.00247	0.00239	13.2	13.1	18.3				7.38	
11/19/2017	WL_LCI_SP02	E293370	0.00248	0.00252	13.3	13.5	18.3				7.17	
11/20/2017	WL_LCI_SP02	E293370	0.00252	0.0025	13.4	13.5	17.54				7.22	
11/21/2017	WL_LCI_SP02	E293370	0.00262	0.00269	12.8	12.5	18.74				7.3	
11/22/2017	WL_LCI_SP02	E293370	0.00255	0.00264	13.1	12.5	23.8				7.25	
11/23/2017	WL_LCI_SP02	E293370	0.00257	0.00265	14	13.3	21.2				7.39	
11/24/2017	WL_LCI_SP02	E293370	0.00276	0.00305	14.3	13.6	20.2				7.44	
11/25/2017	WL_LCI_SP02	E293370	0.00306	0.00292	14.6	14.2	22.4				7.65	
11/26/2017	WL_LCI_SP02	E293370	0.00276	0.00278	14.1	13.4	20.4				7.45	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
11/27/2017	WL_LCI_SP02	E293370	0.00286	0.00265	13.9	13.9	21.2				7.52	
11/28/2017	WL_LCI_SP02	E293370	0.00277	0.00285	12.8	14.3	24				7.53	
11/29/2017	WL_LCI_SP02	E293370	0.00288	0.00297	12.7	13.7	19.12				7.49	
11/30/2017	WL_LCI_SP02	E293370	0.00262	0.00276	12.9	13.6	20.2				7.23	
12/1/2017	WL_LCI_SP02	E293370	0.00273	0.00273	13.5	13.4	21.4				7.37	
12/2/2017	WL_LCI_SP02	E293370	0.0027	0.00263	12.6	12.6	22.4				7.28	
12/3/2017	WL_LCI_SP02	E293370	0.00267	0.00261	13	12.8	22				7.31	
12/4/2017	WL_LCI_SP02	E293370	0.00275	0.00273	12.6	12.1	20.2	0.015	0.0055	0.0031	7.6	
12/5/2017	WL_LCI_SP02	E293370	0.00265	0.00262	13	13.5	22.6				7.57	
12/6/2017	WL_LCI_SP02	E293370	0.00274	0.00263	12.7	12.8	21.2				7.35	
12/7/2017	WL_LCI_SP02	E293370	0.00278	0.00262	12.6	12.4	19.8				7.79	
12/8/2017	WL_LCI_SP02	E293370	0.00269	0.00268	12.3	12.9	18.92				7.53	
12/9/2017	WL_LCI_SP02	E293370	0.00277	0.00276	12.5	12.5	19.5				7.32	
12/10/2017	WL_LCI_SP02	E293370	0.00272	0.00284	12.5	12	18.78				7.34	
12/11/2017	WL_LCI_SP02	E293370	0.00268	0.00276	12.1	12.5	19.32				6.93	
12/12/2017	WL_LCI_SP02	E293370	0.00267	0.00272	11.9	12.1	19.36				7.23	
12/13/2017	WL_LCI_SP02	E293370	0.00277	0.00288	12.4	12.3	19.78				7.35	
12/14/2017	WL_LCI_SP02	E293370	0.00284	0.00279	13.6	12.6	19.56				7.28	
12/15/2017	WL_LCI_SP02	E293370	0.00267	0.00287	13.2	11					7.21	
12/16/2017	WL_LCI_SP02	E293370	0.00268	0.00263	12.5	12.6	19.64				7.33	
12/17/2017	WL_LCI_SP02	E293370	0.0027	0.00259	12.5	12.6	19.88				7.53	
12/18/2017	WL_LCI_SP02	E293370	0.00275	0.00276	13.2	13.1	20.4				7.62	
12/19/2017	WL_LCI_SP02	E293370	0.0027	0.00291	12.8	14	18.8				8.03	
12/20/2017	WL_LCI_SP02	E293370	0.00283	0.00289	12.7	13.8	19.34				7.28	
12/21/2017	WL_LCI_SP02	E293370	0.00332	0.00285	15	12.5	19.48				7.22	
12/22/2017	WL_LCI_SP02	E293370	0.00286	0.00264	13.7	12.3	20.8				7.84	
12/23/2017	WL_LCI_SP02	E293370	0.00267	0.00267	12.5	12.6	21.2				7.48	
12/24/2017	WL_LCI_SP02	E293370	0.00291	0.0029	13.1	13.9	21.8				7.16	
12/25/2017	WL_LCI_SP02	E293370	0.0029	0.00281	12.4	12.3	20				7.79	
12/26/2017	WL_LCI_SP02	E293370	0.00278	0.00281	12.1	12	19.88				7.41	
12/27/2017	WL_LCI_SP02	E293370	0.00272	0.00273	11.6	12.4	18.86				7.83	
12/28/2017	WL_LCI_SP02	E293370	0.00277	0.00293	12.6	13	19.04				7.84	
12/29/2017	WL_LCI_SP02	E293370	0.00294	0.0027	11.5	12.3	18.5				7.67	
12/30/2017	WL_LCI_SP02	E293370	0.00282	0.00295	12.4	13.4	18.6				7.31	
12/31/2017	WL_LCI_SP02	E293370					18.86					
12/31/2017	WL_LCI_SP02	E293370	0.00264	0.00261	11.7	11.6					7.94	
1/1/2017	WL_WLCI_SP01	E293371	0.00466	0.00449	21.5	20.9	23					
1/3/2017	WL_WLCI_SP01	E293371	0.00473	0.00458	21	21.1	23.5					
1/4/2017	WL_WLCI_SP01	E293371										
1/5/2017	WL_WLCI_SP01	E293371	0.00482	0.00531	20.1	20.8	23.6					
1/6/2017	WL_WLCI_SP01	E293371										
1/7/2017	WL_WLCI_SP01	E293371										
1/8/2017	WL_WLCI_SP01	E293371	0.0049	0.00517	20.4	21.5	21.9					
1/9/2017	WL_WLCI_SP01	E293371	0.00512	0.00526	20.2	21.5	22	0.011	< 0.0050	0.0051		
1/10/2017	WL_WLCI_SP01	E293371	0.00497	0.00496	20.7	21.1	22.7					
1/11/2017	WL_WLCI_SP01	E293371										
1/12/2017	WL_WLCI_SP01	E293371	0.00495	0.00517	20.2	21	23.2					

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
1/13/2017	WL_WLCI_SP01	E293371										
1/14/2017	WL_WLCI_SP01	E293371										
1/15/2017	WL_WLCI_SP01	E293371	0.00506	0.00515	20.4	19.7	23.7					
1/16/2017	WL_WLCI_SP01	E293371	0.00538	0.00528	20.6	20.8	24.1					
1/17/2017	WL_WLCI_SP01	E293371	0.00487	0.00539	22.4	21	23.1					
1/18/2017	WL_WLCI_SP01	E293371	0.00513	0.00525	20.5	21.1	22.7	0.0053	0.0078	0.0073		8.16
1/19/2017	WL_WLCI_SP01	E293371	0.00495	0.00514	19.6	20.7	24.6					
1/20/2017	WL_WLCI_SP01	E293371										
1/21/2017	WL_WLCI_SP01	E293371										
1/22/2017	WL_WLCI_SP01	E293371	0.00507	0.00549	18.7	21	23.4					
1/23/2017	WL_WLCI_SP01	E293371	0.00496	0.00588	18.8	21.9	23.6					
1/24/2017	WL_WLCI_SP01	E293371	0.00496	0.00571	19.2	21.7	23.6					
1/25/2017	WL_WLCI_SP01	E293371										
1/26/2017	WL_WLCI_SP01	E293371	0.00489	0.00506	19.4	20.2	23.9					
1/27/2017	WL_WLCI_SP01	E293371										
1/28/2017	WL_WLCI_SP01	E293371										
1/29/2017	WL_WLCI_SP01	E293371	0.00506	0.00542	20.3	21.9	24.2				7.86	
1/30/2017	WL_WLCI_SP01	E293371	0.00471	0.00501	20.3	22.3	24.3					
1/31/2017	WL_WLCI_SP01	E293371	0.00485	0.005	21.3	21.9	24.5				7.81	
2/1/2017	WL_WLCI_SP01	E293371	0.0046	0.00486	21.3	22.7	23				7.74	
2/1/2017	WL_WLCI_SP01	E293371	0.00482	0.00508	19.3	20.4	24.6	< 0.0050	0.0192	0.0056		8.14
2/2/2017	WL_WLCI_SP01	E293371	0.00491	0.00495	19.9	20.4	24.5				7.78	
2/3/2017	WL_WLCI_SP01	E293371									7.59	
2/4/2017	WL_WLCI_SP01	E293371									7.55	
2/5/2017	WL_WLCI_SP01	E293371	0.00506	0.0051	16.5	16.6	22.3				7.59	
2/6/2017	WL_WLCI_SP01	E293371	0.0049	0.00535	17.8	17.3	24.6				7.52	
2/7/2017	WL_WLCI_SP01	E293371	0.00387	0.00521	19.4	18.3	23.9	< 0.0050	< 0.0050	0.0051	7.76	
2/8/2017	WL_WLCI_SP01	E293371					22.4				7.42	
2/8/2017	WL_WLCI_SP01	E293371	0.00509	0.00457	19.9	18.3	22.5	0.0053	0.0105	0.0052		8.19
2/9/2017	WL_WLCI_SP01	E293371									7.57	
2/10/2017	WL_WLCI_SP01	E293371	0.00523	0.00555	19.6	20.4	22.4				7.91	
2/11/2017	WL_WLCI_SP01	E293371									7.61	
2/12/2017	WL_WLCI_SP01	E293371	0.00531	0.00557	19.4	20.6	24.4				7.71	
2/13/2017	WL_WLCI_SP01	E293371	0.0051	0.00559	19.5	20.6	24.7				7.58	
2/14/2017	WL_WLCI_SP01	E293371	0.00515	0.00522	17.4	18.9	24.1				7.75	
2/15/2017	WL_WLCI_SP01	E293371					25				7.4	
2/16/2017	WL_WLCI_SP01	E293371	0.00508	0.00519	20.1	21.2	24.8				7.69	
2/17/2017	WL_WLCI_SP01	E293371					24				7.77	
2/18/2017	WL_WLCI_SP01	E293371									7.84	
2/19/2017	WL_WLCI_SP01	E293371	0.0047	0.0053	19.7	22.3	25				7.7	
2/20/2017	WL_WLCI_SP01	E293371	0.00513	0.00531	20.5	20.9	24.6				7.67	
2/21/2017	WL_WLCI_SP01	E293371	0.00452	0.0051	19	19.5	24.2				7.78	
2/22/2017	WL_WLCI_SP01	E293371									7.81	
2/22/2017	WL_WLCI_SP01	E293371						< 0.0050		0.0048		
2/23/2017	WL_WLCI_SP01	E293371	0.00488	0.00514	20.3	21.6	24.4				7.84	
2/24/2017	WL_WLCI_SP01	E293371									7.82	
2/25/2017	WL_WLCI_SP01	E293371									7.51	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
2/26/2017	WL_WLCI_SP01	E293371	0.00477	0.00491	19.5	21.9	25.1				7.53	
2/27/2017	WL_WLCI_SP01	E293371	0.00505	0.00526	20.3	20.1	24.9				7.57	
2/28/2017	WL_WLCI_SP01	E293371	0.00464	0.00505	18.4	18.8	25.1				7.38	
3/1/2017	WL_WLCI_SP01	E293371									7.55	
3/2/2017	WL_WLCI_SP01	E293371	0.00489	0.00509	19.5	19.9	25.6					
3/3/2017	WL_WLCI_SP01	E293371									7.35	
3/4/2017	WL_WLCI_SP01	E293371									7.47	
3/5/2017	WL_WLCI_SP01	E293371	0.00541	0.00583	18.9	20	25.2				7.51	
3/6/2017	WL_WLCI_SP01	E293371	0.0053	0.00538	17.9	21.9	25.2	0.015	< 0.0050	0.0043	7.48	
3/7/2017	WL_WLCI_SP01	E293371	0.00485	0.00543	20.4	21.3	25.2				7.33	
3/8/2017	WL_WLCI_SP01	E293371									7.27	
3/9/2017	WL_WLCI_SP01	E293371	0.00477	0.00541	16.7	18.2	22.9				7.28	
3/10/2017	WL_WLCI_SP01	E293371	0.005	0.0052	18.9	20.2					7.3	
3/11/2017	WL_WLCI_SP01	E293371	0.00499	0.00519	18.7	19.4					7.41	
3/12/2017	WL_WLCI_SP01	E293371	0.00471	0.00538	19.2	20.2	25.3				7.54	
3/13/2017	WL_WLCI_SP01	E293371	0.00435	0.00521	19.8	20.1	25.5				7.75	
3/14/2017	WL_WLCI_SP01	E293371	0.00501	0.00513	18.7	18.8	25.6				7.78	
3/15/2017	WL_WLCI_SP01	E293371	0.0045	0.00474	16.9	16.9					7.61	
3/16/2017	WL_WLCI_SP01	E293371	0.00366	0.00425	14.6	16.8	19.8				8.03	
3/20/2017	WL_WLCI_SP01	E293371	0.00514	0.00561	19	20.9	23.6				8.1	
3/21/2017	WL_WLCI_SP01	E293371	0.00498	0.00547	20.4	20.9	23.9				8.08	
3/22/2017	WL_WLCI_SP01	E293371	0.0049	0.00542	20.6	21.4					7.92	
3/23/2017	WL_WLCI_SP01	E293371	0.00443	0.00518	20.1	21.5	24.3				7.93	
3/24/2017	WL_WLCI_SP01	E293371	0.0048	0.0052	19.5	20.3					8.05	
3/25/2017	WL_WLCI_SP01	E293371	0.00468	0.00514	19.8	20.3					7.84	
3/26/2017	WL_WLCI_SP01	E293371	0.0047	0.00514	20.4	19.6	25.3				7.77	
3/27/2017	WL_WLCI_SP01	E293371	0.00466	0.0052	19.3	19.7	25.3	0.015			7.94	
3/28/2017	WL_WLCI_SP01	E293371	0.00443	0.00502	19.2	20	23.4				8.04	
3/29/2017	WL_WLCI_SP01	E293371	0.00435	0.00489	19.1	20.5					8	
3/30/2017	WL_WLCI_SP01	E293371	0.00518	0.00479	20.2	19.1	25.5				9.02	
3/31/2017	WL_WLCI_SP01	E293371	0.00467	0.00503	21.5	21.6					8.02	
4/1/2017	WL_WLCI_SP01	E293371	0.0048	0.00532	19.1	19.7					7.96	
4/2/2017	WL_WLCI_SP01	E293371	0.00492	0.00541	20	20.6	24.2				8.04	
4/3/2017	WL_WLCI_SP01	E293371	0.00493	0.00533	20.5	20.5	25	< 0.0050	< 0.0050	0.0052	7.93	
4/4/2017	WL_WLCI_SP01	E293371	0.00456	0.00509	20.2	21.3	25.2				7.91	
4/5/2017	WL_WLCI_SP01	E293371	0.00508	0.00541	20.2	20.8					7.86	
4/6/2017	WL_WLCI_SP01	E293371	0.00503	0.00508	20.4	22.7	25.3				7.89	
4/7/2017	WL_WLCI_SP01	E293371	0.0047	0.00554	20.2	23.2					7.89	
4/8/2017	WL_WLCI_SP01	E293371	0.00443	0.00519	21.8	23.2					7.95	
4/9/2017	WL_WLCI_SP01	E293371	0.00466	0.0052	21.4	23.9	25.2				7.87	
4/10/2017	WL_WLCI_SP01	E293371	0.00453	0.005	20	20.1	25.5	0.015			7.84	
4/11/2017	WL_WLCI_SP01	E293371	0.00521	0.00527	20.1	21.4	25.6				8	
4/12/2017	WL_WLCI_SP01	E293371	0.00509	0.00518	20.3	21.1					8.03	
4/13/2017	WL_WLCI_SP01	E293371	0.00489	0.00511	20.7	21.2	26.5				7.92	
4/14/2017	WL_WLCI_SP01	E293371	0.005	0.00502	19.7	20.2					7.71	
4/15/2017	WL_WLCI_SP01	E293371	0.00493	0.00513	20	22.6					7.94	
4/16/2017	WL_WLCI_SP01	E293371	0.00508	0.00455	20	20.3	25.1				7.76	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
4/17/2017	WL_WLCI_SP01	E293371	0.00455	0.00496	19.1	21.2	25.1				7.41	
4/18/2017	WL_WLCI_SP01	E293371	0.00455	0.00484	19.2	21.2	25.7	0.015			7.74	
4/19/2017	WL_WLCI_SP01	E293371	0.00474	0.00495	20.5	21.6					7.8	
4/20/2017	WL_WLCI_SP01	E293371	0.00516	0.00487	21.2	19.9	26.2				7.88	
4/21/2017	WL_WLCI_SP01	E293371	0.00515	0.00518	21	19.6					7.83	
4/22/2017	WL_WLCI_SP01	E293371	0.00502	0.00497	19.8	21.2					7.73	
4/23/2017	WL_WLCI_SP01	E293371	0.0047	0.005	21.1	21.5	26.4				7.83	
4/24/2017	WL_WLCI_SP01	E293371	0.00467	0.00494	20.3	21	26.2				7.9	
4/25/2017	WL_WLCI_SP01	E293371	0.00503	0.0052	20.2	21.1	24.4				7.89	
4/26/2017	WL_WLCI_SP01	E293371	0.00501	0.00517	19.8	21.2					7.82	
4/27/2017	WL_WLCI_SP01	E293371	0.00497	0.00491	20.1	21	24.8				7.85	
4/28/2017	WL_WLCI_SP01	E293371	0.00495	0.00505	20.2	21.3					7.89	
4/29/2017	WL_WLCI_SP01	E293371	0.00486	0.00511	19.7	20.8					7.72	
4/30/2017	WL_WLCI_SP01	E293371	0.00489	0.00506	19.8	21	26.1				7.59	
5/1/2017	WL_WLCI_SP01	E293371	0.00482	0.00503	19.7	20.8	26	0.0095	< 0.0050	0.0051	7.88	
5/2/2017	WL_WLCI_SP01	E293371	0.00491	0.00489	21.2	19.4	25				7.76	
5/3/2017	WL_WLCI_SP01	E293371	0.00493	0.0047	21.1	19.5					7.77	
5/4/2017	WL_WLCI_SP01	E293371	0.00485	0.00474	20.8	20.1	26.1				7.77	
5/5/2017	WL_WLCI_SP01	E293371	0.00501	0.0048	19.2	18.4					7.67	
5/6/2017	WL_WLCI_SP01	E293371	0.00527	0.00444	19.9	20					7.73	
5/7/2017	WL_WLCI_SP01	E293371	0.00572	0.0054	20.4	20.8	26.1				7.6	
5/8/2017	WL_WLCI_SP01	E293371	0.0052	0.00516	20.7	20.5	25.9				7.77	
5/9/2017	WL_WLCI_SP01	E293371	0.00536	0.00522	17.9	20.8	23.1				7.65	
5/10/2017	WL_WLCI_SP01	E293371	0.00517	0.00507	17.9	20.1					7.8	
5/11/2017	WL_WLCI_SP01	E293371	0.00491	0.00424	19.9	20.7	21.5				7.68	
5/12/2017	WL_WLCI_SP01	E293371	0.00472	0.00479	20.2	20.5					7.74	
5/13/2017	WL_WLCI_SP01	E293371	0.00465	0.0046	20.2	20.6					7.69	
5/14/2017	WL_WLCI_SP01	E293371	0.00458	0.00452	21.2	21.7	21.9				7.68	
5/15/2017	WL_WLCI_SP01	E293371		0.00396		18.7	22.2				7.62	
5/16/2017	WL_WLCI_SP01	E293371	0.00402	0.00414	19.5	19.4	18.7				7.48	
5/17/2017	WL_WLCI_SP01	E293371	0.00381	0.00408	19.1	20.1					7.48	
5/18/2017	WL_WLCI_SP01	E293371	0.00389	0.00381	20.1	19.9	18.4				7.83	
5/19/2017	WL_WLCI_SP01	E293371	0.00376	0.00382	19.7	20.5					7.3	
5/20/2017	WL_WLCI_SP01	E293371									7.29	
5/21/2017	WL_WLCI_SP01	E293371	0.00351	0.00343	21.2	20.9	20.1				7.54	
5/22/2017	WL_WLCI_SP01	E293371	0.00321	0.0031	23.6	22.7	20.1				7.47	
5/23/2017	WL_WLCI_SP01	E293371	0.00311	0.00317	23.6	23.7	19.9				7.59	
5/24/2017	WL_WLCI_SP01	E293371	0.0029	0.00293	22.9	22.9					7.32	
5/25/2017	WL_WLCI_SP01	E293371	0.00267	0.00271	22.5	22.3	16.2				7.33	
5/26/2017	WL_WLCI_SP01	E293371	0.00254	0.0025	23.9	23.8					7.61	
5/27/2017	WL_WLCI_SP01	E293371	0.00243	0.00248	27.3	27.3					7.23	
5/28/2017	WL_WLCI_SP01	E293371	0.00222	0.00227	27	26.9	13.8				7.34	
5/29/2017	WL_WLCI_SP01	E293371	0.00193	0.00202	26.1	26.4	13.4				7.3	
5/30/2017	WL_WLCI_SP01	E293371	0.00191	0.00195	24.5	26	12.2				7.15	
5/31/2017	WL_WLCI_SP01	E293371	0.00196	0.00189	26.9	27.8					7.19	
6/1/2017	WL_WLCI_SP01	E293371	0.00203	0.00207	33.6	34.7	10.5				7.62	
6/2/2017	WL_WLCI_SP01	E293371	0.00197	0.00196	32.6	33.7					7.22	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
6/3/2017	WL_WLCI_SP01	E293371	0.00174	0.00175	31.4	32					7.13	
6/4/2017	WL_WLCI_SP01	E293371	0.00164	0.00164	30.9	31.2	9.83				7.1	
6/5/2017	WL_WLCI_SP01	E293371	0.00157	0.00158	30.9	30.4	9.17	< 0.0050	< 0.0050	0.0027	7.37	
6/6/2017	WL_WLCI_SP01	E293371	0.00157	0.00153	29.1	30.9						
6/6/2017	WL_WLCI_SP01	E293371					9.33				7.12	
6/7/2017	WL_WLCI_SP01	E293371	0.0015	0.00158	33.5	31.5					7.04	
6/8/2017	WL_WLCI_SP01	E293371	0.00156	0.00151	29.6	31.6	9.06				7.29	
6/9/2017	WL_WLCI_SP01	E293371	0.00142	0.00139	31.3	27.7					7.15	
6/10/2017	WL_WLCI_SP01	E293371	0.00136	0.00142	32.9	32.7					7.24	
6/11/2017	WL_WLCI_SP01	E293371	0.00153	0.00146	32.3	32.7	10.1				7.25	
6/12/2017	WL_WLCI_SP01	E293371	0.00151	0.00151	32.7	32.8	11.1	< 0.0050	< 0.0050	0.002	7.69	
6/13/2017	WL_WLCI_SP01	E293371	0.00156	0.00156	28	31	10.5				7.26	
6/13/2017	WL_WLCI_SP01	E293371										
6/14/2017	WL_WLCI_SP01	E293371	0.00155	0.00148	33.6	32.4					7.78	
6/14/2017	WL_WLCI_SP01	E293371										
6/15/2017	WL_WLCI_SP01	E293371	0.00146	0.00146	33	31	11.1				7.04	
6/15/2017	WL_WLCI_SP01	E293371										
6/16/2017	WL_WLCI_SP01	E293371	0.00148	0.00147	32.7	31.9					7.08	
6/16/2017	WL_WLCI_SP01	E293371										
6/17/2017	WL_WLCI_SP01	E293371	0.00153	0.00152	31.7	32.7					76.99	
6/17/2017	WL_WLCI_SP01	E293371										
6/18/2017	WL_WLCI_SP01	E293371	0.00156	0.00151	31.3	32.8	12				7.65	
6/18/2017	WL_WLCI_SP01	E293371										
6/19/2017	WL_WLCI_SP01	E293371	0.00154	0.00154	35.6	33.4	12.7				7.19	
6/19/2017	WL_WLCI_SP01	E293371										
6/20/2017	WL_WLCI_SP01	E293371										
6/21/2017	WL_WLCI_SP01	E293371										
6/22/2017	WL_WLCI_SP01	E293371	0.00152	0.00152	36.7	36.5	12.4				7.09	
6/22/2017	WL_WLCI_SP01	E293371										
6/23/2017	WL_WLCI_SP01	E293371	0.00157	0.00155	35.7	36.1					7.24	
6/23/2017	WL_WLCI_SP01	E293371										
6/24/2017	WL_WLCI_SP01	E293371	0.00151	0.00147	33.7	33					7.3	
6/24/2017	WL_WLCI_SP01	E293371										
6/25/2017	WL_WLCI_SP01	E293371	0.0015	0.0015	34	34.2	12.9				7.35	
6/25/2017	WL_WLCI_SP01	E293371										
6/26/2017	WL_WLCI_SP01	E293371	0.00153	0.00149	33.5	33.7	15.4				7.46	
6/27/2017	WL_WLCI_SP01	E293371	0.00153	0.00149	37.9	36.5	13.3				7.32	
6/28/2017	WL_WLCI_SP01	E293371	0.00145	0.00141	40.2	38.5					7.3	
6/29/2017	WL_WLCI_SP01	E293371	0.00144	0.00131	39	43.5	13.5				7.34	
6/30/2017	WL_WLCI_SP01	E293371	0.00148	0.00143	39.4	38.7					7.24	
7/1/2017	WL_WLCI_SP01	E293371	0.00147	0.00134	42.4	37.1					7.17	
7/2/2017	WL_WLCI_SP01	E293371	0.00142	0.00145	41.1	42.7	12.3				7.4	
7/3/2017	WL_WLCI_SP01	E293371	0.00144	0.00133	41.7	41.4	13.9				7.2	
7/4/2017	WL_WLCI_SP01	E293371	0.00133	0.00139	41.9	45.4	14.2				7.03	
7/5/2017	WL_WLCI_SP01	E293371	0.00135	0.00135	46.3	46.2					7.2	
7/6/2017	WL_WLCI_SP01	E293371	0.00141	0.00144	43	42.9	14.1				7.14	
7/7/2017	WL_WLCI_SP01	E293371	0.00144	0.00147	42.1	43.7					6.99	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
7/8/2017	WL_WLCI_SP01	E293371	0.00148	0.00151	41.9	42.4					7.17	
7/9/2017	WL_WLCI_SP01	E293371	0.00148	0.0015	38.2	42.7	14.8				7.21	
7/10/2017	WL_WLCI_SP01	E293371	0.0015	0.0015	41.4	43.1	14.8	< 0.0050	< 0.0050	0.0036	7.27	
7/11/2017	WL_WLCI_SP01	E293371	0.00149	0.00142	45.6	45.5	14.6				7.25	
7/12/2017	WL_WLCI_SP01	E293371	0.00139	0.00138	46.1	46.3					7.1	
7/13/2017	WL_WLCI_SP01	E293371	0.00154	0.00148	44	43.6	14.7				7.2	
7/14/2017	WL_WLCI_SP01	E293371	0.00153	0.00155	44.1	43.4	14.8	< 0.0050	< 0.0050	0.0036	6.7	
7/14/2017	WL_WLCI_SP01	E293371										
7/15/2017	WL_WLCI_SP01	E293371									6.88	
7/16/2017	WL_WLCI_SP01	E293371									7.12	
7/17/2017	WL_WLCI_SP01	E293371	0.00149	0.00148	45	44.7	15.4				7.63	
7/18/2017	WL_WLCI_SP01	E293371	0.00143	0.00147	50.7	49.6	15.3				7.4	
7/19/2017	WL_WLCI_SP01	E293371	0.00146	0.00149	47.8	49					7.26	
7/20/2017	WL_WLCI_SP01	E293371	0.00144	0.00157	44.3	45.6	15.6				7.31	
7/21/2017	WL_WLCI_SP01	E293371	0.00153	0.00148	46.1	47.2					7.18	
7/22/2017	WL_WLCI_SP01	E293371	0.00148	0.0015	48	48.5					7.27	
7/23/2017	WL_WLCI_SP01	E293371	0.00152	0.00156	45.9	46.7	16				7.24	
7/24/2017	WL_WLCI_SP01	E293371	0.00162	0.00168	45.4	47.2	16.3				7.41	
7/25/2017	WL_WLCI_SP01	E293371	0.0015	0.00144	52	51.8	16.6				7.42	
7/26/2017	WL_WLCI_SP01	E293371	0.0015	0.00143	51.1	49.6					7.3	
7/27/2017	WL_WLCI_SP01	E293371	0.00155	0.00156	47.9	54.2	16.6				7.22	
7/28/2017	WL_WLCI_SP01	E293371	0.00155	0.00163	48.5	52.3					7.32	
7/29/2017	WL_WLCI_SP01	E293371	0.00153	0.00157	48.5	48.8					7.02	
7/30/2017	WL_WLCI_SP01	E293371	0.00161	0.00163	49.1	48.4	17				6.98	
7/31/2017	WL_WLCI_SP01	E293371	0.00167	0.0017	47.8	47.2	16.9				6.96	
8/1/2017	WL_WLCI_SP01	E293371	0.00162	0.00161	46.6	46.2	18.8				7.11	
8/2/2017	WL_WLCI_SP01	E293371	0.00159	0.00155	46.2	51.3					7.16	
8/3/2017	WL_WLCI_SP01	E293371	0.00153	0.00159	50.6	50.1	17.4				6.99	
8/4/2017	WL_WLCI_SP01	E293371	0.00165	0.00163	48.5	47.8					7.02	
8/5/2017	WL_WLCI_SP01	E293371	0.00158	0.00159	50.4	50.4					6.93	
8/6/2017	WL_WLCI_SP01	E293371	0.00153		53.2		17.3				7.05	
8/7/2017	WL_WLCI_SP01	E293371	0.00155	0.00161	49.1	50.8	17.5				7.02	
8/8/2017	WL_WLCI_SP01	E293371	0.00159	0.00159	51.2	51.8	17.5				7.12	
8/9/2017	WL_WLCI_SP01	E293371	0.00162	0.00148	50.5	49.9					7.42	
8/11/2017	WL_WLCI_SP01	E293371	0.00158	0.00157	54.6	52.7					7.09	
8/12/2017	WL_WLCI_SP01	E293371	0.00165	0.00161	51.9	52.6					7.05	
8/12/2017	WL_WLCI_SP01	E293371	0.00165	0.00183	51.9	53.6	17.6	0.0053	0.0096	0.0038		
8/13/2017	WL_WLCI_SP01	E293371	0.00168	0.00165	50.9	50.9	15.6					
8/13/2017	WL_WLCI_SP01	E293371									7.18	
8/14/2017	WL_WLCI_SP01	E293371	0.00161	0.00162	54.4	54.3	18	< 0.0050	0.0105	0.0038		
8/15/2017	WL_WLCI_SP01	E293371	0.00248	0.00194	54.5	54.4	17.6				7.24	
8/16/2017	WL_WLCI_SP01	E293371	0.00162	0.00161	54.1	54.2					7.03	
8/17/2017	WL_WLCI_SP01	E293371	0.00166	0.00165	52.3	52.5	17.8				7.16	
8/18/2017	WL_WLCI_SP01	E293371									7.04	
8/19/2017	WL_WLCI_SP01	E293371	0.00181	0.00178	53.7	53					7.66	
8/20/2017	WL_WLCI_SP01	E293371	0.0017	0.00176	54.1	55.4	18.8				7.43	
8/21/2017	WL_WLCI_SP01	E293371	0.00163	0.00174	54.7	56.8	19.2				7.19	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
8/22/2017	WL_WLCI_SP01	E293371	0.00213	0.00185	55.2	55.7	18.4				7.5	
8/23/2017	WL_WLCI_SP01	E293371	0.00176	0.00176	54.6	49.6					7.61	
8/24/2017	WL_WLCI_SP01	E293371	0.00185	0.00182	48.9	50	19.4				7.16	
8/25/2017	WL_WLCI_SP01	E293371	0.00185	0.00189	56.5	54.6					7.17	
8/26/2017	WL_WLCI_SP01	E293371	0.00171	0.00173	56.7	57.4					7.07	
8/27/2017	WL_WLCI_SP01	E293371	0.0017	0.00172	56.4	55.4	19.7				7	
8/28/2017	WL_WLCI_SP01	E293371	0.00186	0.00175	55	52.5	0.213	0.015			7.06	
8/29/2017	WL_WLCI_SP01	E293371	0.00186	0.00183	52	52.7	19.7				7.52	
8/30/2017	WL_WLCI_SP01	E293371	0.00191	0.00193	50.6	52					6.83	
8/31/2017	WL_WLCI_SP01	E293371	0.00186	0.00189	52.6	50.3	19.5				7.17	
9/1/2017	WL_WLCI_SP01	E293371	0.0019	0.00187	53.4	52.3					7.14	
9/2/2017	WL_WLCI_SP01	E293371										
9/2/2017	WL_WLCI_SP01	E293371	0.0018	0.00185	53.3	53.9					7.3	
9/3/2017	WL_WLCI_SP01	E293371										
9/3/2017	WL_WLCI_SP01	E293371	0.0018	0.00186	52.4	52.3	20				7.18	
9/4/2017	WL_WLCI_SP01	E293371										
9/4/2017	WL_WLCI_SP01	E293371	0.00189	0.00185	52.6	53.6	19.8				7.27	
9/5/2017	WL_WLCI_SP01	E293371										
9/5/2017	WL_WLCI_SP01	E293371	0.00177	0.00176	55.2	56.8	19.5	0.015			7.34	
9/6/2017	WL_WLCI_SP01	E293371										
9/6/2017	WL_WLCI_SP01	E293371	0.0018	0.00181	54.7	54.2						
9/7/2017	WL_WLCI_SP01	E293371										
9/7/2017	WL_WLCI_SP01	E293371	0.00163	0.00157	53.6	49.7	17.7				7.38	
9/8/2017	WL_WLCI_SP01	E293371										
9/8/2017	WL_WLCI_SP01	E293371	0.00193	0.0019	52.9	53.3					7.03	
9/9/2017	WL_WLCI_SP01	E293371										
9/9/2017	WL_WLCI_SP01	E293371	0.00185	0.00197	50.3	51.9	21				7.14	
9/10/2017	WL_WLCI_SP01	E293371										
9/10/2017	WL_WLCI_SP01	E293371	0.00186	0.00185	53.9	53	20.8				7.14	
9/11/2017	WL_WLCI_SP01	E293371										
9/11/2017	WL_WLCI_SP01	E293371	0.0018	0.00183	56.3	55.8	21				7.12	
9/12/2017	WL_WLCI_SP01	E293371										
9/12/2017	WL_WLCI_SP01	E293371	0.00189	0.00186	54.2	53.6	21.4	0.0063	< 0.0050	0.0013	7.09	
9/13/2017	WL_WLCI_SP01	E293371										
9/13/2017	WL_WLCI_SP01	E293371	0.00188	0.00182	55.6	57.8	20.8				7.1	
9/14/2017	WL_WLCI_SP01	E293371										
9/14/2017	WL_WLCI_SP01	E293371	0.00182	0.00178	58.1	57.6	21				7.75	
9/15/2017	WL_WLCI_SP01	E293371										
9/15/2017	WL_WLCI_SP01	E293371	0.00191	0.00188	56.2	58.3	20.8				7.29	
9/16/2017	WL_WLCI_SP01	E293371										
9/16/2017	WL_WLCI_SP01	E293371	0.00197	0.00203	53.7	55.1	20.8				7.78	
9/17/2017	WL_WLCI_SP01	E293371										
9/17/2017	WL_WLCI_SP01	E293371	0.00217	0.00212	51.4	49.9	20.8				7.27	
9/18/2017	WL_WLCI_SP01	E293371										
9/18/2017	WL_WLCI_SP01	E293371	0.00222	0.00222	53.1	49.9	24.6				7.3	
9/19/2017	WL_WLCI_SP01	E293371										
9/19/2017	WL_WLCI_SP01	E293371	0.00224	0.00215	46.3	47.5	21.6				7.01	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
9/20/2017	WL_WLCI_SP01	E293371										
9/20/2017	WL_WLCI_SP01	E293371	0.00229	0.00222	49.4	47.3	21.4				7.11	
9/21/2017	WL_WLCI_SP01	E293371										
9/21/2017	WL_WLCI_SP01	E293371	0.00244	0.00243	43.9	45	21.4				7.23	
9/22/2017	WL_WLCI_SP01	E293371										
9/22/2017	WL_WLCI_SP01	E293371	0.00249	0.00263	41.7	49.1	21.2				7.17	
9/23/2017	WL_WLCI_SP01	E293371										
9/23/2017	WL_WLCI_SP01	E293371	0.00254	0.00252	38.5	40.6	21.6				7.18	
9/24/2017	WL_WLCI_SP01	E293371										
9/24/2017	WL_WLCI_SP01	E293371	0.00273	0.0027	41.6	41.9	20.12				7.17	
9/25/2017	WL_WLCI_SP01	E293371										
9/25/2017	WL_WLCI_SP01	E293371	0.00273	0.00265	42.4	42.7	22				7.23	
9/26/2017	WL_WLCI_SP01	E293371										
9/26/2017	WL_WLCI_SP01	E293371	0.00259	0.00259	44	42.9	21				7.25	
9/27/2017	WL_WLCI_SP01	E293371										
9/27/2017	WL_WLCI_SP01	E293371	0.00258	0.00252	44.5	44.6	21.6				8	
9/28/2017	WL_WLCI_SP01	E293371										
9/28/2017	WL_WLCI_SP01	E293371	0.00245	0.00247	41.7	42.4	21.6				7.18	
9/29/2017	WL_WLCI_SP01	E293371										
9/29/2017	WL_WLCI_SP01	E293371	0.00245	0.00242	43.1	43.5	21.8				6.89	
9/30/2017	WL_WLCI_SP01	E293371										
9/30/2017	WL_WLCI_SP01	E293371	0.00233	0.00243	43.8	46.2	21.4				7.14	
10/1/2017	WL_WLCI_SP01	E293371										
10/1/2017	WL_WLCI_SP01	E293371	0.00229	0.00227	48.6	49.1	21.16				7.35	
10/2/2017	WL_WLCI_SP01	E293371										
10/2/2017	WL_WLCI_SP01	E293371	0.00235	0.0023	46.6	47.6	22.2	0.015	< 0.0050	0.0043	7.44	
10/3/2017	WL_WLCI_SP01	E293371										
10/3/2017	WL_WLCI_SP01	E293371	0.00255	0.00247	42.8	42.2	21.8				7.18	
10/4/2017	WL_WLCI_SP01	E293371										
10/4/2017	WL_WLCI_SP01	E293371	0.00271	0.00267	41.6	40.9	22.6				7.42	
10/5/2017	WL_WLCI_SP01	E293371										
10/5/2017	WL_WLCI_SP01	E293371	0.00292	0.0028	41.4	41.1					7.42	
10/6/2017	WL_WLCI_SP01	E293371										
10/6/2017	WL_WLCI_SP01	E293371	0.00299	0.00273	41.7	40.8	18.28				7.16	
10/7/2017	WL_WLCI_SP01	E293371										
10/7/2017	WL_WLCI_SP01	E293371	0.00281	0.00284	41.3	39.5	18.28				7.16	
10/8/2017	WL_WLCI_SP01	E293371										
10/8/2017	WL_WLCI_SP01	E293371	0.00272	0.00279	40.4	38.1	22.2				7.13	
10/9/2017	WL_WLCI_SP01	E293371										
10/9/2017	WL_WLCI_SP01	E293371	0.00286	0.00286	39.6	38.8	22.4				7.23	
10/10/2017	WL_WLCI_SP01	E293371										
10/10/2017	WL_WLCI_SP01	E293371	0.00288	0.00306	37.3	39.3	22.4				7.2	
10/11/2017	WL_WLCI_SP01	E293371										
10/11/2017	WL_WLCI_SP01	E293371	0.00292	0.00286	38.8	37.9	22.8				7.03	
10/12/2017	WL_WLCI_SP01	E293371										
10/12/2017	WL_WLCI_SP01	E293371	0.00303	0.00298	37	37.3	20.4				7.19	
10/13/2017	WL_WLCI_SP01	E293371										

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
10/13/2017	WL_WLCI_SP01	E293371	0.00315	0.00307	35.2	34.7	22.8				7.16	
10/14/2017	WL_WLCI_SP01	E293371										
10/14/2017	WL_WLCI_SP01	E293371	0.00338	0.00337	35.1	35.4	15.54				7.05	
10/15/2017	WL_WLCI_SP01	E293371										
10/15/2017	WL_WLCI_SP01	E293371	0.00347	0.00355	34.3	34.4	22.6				7.14	
10/16/2017	WL_WLCI_SP01	E293371										
10/16/2017	WL_WLCI_SP01	E293371	0.00342	0.0035	34.5	34.2	23				7.36	
10/17/2017	WL_WLCI_SP01	E293371										
10/17/2017	WL_WLCI_SP01	E293371	0.00342	0.00339	34.7	35.4	22.6				7.41	
10/18/2017	WL_WLCI_SP01	E293371										
10/18/2017	WL_WLCI_SP01	E293371	0.00344	0.00352	34	35.4	23.2				7.43	
10/19/2017	WL_WLCI_SP01	E293371										
10/19/2017	WL_WLCI_SP01	E293371	0.00371	0.00363	33.9	34.6	23				7.36	
10/20/2017	WL_WLCI_SP01	E293371										
10/20/2017	WL_WLCI_SP01	E293371	0.00375	0.00377	33.4	34.1	18.32				7.44	
10/21/2017	WL_WLCI_SP01	E293371										
10/21/2017	WL_WLCI_SP01	E293371	0.00369	0.00391	33	33.6						
10/21/2017	WL_WLCI_SP01	E293371					22.1				7.35	
10/22/2017	WL_WLCI_SP01	E293371										
10/22/2017	WL_WLCI_SP01	E293371	0.00423	0.00349	33.2	31.8	22.8				7.53	
10/23/2017	WL_WLCI_SP01	E293371										
10/23/2017	WL_WLCI_SP01	E293371	0.00378	0.00362	33.7	32.6	23				7.66	
10/24/2017	WL_WLCI_SP01	E293371	0.00326	0.00328	29	27	23				7.5	
10/25/2017	WL_WLCI_SP01	E293371	0.0037	0.00349	29.9	29.1	23.4				7.46	
10/26/2017	WL_WLCI_SP01	E293371	0.00373	0.00356	32.3	32.6	23.2				7.41	
10/27/2017	WL_WLCI_SP01	E293371	0.0037	0.00379	31.7	32						
10/27/2017	WL_WLCI_SP01	E293371					23.2				7.41	
10/28/2017	WL_WLCI_SP01	E293371	0.00357	0.00358	34	31.7	22.2				7.32	
10/29/2017	WL_WLCI_SP01	E293371	0.00351	0.00347	32.6	32.7	22.8				7.34	
10/30/2017	WL_WLCI_SP01	E293371	0.00359	0.00369	33.6	31.6	22.8				7.27	
10/31/2017	WL_WLCI_SP01	E293371	0.0038	0.00388	32	32	22.4				7.59	
11/1/2017	WL_WLCI_SP01	E293371	0.0039	0.00386	31.5	30.7	23.6				7.45	
11/2/2017	WL_WLCI_SP01	E293371	0.00372	0.00371	30.3	31.1	22.8				7.48	
11/3/2017	WL_WLCI_SP01	E293371	0.00382	0.00381	29.1	30.1	23.6				7.55	
11/4/2017	WL_WLCI_SP01	E293371	0.00392	0.00415	28.4	27.5	22.4				7.59	
11/5/2017	WL_WLCI_SP01	E293371	0.0042	0.00422	28	28	20.8				7.55	
11/6/2017	WL_WLCI_SP01	E293371	0.00431	0.00418	27.4	27.3	23.2	0.0096	< 0.0050	0.0053	7.36	
11/7/2017	WL_WLCI_SP01	E293371	0.00427	0.00455	27.2	26.9	22.6				7.51	
11/8/2017	WL_WLCI_SP01	E293371	0.00424	0.00461	26.3	26.4	23.4				7.39	
11/9/2017	WL_WLCI_SP01	E293371	0.00468	0.00472	27.1	28	23.2				7.52	
11/10/2017	WL_WLCI_SP01	E293371	0.00471	0.00477	26.9	28.6	23.6				7.69	
11/11/2017	WL_WLCI_SP01	E293371	0.00464	0.00475	27.6	26.6	23.4				7.53	
11/12/2017	WL_WLCI_SP01	E293371	0.00475	0.00478	27.2	27.4	23.8				7.7	
11/13/2017	WL_WLCI_SP01	E293371	0.00487	0.00471	27.3	27.5	23.6				7.48	
11/14/2017	WL_WLCI_SP01	E293371	0.00466	0.00493	27.6	28	23				7.76	
11/15/2017	WL_WLCI_SP01	E293371	0.00445	0.00496	26.8	29	23.8				7.54	
11/16/2017	WL_WLCI_SP01	E293371	0.00443	0.00448	26.5	26.5	24.4				7.57	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
11/17/2017	WL_WLCI_SP01	E293371	0.0043	0.00447	26.4	26.2						
11/17/2017	WL_WLCI_SP01	E293371					22.8				7.67	
11/18/2017	WL_WLCI_SP01	E293371	0.00442	0.00438	26.4	26.8	22.6				7.66	
11/19/2017	WL_WLCI_SP01	E293371	0.00459	0.00457	27.3	27.1	23.4				7.61	
11/20/2017	WL_WLCI_SP01	E293371	0.00453	0.00457	26.7	26.3	23.8				7.43	
11/21/2017	WL_WLCI_SP01	E293371	0.00464	0.00482	25.4	24.2	24				7.48	
11/22/2017	WL_WLCI_SP01	E293371	0.00458	0.00492	26.4	24.7	18.16				7.65	
11/23/2017	WL_WLCI_SP01	E293371	0.00466	0.00502	26	25.3	23.8				7.7	
11/24/2017	WL_WLCI_SP01	E293371	0.00477	0.00496	25.5	23.4	23.4				7.59	
11/25/2017	WL_WLCI_SP01	E293371	0.00492	0.0045	26.9	25.6	23.2				7.8	
11/26/2017	WL_WLCI_SP01	E293371	0.00462	0.00468	26.9	25.6	23.2				7.69	
11/27/2017	WL_WLCI_SP01	E293371	0.00481	0.00465	26.6	26.7	24				7.71	
11/28/2017	WL_WLCI_SP01	E293371	0.00489	0.00481	25.6	28.7	21				7.89	
11/29/2017	WL_WLCI_SP01	E293371	0.00498	0.00452	25	27.4	23.4				7.72	
11/30/2017	WL_WLCI_SP01	E293371	0.00461	0.00481	25.7	26.7	23.8				7.71	
12/1/2017	WL_WLCI_SP01	E293371	0.00481	0.00488	26.7	26.5	24.2				7.82	
12/2/2017	WL_WLCI_SP01	E293371	0.0049	0.00472	24.3	24.3	23.4				7.8	
12/3/2017	WL_WLCI_SP01	E293371	0.00464	0.00483	24.3	24.2	23.4				7.91	
12/4/2017	WL_WLCI_SP01	E293371	0.00477	0.00461	24.3	23.5	24	0.015	< 0.0050	0.0061	7.75	
12/5/2017	WL_WLCI_SP01	E293371	0.00482	0.00466	24.6	24.8	24.2				7.24	
12/6/2017	WL_WLCI_SP01	E293371	0.0073	0.00481	23.7	24.5						
12/6/2017	WL_WLCI_SP01	E293371					23.8					
12/6/2017	WL_WLCI_SP01	E293371									7.78	
12/7/2017	WL_WLCI_SP01	E293371	0.00495	0.00488	24.7	23.7	23.4				7.59	
12/8/2017	WL_WLCI_SP01	E293371	0.00494	0.00496	23.5	23.9	24.2				7.85	
12/9/2017	WL_WLCI_SP01	E293371	0.00496	0.0052	23.8	23.5	24.2				7.93	
12/10/2017	WL_WLCI_SP01	E293371	0.00516	0.00523	23.4	23.1	24				7.86	
12/11/2017	WL_WLCI_SP01	E293371	0.00528	0.00536	23.7	23.4	24.2				7.71	
12/12/2017	WL_WLCI_SP01	E293371	0.00501	0.00514	23	22.2	24.2				7.81	
12/13/2017	WL_WLCI_SP01	E293371	0.00494	0.00526	23.1	22.8	23.2				7.76	
12/13/2017	WL_WLCI_SP01	E293371	0.00537	0.00524	24.1	24.1						
12/14/2017	WL_WLCI_SP01	E293371	0.00494	0.00511	24.8	23.3	24				7.77	
12/15/2017	WL_WLCI_SP01	E293371	0.00516	0.00525	24.8	23.2					7.8	
12/16/2017	WL_WLCI_SP01	E293371	0.00487	0.00504	23.1	23.1	24.6				7.83	
12/17/2017	WL_WLCI_SP01	E293371	0.00499	0.00492	23.1	22.7	18.36				7.86	
12/18/2017	WL_WLCI_SP01	E293371	0.00502	0.005	22.4	23.7	23.2				7.83	
12/19/2017	WL_WLCI_SP01	E293371	0.00527	0.00541	23.3	25.2	24.4				7.77	
12/20/2017	WL_WLCI_SP01	E293371	0.00517	0.00523	22.4	24.1	24.6				7.85	
12/21/2017	WL_WLCI_SP01	E293371	0.00489	0.00491	21.5	21.6	24.6				7.86	
12/22/2017	WL_WLCI_SP01	E293371	0.0055	0.00491	23.5	21.9	22.8				7.45	
12/22/2017	WL_WLCI_SP01	E293371	0.00537	0.00533	23.6	24.8						
12/23/2017	WL_WLCI_SP01	E293371	0.00496	0.00522	21.5	23	24.8				7.43	
12/23/2017	WL_WLCI_SP01	E293371		0.00503		22.1						
12/24/2017	WL_WLCI_SP01	E293371	0.00535	0.00525	22.4	22	24.8				7.88	
12/25/2017	WL_WLCI_SP01	E293371	0.00528	0.00521	21.7	21.5	24.2				8.01	
12/26/2017	WL_WLCI_SP01	E293371	0.00532	0.0052	21.9	21.1	24.8				7.97	
12/27/2017	WL_WLCI_SP01	E293371	0.00517	0.00506	20.8	21.8	24.6				8.04	

Analyte			MOLYBDENUM	MOLYBDENUM	NICKEL	NICKEL	NITRATE NITROGEN (NO3), AS N	NITRITE NITROGEN (NO2), AS N	NITROGEN, AMMONIA (AS N)	ORTHO-PHOSPHATE	pH, Field	pH, LAB
Fraction Result Unit			D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	N mg/l	N mg/l	N ph units	N ph units
Sample Date	Location	EMS Number										
12/28/2017	WL_WLCI_SP01	E293371	0.00553	0.00582	23	25.6	24.4				8.02	
12/29/2017	WL_WLCI_SP01	E293371	0.00573	0.00548	23.5	22.2	25.2				7.97	
12/30/2017	WL_WLCI_SP01	E293371	0.00538	0.00527	21.6	22.6						
12/30/2017	WL_WLCI_SP01	E293371					25				7.92	
12/31/2017	WL_WLCI_SP01	E293371	0.00553	0.00547	21.8	22	23.8				7.83	

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
1/5/2017	CM_CC1	200209			3.82	19.3	18.1	< 0.010	< 0.010	30.3	1750
1/17/2017	CM_CC1	200209	0.0032		4.2	17.9	17.5	< 0.010	< 0.010	36.3	
1/24/2017	CM_CC1	200209			4.08	18.4	16.9	< 0.010	< 0.010	33.8	1741
1/29/2017	CM_CC1	200209									1749
1/30/2017	CM_CC1	200209			3.73	19	15.8	< 0.010	< 0.010	29.1	1758
1/31/2017	CM_CC1	200209			4.09	15.9	16	< 0.050	< 0.050	31.2	
2/1/2017	CM_CC1	200209	0.0074		4.15	15.5	15.6	< 0.050	< 0.050	31.8	
2/7/2017	CM_CC1	200209			4.27	20.8	16.9	< 0.010	< 0.010	31.4	1791
2/21/2017	CM_CC1	200209			3.66	17.3	15.5	< 0.010	< 0.010	28.2	1626
3/1/2017	CM_CC1	200209	< 0.0020		3.45	14.9	13.9	< 0.010	< 0.010	27.4	
3/7/2017	CM_CC1	200209			4.09	14.1	14	< 0.010	< 0.010	32.2	1766
3/22/2017	CM_CC1	200209									1511
3/22/2017	CM_CC1	200209	0.0038		3.94	12.4	13.3	< 0.010	< 0.010	28.1	
3/29/2017	CM_CC1	200209	0.0039		3.43	11.6	10.1	< 0.010	< 0.010	26.3	1517
4/4/2017	CM_CC1	200209									1189
4/5/2017	CM_CC1	200209	0.0025		3.88	11.4	10.7	< 0.010	< 0.010	26.4	1204
4/12/2017	CM_CC1	200209	< 0.0020		3.29	10.6	10.6	< 0.010	< 0.010	28.6	1189
4/19/2017	CM_CC1	200209	< 0.0020		3.73	10.6	11.3	< 0.010	< 0.010	31.9	1266
4/26/2017	CM_CC1	200209	< 0.0020		2.83	13.3	12.7	< 0.010	< 0.010	27	1127
5/2/2017	CM_CC1	200209	0.0054		3.18	13.7	12.8	< 0.010	< 0.010	33.6	1408
5/9/2017	CM_CC1	200209	0.0138		2.85	19.7	17.1	< 0.010	< 0.010	20.3	1216
5/16/2017	CM_CC1	200209	0.0175		2.57	24.7	22.6	< 0.010	< 0.010	18.2	1169
5/17/2017	CM_CC1	200209									
5/17/2017	CM_CC1	200209									
5/18/2017	CM_CC1	200209									
5/23/2017	CM_CC1	200209	0.0145		2.65	19.5	17.9	< 0.010	< 0.010	17.1	1104
5/30/2017	CM_CC1	200209	0.01		2.44	21	19.2	< 0.010	< 0.010	14.6	1090
6/6/2017	CM_CC1	200209	0.0043		2.7	19.9	18	< 0.010	< 0.010	14.5	1154
6/14/2017	CM_CC1	200209	0.0027		2.98	19.5	19	< 0.010	< 0.010	19.4	109.7
6/21/2017	CM_CC1	200209	< 0.0020		3.38	20.8	19.7	< 0.010	< 0.010	22.6	1217
6/28/2017	CM_CC1	200209	< 0.0020		3.54	23.8	19.6	< 0.010	< 0.010	22.6	1270
7/5/2017	CM_CC1	200209	0.0053		3.5	22.1	20.9	< 0.010	< 0.010	21.9	1556
7/12/2017	CM_CC1	200209	0.0034		3.55	20.8	19.6	< 0.010	< 0.010	25.6	1381
7/19/2017	CM_CC1	200209	0.0126		3.54	20.2	18.9	< 0.010	< 0.010	22.2	1621
7/25/2017	CM_CC1	200209	0.005		3.61	21.6	21	< 0.010	< 0.010	24.4	1619
8/1/2017	CM_CC1	200209	0.0057		3.67	21	20.9	< 0.010	< 0.010	24.6	1592
8/8/2017	CM_CC1	200209	< 0.0040		3.72	21.1	20.7	< 0.010	< 0.010	24	1661
8/15/2017	CM_CC1	200209	0.0028		3.73	24.2	22.4	< 0.010	< 0.010	24	
8/15/2017	CM_CC1	200209									1669
8/22/2017	CM_CC1	200209	0.0024		3.64	21.5	21	< 0.010	< 0.010	24.2	1646
8/29/2017	CM_CC1	200209	0.0026		3.36	18.4	17.8	< 0.010	< 0.010	22.4	1622
9/5/2017	CM_CC1	200209	0.0051		3.68	25.2	22.4	< 0.010	< 0.010	22.5	1679
9/12/2017	CM_CC1	200209	0.0013		3.83	21.5	22	< 0.010	< 0.010	24.9	
9/19/2017	CM_CC1	200209	0.0064		3.15	27	22.6	< 0.010	< 0.010	18	
10/4/2017	CM_CC1	200209	< 0.0020		3.68	20.5	20.5	< 0.010	< 0.010	25	
11/7/2017	CM_CC1	200209	0.0011		3.67	17.7	17.2	< 0.010	< 0.010	28.3	
12/6/2017	CM_CC1	200209	0.0024		3.08	24.8	23.3	< 0.010	< 0.010	32.4	

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
1/17/2017	CM_CCPD	E206438	0.0055		3.76	31.1	30.7	< 0.010	< 0.010	28	
2/1/2017	CM_CCPD	E206438	0.0082		3.63	31.6	31.7	< 0.050	< 0.050	13	
3/1/2017	CM_CCPD	E206438	0.0055		3.23	38.3	35	< 0.010	< 0.010	11.5	
4/5/2017	CM_CCPD	E206438	0.0067		3.72	28.6	29	< 0.010	< 0.010	26.8	1754
4/12/2017	CM_CCPD	E206438									1320
4/19/2017	CM_CCPD	E206438									
4/19/2017	CM_CCPD	E206438									1514
4/26/2017	CM_CCPD	E206438									1455
5/2/2017	CM_CCPD	E206438	0.0088		3.65	30	28.4	< 0.010	< 0.010	25.9	1571
5/6/2017	CM_CCPD	E206438									
5/9/2017	CM_CCPD	E206438									1493
5/16/2017	CM_CCPD	E206438									1384
5/17/2017	CM_CCPD	E206438									
5/17/2017	CM_CCPD	E206438									
5/18/2017	CM_CCPD	E206438									
5/23/2017	CM_CCPD	E206438									1364
5/30/2017	CM_CCPD	E206438	0.0205		2.58	37.1	32.3	< 0.010	< 0.010	12.6	1286
6/6/2017	CM_CCPD	E206438	0.0033		2.75	31.9	29.2	< 0.010	< 0.010	7.89	1226
6/14/2017	CM_CCPD	E206438	0.0057		2.76	32.6	32	< 0.010	< 0.010	7.25	1129
6/21/2017	CM_CCPD	E206438	0.0029		3.3	36.2	36.1	< 0.010	< 0.010	8.59	1306
6/28/2017	CM_CCPD	E206438	< 0.0020		3.49	39	35.9	< 0.010	< 0.010	8.4	1706
7/5/2017	CM_CCPD	E206438	0.0059		3.44	40	37.4	< 0.010	< 0.010	10.1	1781
7/12/2017	CM_CCPD	E206438	0.0036		3.47	39.1	36.3	< 0.010	< 0.010	12.7	1599
7/19/2017	CM_CCPD	E206438	0.0139		3.31	39	36.4	< 0.010	< 0.010	10.6	1908
7/25/2017	CM_CCPD	E206438	0.0064		3.67	39.7	38.4	< 0.010	< 0.010	12.5	1950
8/1/2017	CM_CCPD	E206438	0.0045		3.98	42.3	39.8	< 0.010	< 0.010	12.6	1976
8/22/2017	CM_CCPD	E206438	0.0022		3.87	40.3	39.5	< 0.010	< 0.010	11.6	1997
9/12/2017	CM_CCPD	E206438	0.0022		4.32	40.2	39.1	< 0.010	< 0.010	16.8	
9/19/2017	CM_CCPD	E206438	0.0037		4.14	38.3	33.7	< 0.010	< 0.010	17.4	
10/3/2017	CM_CCPD	E206438	0.0034		4.48	40.5	38.8	< 0.010	< 0.010	16.5	
10/10/2017	CM_CCPD	E206438	< 0.0020		4.31	42.3	38.5	< 0.010	< 0.010	16.6	2066
10/11/2017	CM_CCPD	E206438									
10/24/2017	CM_CCPD	E206438	0.0022		5	40.8	36.9	< 0.010	< 0.010	21.1	1337
11/7/2017	CM_CCPD	E206438	0.0014		4.73	40.4	39.2	< 0.010	< 0.010	23.8	
11/22/2017	CM_CCPD	E206438	0.0031		4.38	42.2	36.8	< 0.010	< 0.010	26.8	2092
11/28/2017	CM_CCPD	E206438	0.0019		4.18	33	33.6	< 0.010	< 0.010	38.5	1884
12/6/2017	CM_CCPD	E206438	0.0031		3.8	35.3	35	< 0.010	< 0.010	43.4	
12/12/2017	CM_CCPD	E206438	0.004		3.57	36	33.9	< 0.010	< 0.010	37.9	1899
12/19/2017	CM_CCPD	E206438	0.0026		4.11	32.9	34.4	< 0.020	< 0.020	37.9	1867
12/27/2017	CM_CCPD	E206438	0.0019		3.98	33.5	35.6	< 0.010	0.012	32.8	1873
1/18/2017	CM_MC1	E258175	0.0077		0.469	0.247	0.286	< 0.010	< 0.010	3.02	
2/1/2017	CM_MC1	E258175	0.0059		0.445	0.309	0.26	< 0.010	< 0.010	3.03	
3/1/2017	CM_MC1	E258175	0.0041		0.425	0.327	0.272	< 0.010	< 0.010	2.77	
4/5/2017	CM_MC1	E258175	0.0102		0.428	0.268	0.416	< 0.010	< 0.010	2.36	222
4/12/2017	CM_MC1	E258175	0.0046		0.403	0.249	0.249	< 0.010	< 0.010	2.48	220.2
4/19/2017	CM_MC1	E258175	0.0041		0.446	0.247	0.252	< 0.010	< 0.010	2.65	230.7
4/26/2017	CM_MC1	E258175	0.0087		0.472	0.263	0.257	< 0.010	< 0.010	2.74	222.7

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
5/2/2017	CM_MC1	E258175	0.0094		0.43	0.286	0.247	< 0.010	< 0.010	2.65	271
5/9/2017	CM_MC1	E258175	0.0164		0.426	0.231	0.192	< 0.010	< 0.010	1.68	225
5/16/2017	CM_MC1	E258175	0.0175		0.382	0.212	0.194	< 0.010	< 0.010	1.7	219
5/23/2017	CM_MC1	E258175	0.0471		0.561	0.194	0.187	< 0.010	< 0.010	1.58	194
5/30/2017	CM_MC1	E258175	0.0569		0.599	0.148	0.198	< 0.010	< 0.010	0.963	187
6/6/2017	CM_MC1	E258175	0.0329		0.45	0.177	0.177	< 0.010	< 0.010	0.945	171
6/14/2017	CM_MC1	E258175	0.0191		0.377	0.188	0.187	< 0.010	< 0.010	0.939	150.1
6/21/2017	CM_MC1	E258175	0.0063		0.373	0.172	0.149	< 0.010	< 0.010	1.2	1557.5
6/28/2017	CM_MC1	E258175	0.0089		0.37	0.255	0.168	< 0.010	< 0.010	1.38	177.5
7/4/2017	CM_MC1	E258175	0.0126		0.407	0.228	0.251	< 0.010	< 0.010	1.59	
7/4/2017	CM_MC1	E258175									232
7/12/2017	CM_MC1	E258175	0.0081		0.449	0.214	0.189	< 0.010	< 0.010	1.87	213.3
7/19/2017	CM_MC1	E258175	0.0373		0.465	0.222	0.182	< 0.010	< 0.010	1.92	262
7/25/2017	CM_MC1	E258175	0.0602		0.445	0.19	0.242	< 0.010	< 0.010	2	274
8/1/2017	CM_MC1	E258175	0.0083		0.51	0.174	0.191	< 0.010	< 0.010	2.57	261
8/8/2017	CM_MC1	E258175	0.0075		0.504	0.165	0.232	< 0.010	< 0.010	2.49	281
8/15/2017	CM_MC1	E258175	0.008		0.5	0.184	0.235	< 0.010	< 0.010	2.48	283
8/22/2017	CM_MC1	E258175	0.0081		0.523	0.168	0.189	< 0.010	< 0.010	2.66	286
8/29/2017	CM_MC1	E258175	0.005		0.49	0.181	0.202	< 0.010	< 0.010	2.52	291
9/12/2017	CM_MC1	E258175	0.0098		0.535	0.198	0.193	< 0.010	< 0.010	2.86	
9/19/2017	CM_MC1	E258175	0.0118		0.561	0.219	0.27	< 0.010	< 0.010	2.94	
9/26/2017	CM_MC1	E258175	< 0.0020		0.516	0.198	0.214	< 0.010	< 0.010	2.76	294
10/2/2017	CM_MC1	E258175	0.0045		0.492	0.186	0.191	< 0.010	< 0.010	2.88	286
10/10/2017	CM_MC1	E258175	< 0.0020		0.495	0.175	0.228	< 0.010	< 0.010	3.01	292
10/17/2017	CM_MC1	E258175	< 0.0020		0.585	0.177	0.183	< 0.010	< 0.010	2.88	290
10/24/2017	CM_MC1	E258175	0.0027		0.469	0.265	0.239	< 0.010	< 0.010	3.17	274
10/31/2017	CM_MC1	E258175	0.0051		0.434	0.218	0.266	< 0.010	< 0.010	2.99	287
11/7/2017	CM_MC1	E258175	0.0049		0.469	0.252	0.22	< 0.010	< 0.010	3.01	
12/6/2017	CM_MC1	E258175	0.0152		0.418	0.218	0.212	< 0.010	< 0.010	2.8	
1/5/2017	CM_MC2	E258937			2.17	9.31	8.98	< 0.010	< 0.010	18.3	1097
1/12/2017	CM_MC2	E258937			2.15	8.43	7.55	< 0.010	< 0.010	16.5	1062
1/17/2017	CM_MC2	E258937	0.0054		2.36	9.14	8.93	< 0.010	< 0.010	20.4	
1/24/2017	CM_MC2	E258937			2.07	8.97	8.23	< 0.010	< 0.010	17.5	1083
1/29/2017	CM_MC2	E258937									1071
1/30/2017	CM_MC2	E258937	0.0047		2.08	8.07	7.37	< 0.010	< 0.010	17.2	1201
1/31/2017	CM_MC2	E258937			2.38	10.6	8.72	< 0.010	< 0.010	20.3	
2/1/2017	CM_MC2	E258937	0.0297		2.24	9.79	8.39	< 0.010	< 0.010	18.2	
2/7/2017	CM_MC2	E258937			2.14	9.31	8.11	< 0.010	< 0.010	16.5	1021
2/21/2017	CM_MC2	E258937			1.93	7.87	7.15	< 0.010	< 0.010	15.2	969
2/28/2017	CM_MC2	E258937	0.0043		2.03	8.13	7.79	< 0.010	< 0.010	15.9	1028
3/1/2017	CM_MC2	E258937	0.0074		1.73	7.14	6.84	< 0.010	< 0.010	15.2	
3/7/2017	CM_MC2	E258937	0.003		2.07	7.05	6.3	< 0.010	< 0.010	16.7	1055
3/14/2017	CM_MC2	E258937	0.0036		2.03	6.39	6.28	< 0.010	< 0.010	15.8	1034
3/21/2017	CM_MC2	E258937	0.0119		1.32	3.72	3.72	< 0.010	< 0.010	9.17	665
3/22/2017	CM_MC2	E258937									793
3/29/2017	CM_MC2	E258937									901
4/5/2017	CM_MC2	E258937	< 0.0020		1.95	5.83	5.43	< 0.010	< 0.010	13.9	767

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
4/12/2017	CM_MC2	E258937										669.1
4/12/2017	CM_MC2	E258937	0.0021		1.76	4.6	4.32	< 0.010	< 0.010	14.5		669.1
4/19/2017	CM_MC2	E258937	0.0027		1.89	5.04	4.92	< 0.010	< 0.010	15.8		754
4/24/2017	CM_MC2	E258937	0.018		1.42	5.6	4.76	< 0.010	< 0.010	11.3		792
5/2/2017	CM_MC2	E258937	0.0098		1.94	5.75	6.07	< 0.010	< 0.010	17.9		729
5/9/2017	CM_MC2	E258937	0.056		1.33	6.58	5.94	< 0.010	< 0.010	8.12		623
5/16/2017	CM_MC2	E258937	0.0314		1.3	9.55	8.19	< 0.010	< 0.010	8.11		634
5/23/2017	CM_MC2	E258937	0.0945		1.34	5.68	5.28	< 0.010	< 0.010	6.01		509
5/30/2017	CM_MC2	E258937	0.0919		1.27	5.01	4.66	< 0.010	0.012	4.45		444
6/6/2017	CM_MC2	E258937	0.0585		1.16	4.7	4.63	< 0.010	< 0.010	4.46		462
6/13/2017	CM_MC2	E258937	0.0175		1.14	4.55	4.42	< 0.010	< 0.010	6.1		489
6/14/2017	CM_MC2	E258937	0.0391		0.976	4.07	4.05	< 0.010	< 0.010	4.62		362.2
6/21/2017	CM_MC2	E258937	0.0142		1.04	4.09	4.08	< 0.010	< 0.010	5.55		391.6
6/28/2017	CM_MC2	E258937	0.0131		0.952	4.66	4.01	< 0.010	< 0.010	5.22		421.1
7/4/2017	CM_MC2	E258937	0.0111		1.11	4.76	4.38	< 0.010	< 0.010	6.22		573
7/12/2017	CM_MC2	E258937	0.0058		1.45	6.86	6.19	< 0.010	< 0.010	9.44		634
7/19/2017	CM_MC2	E258937	0.0125		1.64	7.45	6.89	< 0.010	< 0.010	10		828
7/25/2017	CM_MC2	E258937	0.009		1.73	7.81	7.46	< 0.010	< 0.010	10.9		837
8/1/2017	CM_MC2	E258937	0.0077		1.7	7.38	7.65	< 0.010	< 0.010	11.8		861
8/8/2017	CM_MC2	E258937	0.0209		1.9	8.42	8.37	< 0.010	< 0.010	13.1		964
8/15/2017	CM_MC2	E258937	0.014		1.83	10.1	9.08	< 0.010	< 0.010	11.6		950
8/22/2017	CM_MC2	E258937	0.0051		1.97	9.53	9.47	< 0.010	< 0.010	13.5		1009
8/29/2017	CM_MC2	E258937	0.0049		1.99	8.44	9.21	< 0.010	< 0.010	13.2		1016
9/12/2017	CM_MC2	E258937	0.0057		2.24	10.5	10.7	< 0.010	< 0.010	15.9		
9/19/2017	CM_MC2	E258937	0.0194		1.7	10.7	8.88	< 0.010	< 0.010	11.4		
9/26/2017	CM_MC2	E258937	0.0073		1.56	8.45	7.8	< 0.010	< 0.010	9.86		886
10/2/2017	CM_MC2	E258937	< 0.0020		1.85	8.23	7.89	< 0.010	< 0.010	14.1		971
10/2/2017	CM_MC2	E258937	0.005		2.08	9.21	8.74	< 0.010	< 0.010	13.6		1012
10/3/2017	CM_MC2	E258937	< 0.0020		1.94	9.19	8.45	< 0.010	0.032	13.3		
10/5/2017	CM_MC2	E258937	< 0.0020		1.94	9.41	8.82	< 0.010	< 0.010	13.6		1031
10/6/2017	CM_MC2	E258937	0.0023		1.96	9.62	8.43	< 0.010	< 0.010	14.5		1024
10/10/2017	CM_MC2	E258937	< 0.0020		1.88	8.63	8.22	< 0.010	< 0.010	14.1		1010
10/11/2017	CM_MC2	E258937	< 0.0020		1.85	8.59	7.45	< 0.010	< 0.010	15.1		1010
10/12/2017	CM_MC2	E258937	< 0.0020		1.84	10.1	8.28	< 0.010	< 0.010	14.8		1020
10/16/2017	CM_MC2	E258937	< 0.0020		1.98	9.12	8.4	< 0.010	< 0.010	15.3		1022
10/17/2017	CM_MC2	E258937	< 0.0020		1.77	8.18	7.36	< 0.010	< 0.010	14		995
10/19/2017	CM_MC2	E258937	0.179		2.63	5.2	5.09	< 0.010	0.026	13.5		879
10/20/2017	CM_MC2	E258937	0.0074		1.59	6.46	6.03	< 0.010	< 0.010	9.67		781
10/23/2017	CM_MC2	E258937	< 0.0020		1.62	7.44	6.85	< 0.010	< 0.010	10.8		854
10/24/2017	CM_MC2	E258937	0.0029		1.74	7.55	6.81	< 0.010	< 0.010	12.1		906
10/26/2017	CM_MC2	E258937	< 0.0020		1.72	7.18	7.07	< 0.010	< 0.010	12.7		901
10/30/2017	CM_MC2	E258937	0.0029		1.82	7.62	7.97	< 0.010	< 0.010	13.8		1070
10/31/2017	CM_MC2	E258937	0.0025		2.07	8.61	8.43	< 0.010	< 0.010	16.7		1066
11/7/2017	CM_MC2	E258937	0.0065		1.83	7.74	7.28	< 0.010	< 0.010	14.8		
11/9/2017	CM_MC2	E258937	0.002		1.81	8.92	8.72	< 0.010	< 0.010	15.2		1026
11/14/2017	CM_MC2	E258937	0.0015		1.61	6.95	7.26	< 0.050	< 0.050	13.9		994
11/21/2017	CM_MC2	E258937	0.0017		1.59	8.56	8.33	< 0.010	< 0.010	13.7		1032

Sample Date		Location	Fraction Result Unit	Analyte	PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
					N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
11/28/2017	CM_MC2	E258937			0.0045		1.54	7.47	7.79	< 0.010	< 0.010	13		833
12/6/2017	CM_MC2	E258937			0.0032		1.95	12.2	12.1	< 0.010	< 0.010	20.8		
12/12/2017	CM_MC2	E258937			0.0032		1.79	10.9	10.7	0.012	< 0.010	17.9		1057
12/19/2017	CM_MC2	E258937			0.0031		1.76	10.2	9.67	< 0.010	< 0.010	17.3		967
12/27/2017	CM_MC2	E258937			0.0024		1.92	11.8	11.4	< 0.010	0.011	18.3		1064
4/12/2017	CM_PC2	E298733												348.7
4/19/2017	CM_PC2	E298733			0.0207		0.56	13.6	13.3	< 0.010	< 0.010	6.1		377.3
4/26/2017	CM_PC2	E298733												313.4
5/2/2017	CM_PC2	E298733					0.48	5.95	5.54	< 0.010	< 0.010	2.9		337
5/9/2017	CM_PC2	E298733												328
5/16/2017	CM_PC2	E298733												284
5/23/2017	CM_PC2	E298733												297
5/30/2017	CM_PC2	E298733												268
6/6/2017	CM_PC2	E298733					0.481	0.667	0.611	< 0.010	< 0.010	0.559		243
6/14/2017	CM_PC2	E298733												204.3
6/21/2017	CM_PC2	E298733												214.5
6/28/2017	CM_PC2	E298733												27.3
7/5/2017	CM_PC2	E298733			0.0098		0.412	1.24	1.26	< 0.010	< 0.010	0.789		313
7/12/2017	CM_PC2	E298733												
7/19/2017	CM_PC2	E298733												
7/25/2017	CM_PC2	E298733												
8/1/2017	CM_PC2	E298733												
8/8/2017	CM_PC2	E298733												
8/15/2017	CM_PC2	E298733												
8/22/2017	CM_PC2	E298733												
8/29/2017	CM_PC2	E298733												
9/5/2017	CM_PC2	E298733												
9/12/2017	CM_PC2	E298733												
9/19/2017	CM_PC2	E298733												
9/26/2017	CM_PC2	E298733												
10/3/2017	CM_PC2	E298733												
10/10/2017	CM_PC2	E298733												
10/17/2017	CM_PC2	E298733												
10/24/2017	CM_PC2	E298733												
10/31/2017	CM_PC2	E298733												
11/7/2017	CM_PC2	E298733												
11/14/2017	CM_PC2	E298733												
11/21/2017	CM_PC2	E298733												
11/24/2017	CM_PC2	E298733			< 0.020		0.529	6.91	7.06	< 0.010	< 0.010	2.2		403
11/28/2017	CM_PC2	E298733												
12/6/2017	CM_PC2	E298733												
12/12/2017	CM_PC2	E298733												
12/19/2017	CM_PC2	E298733												
12/27/2017	CM_PC2	E298733												
1/17/2017	CM_SOW	E298734			0.0032		2.71	2.89	2.69	< 0.010	< 0.010	40.3		
2/1/2017	CM_SOW	E298734			0.0049		2.58	2.58	2.71	< 0.050	< 0.050	38.7		
3/1/2017	CM_SOW	E298734			0.0027		2.25	3.35	3.28	< 0.010	< 0.010	33.7		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
4/5/2017	CM_SOW	E298734	0.0037		2.89	5.48	5.16	< 0.010	< 0.010	20.3		1042
5/2/2017	CM_SOW	E298734	0.0712		3.78	5.71	5.29	< 0.010	< 0.010	48.4		1719
6/6/2017	CM_SOW	E298734	0.0042		3.49	3.41	3.33	< 0.010	< 0.010	48.8		1622
7/4/2017	CM_SOW	E298734	0.0198		6.98	2.12	2.2	< 0.010	< 0.010	49.8		1641
8/1/2017	CM_SOW	E298734	0.0107		4.18	1.67	1.63	< 0.010	< 0.010	54		1546
9/12/2017	CM_SOW	E298734	0.0034		3.93	1.17	1.06	< 0.010	< 0.010	52.7		
10/4/2017	CM_SOW	E298734	0.0055		3.28	2.07	1.94	< 0.010	< 0.010	44.2		
11/7/2017	CM_SOW	E298734	0.386		14.3	4.03	5.68	< 0.010	0.275	24.9		
12/5/2017	CM_SOW	E298734	1.18		20.1	4.47	7.36	< 0.010	0.631	8.58		
1/5/2017	CM_SPD	E102488			5.88	7.29	6.75	< 0.010	< 0.010	56.6		2206
1/17/2017	CM_SPD	E102488	0.0042		6.16	5.91	6.09	< 0.020	< 0.020	56.5		
1/24/2017	CM_SPD	E102488			5.72	6.98	5.73	< 0.010	< 0.010	52.7		2191
1/29/2017	CM_SPD	E102488										2224
1/30/2017	CM_SPD	E102488			5.63	5.9	5.18	< 0.010	< 0.010	53.5		2232
1/31/2017	CM_SPD	E102488			6.2	4.57	4.47	< 0.050	< 0.050	57.6		
2/1/2017	CM_SPD	E102488	0.0038		6.04	4.34	4.9	< 0.050	< 0.050	56.3		
2/7/2017	CM_SPD	E102488			5.8	6.57	5.51	< 0.010	< 0.010	54.7		2226
2/21/2017	CM_SPD	E102488			5.31	6.61	5.94	< 0.010	< 0.010	48.4		1876
3/1/2017	CM_SPD	E102488	0.0036		4.44	6.5	5.6	< 0.010	< 0.010	40		
3/7/2017	CM_SPD	E102488			6.57	5.22	5.54	< 0.010	< 0.010	58.3		2094
3/29/2017	CM_SPD	E102488										1694
3/29/2017	CM_SPD	E102488										
4/5/2017	CM_SPD	E102488	0.0058		5.06	5.34	4.75	< 0.010	< 0.010	32.9		1662
4/10/2017	CM_SPD	E102488										
4/12/2017	CM_SPD	E102488										1325
4/19/2017	CM_SPD	E102488										1295
4/26/2017	CM_SPD	E102488										1183
4/27/2017	CM_SPD	E102488										
4/28/2017	CM_SPD	E102488										
4/28/2017	CM_SPD	E102488										
5/2/2017	CM_SPD	E102488	0.0089		4.08	10.5	8.96	< 0.010	< 0.010	29.2		1404
5/5/2017	CM_SPD	E102488										
5/5/2017	CM_SPD	E102488										
5/6/2017	CM_SPD	E102488										
5/6/2017	CM_SPD	E102488										
5/6/2017	CM_SPD	E102488										
5/6/2017	CM_SPD	E102488										
5/7/2017	CM_SPD	E102488										
5/9/2017	CM_SPD	E102488										1345
5/16/2017	CM_SPD	E102488										1394
5/17/2017	CM_SPD	E102488										
5/17/2017	CM_SPD	E102488										
5/18/2017	CM_SPD	E102488										
5/23/2017	CM_SPD	E102488										1471
5/30/2017	CM_SPD	E102488										1578
6/6/2017	CM_SPD	E102488	< 0.0020		4.33	7.49	6.75	< 0.010	< 0.010	39.6		1651
6/14/2017	CM_SPD	E102488										1354

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
6/21/2017	CM_SPD	E102488										1399
6/28/2017	CM_SPD	E102488										1471
7/4/2017	CM_SPD	E102488	< 0.0020		4.99	6.64	6.64	< 0.010	< 0.010	48		1763
7/12/2017	CM_SPD	E102488										1583
7/19/2017	CM_SPD	E102488										1824
7/25/2017	CM_SPD	E102488										1880
8/1/2017	CM_SPD	E102488	0.0047		5.53	6.91	6.98	< 0.010	< 0.010	54.9		1848
8/8/2017	CM_SPD	E102488										1863
8/15/2017	CM_SPD	E102488										1887
8/22/2017	CM_SPD	E102488	0.0028		5.25	7.51	7.89	< 0.010	< 0.010	50.5		1877
8/29/2017	CM_SPD	E102488										1869
9/5/2017	CM_SPD	E102488										1882
9/12/2017	CM_SPD	E102488	0.007		5.43	8.45	8.62	< 0.010	< 0.010	50.7		
9/19/2017	CM_SPD	E102488				7.3	7.56					
10/3/2017	CM_SPD	E102488	< 0.0020		5.51	7.77	8.49	< 0.010	< 0.010	48.2		
10/19/2017	CM_SPD	E102488										
10/19/2017	CM_SPD	E102488										
10/20/2017	CM_SPD	E102488										
10/23/2017	CM_SPD	E102488										
11/7/2017	CM_SPD	E102488	0.0015		5.7	7.28	7.39	< 0.010	< 0.010	45		
11/22/2017	CM_SPD	E102488	0.0042		4.67	8.07	7.7	< 0.010	< 0.010	42.8		2026
12/6/2017	CM_SPD	E102488	0.0029		3.54	12.2	12	< 0.010	< 0.010	28.2		
1/10/2017	EV_AQ1	E210369										
2/8/2017	EV_AQ1	E210369										
3/7/2017	EV_AQ1	E210369										
3/15/2017	EV_AQ1	E210369	0.0725		3.8	3.13	3.16	< 0.010	< 0.010	7.98		
3/15/2017	EV_AQ1	E210369										
3/16/2017	EV_AQ1	E210369										
3/17/2017	EV_AQ1	E210369										
3/18/2017	EV_AQ1	E210369										
3/19/2017	EV_AQ1	E210369										
3/19/2017	EV_AQ1	E210369										
3/20/2017	EV_AQ1	E210369										
3/21/2017	EV_AQ1	E210369										
3/22/2017	EV_AQ1	E210369	0.0795		2.29	12.2	12.3	< 0.010	0.029	10		
3/23/2017	EV_AQ1	E210369										
3/24/2017	EV_AQ1	E210369										
3/28/2017	EV_AQ1	E210369										
4/4/2017	EV_AQ1	E210369	0.0235		1.75	9.92	10.5	< 0.010	0.016	10.3		
4/12/2017	EV_AQ1	E210369										
4/20/2017	EV_AQ1	E210369										
4/26/2017	EV_AQ1	E210369										
5/3/2017	EV_AQ1	E210369	0.0057		1.6	10	9.16	< 0.010	< 0.010	10.7		
5/10/2017	EV_AQ1	E210369										
5/17/2017	EV_AQ1	E210369										
5/24/2017	EV_AQ1	E210369										
5/31/2017	EV_AQ1	E210369										

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
6/5/2017	EV_AQ1	E210369	0.0112		1.72	9.14	8.51	< 0.010	< 0.010	8.74	632
6/14/2017	EV_AQ1	E210369									
6/21/2017	EV_AQ1	E210369									
6/28/2017	EV_AQ1	E210369									
7/5/2017	EV_AQ1	E210369									
7/11/2017	EV_AQ1	E210369									
8/2/2017	EV_AQ1	E210369									
9/12/2017	EV_AQ1	E210369									
10/3/2017	EV_AQ1	E210369									
11/15/2017	EV_AQ1	E210369									
12/6/2017	EV_AQ1	E210369									
1/10/2017	EV_AQ6	E302170	0.0081		1.52	6.32	6.26	< 0.010	< 0.010	5.52	
2/8/2017	EV_AQ6	E302170									
2/16/2017	EV_AQ6	E302170	0.0359		1.86	6.81	5.98	< 0.010	0.017	4.88	
2/23/2017	EV_AQ6	E302170									
3/8/2017	EV_AQ6	E302170	0.0085		1.51	7.96	7.17	< 0.010	< 0.010	6	
3/15/2017	EV_AQ6	E302170									
3/15/2017	EV_AQ6	E302170									
3/16/2017	EV_AQ6	E302170									
3/17/2017	EV_AQ6	E302170									
3/18/2017	EV_AQ6	E302170									
3/18/2017	EV_AQ6	E302170									
3/19/2017	EV_AQ6	E302170									
3/20/2017	EV_AQ6	E302170									
3/21/2017	EV_AQ6	E302170									
3/22/2017	EV_AQ6	E302170									
3/23/2017	EV_AQ6	E302170									
3/24/2017	EV_AQ6	E302170									
3/28/2017	EV_AQ6	E302170									
3/31/2017	EV_AQ6	E302170									
4/4/2017	EV_AQ6	E302170	0.0239		1.6	10.5	10.8	< 0.010	0.01	9.7	
4/12/2017	EV_AQ6	E302170									
4/20/2017	EV_AQ6	E302170									
4/26/2017	EV_AQ6	E302170									
5/2/2017	EV_AQ6	E302170									
5/3/2017	EV_AQ6	E302170	0.0074		1.47	10.4	9.74	< 0.010	< 0.010	9.24	
5/7/2017	EV_AQ6	E302170									
5/10/2017	EV_AQ6	E302170									
5/17/2017	EV_AQ6	E302170									
5/18/2017	EV_AQ6	E302170									
5/24/2017	EV_AQ6	E302170									
5/31/2017	EV_AQ6	E302170									
6/5/2017	EV_AQ6	E302170	0.0039		1.64	8.05	7.42	< 0.010	< 0.010	7.13	656
6/14/2017	EV_AQ6	E302170									
6/21/2017	EV_AQ6	E302170									
6/28/2017	EV_AQ6	E302170									
7/5/2017	EV_AQ6	E302170									

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
7/11/2017	EV_AQ6	E302170	0.0514		4.54	6.67	6.45	< 0.010	0.026	7.77	711
8/2/2017	EV_AQ6	E302170			1.58	7.22	6.33	< 0.010	< 0.010	4.56	563
8/2/2017	EV_AQ6	E302170	0.0104								
8/10/2017	EV_AQ6	E302170									547
9/12/2017	EV_AQ6	E302170	0.0092		1.67	5.96	5.44	< 0.010	< 0.010	3.52	527
10/3/2017	EV_AQ6	E302170	0.0043		1.57	6.05	5.7	< 0.010	< 0.010	3.35	522
11/15/2017	EV_AQ6	E302170	0.0099		1.55	7.27	6.02	< 0.010	< 0.010	4.11	649
11/23/2017	EV_AQ6	E302170									
11/23/2017	EV_AQ6	E302170									
11/24/2017	EV_AQ6	E302170									
12/6/2017	EV_AQ6	E302170	0.0042		1.53	11	9.37	< 0.010	< 0.010	6.55	794
1/10/2017	EV_BC1	E102685									
2/7/2017	EV_BC1	E102685									
3/7/2017	EV_BC1	E102685									
3/16/2017	EV_BC1	E102685									
3/17/2017	EV_BC1	E102685									
3/18/2017	EV_BC1	E102685									
3/18/2017	EV_BC1	E102685									
3/20/2017	EV_BC1	E102685	0.0206		5.24	136	140	< 0.010	< 0.010	8.33	
3/29/2017	EV_BC1	E102685	0.0198		4.65	210	215	< 0.010	< 0.010	9.29	
4/5/2017	EV_BC1	E102685	0.013		4.86	264	259	< 0.010	< 0.010	11.1	
4/7/2017	EV_BC1	E102685									
4/12/2017	EV_BC1	E102685									
4/20/2017	EV_BC1	E102685									
4/26/2017	EV_BC1	E102685									
5/2/2017	EV_BC1	E102685	0.0078		5.47	372	375	< 0.020	< 0.020	10.8	
5/10/2017	EV_BC1	E102685									
5/18/2017	EV_BC1	E102685									
5/24/2017	EV_BC1	E102685									
5/31/2017	EV_BC1	E102685									
6/2/2017	EV_BC1	E102685									
6/6/2017	EV_BC1	E102685	0.0029		6.62	141	125	< 0.010	< 0.010	8.25	1759
6/14/2017	EV_BC1	E102685									
6/21/2017	EV_BC1	E102685									
6/28/2017	EV_BC1	E102685									
7/5/2017	EV_BC1	E102685									
7/12/2017	EV_BC1	E102685	0.0066		8.86	93.5	89.5	< 0.010	< 0.010	11	1744
8/3/2017	EV_BC1	E102685			6.73	156	155	< 0.010	< 0.010	7.99	1863
8/3/2017	EV_BC1	E102685	0.015								
8/9/2017	EV_BC1	E102685									1772
9/12/2017	EV_BC1	E102685									
10/2/2017	EV_BC1	E102685									
10/4/2017	EV_BC1	E102685	0.0069		6.8	135	139	< 0.010	< 0.010	8.7	17.27
11/10/2017	EV_BC1	E102685									
11/15/2017	EV_BC1	E102685	0.0044		7.06	251	233	< 0.010	< 0.010	7.99	2184
11/23/2017	EV_BC1	E102685									
12/6/2017	EV_BC1	E102685	0.0013		6.91	91.1	80.2	< 0.010	< 0.010	8.03	1799

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
1/9/2017	EV_BLM2	E298592	0.0378		0.773	8.72	8.03	< 0.010	< 0.010	5.83	
2/23/2017	EV_BLM2	E298592	0.0449		0.915	7.88	7.12	< 0.010	< 0.010	6.39	
3/6/2017	EV_BLM2	E298592	0.0312		0.815	7.33	7.34	< 0.010	< 0.010	6.33	
3/15/2017	EV_BLM2	E298592									
3/22/2017	EV_BLM2	E298592									
3/28/2017	EV_BLM2	E298592									
4/3/2017	EV_BLM2	E298592	0.107		1.08	2.56	2.68	< 0.010	0.014	4.17	
4/11/2017	EV_BLM2	E298592									
4/19/2017	EV_BLM2	E298592									
4/20/2017	EV_BLM2	E298592									
4/21/2017	EV_BLM2	E298592									
4/22/2017	EV_BLM2	E298592									
4/23/2017	EV_BLM2	E298592									
4/25/2017	EV_BLM2	E298592									
5/2/2017	EV_BLM2	E298592	0.341		2.31	3.21	2.99	< 0.010	0.067	3.82	
5/9/2017	EV_BLM2	E298592									
5/16/2017	EV_BLM2	E298592									
5/23/2017	EV_BLM2	E298592									
5/24/2017	EV_BLM2	E298592									
5/30/2017	EV_BLM2	E298592									
6/5/2017	EV_BLM2	E298592	0.0877		1.03	7.83	7.97	< 0.010	0.02	2.48	320
6/13/2017	EV_BLM2	E298592									
6/20/2017	EV_BLM2	E298592									
6/27/2017	EV_BLM2	E298592									
7/4/2017	EV_BLM2	E298592									
7/10/2017	EV_BLM2	E298592	0.0452		0.792	9.39	8.23	< 0.010	< 0.010	3.56	377
8/1/2017	EV_BLM2	E298592	0.037		0.802	8.88	8.95	< 0.010	< 0.010	4.62	407
8/10/2017	EV_BLM2	E298592									402
8/15/2017	EV_BLM2	E298592									
9/11/2017	EV_BLM2	E298592	0.0382		0.816	9.24	8.32	< 0.010	< 0.010	5.89	426
10/2/2017	EV_BLM2	E298592	0.0496		0.888	7.63	6.41	< 0.010	< 0.010	5.27	395
11/14/2017	EV_BLM2	E298592	0.0344		0.82	5.97	5.61	< 0.050	< 0.050	6.11	440
12/1/2017	EV_BLM2	E298592	0.0359		0.771	5.83	5.29	< 0.010	< 0.010	5.99	406
1/9/2017	EV_DC1	E298590	0.0063		2.91	172	158	< 0.010	< 0.010	4.05	
2/21/2017	EV_DC1	E298590	0.0055		2.96	150	154	< 0.010	< 0.010	4.14	
3/6/2017	EV_DC1	E298590	0.0066		2.66	174	161	< 0.010	< 0.010	3.98	
3/15/2017	EV_DC1	E298590									
3/21/2017	EV_DC1	E298590									
3/28/2017	EV_DC1	E298590									
4/3/2017	EV_DC1	E298590	0.004		2.45	108	103	< 0.010	< 0.010	3.27	
4/11/2017	EV_DC1	E298590									
4/19/2017	EV_DC1	E298590									
4/25/2017	EV_DC1	E298590									
5/1/2017	EV_DC1	E298590	0.0032		1.91	102	104	< 0.010	< 0.010	2.47	
5/9/2017	EV_DC1	E298590									
5/16/2017	EV_DC1	E298590									
5/23/2017	EV_DC1	E298590									

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
5/30/2017	EV_DC1	E298590										
6/5/2017	EV_DC1	E298590	0.0053		2.46	157	147	< 0.010	< 0.010	3.05	1321	
6/13/2017	EV_DC1	E298590										
6/20/2017	EV_DC1	E298590										
6/27/2017	EV_DC1	E298590										
7/4/2017	EV_DC1	E298590										
7/10/2017	EV_DC1	E298590	0.0077		2.67	186	162	< 0.010	< 0.010	3.5	1558	
8/1/2017	EV_DC1	E298590	0.0044		2.98	189	183	< 0.010	< 0.010	4.16	1288	
9/11/2017	EV_DC1	E298590	0.0043		3.15	222	196	< 0.010	< 0.010	4.2	1821	
10/2/2017	EV_DC1	E298590										
10/4/2017	EV_DC1	E298590	0.0028		2.91	197	197	< 0.010	< 0.010	4.08	1854	
10/6/2017	EV_DC1	E298590										
11/14/2017	EV_DC1	E298590	0.0045		2.9	155	162	< 0.050	< 0.050	3.88	1948	
12/1/2017	EV_DC1	E298590	0.0058		2.7	181	160	< 0.010	< 0.010	3.82	1767	
1/18/2017	EV_EC1	200097	0.0087		2.46	134	140	< 0.010	< 0.010	3.26		
2/23/2017	EV_EC1	200097	0.015		2.54	155	148	< 0.010	< 0.010	3.34		
3/8/2017	EV_EC1	200097	0.0044		2.4	149	139	< 0.010	0.01	3.19		
3/16/2017	EV_EC1	200097										
3/19/2017	EV_EC1	200097										
3/29/2017	EV_EC1	200097										
4/4/2017	EV_EC1	200097	0.0071		2.28	147	147	< 0.010	< 0.010	3.16		
4/12/2017	EV_EC1	200097										
4/19/2017	EV_EC1	200097										
4/26/2017	EV_EC1	200097										
5/3/2017	EV_EC1	200097	0.0125		2.07	126	119	< 0.010	< 0.010	2.9		
5/10/2017	EV_EC1	200097										
5/17/2017	EV_EC1	200097										
5/24/2017	EV_EC1	200097										
5/31/2017	EV_EC1	200097										
6/7/2017	EV_EC1	200097									1595	
6/14/2017	EV_EC1	200097	0.0147		2.05	122	117	< 0.010	< 0.010	2.97	1543	
6/21/2017	EV_EC1	200097										
6/28/2017	EV_EC1	200097										
7/5/2017	EV_EC1	200097										
7/11/2017	EV_EC1	200097	0.0123		2.13	119	116	< 0.010	< 0.010	2.82	1541	
8/2/2017	EV_EC1	200097			2.14	132	118	< 0.010	< 0.010	2.79	1593	
8/2/2017	EV_EC1	200097	0.0151									
9/12/2017	EV_EC1	200097	0.0142		2.31	131	119	< 0.010	< 0.010	3.12	1619	
10/3/2017	EV_EC1	200097	0.0108		2.21	134	125	< 0.010	< 0.010	3.16	1624	
11/15/2017	EV_EC1	200097	0.0072		2.37	154	138	< 0.010	< 0.010	3.08	1733	
12/6/2017	EV_EC1	200097	0.0094		2.38	160	140	< 0.010	< 0.010	3.05	1740	
1/10/2017	EV_ER1	200393	0.0021		0.71	10.8	10.4	< 0.010	< 0.010	3.13		
2/7/2017	EV_ER1	200393	0.0033		0.744	12.6	12.7	< 0.010	< 0.010	3.52		
2/20/2017	EV_ER1	200393	0.0064		0.797	12.4	11.9	< 0.010	< 0.010	3.64		
3/7/2017	EV_ER1	200393	< 0.010		0.677	11.8	10.9	< 0.010	< 0.010	3.26		
3/16/2017	EV_ER1	200393	0.0232		0.87	10.7	10.4	< 0.010	< 0.010	3.24		
3/19/2017	EV_ER1	200393										

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
3/20/2017	EV_ER1	200393	0.0223		0.763	8.74	8.24	< 0.010	< 0.010	2.97	
3/29/2017	EV_ER1	200393	0.0052		0.727	10.7	10.7	< 0.010	< 0.010	2.96	
4/5/2017	EV_ER1	200393	0.0065		0.759	10.6	10.8	< 0.010	< 0.010	3.78	
4/12/2017	EV_ER1	200393	0.0082		0.784	10.8	10.1	< 0.010	< 0.010	3.34	
4/20/2017	EV_ER1	200393	0.0104		0.735	11.4	9.35	< 0.010	< 0.010	2.83	
4/26/2017	EV_ER1	200393	0.0139		0.789	9.46	9.41	< 0.010	< 0.010	3.04	
5/2/2017	EV_ER1	200393	0.0076		0.798	10.1	9.57	< 0.010	< 0.010	3.31	
5/10/2017	EV_ER1	200393	0.0356		0.844	5.59	5.65	< 0.010	0.013	2.12	
5/17/2017	EV_ER1	200393	0.0374		0.819	6.05	6.21	< 0.010	0.013	1.99	
5/24/2017	EV_ER1	200393	0.634		1.95	3.16	3.36	< 0.010	0.152	1.31	
5/30/2017	EV_ER1	200393	0.336		1.3	3.34	3.73	< 0.010	0.063	1.26	
6/6/2017	EV_ER1	200393	0.113		0.816	4.59	4.33	< 0.010	0.019	1.2	277
6/13/2017	EV_ER1	200393	0.051		0.715	5.27	5.3	< 0.010	< 0.010	1.42	305
6/21/2017	EV_ER1	200393	0.0307		0.587	5.29	5.25	< 0.010	< 0.010	1.37	309
6/28/2017	EV_ER1	200393	0.0204		0.641	5.29	5.78	< 0.010	< 0.010	1.53	331
7/5/2017	EV_ER1	200393	0.0062		0.592	6.76	6.38	< 0.010	< 0.010	1.68	361
7/12/2017	EV_ER1	200393	0.0084		0.611	7.62	6.93	< 0.010	< 0.010	1.7	386
8/3/2017	EV_ER1	200393			0.696	8.35	9.09	< 0.010	< 0.010	2.16	433
8/3/2017	EV_ER1	200393	0.0054								
9/12/2017	EV_ER1	200393	0.0022		0.686	9.93	9.39	< 0.010	< 0.010	2.54	463
10/3/2017	EV_ER1	200393	0.002		0.774	12.8	12.7	< 0.010	< 0.010	3.1	337
11/15/2017	EV_ER1	200393	0.0025		0.715	13	12.4	< 0.010	< 0.010	3.27	514
12/6/2017	EV_ER1	200393	0.0032		0.701	12.7	11.4	< 0.010	< 0.010	2.98	496
1/10/2017	EV_ER2	200111	0.0027		0.634	10.8	11.1	< 0.010	< 0.010	2.97	
2/7/2017	EV_ER2	200111	0.0045		0.657	11.6	11.6	< 0.010	< 0.010	3.19	
3/6/2017	EV_ER2	200111	< 0.0020		0.707	11	11.1	< 0.010	< 0.010	3.1	
3/16/2017	EV_ER2	200111	0.0227								
3/17/2017	EV_ER2	200111									
3/18/2017	EV_ER2	200111									
3/19/2017	EV_ER2	200111									
3/20/2017	EV_ER2	200111									
3/21/2017	EV_ER2	200111									
3/28/2017	EV_ER2	200111									
4/3/2017	EV_ER2	200111	0.0087		0.758	12	11.8	< 0.010	< 0.010	3.04	
4/11/2017	EV_ER2	200111									
4/20/2017	EV_ER2	200111									
4/25/2017	EV_ER2	200111									
5/4/2017	EV_ER2	200111	0.0137		0.814	14.9	13.1	< 0.010	< 0.010	2.59	
5/9/2017	EV_ER2	200111									
5/16/2017	EV_ER2	200111									
5/23/2017	EV_ER2	200111									
5/31/2017	EV_ER2	200111									
6/5/2017	EV_ER2	200111	0.116		0.995	6.65	6.72	< 0.010	0.024	1.25	339
6/13/2017	EV_ER2	200111									
6/20/2017	EV_ER2	200111									
6/27/2017	EV_ER2	200111									
7/4/2017	EV_ER2	200111									

Sample Date		Location	Fraction Result Unit	Analyte	PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
					N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
7/10/2017	EV_ER2	200111			0.0137		0.499	6.86	5.82	< 0.010	< 0.010	1.34	352	
8/1/2017	EV_ER2	200111			0.0041		0.572	7.46	7.39	< 0.010	< 0.010	1.91	400	
8/9/2017	EV_ER2	200111											409	
9/11/2017	EV_ER2	200111			0.0522		0.64	8.69	8.02	< 0.010	< 0.010	2.31	426	
10/2/2017	EV_ER2	200111			< 0.0020		0.634	10.6	9.53	< 0.010	< 0.010	2.57	469	
11/14/2017	EV_ER2	200111			0.0016		0.66	10.5	11.9	< 0.050	< 0.050	2.97	493	
12/7/2017	EV_ER2	200111			0.0049		0.618	12.8	12.1	< 0.010	< 0.010	2.96	491	
1/10/2017	EV_ER4	200027			< 0.0020		0.695	12.9	12.7	< 0.010	< 0.010	3.21		
2/21/2017	EV_ER4	200027			< 0.0020		0.683	11.8	13.2	< 0.010	< 0.010	3.24		
3/6/2017	EV_ER4	200027			< 0.0020		0.622	12.9	13	< 0.010	< 0.010	3.16		
3/15/2017	EV_ER4	200027			0.0023		0.715	12.1	12.1	< 0.010	< 0.010	3.32		
3/19/2017	EV_ER4	200027												
3/20/2017	EV_ER4	200027			0.0081		0.702	12.9	12.9	< 0.010	< 0.010	2.82		
3/28/2017	EV_ER4	200027			0.0072		0.739	16.1	15.3	< 0.010	< 0.010	2.94		
4/3/2017	EV_ER4	200027			0.0024		0.722	14.5	14.5	< 0.010	< 0.010	2.76		
4/11/2017	EV_ER4	200027			0.003		0.782	14.7	15	< 0.010	< 0.010	3.03		
4/19/2017	EV_ER4	200027			0.0039		0.74	17.8	16.7	< 0.010	< 0.010	2.72		
4/24/2017	EV_ER4	200027			0.0152		0.777	19.4	16.8	< 0.010	< 0.010	2.2		
5/1/2017	EV_ER4	200027			0.0045		0.749	14.4	16	< 0.010	< 0.010	2.59		
5/9/2017	EV_ER4	200027			0.0449		0.953	9.82	10.1	< 0.010	< 0.010	1.81		
5/16/2017	EV_ER4	200027			0.0281		0.799	8.76	8.99	< 0.010	< 0.010	1.61		
5/23/2017	EV_ER4	200027			0.0634		0.812	9.19	9.07	< 0.010	0.012	1.38		
5/30/2017	EV_ER4	200027			0.22		1.46	7.39	7.02	< 0.010	0.04	1.22		
6/6/2017	EV_ER4	200027			0.128		0.877	7.36	7.06	< 0.010	0.021	1.08	350	
6/13/2017	EV_ER4	200027			0.0666		0.802	7.71	7.51	< 0.010	0.012	1.25	352	
6/20/2017	EV_ER4	200027			0.0399		0.616	7.68	7.43	< 0.010	< 0.010	1.21	357	
6/21/2017	EV_ER4	200027												
6/27/2017	EV_ER4	200027			0.024		0.555	6.58	6.98	< 0.010	< 0.010	1.17	353	
7/4/2017	EV_ER4	200027			0.0135		0.548	6.53	6.63	< 0.010	< 0.010	1.24	352	
7/10/2017	EV_ER4	200027			0.0127		0.519	7.04	6.15	< 0.010	< 0.010	1.27	359	
7/25/2017	EV_ER4	200027			0.006		0.57	7.67	8.15	< 0.010	< 0.010	1.68	402	
8/1/2017	EV_ER4	200027			0.0037		0.595	8.13	8.16	< 0.010	< 0.010	1.87	403	
8/15/2017	EV_ER4	200027												
9/11/2017	EV_ER4	200027			0.0033		0.648	9.61	8.92	< 0.010	< 0.010	2.23	433	
10/2/2017	EV_ER4	200027			< 0.0020		0.677	12.9	11.3	< 0.010	< 0.010	2.68	468	
11/14/2017	EV_ER4	200027			0.0013		0.7	13.8	13.2	< 0.050	< 0.050	2.96	520	
12/7/2017	EV_ER4	200027			0.0016		0.614	14.6	13.6	< 0.010	< 0.010	3.04	514	
1/9/2017	EV_FC1	E298591												
2/19/2017	EV_FC1	E298591												
3/6/2017	EV_FC1	E298591												
3/16/2017	EV_FC1	E298591			0.478		2.23	3.56	3.61	< 0.010	0.028	4.25		
3/21/2017	EV_FC1	E298591												
3/28/2017	EV_FC1	E298591												
4/3/2017	EV_FC1	E298591			0.0871		2.01	2.86	2.83	< 0.010	0.025	4.63		
4/11/2017	EV_FC1	E298591												
4/19/2017	EV_FC1	E298591												
4/20/2017	EV_FC1	E298591												

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
4/21/2017	EV_FC1	E298591										
4/25/2017	EV_FC1	E298591										
5/2/2017	EV_FC1	E298591	0.0326		1.41	2.29	2.16	< 0.010	0.014	4.07		
5/9/2017	EV_FC1	E298591										
5/16/2017	EV_FC1	E298591										
5/23/2017	EV_FC1	E298591										
5/30/2017	EV_FC1	E298591										
6/5/2017	EV_FC1	E298591	0.0227		1.5	3.24	3.12	< 0.010	< 0.010	4.93	458	
6/13/2017	EV_FC1	E298591										
6/20/2017	EV_FC1	E298591										
6/27/2017	EV_FC1	E298591										
7/4/2017	EV_FC1	E298591										
7/10/2017	EV_FC1	E298591	0.0227		1.81	7.28	6.62	< 0.010	< 0.010	5.35	586	
8/1/2017	EV_FC1	E298591	0.0234		2.12	8.71	8.43	< 0.010	< 0.010	6.37	670	
8/15/2017	EV_FC1	E298591										
9/11/2017	EV_FC1	E298591	0.0222		2.2	7.76	6.75	< 0.010	< 0.010	7.09	699	
10/2/2017	EV_FC1	E298591	0.0578		2.44	12.6	10.4	< 0.010	< 0.010	6.65	677	
11/14/2017	EV_FC1	E298591	0.0183		1.87	6.97	6.82	< 0.050	< 0.050	5.19	641	
12/1/2017	EV_FC1	E298591	0.0182		1.42	5.23	4.55	< 0.010	< 0.010	5.53	584	
1/19/2017	EV_GC2	E208043	0.0149		1.88	44.7	42.2	< 0.010	< 0.010	12.1		
1/31/2017	EV_GC2	E208043	0.0169		1.69	41	39.5	< 0.010	< 0.010	9.64		
2/8/2017	EV_GC2	E208043	0.0203		1.79	39.7	37.8	< 0.010	< 0.010	10.4		
2/16/2017	EV_GC2	E208043										
2/16/2017	EV_GC2	E208043	0.0336		2.2	34.8	28.5	< 0.010	0.01	11		
2/17/2017	EV_GC2	E208043										
2/17/2017	EV_GC2	E208043										
3/6/2017	EV_GC2	E208043	0.0188		1.92	32.2	32.5	< 0.010	< 0.010	11.7		
3/15/2017	EV_GC2	E208043										
3/15/2017	EV_GC2	E208043										
3/16/2017	EV_GC2	E208043										
3/17/2017	EV_GC2	E208043										
3/18/2017	EV_GC2	E208043										
3/18/2017	EV_GC2	E208043										
3/19/2017	EV_GC2	E208043										
3/20/2017	EV_GC2	E208043										
3/28/2017	EV_GC2	E208043										
4/5/2017	EV_GC2	E208043	0.0238		1.73	15.2	15.8	< 0.010	< 0.010	10.2		
4/11/2017	EV_GC2	E208043										
4/20/2017	EV_GC2	E208043										
4/24/2017	EV_GC2	E208043										
5/2/2017	EV_GC2	E208043	0.0209		1.83	42.3	38.9	< 0.010	< 0.010	8.41		
5/3/2017	EV_GC2	E208043										
5/4/2017	EV_GC2	E208043	0.054		1.87	44.4	39.9	< 0.010	0.01	8.05		
5/7/2017	EV_GC2	E208043										
5/11/2017	EV_GC2	E208043										
5/18/2017	EV_GC2	E208043										
5/23/2017	EV_GC2	E208043										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
5/30/2017	EV_GC2	E208043										
5/30/2017	EV_GC2	E208043	0.0235		1.87	106	104	< 0.010	0.026	7.11		
6/6/2017	EV_GC2	E208043	0.0186		1.82	119	101	< 0.010	< 0.010	6.95	1097	
6/13/2017	EV_GC2	E208043										
6/20/2017	EV_GC2	E208043										
6/27/2017	EV_GC2	E208043										
7/4/2017	EV_GC2	E208043										
7/12/2017	EV_GC2	E208043	0.0104		2.29	84	78.1	< 0.010	< 0.010	8.79	1035	
7/24/2017	EV_GC2	E208043										
8/3/2017	EV_GC2	E208043			2.09	80.7	79.6	< 0.010	< 0.010	8.73	1076	
8/3/2017	EV_GC2	E208043	0.0082									
8/9/2017	EV_GC2	E208043									1087	
9/1/2017	EV_GC2	E208043										
9/11/2017	EV_GC2	E208043	0.0051		1.9	74.5	68.7	< 0.010	< 0.010	9.58	1030	
9/26/2017	EV_GC2	E208043										
9/27/2017	EV_GC2	E208043										
9/28/2017	EV_GC2	E208043										
10/3/2017	EV_GC2	E208043	0.0037		1.82	61.3	61.6	< 0.010	< 0.010	10.3	1017	
10/13/2017	EV_GC2	E208043	0.0034		1.77	63.1	56.5	< 0.010	< 0.010	9.99	1028	
10/16/2017	EV_GC2	E208043										
10/24/2017	EV_GC2	E208043									922	
10/30/2017	EV_GC2	E208043										
10/30/2017	EV_GC2	E208043	0.0072		2.14	45.3	50.4	< 0.010	0.025	10.4	998	
11/14/2017	EV_GC2	E208043	0.0134		2.05	43.7	43.2	< 0.050	< 0.050	10.3	1044	
11/23/2017	EV_GC2	E208043										
11/23/2017	EV_GC2	E208043										
11/24/2017	EV_GC2	E208043										
12/6/2017	EV_GC2	E208043	0.0166		1.87	53.3	47.8	< 0.010	< 0.010	10.5	1061	
1/1/2017	EV_GH1	E296310										
1/2/2017	EV_GH1	E296310										
1/9/2017	EV_GH1	E296310										
1/16/2017	EV_GH1	E296310										
1/23/2017	EV_GH1	E296310										
1/30/2017	EV_GH1	E296310										
2/6/2017	EV_GH1	E296310										
2/13/2017	EV_GH1	E296310										
2/20/2017	EV_GH1	E296310										
2/27/2017	EV_GH1	E296310										
3/6/2017	EV_GH1	E296310										
3/13/2017	EV_GH1	E296310										
3/20/2017	EV_GH1	E296310										
3/27/2017	EV_GH1	E296310										
4/1/2017	EV_GH1	E296310										
4/3/2017	EV_GH1	E296310										
4/9/2017	EV_GH1	E296310	1.07		1.95	13.6	14	< 0.010	0.148	3.25		
4/10/2017	EV_GH1	E296310										
4/17/2017	EV_GH1	E296310										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
4/24/2017	EV_GH1	E296310										
5/1/2017	EV_GH1	E296310										
5/8/2017	EV_GH1	E296310										
5/15/2017	EV_GH1	E296310										
5/22/2017	EV_GH1	E296310										
5/29/2017	EV_GH1	E296310										
6/5/2017	EV_GH1	E296310										
6/12/2017	EV_GH1	E296310										
6/19/2017	EV_GH1	E296310										
6/26/2017	EV_GH1	E296310										
7/1/2017	EV_GH1	E296310										
7/3/2017	EV_GH1	E296310										
7/10/2017	EV_GH1	E296310										
7/17/2017	EV_GH1	E296310										
7/24/2017	EV_GH1	E296310										
7/31/2017	EV_GH1	E296310										
8/7/2017	EV_GH1	E296310										
8/14/2017	EV_GH1	E296310										
8/21/2017	EV_GH1	E296310										
8/28/2017	EV_GH1	E296310										
9/4/2017	EV_GH1	E296310										
9/11/2017	EV_GH1	E296310										
9/18/2017	EV_GH1	E296310										
9/25/2017	EV_GH1	E296310										
10/1/2017	EV_GH1	E296310										
10/2/2017	EV_GH1	E296310										
10/3/2017	EV_GH1	E296310	13.1		49.1	19.9	110	< 0.010	7.94	5.4	331	
10/9/2017	EV_GH1	E296310										
10/16/2017	EV_GH1	E296310										
10/23/2017	EV_GH1	E296310										
10/30/2017	EV_GH1	E296310										
11/6/2017	EV_GH1	E296310										
11/13/2017	EV_GH1	E296310										
11/20/2017	EV_GH1	E296310										
11/27/2017	EV_GH1	E296310										
12/4/2017	EV_GH1	E296310										
12/11/2017	EV_GH1	E296310										
12/18/2017	EV_GH1	E296310										
12/25/2017	EV_GH1	E296310										
1/10/2017	EV_GT1	E206231	0.002		6.13	99.4	98.8	< 0.010	< 0.010	8.75		
1/31/2017	EV_GT1	E206231				82.5	81					
2/7/2017	EV_GT1	E206231	0.0038		6.18	92.4	90.2	< 0.010	< 0.010	8.59		
2/17/2017	EV_GT1	E206231										
3/7/2017	EV_GT1	E206231	0.0021		5.98	97.1	91.1	< 0.010	< 0.010	8.42		
3/16/2017	EV_GT1	E206231										
3/17/2017	EV_GT1	E206231										
3/18/2017	EV_GT1	E206231										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
3/18/2017	EV_GT1	E206231										
3/19/2017	EV_GT1	E206231										
3/19/2017	EV_GT1	E206231										
3/20/2017	EV_GT1	E206231										
3/29/2017	EV_GT1	E206231	0.0447		3.54	191	203	< 0.010	< 0.010	2.35		
4/5/2017	EV_GT1	E206231	0.0227		3.3	232	229	< 0.010	< 0.010	2.69		
4/12/2017	EV_GT1	E206231										
4/20/2017	EV_GT1	E206231										
4/26/2017	EV_GT1	E206231										
5/2/2017	EV_GT1	E206231	0.0083		3.19	203	186	< 0.010	< 0.010	2.53		
5/10/2017	EV_GT1	E206231										
5/17/2017	EV_GT1	E206231										
5/24/2017	EV_GT1	E206231										
5/31/2017	EV_GT1	E206231										
6/6/2017	EV_GT1	E206231	0.0049		6.22	152	137	< 0.010	< 0.010	7.94	1804	
6/14/2017	EV_GT1	E206231										
6/21/2017	EV_GT1	E206231										
6/28/2017	EV_GT1	E206231										
7/5/2017	EV_GT1	E206231										
7/12/2017	EV_GT1	E206231	0.0062		6.12	112	107	< 0.010	< 0.010	8.08	1757	
8/3/2017	EV_GT1	E206231			6.89	126	140	< 0.010	< 0.010	8.14	1866	
8/3/2017	EV_GT1	E206231	0.0154									
9/12/2017	EV_GT1	E206231	0.0044		6.84	127	116	< 0.010	< 0.010	8.05	1888	
10/2/2017	EV_GT1	E206231	0.0058		6.4	183	170	< 0.010	< 0.010	7.23	2085	
10/3/2017	EV_GT1	E206231										
10/4/2017	EV_GT1	E206231										
10/26/2017	EV_GT1	E206231										
10/27/2017	EV_GT1	E206231										
11/2/2017	EV_GT1	E206231										
11/3/2017	EV_GT1	E206231										
11/6/2017	EV_GT1	E206231										
11/7/2017	EV_GT1	E206231										
11/8/2017	EV_GT1	E206231										
11/9/2017	EV_GT1	E206231										
11/10/2017	EV_GT1	E206231										
11/15/2017	EV_GT1	E206231	0.0122		6.34	168	152	< 0.010	< 0.010	7.55	1978	
11/16/2017	EV_GT1	E206231										
11/23/2017	EV_GT1	E206231										
12/6/2017	EV_GT1	E206231	0.0039		6.73	89.4	79.9	< 0.010	< 0.010	7.75	1766	
1/9/2017	EV_HC1	E102682	0.0082		0.894	39.1	36.2	< 0.010	< 0.010	1.67		
2/21/2017	EV_HC1	E102682	0.0077		0.923	36.2	37.8	< 0.010	< 0.010	1.74		
3/6/2017	EV_HC1	E102682	0.0063		0.861	38.7	37.7	< 0.010	< 0.010	1.81		
3/15/2017	EV_HC1	E102682	0.0095		0.95	34.3	35.5	< 0.010	< 0.010	1.88		
3/21/2017	EV_HC1	E102682	0.0128		1.06	35.1	33.8	< 0.010	< 0.010	1.93		
3/24/2017	EV_HC1	E102682	0.0069		1.02	33	33.5	< 0.010	< 0.010	1.88		
3/28/2017	EV_HC1	E102682	0.0068		0.91	32.7	30.9	< 0.010	< 0.010	1.71		
4/3/2017	EV_HC1	E102682	0.0087		0.948	31.7	31.3	< 0.010	< 0.010	1.78		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
4/11/2017	EV_HC1	E102682	0.0067		1.01	30.8	30.6	< 0.010	< 0.010	1.86		
4/19/2017	EV_HC1	E102682	0.0076		1.01	35.8	34.6	< 0.010	< 0.010	1.7		
4/24/2017	EV_HC1	E102682	0.0159		0.999	34.7	29.9	< 0.010	< 0.010	1.47		
5/2/2017	EV_HC1	E102682	0.0087		1.11	38.1	36.8	< 0.010	< 0.010	1.95		
5/9/2017	EV_HC1	E102682	0.0199		0.896	21.5	21.8	< 0.010	< 0.010	1.27		
5/16/2017	EV_HC1	E102682	0.0159		0.952	27.5	27.7	< 0.010	< 0.010	1.26		
5/23/2017	EV_HC1	E102682	0.0397		0.979	21	22	< 0.010	0.014	1.07		
5/30/2017	EV_HC1	E102682	0.0257		0.758	17.3	17.4	< 0.010	< 0.010	0.899		
6/6/2017	EV_HC1	E102682	0.0127		0.672	23.4	19.6	< 0.010	< 0.010	0.919	432	
6/13/2017	EV_HC1	E102682	0.0072		0.64	23.9	23.2	< 0.010	< 0.010	0.981	480	
6/20/2017	EV_HC1	E102682	0.0071		0.728	27.1	27.9	< 0.010	< 0.010	1.13	508	
6/27/2017	EV_HC1	E102682	0.007		0.732	29	28.5	< 0.010	< 0.010	1.14	534	
7/4/2017	EV_HC1	E102682	0.0075		0.795	30.4	31.5	< 0.010	< 0.010	1.25	566	
7/10/2017	EV_HC1	E102682	0.0117		0.796	34.8	30.2	< 0.010	< 0.010	1.24	571	
7/25/2017	EV_HC1	E102682	0.0072		0.873	32.8	35.4	< 0.010	< 0.010	1.43	615	
8/1/2017	EV_HC1	E102682	0.0056		0.881	35.3	36.4	< 0.010	< 0.010	1.52	646	
8/10/2017	EV_HC1	E102682										
9/11/2017	EV_HC1	E102682	0.0046		0.937	40.6	37.7	< 0.010	< 0.010	1.52	707	
10/2/2017	EV_HC1	E102682	0.0098		0.874	41.3	36.5	< 0.010	< 0.010	1.5	470	
10/10/2017	EV_HC1	E102682	0.0058		0.829	42.7	39.6	< 0.010	0.015	1.57	708	
10/17/2017	EV_HC1	E102682	0.0043		0.885	39.8	39.6	< 0.010	< 0.010	1.7	705	
10/24/2017	EV_HC1	E102682	0.0073		0.926	36.8	39.1	< 0.010	< 0.010	1.73	729	
10/31/2017	EV_HC1	E102682									734	
10/31/2017	EV_HC1	E102682	0.0045		0.896	41	43.2	< 0.010	< 0.010	1.7		
11/14/2017	EV_HC1	E102682	0.007		0.88	39.1	38.8	< 0.050	< 0.050	1.57	761	
12/1/2017	EV_HC1	E102682	0.0071		0.882	45.4	41	< 0.010	< 0.010	1.82	741	
1/19/2017	EV_LC1	E258135	0.0133		3.83	4.41	3.74	< 0.010	< 0.010	10.3		
2/20/2017	EV_LC1	E258135	0.0137		4.82	4.57	4.45	< 0.010	< 0.010	9.8		
3/7/2017	EV_LC1	E258135	0.0189		4.58	5.07	4.27	< 0.010	< 0.010	10.2		
3/15/2017	EV_LC1	E258135										
3/16/2017	EV_LC1	E258135										
3/17/2017	EV_LC1	E258135										
3/20/2017	EV_LC1	E258135										
3/28/2017	EV_LC1	E258135	0.0098		4.05	14.4	12.4	< 0.010	< 0.010	8.44		
4/5/2017	EV_LC1	E258135	0.0079		4.07	8.44	7.57	< 0.010	< 0.010	8.91		
4/11/2017	EV_LC1	E258135										
4/19/2017	EV_LC1	E258135										
4/24/2017	EV_LC1	E258135										
5/2/2017	EV_LC1	E258135	0.0043		4.46	4.86	3.94	< 0.010	< 0.010	8.62		
5/7/2017	EV_LC1	E258135										
5/11/2017	EV_LC1	E258135										
5/18/2017	EV_LC1	E258135										
5/23/2017	EV_LC1	E258135										
5/30/2017	EV_LC1	E258135										
6/6/2017	EV_LC1	E258135	0.0059		5.24	27.9	24.7	< 0.010	< 0.010	8.68	1105	
6/13/2017	EV_LC1	E258135										
6/20/2017	EV_LC1	E258135										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
6/27/2017	EV_LC1	E258135										
7/4/2017	EV_LC1	E258135										
7/12/2017	EV_LC1	E258135	0.0106		4.67	17.3	15.7	< 0.010	< 0.010	8.59	585	
8/3/2017	EV_LC1	E258135			4.52	2.08	1.93	< 0.010	< 0.010	9.11	1106	
8/3/2017	EV_LC1	E258135	0.0057									
8/9/2017	EV_LC1	E258135									905	
9/11/2017	EV_LC1	E258135	0.0038		4.35	2.05	1.48	< 0.010	< 0.010	9.4	1099	
10/2/2017	EV_LC1	E258135	0.0043		4.06	2.35	2.23	< 0.010	< 0.010	9.05	1046	
11/14/2017	EV_LC1	E258135	0.004		4.06	4.51	3.77	< 0.050	< 0.050	9.03	977	
12/6/2017	EV_LC1	E258135	0.0026		4.1	7.14	5.83	< 0.010	< 0.010	9.18	984	
1/10/2017	EV_MC2	E300091	0.0065		1.12	16.7	15.8	< 0.010	< 0.010	4.65		
1/31/2017	EV_MC2	E300091										
2/7/2017	EV_MC2	E300091	0.016		1.17	19.7	19.2	< 0.010	< 0.010	4.88		
2/21/2017	EV_MC2	E300091	0.0056		1.19	16.1	16	< 0.010	< 0.010	5.89		
3/7/2017	EV_MC2	E300091	0.0031		1.23	21	19.3	< 0.010	< 0.010	5.36		
3/16/2017	EV_MC2	E300091	0.0213		1.14	14.8	14.4	< 0.010	< 0.010	5.07		
3/17/2017	EV_MC2	E300091										
3/18/2017	EV_MC2	E300091										
3/19/2017	EV_MC2	E300091										
3/20/2017	EV_MC2	E300091	0.0261		0.887	8.69	8.21	< 0.010	< 0.010	4.06		
3/22/2017	EV_MC2	E300091										
3/23/2017	EV_MC2	E300091										
3/24/2017	EV_MC2	E300091										
3/29/2017	EV_MC2	E300091	0.0079		1.02	11.7	12.4	< 0.010	< 0.010	5.17		
4/5/2017	EV_MC2	E300091	0.0076		0.93	11.4	11.6	< 0.010	< 0.010	5.62		
4/12/2017	EV_MC2	E300091	0.0139		0.887	9.85	9.13	< 0.010	< 0.010	4.55		
4/20/2017	EV_MC2	E300091	0.0141		0.843	8.88	7.82	< 0.010	< 0.010	4.02		
4/24/2017	EV_MC2	E300091	0.033		0.784	7.16	6.44	< 0.010	< 0.010	3.42		
5/2/2017	EV_MC2	E300091	0.0127		0.885	7.9	7.47	< 0.010	< 0.010	4.59		
5/9/2017	EV_MC2	E300091	0.0506		0.936	4.35	4.62	< 0.010	0.02	2.65		
5/16/2017	EV_MC2	E300091	0.0259		0.799	7.06	7	< 0.010	< 0.010	2.59		
5/23/2017	EV_MC2	E300091	0.202		1.08	2.6	2.97	< 0.010	0.041	1.58		
5/30/2017	EV_MC2	E300091	0.215		1.04	2.82	3.01	< 0.010	0.045	1.45		
6/6/2017	EV_MC2	E300091	0.0604		0.732	4.3	4.02	< 0.010	0.012	1.62	266	
6/14/2017	EV_MC2	E300091	0.0437		0.779	4.25	4.92	< 0.010	0.014	2.31	267	
6/21/2017	EV_MC2	E300091	0.0169		0.667	5.64	5.99	< 0.010	< 0.010	2.34	322	
6/28/2017	EV_MC2	E300091	0.0065		0.812	7.68	7.82	< 0.010	< 0.010	2.93	373	
7/5/2017	EV_MC2	E300091	0.0021		0.838	9.6	10.1	< 0.010	< 0.010	3.27	445	
7/12/2017	EV_MC2	E300091	0.0062		1.02	12.8	11.6	< 0.010	< 0.010	3.43	513	
7/25/2017	EV_MC2	E300091	0.0032		1.08	11.9	12.9	< 0.010	< 0.010	4.03	550	
8/3/2017	EV_MC2	E300091			1.18	16.7	17.6	< 0.010	< 0.010	4.4	435	
8/3/2017	EV_MC2	E300091	0.0058									
9/12/2017	EV_MC2	E300091	0.0029		1.41	25.2	23.3	< 0.010	< 0.010	5.33	785	
10/2/2017	EV_MC2	E300091	0.0029		1.08	19	17.5	< 0.010	< 0.010	4.81	644	
10/10/2017	EV_MC2	E300091	< 0.0020		0.897	16.8	14.9	< 0.010	< 0.010	4.09	646	
10/16/2017	EV_MC2	E300091										
10/17/2017	EV_MC2	E300091	0.0029		1.34	27.5	27	< 0.010	< 0.010	7.27	731	

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
10/24/2017	EV_MC2	E300091	0.0049		0.907	14.2	13.5	< 0.010	< 0.010	4.37	591
10/31/2017	EV_MC2	E300091									596
10/31/2017	EV_MC2	E300091	< 0.0020		0.903	14.5	15	< 0.010	< 0.010	4.34	
11/15/2017	EV_MC2	E300091	0.0025		1.21	25.7	24	< 0.010	< 0.010	5.75	828
12/6/2017	EV_MC2	E300091	0.0062		0.984	17.1	16.2	< 0.010	< 0.010	4.57	571
1/10/2017	EV_MC2A	E310168	0.0066		0.729	9.94	9.75	< 0.010	< 0.010	3.5	
1/31/2017	EV_MC2A	E310168									
2/7/2017	EV_MC2A	E310168	0.0064		0.768	12.1	11.5	< 0.010	< 0.010	3.72	
3/7/2017	EV_MC2A	E310168	0.0045		0.741	11.8	10.8	< 0.010	< 0.010	3.61	
3/16/2017	EV_MC2A	E310168									
3/17/2017	EV_MC2A	E310168									
3/18/2017	EV_MC2A	E310168									
3/19/2017	EV_MC2A	E310168									
3/20/2017	EV_MC2A	E310168									
3/29/2017	EV_MC2A	E310168	0.0069		0.821	7.18	7.24	< 0.010	< 0.010	3.7	
4/5/2017	EV_MC2A	E310168	0.0102		0.815	7.58	7.84	< 0.010	< 0.010	4.49	
5/2/2017	EV_MC2A	E310168	0.0132		0.762	4.91	4.68	< 0.010	< 0.010	3.7	
6/6/2017	EV_MC2A	E310168	0.069		0.699	2.51	2.16	< 0.010	0.015	1.2	218
7/12/2017	EV_MC2A	E310168	0.0059		0.649	6.29	5.95	< 0.010	< 0.010	2.41	392
8/3/2017	EV_MC2A	E310168			0.877	9.16	9.35	< 0.010	< 0.010	3.07	478
8/3/2017	EV_MC2A	E310168	0.0053								
9/12/2017	EV_MC2A	E310168	0.0032		0.893	13.4	12.7	< 0.010	< 0.010	3.34	539
10/2/2017	EV_MC2A	E310168	0.003		0.812	12.6	10.9	< 0.010	< 0.010	3.09	565
11/15/2017	EV_MC2A	E310168									513
11/15/2017	EV_MC2A	E310168	0.0014		0.727	11.5	10.6	< 0.010	< 0.010	3.19	
12/6/2017	EV_MC2A	E310168	0.0063		0.655	8.22	7.82	< 0.010	< 0.010	2.85	418
1/20/2017	EV_MC3	200203	0.0118		0.592	2.05	1.75	< 0.010	< 0.010	3.55	
2/7/2017	EV_MC3	200203	0.0085		0.617	1.93	1.9	< 0.010	< 0.010	3.54	
3/7/2017	EV_MC3	200203	0.0051		0.6	1.75	1.67	< 0.010	< 0.010	3.54	
3/16/2017	EV_MC3	200203	0.141		0.992	1.85	1.62	< 0.010	0.031	3.16	
3/19/2017	EV_MC3	200203									
3/20/2017	EV_MC3	200203	0.0605		0.754	1.53	1.48	< 0.010	0.017	2.89	
3/29/2017	EV_MC3	200203	0.0075		0.725	1.63	1.74	< 0.010	< 0.010	3.78	
4/4/2017	EV_MC3	200203	0.0255		0.86	1.78	1.71	< 0.010	0.014	4.38	
4/12/2017	EV_MC3	200203	0.016		0.715	1.41	1.35	< 0.010	< 0.010	3.85	
4/20/2017	EV_MC3	200203	0.0182		0.701	1.51	1.26	< 0.010	< 0.010	3.32	
4/26/2017	EV_MC3	200203	0.0228		0.765	1.21	1.35	< 0.010	0.013	3.28	
5/3/2017	EV_MC3	200203	0.0142		0.666	1.13	1.14	< 0.010	< 0.010	3.32	
5/10/2017	EV_MC3	200203	0.0427		0.804	1.3	1.44	< 0.010	0.017	2.03	
5/17/2017	EV_MC3	200203	0.0565		0.853	1.77	1.72	< 0.010	0.026	2.17	
5/24/2017	EV_MC3	200203	0.726		1.9	0.9	1.28	< 0.010	0.199	1.2	
5/30/2017	EV_MC3	200203	0.202		0.854	0.944	1.22	< 0.010	0.043	1.19	
6/6/2017	EV_MC3	200203	0.0763		0.686	1.11	1.06	< 0.010	0.021	1.14	180
6/13/2017	EV_MC3	200203	0.0266		0.5	1.19	1.11	< 0.010	< 0.010	1.38	202
6/21/2017	EV_MC3	200203	0.0242		0.475	1.02	1.09	< 0.010	< 0.010	1.37	202
6/28/2017	EV_MC3	200203	0.0116		0.651	1.12	1.16	< 0.010	< 0.010	1.86	235
7/5/2017	EV_MC3	200203	0.0036		0.531	1.21	1.38	< 0.010	< 0.010	1.99	285

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
7/11/2017	EV_MC3	200203	0.0163		0.626	1.51	1.35	< 0.010	< 0.010	2.52	315	
8/2/2017	EV_MC3	200203			0.659	1.36	1.37	< 0.010	< 0.010	2.89	368	
8/2/2017	EV_MC3	200203	0.0074									
9/12/2017	EV_MC3	200203	0.0102		0.649	1.23	1.15	< 0.010	< 0.010	3.11	392	
10/2/2017	EV_MC3	200203	0.0047		0.634	1.48	1.28	< 0.010	< 0.010	2.98	389	
11/15/2017	EV_MC3	200203	0.0028		0.586	1.63	1.45	< 0.010	< 0.010	3.14	395	
12/6/2017	EV_MC3	200203	0.0073		0.538	1.69	1.72	< 0.010	< 0.010	2.75	345	
1/18/2017	EV_MG1	E208057	0.0168		2.38	72.2	69.6	< 0.010	< 0.010	2.02		
2/23/2017	EV_MG1	E208057	0.031		2.21	76.7	70.4	< 0.010	< 0.010	1.78		
3/8/2017	EV_MG1	E208057	0.0233		1.83	61.3	55.6	< 0.010	< 0.010	1.68		
3/16/2017	EV_MG1	E208057										
3/19/2017	EV_MG1	E208057										
3/29/2017	EV_MG1	E208057										
4/4/2017	EV_MG1	E208057	0.0385		1.78	62.6	63.2	< 0.010	< 0.010	1.61		
4/12/2017	EV_MG1	E208057										
4/19/2017	EV_MG1	E208057										
4/26/2017	EV_MG1	E208057										
5/2/2017	EV_MG1	E208057										
5/3/2017	EV_MG1	E208057	0.031		1.7	94	91.6	< 0.010	< 0.010	1.44		
5/10/2017	EV_MG1	E208057										
5/17/2017	EV_MG1	E208057										
5/24/2017	EV_MG1	E208057										
5/31/2017	EV_MG1	E208057										
6/7/2017	EV_MG1	E208057									896	
6/14/2017	EV_MG1	E208057	0.022		1.85	69.9	72.1	< 0.010	< 0.010	1.25	905	
6/21/2017	EV_MG1	E208057										
6/28/2017	EV_MG1	E208057										
7/5/2017	EV_MG1	E208057										
7/11/2017	EV_MG1	E208057	0.0563		2.38	54.8	53.9	< 0.010	< 0.010	1.39	1088	
8/2/2017	EV_MG1	E208057			1.84	53.7	49.9	< 0.010	< 0.010	1.57	1218	
8/2/2017	EV_MG1	E208057	0.0239									
8/10/2017	EV_MG1	E208057									1213	
9/12/2017	EV_MG1	E208057	0.0116		1.28	61.4	52.7	< 0.010	< 0.010	1.82	1303	
10/3/2017	EV_MG1	E208057	< 0.0020		1.46	58.9	56.8	< 0.010	< 0.010	1.64	1245	
10/17/2017	EV_MG1	E208057										
10/18/2017	EV_MG1	E208057										
11/15/2017	EV_MG1	E208057	0.0045		2.45	85.7	77.7	< 0.010	< 0.010	1.82	1526	
11/23/2017	EV_MG1	E208057										
12/6/2017	EV_MG1	E208057	0.0182		2	110	101	< 0.010	< 0.010	1.59	1278	
1/10/2017	EV_OC1	E102679	0.0023		3.4	0.248	0.234	< 0.010	< 0.010	13.1		
2/8/2017	EV_OC1	E102679	0.0071		3.2	0.291	0.278	< 0.010	< 0.010	16.4		
2/20/2017	EV_OC1	E102679	0.0465		3.26	1.75	1.81	< 0.010	0.016	18.9		
2/21/2017	EV_OC1	E102679										
3/6/2017	EV_OC1	E102679	0.0099		2.5	1.16	1.18	< 0.010	< 0.010	21.1		
3/14/2017	EV_OC1	E102679										
3/15/2017	EV_OC1	E102679										
3/15/2017	EV_OC1	E102679										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
3/16/2017	EV_OC1	E102679										
3/17/2017	EV_OC1	E102679	0.137		2.48	3.46	3.48	< 0.010	0.058	12.6		
3/18/2017	EV_OC1	E102679										
3/19/2017	EV_OC1	E102679										
3/20/2017	EV_OC1	E102679										
3/21/2017	EV_OC1	E102679										
3/22/2017	EV_OC1	E102679										
3/28/2017	EV_OC1	E102679										
4/3/2017	EV_OC1	E102679	0.015		2.38	2.48	2.28	< 0.010	< 0.010	16.2		
4/11/2017	EV_OC1	E102679										
4/20/2017	EV_OC1	E102679										
4/25/2017	EV_OC1	E102679										
5/4/2017	EV_OC1	E102679	0.019		2.43	3.02	2.84	< 0.010	< 0.010	16.9		
5/7/2017	EV_OC1	E102679										
5/9/2017	EV_OC1	E102679										
5/16/2017	EV_OC1	E102679										
5/23/2017	EV_OC1	E102679										
5/31/2017	EV_OC1	E102679										
6/5/2017	EV_OC1	E102679	0.0086		2.27	2.22	2.05	< 0.010	< 0.010	15.3	709	
6/13/2017	EV_OC1	E102679										
6/20/2017	EV_OC1	E102679										
6/27/2017	EV_OC1	E102679										
7/4/2017	EV_OC1	E102679										
7/10/2017	EV_OC1	E102679	0.0167		1.84	1.01	0.899	< 0.010	< 0.010	11.2	638	
8/1/2017	EV_OC1	E102679	0.0115		1.94	0.792	0.794	< 0.010	< 0.010	10.6	616	
9/11/2017	EV_OC1	E102679	0.0104		2.57	0.587	0.522	< 0.010	< 0.010	9.79	399	
10/2/2017	EV_OC1	E102679	0.0084		2.81	0.674	0.639	< 0.010	< 0.010	7.56	641	
11/14/2017	EV_OC1	E102679	0.0048		3.42	0.63	0.72	< 0.050	< 0.050	12	685	
12/7/2017	EV_OC1	E102679	0.0054		2.84	1.78	1.93	< 0.010	< 0.010	18.6	790	
1/9/2017	EV_SM1	E102681	0.0147		1.54	2.94	2.85	< 0.010	< 0.010	12		
2/23/2017	EV_SM1	E102681	0.0329		1.71	2.4	2.08	< 0.010	< 0.010	13		
3/6/2017	EV_SM1	E102681	0.0091		1.55	2.26	2.21	< 0.010	< 0.010	13.6		
3/15/2017	EV_SM1	E102681										
3/19/2017	EV_SM1	E102681										
3/20/2017	EV_SM1	E102681										
3/21/2017	EV_SM1	E102681										
3/22/2017	EV_SM1	E102681										
3/23/2017	EV_SM1	E102681										
3/28/2017	EV_SM1	E102681										
3/29/2017	EV_SM1	E102681										
4/3/2017	EV_SM1	E102681	0.0291		1.78	1.88	1.95	< 0.010	< 0.010	10.3		
4/11/2017	EV_SM1	E102681										
4/19/2017	EV_SM1	E102681										
4/25/2017	EV_SM1	E102681										
5/2/2017	EV_SM1	E102681	0.0334		2.31	2.06	1.91	< 0.010	0.019	10.7		
5/7/2017	EV_SM1	E102681										
5/8/2017	EV_SM1	E102681										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
5/9/2017	EV_SM1	E102681										
5/10/2017	EV_SM1	E102681										
5/11/2017	EV_SM1	E102681										
5/12/2017	EV_SM1	E102681										
5/13/2017	EV_SM1	E102681										
5/14/2017	EV_SM1	E102681										
5/15/2017	EV_SM1	E102681										
5/16/2017	EV_SM1	E102681										
5/17/2017	EV_SM1	E102681										
5/18/2017	EV_SM1	E102681										
5/19/2017	EV_SM1	E102681										
5/20/2017	EV_SM1	E102681										
5/23/2017	EV_SM1	E102681										
5/24/2017	EV_SM1	E102681										
5/25/2017	EV_SM1	E102681										
5/26/2017	EV_SM1	E102681										
5/27/2017	EV_SM1	E102681										
5/28/2017	EV_SM1	E102681										
5/29/2017	EV_SM1	E102681										
5/30/2017	EV_SM1	E102681										
6/5/2017	EV_SM1	E102681	0.0442		1.53	3.33	3.56	< 0.010	0.02	6.81	440	
6/13/2017	EV_SM1	E102681										
6/20/2017	EV_SM1	E102681										
6/27/2017	EV_SM1	E102681										
7/4/2017	EV_SM1	E102681										
7/10/2017	EV_SM1	E102681	0.0094		1.52	2.87	2.45	< 0.010	< 0.010	10.5	497	
8/1/2017	EV_SM1	E102681	0.01		1.66	2.38	2.43	< 0.010	< 0.010	12.5	510	
9/11/2017	EV_SM1	E102681	0.0083		1.75	2.22	2.06	< 0.010	< 0.010	13.4	447	
10/2/2017	EV_SM1	E102681	0.0053		1.67	2.15	1.76	< 0.010	< 0.010	13.7	512	
10/4/2017	EV_SM1	E102681										
10/6/2017	EV_SM1	E102681										
10/10/2017	EV_SM1	E102681										
11/14/2017	EV_SM1	E102681	0.0068		1.81	1.81	1.85	< 0.050	< 0.050	14.7	574	
11/23/2017	EV_SM1	E102681										
12/1/2017	EV_SM1	E102681	0.0117		1.59	2.21	1.95	< 0.010	< 0.010	13.6	299	
1/18/2017	EV_SP1	E296311	< 0.0020		4.71	161	155	< 0.010	< 0.010	1.32		
2/23/2017	EV_SP1	E296311	0.0055		4.36	165	155	< 0.010	< 0.010	1.24		
3/8/2017	EV_SP1	E296311	0.013		4.56	178	163	< 0.010	< 0.010	1.6		
3/16/2017	EV_SP1	E296311										
3/19/2017	EV_SP1	E296311										
3/29/2017	EV_SP1	E296311										
4/4/2017	EV_SP1	E296311	0.0067		3.94	206	207	< 0.010	< 0.010	1.24		
4/12/2017	EV_SP1	E296311										
4/19/2017	EV_SP1	E296311										
4/26/2017	EV_SP1	E296311										
5/3/2017	EV_SP1	E296311	0.0066		3.74	206	190	< 0.010	< 0.010	1.26		
5/10/2017	EV_SP1	E296311										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
5/17/2017	EV_SP1	E296311										
5/24/2017	EV_SP1	E296311										
5/31/2017	EV_SP1	E296311										
6/7/2017	EV_SP1	E296311									1592	
6/14/2017	EV_SP1	E296311	0.0038		4.22	187	167	< 0.010	< 0.010	1.25	1568	
6/21/2017	EV_SP1	E296311										
6/28/2017	EV_SP1	E296311										
7/5/2017	EV_SP1	E296311										
7/11/2017	EV_SP1	E296311	0.005		4.57	189	181	< 0.010	< 0.010	1.32	1681	
8/2/2017	EV_SP1	E296311			5.09	237	212	< 0.010	< 0.010	1.46	1822	
8/2/2017	EV_SP1	E296311	< 0.0040									
9/12/2017	EV_SP1	E296311	0.0029		5.84	254	229	< 0.010	< 0.010	1.69	1935	
10/3/2017	EV_SP1	E296311	0.0037		5.75	257	248	< 0.010	0.026	1.73	1892	
10/3/2017	EV_SP1	E296311										
10/17/2017	EV_SP1	E296311	0.0022		5.11	267	258	< 0.010	< 0.010	1.6	1972	
11/15/2017	EV_SP1	E296311	< 0.0010		5.45	273	247	< 0.010	< 0.010	1.61	2037	
12/6/2017	EV_SP1	E296311	0.0015		5.19	250	233	< 0.010	< 0.010	1.47	1130	
1/10/2017	EV_SPR2	E298594	0.0116		1.85	9.75	9.71	< 0.010	< 0.010	10.5		
2/8/2017	EV_SPR2	E298594	0.0094		1.76	11.6	10.7	< 0.010	< 0.010	9.95		
2/23/2017	EV_SPR2	E298594	0.0124		1.93	12	10.3	< 0.010	< 0.010	11.6		
3/7/2017	EV_SPR2	E298594	0.0059		1.7	11.1	9.55	< 0.010	< 0.010	11		
3/15/2017	EV_SPR2	E298594										
3/22/2017	EV_SPR2	E298594										
3/28/2017	EV_SPR2	E298594	0.0172		2.05	10.5	9.84	< 0.010	< 0.010	11.7		
4/4/2017	EV_SPR2	E298594	0.0111		2.05	9.62	9.75	< 0.010	< 0.010	12.7		
5/3/2017	EV_SPR2	E298594	0.01		1.83	8.97	7.76	< 0.010	< 0.010	13.2		
6/5/2017	EV_SPR2	E298594	0.0169		1.9	5.47	5.09	< 0.010	< 0.010	12.1	739	
7/11/2017	EV_SPR2	E298594	0.0174		1.87	4.99	4.7	< 0.010	< 0.010	10.5	712	
8/2/2017	EV_SPR2	E298594			1.98	7.48	6.84	< 0.010	< 0.010	10.2	754	
8/2/2017	EV_SPR2	E298594	0.0204									
9/12/2017	EV_SPR2	E298594	0.0116		2.11	10.8	9.96	< 0.010	< 0.010	10.4	770	
10/3/2017	EV_SPR2	E298594	0.0106		2.19	11.2	11.4	< 0.010	< 0.010	10.9	783	
11/15/2017	EV_SPR2	E298594	0.0103		1.92	10.7	9.4	< 0.010	< 0.010	9.93	795	
12/6/2017	EV_SPR2	E298594	0.011		1.85	10.5	9.19	< 0.010	< 0.010	9.41	784	
1/18/2017	EV_TC1	E298593										
2/23/2017	EV_TC1	E298593										
3/8/2017	EV_TC1	E298593										
3/16/2017	EV_TC1	E298593	0.032		0.848	5.47	5.66	< 0.010	0.01	0.87		
3/19/2017	EV_TC1	E298593										
3/29/2017	EV_TC1	E298593										
4/4/2017	EV_TC1	E298593	0.0208		0.813	11.2	11.4	< 0.010	< 0.010	0.92		
4/12/2017	EV_TC1	E298593										
4/19/2017	EV_TC1	E298593										
4/26/2017	EV_TC1	E298593										
5/3/2017	EV_TC1	E298593	0.0143		0.706	10.3	9.94	< 0.010	< 0.010	0.743		
5/10/2017	EV_TC1	E298593										
5/17/2017	EV_TC1	E298593										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
5/24/2017	EV_TC1	E298593										
5/31/2017	EV_TC1	E298593										
6/7/2017	EV_TC1	E298593									417	
6/14/2017	EV_TC1	E298593	0.0109		0.879	6.89	7.07	< 0.010	< 0.010	0.817	433	
6/21/2017	EV_TC1	E298593										
6/28/2017	EV_TC1	E298593										
7/5/2017	EV_TC1	E298593										
7/11/2017	EV_TC1	E298593										
8/2/2017	EV_TC1	E298593										
9/12/2017	EV_TC1	E298593										
10/3/2017	EV_TC1	E298593										
11/15/2017	EV_TC1	E298593										
12/6/2017	EV_TC1	E298593										
1/31/2017	FR_3PIT	E217403										
2/28/2017	FR_3PIT	E217403										
3/7/2017	FR_3PIT	E217403										
3/16/2017	FR_3PIT	E217403										
3/23/2017	FR_3PIT	E217403										
3/31/2017	FR_3PIT	E217403										
4/3/2017	FR_3PIT	E217403										
4/10/2017	FR_3PIT	E217403										
4/18/2017	FR_3PIT	E217403										
4/24/2017	FR_3PIT	E217403										
5/1/2017	FR_3PIT	E217403										
5/8/2017	FR_3PIT	E217403										
5/15/2017	FR_3PIT	E217403										
5/23/2017	FR_3PIT	E217403										
5/29/2017	FR_3PIT	E217403										
6/6/2017	FR_3PIT	E217403										
6/16/2017	FR_3PIT	E217403										
6/22/2017	FR_3PIT	E217403										
6/29/2017	FR_3PIT	E217403										
7/3/2017	FR_3PIT	E217403										
7/10/2017	FR_3PIT	E217403										
8/7/2017	FR_3PIT	E217403										
9/4/2017	FR_3PIT	E217403										
10/2/2017	FR_3PIT	E217403										
11/6/2017	FR_3PIT	E217403										
12/4/2017	FR_3PIT	E217403										
1/23/2017	FR_CC1	E102481	0.0032		4.75	157	152	< 0.010	< 0.010	5.33		
2/2/2017	FR_CC1	E102481	0.0051		4.04	165	136	< 0.010	< 0.010	4.52		
3/9/2017	FR_CC1	E102481	0.0105		4.22	155	156	< 0.010	< 0.010	4.78		
3/14/2017	FR_CC1	E102481	0.024		4.49	143	145	< 0.010	< 0.010	4.94		
3/23/2017	FR_CC1	E102481										
3/28/2017	FR_CC1	E102481										
4/3/2017	FR_CC1	E102481	< 0.0020		5.25	171	169	< 0.010	< 0.010	5.67		
4/11/2017	FR_CC1	E102481										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
4/20/2017	FR_CC1	E102481										
4/26/2017	FR_CC1	E102481										
5/1/2017	FR_CC1	E102481	0.0211		5.43	237	202	< 0.010	< 0.010	5.35		
5/3/2017	FR_CC1	E102481										
5/6/2017	FR_CC1	E102481										
5/10/2017	FR_CC1	E102481										
5/15/2017	FR_CC1	E102481										
5/23/2017	FR_CC1	E102481										
5/29/2017	FR_CC1	E102481										
6/5/2017	FR_CC1	E102481	0.0023		4.46	160	154	< 0.010	< 0.010	3.75		
6/15/2017	FR_CC1	E102481										
6/20/2017	FR_CC1	E102481										
6/27/2017	FR_CC1	E102481										
7/3/2017	FR_CC1	E102481	< 0.010		4.66	168	158	< 0.010	< 0.010	3.75		
7/10/2017	FR_CC1	E102481										
8/8/2017	FR_CC1	E102481	< 0.0020		4.58	167	167	< 0.010	< 0.010	3.82		
9/5/2017	FR_CC1	E102481	0.0062		3.53	124	125	< 0.010	< 0.010	2.94		
10/11/2017	FR_CC1	E102481	0.0044		2.68	111	110	< 0.010	< 0.010	2.26		
11/20/2017	FR_CC1	E102481	0.0011		3.83	156	153	< 0.010	< 0.010	3.2		
12/6/2017	FR_CC1	E102481	0.0014		3.43	152	140	< 0.010	< 0.010	3.03		
1/30/2017	FR_EC1	E102480										
2/28/2017	FR_EC1	E102480										
3/8/2017	FR_EC1	E102480										
3/16/2017	FR_EC1	E102480										
3/22/2017	FR_EC1	E102480	0.0273		3.66	105	110	< 0.010	< 0.010	20.4		
3/23/2017	FR_EC1	E102480										
3/27/2017	FR_EC1	E102480										
4/3/2017	FR_EC1	E102480	0.0061		3.79	86.8	89.1	< 0.010	< 0.010	19		
4/10/2017	FR_EC1	E102480										
4/19/2017	FR_EC1	E102480										
4/26/2017	FR_EC1	E102480										
5/1/2017	FR_EC1	E102480	0.0184		4.93	241	217	< 0.010	< 0.010	16.5		
5/3/2017	FR_EC1	E102480										
5/6/2017	FR_EC1	E102480										
5/10/2017	FR_EC1	E102480										
5/15/2017	FR_EC1	E102480										
5/23/2017	FR_EC1	E102480										
5/29/2017	FR_EC1	E102480										
6/5/2017	FR_EC1	E102480	0.0039		5.46	310	282	< 0.010	< 0.010	17.6		
6/13/2017	FR_EC1	E102480										
6/19/2017	FR_EC1	E102480										
6/26/2017	FR_EC1	E102480										
7/3/2017	FR_EC1	E102480	0.0061		5.76	319	310	< 0.010	< 0.010	16.6		
7/10/2017	FR_EC1	E102480										
8/7/2017	FR_EC1	E102480										
9/25/2017	FR_EC1	E102480										
10/31/2017	FR_EC1	E102480										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
11/28/2017	FR_EC1	E102480	0.0116		6.05	359	332	< 0.020	< 0.010	13.9		
12/31/2017	FR_EC1	E102480										
8/31/2017	FR_EC1H	E310047	0.0055		5.38	394	376	< 0.020	< 0.020	16.2		
9/25/2017	FR_EC1H	E310047	0.0074		5.59	408	396	< 0.010	< 0.010	15.8		
10/30/2017	FR_EC1H	E310047	0.0056		5.54	379	365	< 0.020	< 0.020	15.1		
11/23/2017	FR_EC1H	E310047	0.0051		6.38	461	407	< 0.010	< 0.020	16.4		
12/11/2017	FR_EC1H	E310047	0.0064		6.42	337	393	< 0.020	< 0.010	15.8		
1/17/2017	FR_FR1	200251										
2/28/2017	FR_FR1	200251										
3/8/2017	FR_FR1	200251										
3/14/2017	FR_FR1	200251										
3/22/2017	FR_FR1	200251										
3/27/2017	FR_FR1	200251	0.0052		0.771	22.6	22	< 0.010	< 0.010	0.767		
4/4/2017	FR_FR1	200251	< 0.0020		0.857	33.3	30	< 0.010	< 0.010	0.878		
4/11/2017	FR_FR1	200251										
4/18/2017	FR_FR1	200251										
4/26/2017	FR_FR1	200251										
5/1/2017	FR_FR1	200251	< 0.040		0.695	23.6	21.6	< 0.010	< 0.010	0.793		
5/5/2017	FR_FR1	200251										
5/6/2017	FR_FR1	200251										
5/7/2017	FR_FR1	200251										
5/10/2017	FR_FR1	200251										
5/15/2017	FR_FR1	200251										
5/23/2017	FR_FR1	200251										
5/29/2017	FR_FR1	200251										
6/5/2017	FR_FR1	200251	0.0082		0.449	4.55	4.2	< 0.010	< 0.010	0.463		
6/14/2017	FR_FR1	200251										
6/20/2017	FR_FR1	200251										
6/28/2017	FR_FR1	200251										
7/3/2017	FR_FR1	200251	0.0042		0.445	5.75	5.08	< 0.010	< 0.010	0.415		
7/11/2017	FR_FR1	200251										
8/9/2017	FR_FR1	200251	< 0.0020		0.686	16	15.7	< 0.010	< 0.010	0.64		
8/28/2017	FR_FR1	200251	0.0038		0.798	19.7	20.5	< 0.010	< 0.010	0.752		
9/11/2017	FR_FR1	200251	0.0029		0.824	21	19.4	< 0.010	< 0.010	0.699		
10/11/2017	FR_FR1	200251	< 0.0020		0.681	22.2	21.8	< 0.010	< 0.010	0.691		
11/29/2017	FR_FR1	200251	0.0019		0.734	24.4	25.3	< 0.010	< 0.010	0.759		
12/4/2017	FR_FR1	200251										
1/16/2017	FR_FR2	200201	0.0032		1.95	40.4	38.3	< 0.010	< 0.010	2.3		
2/1/2017	FR_FR2	200201	0.0046		1.94	49.5	40.6	< 0.010	< 0.010	2.38		
3/9/2017	FR_FR2	200201	0.0024		1.85	54	46.1	< 0.010	< 0.010	2.47		
3/15/2017	FR_FR2	200201	0.021		2.07	46.6	46.6	< 0.010	< 0.010	2.61		
3/22/2017	FR_FR2	200201	0.0141		2.15	44.7	50.7	< 0.010	< 0.010	3.08		
3/29/2017	FR_FR2	200201	0.0062		1.77	49.9	41.8	< 0.010	< 0.010	2.38		
4/5/2017	FR_FR2	200201	0.0058		1.83	49.7	45.6	< 0.010	< 0.010	2.27		
4/5/2017	FR_FR2	200201	0.0077		1.86	50.2	49.9	< 0.010	< 0.010	2.62		
4/12/2017	FR_FR2	200201	0.0094		1.85	51.6	47.6	< 0.010	< 0.010	2.14		
4/20/2017	FR_FR2	200201	0.0944		1.78	41.7	38.1	< 0.010	0.057	1.63		

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
4/25/2017	FR_FR2	200201	0.0451		1.52	40.5	34.6	< 0.010	0.012	1.46	
5/2/2017	FR_FR2	200201	0.0113		1.9	52.5	48.8	< 0.010	< 0.010	2.04	
5/8/2017	FR_FR2	200201	0.0176		1.16	26.5	23.5	< 0.010	< 0.010	1.06	
5/16/2017	FR_FR2	200201	0.0068		1.08	22.5	20.4	< 0.010	< 0.010	1.02	
5/23/2017	FR_FR2	200201	0.0224		0.877	11.7	11.5	< 0.010	< 0.010	0.767	
5/30/2017	FR_FR2	200201	0.0515		0.926	9.84	9.15	< 0.010	0.013	0.667	
6/6/2017	FR_FR2	200201	0.0081		0.851	10.6	9.88	< 0.010	< 0.010	0.73	
6/6/2017	FR_FR2	200201	0.0102		0.776	10.3	9.96	< 0.010	< 0.010	0.664	
6/13/2017	FR_FR2	200201	0.0045		0.849	12.1	11.5	< 0.010	< 0.010	0.774	
6/20/2017	FR_FR2	200201	0.0031		0.892	14.3	12.8	< 0.010	< 0.010	0.878	
6/26/2017	FR_FR2	200201	0.008		0.896	15.1	13.3	< 0.010	< 0.010	0.84	
7/5/2017	FR_FR2	200201	0.0031		1.09	17.8	16.4	< 0.010	< 0.010	0.993	
7/5/2017	FR_FR2	200201	0.005		1.14	17.2	17	< 0.010	< 0.010	0.988	
7/11/2017	FR_FR2	200201	0.0022		1.18	19.8	18.4	< 0.010	< 0.010	1.07	
7/17/2017	FR_FR2	200201									
8/10/2017	FR_FR2	200201	< 0.0020		1.65	32.3	32.3	< 0.010	< 0.010	1.75	
8/28/2017	FR_FR2	200201	< 0.0020		2.09	42.7	43.1	< 0.010	< 0.010	2.27	
9/6/2017	FR_FR2	200201	0.0044		1.99	48.1	45.9	< 0.010	< 0.010	2.15	
9/20/2017	FR_FR2	200201									
10/4/2017	FR_FR2	200201	< 0.0020		1.97	49.2	47.6	< 0.010	< 0.010	2.34	
10/19/2017	FR_FR2	200201	< 0.0020		1.91	38.7	39.2	< 0.010	< 0.010	2.08	
10/31/2017	FR_FR2	200201	0.0024		1.63	46.3	42.9	< 0.010	< 0.010	2.06	
11/1/2017	FR_FR2	200201	0.0018		1.67	43.3	42.4	< 0.050	< 0.010	2.11	
11/2/2017	FR_FR2	200201	0.001		1.66	49.4	44	< 0.010	< 0.050	2.08	
11/16/2017	FR_FR2	200201									
12/5/2017	FR_FR2	200201	0.0035		1.75	45.5	47.6	< 0.010	< 0.010	2.39	
1/19/2017	FR_FRCP1	E300071									
2/21/2017	FR_FRCP1	E300071	0.0054		2.38	168	149	< 0.010	< 0.010	2.3	
2/28/2017	FR_FRCP1	E300071	0.0084		2.47	167	155	< 0.010	< 0.010	2.33	
3/7/2017	FR_FRCP1	E300071	0.0094		3.17	295	312	< 0.010	< 0.010	2.24	
3/14/2017	FR_FRCP1	E300071	0.031		2.24	153	134	< 0.010	< 0.010	2.13	
3/21/2017	FR_FRCP1	E300071	0.0184		2.27	87.9	94.7	< 0.010	< 0.010	2.88	
3/28/2017	FR_FRCP1	E300071	0.018		1.92	82.7	79.3	< 0.010	< 0.010	2.12	
4/5/2017	FR_FRCP1	E300071	0.005		1.98	93.8	82.1	< 0.010	< 0.010	2.24	
4/10/2017	FR_FRCP1	E300071	0.0095		2.15	84.3	81	< 0.010	< 0.010	2.31	
4/20/2017	FR_FRCP1	E300071	0.0981		1.56	58.6	52.9	< 0.010	0.044	1.42	
4/24/2017	FR_FRCP1	E300071	0.0422		1.52	58.4	50.9	< 0.010	0.025	1.31	
5/2/2017	FR_FRCP1	E300071	0.0115		1.93	86.2	72.2	< 0.010	0.011	2.05	
5/9/2017	FR_FRCP1	E300071	0.029		1.32	36.4	31.5	< 0.010	< 0.010	1.12	
5/16/2017	FR_FRCP1	E300071	0.0136		1.32	44	39.9	< 0.010	< 0.010	1.26	
5/23/2017	FR_FRCP1	E300071	0.0668		1.27	30	26.6	< 0.010	0.013	1.05	
5/30/2017	FR_FRCP1	E300071	0.121		1.3	31.7	27.3	< 0.010	0.015	0.991	
6/6/2017	FR_FRCP1	E300071	0.0103		1.35	32.9	30	< 0.010	< 0.010	1.14	
6/13/2017	FR_FRCP1	E300071	0.007		1.29	32.3	30.6	< 0.010	< 0.010	1.11	
6/20/2017	FR_FRCP1	E300071	0.0046		1.28	36.1	31.8	< 0.010	< 0.010	1.18	
6/26/2017	FR_FRCP1	E300071	< 0.0020		1.22	34.3	30.8	< 0.010	< 0.010	1.06	
7/5/2017	FR_FRCP1	E300071	0.0044		1.49	42	40.6	< 0.010	< 0.010	1.23	

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
7/11/2017	FR_FRCP1	E300071	0.0026		1.56	44.3	42.1	< 0.010	< 0.010	1.32	
7/25/2017	FR_FRCP1	E300071	0.0071		1.75	65.4	63.3	< 0.010	< 0.010	1.48	
8/1/2017	FR_FRCP1	E300071	0.004		1.99	82.1	85.8	< 0.010	< 0.010	1.64	
8/8/2017	FR_FRCP1	E300071	0.003		2.11	103	102	< 0.010	< 0.010	1.69	
8/15/2017	FR_FRCP1	E300071	0.0022		1.98	92.4	93.9	< 0.010	< 0.010	1.64	
8/22/2017	FR_FRCP1	E300071	< 0.0020		2.03	110	109	< 0.020	< 0.010	1.73	
9/11/2017	FR_FRCP1	E300071	0.0018		2.38	147	134	< 0.010	< 0.010	2.05	
10/2/2017	FR_FRCP1	E300071	< 0.0020		2.14	143	124	< 0.010	< 0.010	2	
10/10/2017	FR_FRCP1	E300071	0.0031		2.11	137	126	< 0.010	< 0.010	2.09	
10/17/2017	FR_FRCP1	E300071	0.0027		2.25	144	142	< 0.010	< 0.010	2.13	
10/24/2017	FR_FRCP1	E300071	< 0.0020		2.07	123	122	< 0.010	< 0.010	1.93	
10/31/2017	FR_FRCP1	E300071	0.0011		2.18	128	129	< 0.010	< 0.010	2.07	
11/15/2017	FR_FRCP1	E300071	< 0.0020		2.5	140	149	< 0.010	< 0.010	2.45	
12/5/2017	FR_FRCP1	E300071	0.003		2.36	175	180	< 0.010	< 0.010	2.37	
12/6/2017	FR_FRCP1	E300071	0.0011		2.37	188	178	< 0.010	< 0.010	2.19	
12/12/2017	FR_FRCP1	E300071	< 0.0010		2.84	265	274	< 0.010	0.028	2.4	
12/28/2017	FR_FRCP1	E300071	0.0041		2.82	229	214	< 0.010	< 0.010	2.47	
1/19/2017	FR_FRRD	E300097	0.0064		2.45	97.6	89.6	< 0.010	< 0.010	2.65	
2/22/2017	FR_FRRD	E300097	0.0028		2.2	89.1	85.2	< 0.010	< 0.010	2.72	
3/15/2017	FR_FRRD	E300097	0.0368		2.4	88.6	88.6	< 0.010	< 0.010	4.18	
4/25/2017	FR_FRRD	E300097	0.0359		1.84	67.8	57.9	< 0.010	0.02	1.84	
5/3/2017	FR_FRRD	E300097	0.007		2.02	81	79.4	< 0.010	< 0.010	2.31	
5/3/2017	FR_FRRD	E300097	0.0076		1.94	80.2	74.2	< 0.010	< 0.010	2.17	
5/18/2017	FR_FRRD	E300097	0.0078		1.68	57.5	53.5	< 0.010	< 0.010	1.63	
6/13/2017	FR_FRRD	E300097	0.0108		1.43	41.9	38.2	< 0.010	< 0.010	1.33	
7/13/2017	FR_FRRD	E300097	0.0083		1.75	54.6	56.1	< 0.010	< 0.010	1.58	
7/13/2017	FR_FRRD	E300097	0.0027		1.62	54.6	55.8	< 0.010	< 0.010	1.65	
8/10/2017	FR_FRRD	E300097	< 0.0020		2.13	92.8	88.8	< 0.010	< 0.010	2.38	
9/13/2017	FR_FRRD	E300097	0.0077		2.21	114	98.5	< 0.010	< 0.010	2.5	
10/18/2017	FR_FRRD	E300097	0.0023		2.25	131	125	< 0.010	< 0.010	2.23	
11/6/2017	FR_FRRD	E300097	0.003		2.16	112	112	< 0.050	< 0.010	2.8	
12/5/2017	FR_FRRD	E300097	0.0041		2.24	91.8	94.8	< 0.010	< 0.010	3.29	
1/9/2017	FR_HC1	E216778	0.0035		0.907	32.7	29.5	< 0.010	< 0.010	0.797	
2/14/2017	FR_HC1	E216778	< 0.0020		0.957	37	31.1	< 0.010	< 0.010	0.835	
3/7/2017	FR_HC1	E216778	0.0122		1.04	33.2	35.3	< 0.010	< 0.010	0.898	
3/14/2017	FR_HC1	E216778	0.0132		0.962	31	30.3	< 0.010	< 0.010	0.767	
3/22/2017	FR_HC1	E216778	< 0.010		1.08	32.9	35	< 0.010	< 0.010	0.864	
3/28/2017	FR_HC1	E216778	0.0037		0.915	35.5	31.7	< 0.010	< 0.010	0.711	
4/4/2017	FR_HC1	E216778	< 0.0020		0.973	40.6	35.6	< 0.010	< 0.010	0.909	
4/11/2017	FR_HC1	E216778	< 0.0020		0.93	42.8	36.2	< 0.010	< 0.010	0.72	
4/18/2017	FR_HC1	E216778	0.003		1.01	45.1	43.6	< 0.010	< 0.010	0.875	
4/26/2017	FR_HC1	E216778	< 0.0020		1.01	45	40.8	< 0.010	< 0.010	0.852	
5/1/2017	FR_HC1	E216778	0.0067		0.997	50.5	42.4	< 0.010	< 0.010	0.815	
5/5/2017	FR_HC1	E216778									
5/6/2017	FR_HC1	E216778									
5/7/2017	FR_HC1	E216778									
5/9/2017	FR_HC1	E216778	0.016		0.567	20.5	17.5	< 0.010	< 0.010	0.547	

		Analyte	PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
		Fraction Result Unit	N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
5/15/2017	FR_HC1	E216778	0.0074		0.467	13.5	12	< 0.010	< 0.010	0.504		
5/23/2017	FR_HC1	E216778	0.014		0.478	6.03	2.23	< 0.010	< 0.010	0.482		
5/29/2017	FR_HC1	E216778	0.0222		0.472	5.09	4.52	< 0.010	< 0.010	0.4		
6/5/2017	FR_HC1	E216778	0.0064		0.47	6.1	5.84	< 0.010	< 0.010	0.425		
6/14/2017	FR_HC1	E216778	0.0074		0.344	4.46	4.54	< 0.010	< 0.010	0.345		
6/20/2017	FR_HC1	E216778	0.0022		0.447	7.72	6.85	< 0.010	< 0.010	0.424		
6/27/2017	FR_HC1	E216778	< 0.0020		0.417	6.91	6.03	< 0.010	< 0.010	0.364		
7/3/2017	FR_HC1	E216778	< 0.0040		0.439	7.33	6.72	< 0.010	< 0.010	0.348		
7/11/2017	FR_HC1	E216778	< 0.0020		0.507	9.87	9.24	< 0.010	< 0.010	0.399		
8/8/2017	FR_HC1	E216778	< 0.0020		0.772	20.2	19.8	< 0.010	< 0.010	0.607		
9/5/2017	FR_HC1	E216778	0.0084		0.951	26.5	26	< 0.010	< 0.010	0.71		
10/11/2017	FR_HC1	E216778	< 0.0020		0.789	29.7	28.8	< 0.010	< 0.010	0.69		
10/30/2017	FR_HC1	E216778										
11/7/2017	FR_HC1	E216778	0.0068		0.837	30.4	32.6	< 0.010	< 0.010	0.795		
11/14/2017	FR_HC1	E216778										
12/6/2017	FR_HC1	E216778	< 0.0010		0.79	36.1	35.3	< 0.010	< 0.010	0.684		
1/17/2017	FR_HC3	E300096	0.0024		0.241	1.16	1.25	< 0.010	< 0.010	0.406		
2/14/2017	FR_HC3	E300096	< 0.0020		0.236	1.25	1.22	< 0.010	< 0.010	0.514		
3/1/2017	FR_HC3	E300096	0.0071		0.203	1.3	1.33	< 0.010	< 0.010	0.421		
3/16/2017	FR_HC3	E300096										
3/23/2017	FR_HC3	E300096										
3/27/2017	FR_HC3	E300096										
4/4/2017	FR_HC3	E300096	< 0.0020		0.217	1.23	1.14	< 0.010	< 0.010	0.426		
4/4/2017	FR_HC3	E300096	< 0.0020		0.219	1.17	1.2	< 0.010	< 0.010	0.436		
4/11/2017	FR_HC3	E300096										
4/18/2017	FR_HC3	E300096										
4/26/2017	FR_HC3	E300096										
5/1/2017	FR_HC3	E300096	0.0036		0.239	1.17	1.04	< 0.010	< 0.010	0.402		
5/1/2017	FR_HC3	E300096	0.002		0.254	1.09	1.02	< 0.010	< 0.010	0.432		
5/10/2017	FR_HC3	E300096										
5/15/2017	FR_HC3	E300096										
5/24/2017	FR_HC3	E300096										
5/29/2017	FR_HC3	E300096										
6/5/2017	FR_HC3	E300096	0.0038		0.174	0.378	0.335	< 0.010	< 0.010	0.204		
6/5/2017	FR_HC3	E300096	0.0059		0.175	0.331	0.351	< 0.010	< 0.010	0.195		
6/14/2017	FR_HC3	E300096										
6/21/2017	FR_HC3	E300096										
6/27/2017	FR_HC3	E300096										
7/3/2017	FR_HC3	E300096	0.0029		0.165	0.328	0.447	< 0.010	< 0.010	0.193		
7/3/2017	FR_HC3	E300096	< 0.0040		0.183	0.398	0.345	< 0.010	< 0.010	0.208		
7/11/2017	FR_HC3	E300096										
8/9/2017	FR_HC3	E300096	< 0.0020		0.179	0.891	0.917	< 0.010	< 0.010	0.315		
9/5/2017	FR_HC3	E300096	< 0.0020		0.234	1.03	0.976	< 0.010	< 0.010	0.366		
10/11/2017	FR_HC3	E300096	< 0.0020		0.193	1.15	1.24	< 0.010	< 0.010	0.355		
11/14/2017	FR_HC3	E300096	< 0.0020		0.245	1.1	1.25	< 0.010	< 0.010	0.352		
12/21/2017	FR_HC3	E300096	0.0012		0.214	1.22	1.21	< 0.010	< 0.010	0.42		
1/31/2017	FR_HP1	E216781										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
2/28/2017	FR_HP1	E216781										
3/8/2017	FR_HP1	E216781										
3/15/2017	FR_HP1	E216781										
3/22/2017	FR_HP1	E216781										
3/31/2017	FR_HP1	E216781										
4/3/2017	FR_HP1	E216781										
4/10/2017	FR_HP1	E216781										
4/17/2017	FR_HP1	E216781										
4/24/2017	FR_HP1	E216781										
5/1/2017	FR_HP1	E216781										
5/8/2017	FR_HP1	E216781										
5/15/2017	FR_HP1	E216781										
5/22/2017	FR_HP1	E216781										
5/29/2017	FR_HP1	E216781										
6/5/2017	FR_HP1	E216781										
6/15/2017	FR_HP1	E216781										
6/22/2017	FR_HP1	E216781										
6/29/2017	FR_HP1	E216781										
7/3/2017	FR_HP1	E216781										
7/10/2017	FR_HP1	E216781										
8/7/2017	FR_HP1	E216781										
9/4/2017	FR_HP1	E216781										
10/2/2017	FR_HP1	E216781										
11/6/2017	FR_HP1	E216781										
12/4/2017	FR_HP1	E216781										
1/19/2017	FR_KC1	200252	< 0.0020		3.48	226	204	< 0.010	< 0.010	3.75		
2/1/2017	FR_KC1	200252	0.0035		3.47	253	207	< 0.010	< 0.010	3.72		
3/6/2017	FR_KC1	200252	0.0053		3.75	217	229	< 0.010	< 0.010	4.06		
3/15/2017	FR_KC1	200252										
3/22/2017	FR_KC1	200252										
3/29/2017	FR_KC1	200252										
4/5/2017	FR_KC1	200252	0.0026		3.42	237	208	< 0.010	< 0.010	3.89		
4/12/2017	FR_KC1	200252										
4/20/2017	FR_KC1	200252										
4/25/2017	FR_KC1	200252										
5/2/2017	FR_KC1	200252	< 0.0040		3.53	255	236	< 0.010	< 0.010	4.31		
5/7/2017	FR_KC1	200252										
5/8/2017	FR_KC1	200252										
5/16/2017	FR_KC1	200252										
5/23/2017	FR_KC1	200252										
5/30/2017	FR_KC1	200252										
6/6/2017	FR_KC1	200252	< 0.0020		2.65	73.4	71	< 0.010	< 0.010	2.08		
6/13/2017	FR_KC1	200252										
6/19/2017	FR_KC1	200252										
6/26/2017	FR_KC1	200252										
7/5/2017	FR_KC1	200252	< 0.0020		2.78	83.5	82	< 0.010	< 0.010	2.03		
7/10/2017	FR_KC1	200252										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
8/8/2017	FR_KC1	200252	< 0.0020		3.63	136	153	< 0.010	< 0.010	2.59		
9/6/2017	FR_KC1	200252	0.0065		4.05	174	159	< 0.010	< 0.010	2.94		
9/20/2017	FR_KC1	200252										
10/4/2017	FR_KC1	200252	< 0.0020		3.99	204	185	< 0.010	< 0.010	3.33		
10/19/2017	FR_KC1	200252	0.0021		4.16	188	183	< 0.010	< 0.010	3.31		
11/1/2017	FR_KC1	200252	< 0.0010		4.12	257	191	< 0.010	< 0.010	3.41		
11/16/2017	FR_KC1	200252										
12/12/2017	FR_KC1	200252	0.0013		3.98	250	229	< 0.010	< 0.010	3.47		
1/10/2017	FR_LMP1	E306924	0.0136		2.46	13.5	12.3	< 0.010	< 0.010	1.35		
1/10/2017	FR_LMP1	E306924	0.01		2.35		11.4		< 0.010	1.19		
1/11/2017	FR_LMP1	E306924	0.0123		2.4	13.7	11.9	< 0.010	< 0.010	1.17		
1/12/2017	FR_LMP1	E306924	0.0092		2.38	13.6	11.8	< 0.010	< 0.010	1.18		
1/13/2017	FR_LMP1	E306924	0.0121		2.36	13.4	11	< 0.010	< 0.010	1.29		
1/14/2017	FR_LMP1	E306924	0.0141		2.39	10.3	9.25	< 0.010	< 0.010	1.28		
1/15/2017	FR_LMP1	E306924	0.0107		2.55	9.53	8.52	< 0.010	< 0.010	1.44		
1/16/2017	FR_LMP1	E306924	0.0092		2.8	8.48	7.84	< 0.010	< 0.010	1.71		
1/17/2017	FR_LMP1	E306924	0.0137		3.07	8.58	7.12	< 0.010	< 0.010	2.09		
1/24/2017	FR_LMP1	E306924	0.0067		2.95	8.09	6.74	< 0.010	< 0.010	1.53		
2/15/2017	FR_LMP1	E306924	0.0078		2.49	12.3	12.6	< 0.010	< 0.010	1.3		
3/2/2017	FR_LMP1	E306924	0.018		2.37	16.6	16.5	< 0.010	< 0.010	1.2		
3/14/2017	FR_LMP1	E306924										
3/18/2017	FR_LMP1	E306924										
3/19/2017	FR_LMP1	E306924										
3/22/2017	FR_LMP1	E306924										
3/27/2017	FR_LMP1	E306924										
4/3/2017	FR_LMP1	E306924	0.0371		1.82	17.2	15.6	< 0.010	0.02	1.03		
4/3/2017	FR_LMP1	E306924	0.058		1.83	16.4	16.4	< 0.010	0.028	1.04		
4/8/2017	FR_LMP1	E306924										
4/8/2017	FR_LMP1	E306924										
4/9/2017	FR_LMP1	E306924										
4/10/2017	FR_LMP1	E306924										
4/11/2017	FR_LMP1	E306924										
4/14/2017	FR_LMP1	E306924										
4/17/2017	FR_LMP1	E306924										
4/18/2017	FR_LMP1	E306924										
4/19/2017	FR_LMP1	E306924	0.315		2.61	14.2	14.8	< 0.010	0.135	0.799		
4/19/2017	FR_LMP1	E306924										
4/20/2017	FR_LMP1	E306924										
4/20/2017	FR_LMP1	E306924	0.513		3.08	11.9	12.6	< 0.010	0.249	0.764		
4/20/2017	FR_LMP1	E306924										
4/21/2017	FR_LMP1	E306924										
4/21/2017	FR_LMP1	E306924	0.299		1.95	13	11.3	< 0.010	0.14	0.846		
4/21/2017	FR_LMP1	E306924										
4/22/2017	FR_LMP1	E306924										
4/22/2017	FR_LMP1	E306924										
4/23/2017	FR_LMP1	E306924	0.139		1.75	16	13.6	< 0.010	0.062	0.834		
4/25/2017	FR_LMP1	E306924										

		Analyte	PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
		Fraction Result Unit	N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
4/27/2017	FR_LMP1	E306924	0.141		2.1	18.6	16.8	< 0.010	0.07	0.984		
4/27/2017	FR_LMP1	E306924										
5/1/2017	FR_LMP1	E306924	0.0681		1.76	19.8	16.6	< 0.010	0.031	0.84		
5/1/2017	FR_LMP1	E306924	0.0586		1.94	19.6	18.5	< 0.010	0.032	0.907		
5/2/2017	FR_LMP1	E306924										
5/3/2017	FR_LMP1	E306924										
5/4/2017	FR_LMP1	E306924										
5/5/2017	FR_LMP1	E306924										
5/5/2017	FR_LMP1	E306924	0.315		1.76	10.4	8.94	< 0.010	0.142	0.566		
5/5/2017	FR_LMP1	E306924										
5/5/2017	FR_LMP1	E306924										
5/6/2017	FR_LMP1	E306924										
5/6/2017	FR_LMP1	E306924	0.0911		1.64	15.2	13	< 0.010	0.029	0.839		
5/6/2017	FR_LMP1	E306924										
5/7/2017	FR_LMP1	E306924										
5/7/2017	FR_LMP1	E306924										
5/8/2017	FR_LMP1	E306924										
5/9/2017	FR_LMP1	E306924										
5/10/2017	FR_LMP1	E306924	0.0627		1.88	17.9	18.6	< 0.010	0.023	0.902		
5/15/2017	FR_LMP1	E306924										
5/23/2017	FR_LMP1	E306924										
5/29/2017	FR_LMP1	E306924										
6/5/2017	FR_LMP1	E306924	0.0243		1.71	10.4	9.62	< 0.010	0.013	0.58		
6/5/2017	FR_LMP1	E306924	0.0253		1.66	10.1	9.84	< 0.010	0.017	0.539		
6/15/2017	FR_LMP1	E306924										
6/20/2017	FR_LMP1	E306924										
6/26/2017	FR_LMP1	E306924										
7/3/2017	FR_LMP1	E306924	0.0131		1.87	12.8	12	< 0.010	< 0.010	0.693		
7/3/2017	FR_LMP1	E306924	0.0117		1.76	12.1	12.7	< 0.010	< 0.010	0.671		
7/10/2017	FR_LMP1	E306924										
8/8/2017	FR_LMP1	E306924	0.0085		2.11	15.7	16.4	< 0.010	< 0.010	0.794		
9/4/2017	FR_LMP1	E306924										
10/2/2017	FR_LMP1	E306924										
11/20/2017	FR_LMP1	E306924	0.0082		1.88	19.4	19	< 0.010	< 0.010	0.873		
12/11/2017	FR_LMP1	E306924	0.02		1.87	22.1	22.6	< 0.010	< 0.010	0.87		
12/14/2017	FR_LMP1	E306924										
1/11/2017	FR_LP1	E304835										
1/11/2017	FR_LP1	E304835										
1/12/2017	FR_LP1	E304835										
1/16/2017	FR_LP1	E304835	0.0197		4.03	46.6	43.4	< 0.010	< 0.010	5.26		
2/16/2017	FR_LP1	E304835	0.053		3.22	31.6	32.5	< 0.010	0.016	3.74		
3/2/2017	FR_LP1	E304835	0.0227		3.99	40.2	40.5	< 0.010	< 0.010	5.57		
3/9/2017	FR_LP1	E304835										
3/14/2017	FR_LP1	E304835	0.037		3.08	40.1	35.2	< 0.010	< 0.010	4.3		
3/18/2017	FR_LP1	E304835										
3/19/2017	FR_LP1	E304835										
3/20/2017	FR_LP1	E304835										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
3/29/2017	FR_LP1	E304835										
4/3/2017	FR_LP1	E304835	0.0111		3.45	34.8	32.7	< 0.010	< 0.010	3.85		
4/3/2017	FR_LP1	E304835	0.018		3.51	35.3	35.5	< 0.010	< 0.010	4.23		
4/10/2017	FR_LP1	E304835										
4/19/2017	FR_LP1	E304835										
4/26/2017	FR_LP1	E304835										
5/1/2017	FR_LP1	E304835	0.0098		3.59	56.9	48.6	< 0.010	< 0.010	4.12		
5/1/2017	FR_LP1	E304835	0.0063		3.75	58.6	52.8	< 0.010	< 0.010	4.43		
5/7/2017	FR_LP1	E304835										
5/10/2017	FR_LP1	E304835										
5/15/2017	FR_LP1	E304835										
5/23/2017	FR_LP1	E304835										
5/29/2017	FR_LP1	E304835										
6/5/2017	FR_LP1	E304835	0.0056		2.76	61.3	57.4	< 0.010	< 0.010	2.26		
6/5/2017	FR_LP1	E304835	0.0109		2.69	63.3	60.9	< 0.010	< 0.010	2.36		
6/13/2017	FR_LP1	E304835										
6/19/2017	FR_LP1	E304835										
6/26/2017	FR_LP1	E304835										
7/3/2017	FR_LP1	E304835										
7/10/2017	FR_LP1	E304835										
8/7/2017	FR_LP1	E304835										
9/25/2017	FR_LP1	E304835	0.0068		4.81	81.8	69.7	< 0.010	< 0.010	5.86		
10/2/2017	FR_LP1	E304835										
11/20/2017	FR_LP1	E304835	0.0128		4.65	64.8	60.1	< 0.010	< 0.010	5.12		
12/11/2017	FR_LP1	E304835	0.0313		4.18	68.2	69.6	< 0.010	< 0.010	5.35		
12/14/2017	FR_LP1	E304835										
12/18/2017	FR_LP1	E304835	0.103		4.72	73.1	68.3	< 0.010	0.019	5.78		
12/19/2017	FR_LP1	E304835	0.0256		4.82	55.7	49.8	< 0.010	< 0.010	5.09		
12/20/2017	FR_LP1	E304835	0.015		5.21	38.4	34.5	< 0.010	< 0.010	4.87		
12/21/2017	FR_LP1	E304835	0.0118		4.99	25.7	22.7	< 0.010	< 0.010	4.11		
7/26/2017	FR_LP1H	E310052	0.0317		3.49	61.2	55	< 0.010	< 0.010	3.77		
8/28/2017	FR_LP1H	E310052	0.007		5.23	71	67.9	< 0.010	< 0.010	6.06		
10/30/2017	FR_LP1H	E310052	0.0167		3.96	70	69.5	< 0.010	< 0.010	4.79		
1/31/2017	FR_MS1	E102478										
2/28/2017	FR_MS1	E102478										
3/7/2017	FR_MS1	E102478										
3/16/2017	FR_MS1	E102478										
3/23/2017	FR_MS1	E102478										
3/31/2017	FR_MS1	E102478										
4/4/2017	FR_MS1	E102478										
4/10/2017	FR_MS1	E102478										
4/17/2017	FR_MS1	E102478										
4/24/2017	FR_MS1	E102478										
5/1/2017	FR_MS1	E102478										
5/8/2017	FR_MS1	E102478										
5/15/2017	FR_MS1	E102478										
5/25/2017	FR_MS1	E102478										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
5/29/2017	FR_MS1	E102478										
6/5/2017	FR_MS1	E102478										
6/16/2017	FR_MS1	E102478										
6/22/2017	FR_MS1	E102478										
6/27/2017	FR_MS1	E102478										
7/3/2017	FR_MS1	E102478										
7/10/2017	FR_MS1	E102478										
8/7/2017	FR_MS1	E102478										
9/4/2017	FR_MS1	E102478										
10/2/2017	FR_MS1	E102478										
11/6/2017	FR_MS1	E102478										
12/4/2017	FR_MS1	E102478										
1/31/2017	FR_NL1	E102476										
2/28/2017	FR_NL1	E102476										
3/7/2017	FR_NL1	E102476										
3/11/2017	FR_NL1	E102476										
3/21/2017	FR_NL1	E102476										
3/28/2017	FR_NL1	E102476	0.0131		1.47	1.7	1.64	< 0.010	< 0.010	2.13		
4/4/2017	FR_NL1	E102476	< 0.0020		1.48	0.683	0.691	< 0.010	< 0.010	2.63		
4/11/2017	FR_NL1	E102476										
4/18/2017	FR_NL1	E102476										
4/25/2017	FR_NL1	E102476										
5/1/2017	FR_NL1	E102476										
5/8/2017	FR_NL1	E102476										
5/17/2017	FR_NL1	E102476										
5/25/2017	FR_NL1	E102476										
5/29/2017	FR_NL1	E102476										
6/5/2017	FR_NL1	E102476										
6/16/2017	FR_NL1	E102476										
6/22/2017	FR_NL1	E102476										
6/26/2017	FR_NL1	E102476										
7/3/2017	FR_NL1	E102476										
7/10/2017	FR_NL1	E102476										
8/7/2017	FR_NL1	E102476										
9/4/2017	FR_NL1	E102476										
10/2/2017	FR_NL1	E102476										
11/27/2017	FR_NL1	E102476	0.115		3.74	45.6	43.7	< 0.010	< 0.010	5.14		
12/4/2017	FR_NL1	E102476	0.0284		2.39	24.9	26.7	< 0.010	< 0.010	3.68		
7/26/2017	FR_NL1H	E310046	0.024		2.14	28.4	25.2	< 0.010	< 0.010	3.87		
8/28/2017	FR_NL1H	E310046	< 0.0020		1.89	22.8	24.3	< 0.010	< 0.010	3.56		
9/25/2017	FR_NL1H	E310046	0.0057		1.57	23.1	20.5	< 0.010	< 0.010	2.35		
10/23/2017	FR_NL1H	E310046	0.0082		1.48	19.8	19.5	< 0.010	< 0.010	2.16		
9/4/2017	FR_PP1	E304750										
1/31/2017	FR_SKP1	E208394										
2/28/2017	FR_SKP1	E208394										
3/6/2017	FR_SKP1	E208394										
3/15/2017	FR_SKP1	E208394										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
3/21/2017	FR_SKP1	E208394										
3/28/2017	FR_SKP1	E208394										
4/3/2017	FR_SKP1	E208394										
4/10/2017	FR_SKP1	E208394										
4/17/2017	FR_SKP1	E208394										
4/24/2017	FR_SKP1	E208394										
5/1/2017	FR_SKP1	E208394										
5/9/2017	FR_SKP1	E208394										
5/17/2017	FR_SKP1	E208394										
5/23/2017	FR_SKP1	E208394										
5/31/2017	FR_SKP1	E208394										
6/5/2017	FR_SKP1	E208394										
6/16/2017	FR_SKP1	E208394										
6/19/2017	FR_SKP1	E208394										
6/27/2017	FR_SKP1	E208394										
7/3/2017	FR_SKP1	E208394										
7/10/2017	FR_SKP1	E208394										
8/7/2017	FR_SKP1	E208394										
9/4/2017	FR_SKP1	E208394										
10/2/2017	FR_SKP1	E208394										
11/6/2017	FR_SKP1	E208394										
12/4/2017	FR_SKP1	E208394										
7/26/2017	FR_SKP1H	E310049	0.0084		3.18	102	89.5	< 0.010	< 0.010	1.98		
8/28/2017	FR_SKP1H	E310049	0.0036		4.18	142	137	< 0.010	< 0.010	2.95		
9/25/2017	FR_SKP1H	E310049	0.0036		4.23	157	158	< 0.010	< 0.010	3.16		
10/23/2017	FR_SKP1H	E310049	< 0.0020		4.13	168	176	< 0.010	< 0.010	3.1		
11/22/2017	FR_SKP1H	E310049	0.0039		4.36	214	207	< 0.010	< 0.010	3.35		
12/12/2017	FR_SKP1H	E310049	0.0018		4.69	243	233	< 0.010	0.016	3.77		
1/31/2017	FR_SKP2	E208395										
2/28/2017	FR_SKP2	E208395										
3/6/2017	FR_SKP2	E208395										
3/15/2017	FR_SKP2	E208395										
3/21/2017	FR_SKP2	E208395										
3/28/2017	FR_SKP2	E208395										
4/3/2017	FR_SKP2	E208395										
4/10/2017	FR_SKP2	E208395										
4/17/2017	FR_SKP2	E208395										
4/24/2017	FR_SKP2	E208395										
5/2/2017	FR_SKP2	E208395										
5/9/2017	FR_SKP2	E208395										
5/16/2017	FR_SKP2	E208395										
5/23/2017	FR_SKP2	E208395										
5/30/2017	FR_SKP2	E208395	0.0038		2.64	111	104	< 0.010	< 0.010	2.41		
6/6/2017	FR_SKP2	E208395	< 0.0020		2.54	80.3	77.6	< 0.010	< 0.010	2.27		
6/13/2017	FR_SKP2	E208395										
6/19/2017	FR_SKP2	E208395										
6/27/2017	FR_SKP2	E208395										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
7/3/2017	FR_SKP2	E208395										
7/10/2017	FR_SKP2	E208395										
8/7/2017	FR_SKP2	E208395										
9/4/2017	FR_SKP2	E208395										
10/2/2017	FR_SKP2	E208395										
11/6/2017	FR_SKP2	E208395										
12/4/2017	FR_SKP2	E208395										
7/26/2017	FR_SKP2H	E310050	0.0046		3.18	108	92.3	< 0.010	< 0.010	2.04		
8/28/2017	FR_SKP2H	E310050	< 0.0020		4.28	160	148	< 0.010	< 0.010	3.02		
9/25/2017	FR_SKP2H	E310050	0.0023		4.18	209	166	< 0.010	< 0.010	3.18		
10/23/2017	FR_SKP2H	E310050	< 0.0020		4.25	200	191	< 0.010	< 0.010	3.28		
11/22/2017	FR_SKP2H	E310050	0.0023		3.82	226	217	< 0.010	< 0.010	3.49		
12/12/2017	FR_SKP2H	E310050	< 0.0010		4.1	238	234	< 0.010	< 0.010	3.81		
1/18/2017	FR_SP1	E261897	0.0057		3.92	6.26	5.24	< 0.010	< 0.010	2.26		
2/15/2017	FR_SP1	E261897	< 0.0020		3.87	5.19	4.68	< 0.010	< 0.010	2.32		
3/2/2017	FR_SP1	E261897	0.005		4	4.54	4.62	< 0.010	< 0.010	2.41		
3/16/2017	FR_SP1	E261897										
3/22/2017	FR_SP1	E261897	0.0101		4.21	6.68	7.03	< 0.010	< 0.010	2.67		
3/27/2017	FR_SP1	E261897										
4/3/2017	FR_SP1	E261897	0.015		3.88	25.3	23.8	< 0.010	< 0.010	2.93		
4/10/2017	FR_SP1	E261897										
4/20/2017	FR_SP1	E261897										
4/26/2017	FR_SP1	E261897										
5/1/2017	FR_SP1	E261897	0.123		3.85	29.3	23.6	< 0.010	< 0.010	2.58		
5/2/2017	FR_SP1	E261897										
5/7/2017	FR_SP1	E261897										
5/8/2017	FR_SP1	E261897										
5/15/2017	FR_SP1	E261897										
5/24/2017	FR_SP1	E261897										
5/29/2017	FR_SP1	E261897										
6/5/2017	FR_SP1	E261897	< 0.0020		3.71	14.7	14.2	< 0.010	< 0.010	1.99		
6/13/2017	FR_SP1	E261897										
6/19/2017	FR_SP1	E261897										
6/26/2017	FR_SP1	E261897										
7/3/2017	FR_SP1	E261897	< 0.0040		3.6	8.51	8.11	< 0.010	< 0.010	1.81		
7/10/2017	FR_SP1	E261897										
8/8/2017	FR_SP1	E261897	< 0.0020		3.91	6.63	6.15	< 0.010	< 0.010	2.17		
9/6/2017	FR_SP1	E261897	< 0.0020		3.97	6.92	5.91	< 0.010	< 0.010	2.16		
10/11/2017	FR_SP1	E261897	< 0.0020		3.72	6.25	5.71	< 0.010	< 0.010	2.01		
11/20/2017	FR_SP1	E261897	0.0016		4.02	5.11	4.65	< 0.010	< 0.010	1.99		
12/11/2017	FR_SP1	E261897	0.0021		3.8	7.77	7.41	< 0.010	< 0.010	1.97		
1/31/2017	FR_TP1	E102475										
3/31/2017	FR_TP1	E102475										
10/2/2017	FR_TP1	E102475										
1/31/2017	FR_TP3	E206660										
3/31/2017	FR_TP3	E206660										
1/9/2017	FR_UFR1	E216777	0.006		0.429	1.02	0.897	< 0.010	< 0.010	0.815		

Sample Date		Location	EMS Number	Analyte	PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
			Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
2/21/2017	FR_UFR1	E216777			0.0071		0.383	1.2	0.998	< 0.010	< 0.010	0.773		
2/28/2017	FR_UFR1	E216777			0.0051		0.401	0.976	0.845	< 0.010	< 0.010	0.765		
3/7/2017	FR_UFR1	E216777			0.0141		0.411	1.06	1.07	< 0.010	< 0.010	0.837		
3/14/2017	FR_UFR1	E216777			0.021		0.513	0.949	0.839	< 0.010	< 0.010	1		
3/21/2017	FR_UFR1	E216777			0.0274		0.454	0.896	0.989	< 0.010	< 0.010	0.893		
3/27/2017	FR_UFR1	E216777												
4/4/2017	FR_UFR1	E216777			0.0049		0.38	0.834	0.768	< 0.010	< 0.010	0.744		
4/11/2017	FR_UFR1	E216777												
4/18/2017	FR_UFR1	E216777												
4/24/2017	FR_UFR1	E216777			0.0202		0.383	0.702	0.6	< 0.010	0.02	0.622		
5/2/2017	FR_UFR1	E216777			0.0108		0.344	0.849	0.978	< 0.010	< 0.010	0.665		
5/5/2017	FR_UFR1	E216777												
5/6/2017	FR_UFR1	E216777												
5/7/2017	FR_UFR1	E216777												
5/9/2017	FR_UFR1	E216777			0.032		0.388	0.6	0.629	< 0.010	< 0.010	0.589		
5/16/2017	FR_UFR1	E216777			0.0093		0.333	0.584	0.502	< 0.010	< 0.010	0.525		
5/23/2017	FR_UFR1	E216777			0.0366		0.499	0.647	0.504	< 0.010	< 0.010	0.514		
5/30/2017	FR_UFR1	E216777			0.0319		0.481	0.49	0.397	< 0.010	< 0.010	0.498		
6/6/2017	FR_UFR1	E216777			0.007		0.379	0.481	0.429	< 0.010	< 0.010	0.529		
6/14/2017	FR_UFR1	E216777												
6/20/2017	FR_UFR1	E216777												
6/27/2017	FR_UFR1	E216777												
7/3/2017	FR_UFR1	E216777			0.0068		0.411	0.554	0.532	< 0.010	< 0.010	0.593		
7/11/2017	FR_UFR1	E216777												
7/25/2017	FR_UFR1	E216777			0.0078		0.479	0.595	0.591	< 0.010	< 0.010	0.69		
8/1/2017	FR_UFR1	E216777			0.003		0.459	0.517	0.614	< 0.010	< 0.010	0.699		
8/8/2017	FR_UFR1	E216777			0.003		0.465	0.549	0.608	< 0.010	< 0.010	0.683		
8/15/2017	FR_UFR1	E216777			0.003		0.431	0.538	0.558	< 0.010	< 0.010	0.669		
8/22/2017	FR_UFR1	E216777			0.0045		0.446	0.51	0.544	< 0.010	< 0.010	0.675		
9/5/2017	FR_UFR1	E216777			0.0054		0.514	0.568	0.547	< 0.010	< 0.010	0.744		
10/2/2017	FR_UFR1	E216777			0.0023		0.399	0.579	0.548	< 0.010	< 0.010	0.721		
10/10/2017	FR_UFR1	E216777			0.0039		0.412	0.648	0.651	< 0.010	< 0.010	0.702		
10/17/2017	FR_UFR1	E216777			< 0.0020		0.398	0.531	0.622	< 0.010	< 0.010	0.715		
10/24/2017	FR_UFR1	E216777			0.003		0.38	0.596	0.607	< 0.010	< 0.010	0.667		
10/31/2017	FR_UFR1	E216777			0.0028		0.352	0.604	0.643	< 0.010	< 0.010	0.634		
11/7/2017	FR_UFR1	E216777			0.0043		0.41	0.648	0.757	< 0.010	< 0.010	0.794		
12/21/2017	FR_UFR1	E216777			0.0043		0.381	0.674	0.775	< 0.010	< 0.010	0.735		
1/16/2017	GH_BR_F	E287437												
2/14/2017	GH_BR_F	E287437												
3/6/2017	GH_BR_F	E287437												
3/16/2017	GH_BR_F	E287437												
3/21/2017	GH_BR_F	E287437			0.0261		0.657	0.8	0.789	< 0.010	< 0.010	3.05		
3/27/2017	GH_BR_F	E287437												
4/4/2017	GH_BR_F	E287437												
4/10/2017	GH_BR_F	E287437												
4/18/2017	GH_BR_F	E287437			0.0209		0.539	0.608	0.704	< 0.010	0.011	1.3		
4/25/2017	GH_BR_F	E287437												

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
5/1/2017	GH_BR_F	E287437	0.015		0.537	0.747	0.655	< 0.010	< 0.010	1.25		
5/8/2017	GH_BR_F	E287437										
5/15/2017	GH_BR_F	E287437										
5/24/2017	GH_BR_F	E287437										
5/29/2017	GH_BR_F	E287437										
6/5/2017	GH_BR_F	E287437	0.0169		0.557	0.55	0.554	< 0.010	< 0.010	1.97		
6/12/2017	GH_BR_F	E287437										
6/20/2017	GH_BR_F	E287437										
6/27/2017	GH_BR_F	E287437										
7/4/2017	GH_BR_F	E287437										
7/10/2017	GH_BR_F	E287437										
8/1/2017	GH_BR_F	E287437										
9/12/2017	GH_BR_F	E287437										
10/3/2017	GH_BR_F	E287437										
11/6/2017	GH_BR_F	E287437										
12/6/2017	GH_BR_F	E287437										
1/10/2017	GH_CC1	E0200384	0.003		4.8	717	647	< 0.020	< 0.020	1.86		
2/9/2017	GH_CC1	E0200384	0.0047		4.85	746	671	< 0.010	< 0.010	1.9		
3/6/2017	GH_CC1	E0200384	0.0062		4.64	538	552	< 0.010	< 0.010	1.88		
3/15/2017	GH_CC1	E0200384										
3/21/2017	GH_CC1	E0200384	0.0255		4.29	463	468	< 0.010	< 0.010	1.8		
3/29/2017	GH_CC1	E0200384										
4/5/2017	GH_CC1	E0200384	< 0.0020		3.7	486	405	< 0.010	< 0.010	1.52		
4/5/2017	GH_CC1	E0200384	0.0039		4.08	529	498	< 0.020	< 0.020	1.87		
4/12/2017	GH_CC1	E0200384										
4/20/2017	GH_CC1	E0200384										
4/25/2017	GH_CC1	E0200384										
5/2/2017	GH_CC1	E0200384										
5/3/2017	GH_CC1	E0200384	0.0029		4.22	592	552	< 0.010	< 0.010	1.72		
5/3/2017	GH_CC1	E0200384	0.0021		4.18	480	500	< 0.020	< 0.020	1.65		
5/7/2017	GH_CC1	E0200384										
5/8/2017	GH_CC1	E0200384	0.0056		3.74	450	420	< 0.010	< 0.010	1.44		
5/17/2017	GH_CC1	E0200384										
5/23/2017	GH_CC1	E0200384										
5/31/2017	GH_CC1	E0200384										
6/6/2017	GH_CC1	E0200384	< 0.0020		4.61	595	574	< 0.010	< 0.010	1.82		
6/6/2017	GH_CC1	E0200384	0.002		4.45	563	554	< 0.020	< 0.020	1.74		
6/13/2017	GH_CC1	E0200384										
6/19/2017	GH_CC1	E0200384										
6/27/2017	GH_CC1	E0200384										
7/5/2017	GH_CC1	E0200384	< 0.0020		4.8	694	632	< 0.010	< 0.010	1.86		
7/5/2017	GH_CC1	E0200384	< 0.0020		4.66	516	557	< 0.020	< 0.020	1.88		
7/10/2017	GH_CC1	E0200384										
8/8/2017	GH_CC1	E0200384	0.0025		4.89	651	597	< 0.020	< 0.020	2.01		
9/6/2017	GH_CC1	E0200384	0.0026		4.95	697	628	< 0.010	< 0.020	2.06		
9/20/2017	GH_CC1	E0200384										
10/4/2017	GH_CC1	E0200384	0.0021		4.81	685	638	< 0.010	< 0.010	2.07		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
10/19/2017	GH_CC1	E0200384	0.005		5.13	542	553	< 0.020	< 0.020	2.01		
11/1/2017	GH_CC1	E0200384	0.0018		4.99	670	602	< 0.020	< 0.010	2.07		
11/16/2017	GH_CC1	E0200384										
12/5/2017	GH_CC1	E0200384	0.0027		4.86	691	666	< 0.010	< 0.020	2.21		
1/16/2017	GH_COUGAR	E287432										
2/15/2017	GH_COUGAR	E287432										
3/6/2017	GH_COUGAR	E287432										
3/16/2017	GH_COUGAR	E287432	0.0396		0.931	0.474	0.414	< 0.010	< 0.010	4.24		
3/22/2017	GH_COUGAR	E287432										
3/27/2017	GH_COUGAR	E287432										
4/4/2017	GH_COUGAR	E287432										
4/10/2017	GH_COUGAR	E287432										
4/18/2017	GH_COUGAR	E287432	0.0204		0.793	0.429	0.467	< 0.010	0.013	3.18		
4/25/2017	GH_COUGAR	E287432										
5/1/2017	GH_COUGAR	E287432	0.018		0.775	0.649	0.668	< 0.010	0.011	3.2		
5/8/2017	GH_COUGAR	E287432										
5/15/2017	GH_COUGAR	E287432										
5/24/2017	GH_COUGAR	E287432										
5/29/2017	GH_COUGAR	E287432										
6/5/2017	GH_COUGAR	E287432	0.0087		0.736	0.476	0.458	< 0.010	< 0.010	3.85		
6/12/2017	GH_COUGAR	E287432										
6/20/2017	GH_COUGAR	E287432										
6/27/2017	GH_COUGAR	E287432										
7/4/2017	GH_COUGAR	E287432										
7/10/2017	GH_COUGAR	E287432										
8/2/2017	GH_COUGAR	E287432										
9/12/2017	GH_COUGAR	E287432										
10/3/2017	GH_COUGAR	E287432										
11/6/2017	GH_COUGAR	E287432										
12/6/2017	GH_COUGAR	E287432										
1/16/2017	GH_ER1	206661	< 0.0020		0.435	1.69	1.79	< 0.010	< 0.010	1.16		
2/14/2017	GH_ER1	206661	< 0.0020		0.394	1.63	1.74	< 0.010	< 0.010	1.13		
2/21/2017	GH_ER1	206661	< 0.0020									
3/6/2017	GH_ER1	206661	< 0.0020		0.371	1.77	1.7	< 0.010	< 0.010	1.07		
3/16/2017	GH_ER1	206661	0.0067		0.417	1.62	1.65	< 0.010	< 0.010	1.12		
3/21/2017	GH_ER1	206661	< 0.0020		0.407	1.53	1.63	< 0.010	< 0.010	1.05		
3/27/2017	GH_ER1	206661	< 0.0020		0.426	1.72	1.72	< 0.010	< 0.010	1.08		
4/4/2017	GH_ER1	206661	< 0.0020		0.399	1.9	2	< 0.010	< 0.010	1.17		
4/10/2017	GH_ER1	206661	< 0.0020		0.447	2.19	2.12	< 0.010	< 0.010	1.19		
4/20/2017	GH_ER1	206661	< 0.0020		0.407	2.66	2.59	< 0.010	< 0.010	1.12		
4/25/2017	GH_ER1	206661	0.0045		0.435	2.08	2.21	< 0.010	< 0.010	1.16		
5/1/2017	GH_ER1	206661	0.0024		0.421	3.12	2.92	< 0.010	< 0.010	1.2		
5/8/2017	GH_ER1	206661	0.07		0.7	2.02	1.96	< 0.010	0.016	1.13		
5/15/2017	GH_ER1	206661	0.0293		0.575	1.77	1.72	< 0.010	0.012	1.01		
5/24/2017	GH_ER1	206661	0.667		1.79	1.17	1.6	< 0.010	0.106	0.824		
5/29/2017	GH_ER1	206661	0.165		0.932	1.17	1.2	< 0.010	0.027	0.776		
6/6/2017	GH_ER1	206661	0.113		0.826	1.05	1.11	< 0.010	0.025	0.731		

		Analyte	PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
		Fraction Result Unit	N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
6/12/2017	GH_ER1	206661	0.0594		0.708	1.15	1.14	< 0.010	0.017	0.713		
6/20/2017	GH_ER1	206661	0.0264		0.432	1.17	1.06	< 0.010	< 0.010	0.707		
6/27/2017	GH_ER1	206661	0.019		0.498	1.4	1.11	< 0.010	< 0.010	0.705		
7/4/2017	GH_ER1	206661	0.0219		0.473	1.11	1.03	< 0.010	< 0.010	0.723		
7/11/2017	GH_ER1	206661	0.0102		0.423	1.22	1.08	< 0.010	< 0.010	0.654		
8/2/2017	GH_ER1	206661	0.0024		0.463	1.21	1.38	< 0.010	< 0.010	0.917		
9/5/2017	GH_ER1	206661	< 0.0020		0.402	1.27	1.3	< 0.010	< 0.010	0.889		
9/11/2017	GH_ER1	206661	0.0071		0.386	1.27	1.19	< 0.010	< 0.010	0.849		
10/4/2017	GH_ER1	206661	< 0.0020		0.405	1.33	1.42	< 0.010	< 0.010	0.995		
11/6/2017	GH_ER1	206661	0.0016		0.29	1.44	1.4	< 0.010	< 0.050	1.07		
12/5/2017	GH_ER1	206661	< 0.0020		0.38	1.49	1.52	< 0.010	< 0.010	0.98	306.6	
1/16/2017	GH_ER1A	E305876	< 0.0020		0.376	1.12	1.02	< 0.010	< 0.010	0.79		
2/15/2017	GH_ER1A	E305876	< 0.0020		0.336	0.912	0.999	< 0.010	< 0.010	0.741		
3/6/2017	GH_ER1A	E305876										
3/16/2017	GH_ER1A	E305876										
3/21/2017	GH_ER1A	E305876										
3/27/2017	GH_ER1A	E305876										
4/4/2017	GH_ER1A	E305876										
4/10/2017	GH_ER1A	E305876										
4/18/2017	GH_ER1A	E305876	0.0024		0.778	9.9	7.61	< 0.010	< 0.010	2.43		
4/25/2017	GH_ER1A	E305876										
5/1/2017	GH_ER1A	E305876	0.0047		0.771	6.03	6.1	< 0.010	< 0.010	1.81		
5/8/2017	GH_ER1A	E305876										
5/15/2017	GH_ER1A	E305876										
5/24/2017	GH_ER1A	E305876										
5/29/2017	GH_ER1A	E305876										
6/6/2017	GH_ER1A	E305876	0.0928		0.721	1.72	1.79	< 0.010	0.02	0.806		
6/12/2017	GH_ER1A	E305876										
6/19/2017	GH_ER1A	E305876	0.0448		0.541	1.79	1.56	< 0.010	< 0.010	0.69		
6/27/2017	GH_ER1A	E305876										
7/11/2017	GH_ER1A	E305876	0.0107		0.443	1.29	1.23	< 0.010	< 0.010	0.566		
8/2/2017	GH_ER1A	E305876	0.0048		0.379	0.842	0.758	< 0.010	< 0.010	0.597		
9/8/2017	GH_ER1A	E305876	< 0.0010		0.366	0.648	0.688	< 0.010	< 0.010	0.677		284
9/12/2017	GH_ER1A	E305876	0.0028		0.387	0.722	0.594	< 0.010	< 0.010	0.665		
10/3/2017	GH_ER1A	E305876	< 0.0020		0.385	0.902	0.81	< 0.010	< 0.010	0.686		
11/28/2017	GH_ER1A	E305876	< 0.0010		0.397	1.01	0.93	< 0.010	< 0.010	0.744		
12/12/2017	GH_ER1A	E305876										
1/16/2017	GH_ER2	200389	< 0.0020		0.379	1.07	1.02	< 0.010	< 0.010	0.718		
2/14/2017	GH_ER2	200389	< 0.0020		0.336	0.949	0.943	< 0.010	< 0.010	0.729		
2/21/2017	GH_ER2	200389	0.0021									
3/6/2017	GH_ER2	200389	< 0.0020		0.323	1.07	1.13	< 0.010	< 0.010	0.735		
3/16/2017	GH_ER2	200389	0.0082		0.315	1.09	0.974	< 0.010	< 0.010	0.623		
3/21/2017	GH_ER2	200389										
3/27/2017	GH_ER2	200389										
4/4/2017	GH_ER2	200389										
4/10/2017	GH_ER2	200389										
4/18/2017	GH_ER2	200389	< 0.0020		0.365	0.949	1.02	< 0.010	< 0.010	0.75		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
4/24/2017	GH_ER2	200389										
4/25/2017	GH_ER2	200389	0.0058		0.405	0.862	0.977	< 0.010	< 0.010	0.731		
5/2/2017	GH_ER2	200389	0.002		0.354	1.03	0.965	< 0.010	< 0.010	0.751		
5/9/2017	GH_ER2	200389	0.0149		0.512	0.938	0.776	< 0.010	< 0.010	0.863		
5/16/2017	GH_ER2	200389	0.0133		0.46	0.747	0.806	< 0.010	< 0.010	0.814		
5/23/2017	GH_ER2	200389	0.0944		0.691	0.647	0.82	< 0.010	0.019	0.686		
5/30/2017	GH_ER2	200389	0.291		1.01	0.63	0.776	< 0.010	0.042	0.586		
6/11/2017	GH_ER2	200389	0.0888		0.685	0.66	0.686	< 0.010	0.019	0.513		
6/13/2017	GH_ER2	200389	0.0282		0.473	0.655	0.665	< 0.010	< 0.010	0.552		
6/20/2017	GH_ER2	200389										
6/27/2017	GH_ER2	200389										
7/4/2017	GH_ER2	200389										
7/10/2017	GH_ER2	200389	0.0076		0.354	0.668	0.605	< 0.010	< 0.010	0.479		
7/25/2017	GH_ER2	200389	0.0059		0.375	0.674	0.637	< 0.010	< 0.010	0.597		
8/1/2017	GH_ER2	200389	0.0025		0.378	0.599	0.631	< 0.010	< 0.010	0.607		
8/8/2017	GH_ER2	200389	0.0055		0.383	0.645	0.672	< 0.010	< 0.010	0.574		
8/15/2017	GH_ER2	200389	< 0.0020		0.374	0.667	0.622	< 0.010	< 0.010	0.624		
8/22/2017	GH_ER2	200389	0.0026		0.389	0.673	0.718	< 0.010	< 0.010	0.64		
9/10/2017	GH_ER2	200389	0.0036		0.393	0.617	0.683	< 0.010	< 0.010	0.696		273
9/12/2017	GH_ER2	200389	0.0041		0.372	0.722	0.638	< 0.010	< 0.010	0.629		
10/2/2017	GH_ER2	200389		0.0022	0.376	0.892	0.868	< 0.010	< 0.010	0.701		
10/10/2017	GH_ER2	200389	< 0.0020		0.379	0.816	0.838	< 0.010	< 0.010	0.723		
10/16/2017	GH_ER2	200389	0.002		0.381	0.956	0.84	< 0.010	< 0.010	0.736		
10/17/2017	GH_ER2	200389	< 0.0020		0.352	0.78	0.79	< 0.010	< 0.010	0.715		
10/24/2017	GH_ER2	200389	0.0021		0.366	0.832	0.741	< 0.010	< 0.010	0.659		
10/31/2017	GH_ER2	200389	0.0022		0.35	0.861	0.803	< 0.010	< 0.010	0.678		
11/6/2017	GH_ER2	200389	0.003		< 0.25	0.769	0.87	< 0.010	< 0.050	0.71		
12/6/2017	GH_ER2	200389	< 0.0020		0.302	0.983	1.04	< 0.010	< 0.010	0.636		
1/16/2017	GH_ERC	E300090	< 0.0020		0.458	1.73	1.78	< 0.010	< 0.010	1.09		
2/1/2017	GH_ERC	E300090	< 0.0020		0.429	1.82	1.87	< 0.010	< 0.010	1.07		
2/14/2017	GH_ERC	E300090	< 0.0020		0.404	1.55	1.56	< 0.010	< 0.010	1.11		
2/21/2017	GH_ERC	E300090	< 0.0020		0.397	1.8	1.71	< 0.010	< 0.010	1.04		
3/6/2017	GH_ERC	E300090	< 0.0020		0.359	1.56	1.63	< 0.010	< 0.010	0.99		
3/16/2017	GH_ERC	E300090	0.0285		0.434	1.35	1.3	< 0.010	< 0.010	0.852		
3/21/2017	GH_ERC	E300090	0.0024		0.357	1.27	1.28	< 0.010	< 0.010	0.833		
3/28/2017	GH_ERC	E300090	0.0054		0.459	1.67	1.75	< 0.010	< 0.010	1.03		
4/4/2017	GH_ERC	E300090	0.0028		0.411	1.76	1.83	< 0.010	< 0.010	1.07		
4/10/2017	GH_ERC	E300090	0.0041		0.439	2.17	2.13	< 0.010	< 0.010	1.13		
4/20/2017	GH_ERC	E300090	0.0024		0.457	2.78	2.46	< 0.010	< 0.010	1.1		
4/24/2017	GH_ERC	E300090	0.01		0.454	2.4	2.34	< 0.010	< 0.010	1.09		
5/2/2017	GH_ERC	E300090	0.0037		0.435	3.45	3.13	< 0.010	< 0.010	1.22		
5/9/2017	GH_ERC	E300090	0.0334		0.662	2.68	2.58	< 0.010	0.014	1.16		
5/16/2017	GH_ERC	E300090	0.0174		0.601	2.04	2.02	< 0.010	< 0.010	1.08		
5/23/2017	GH_ERC	E300090	0.138		0.785	1.43	1.62	< 0.010	0.02	0.836		
5/30/2017	GH_ERC	E300090	0.292		1.1	1.29	1.38	< 0.010	0.04	0.751		
6/11/2017	GH_ERC	E300090	0.149		0.819	1.46	1.49	< 0.010	0.026	0.683		
6/13/2017	GH_ERC	E300090	0.0497		0.651	1.3	1.3	< 0.010	0.019	0.682		

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
6/19/2017	GH_ERC	E300090	0.0274		0.442	1.47	1.35	< 0.010	< 0.010	0.662	
6/27/2017	GH_ERC	E300090	0.0266		0.51	1.27	1.25	< 0.010	< 0.010	0.648	
7/4/2017	GH_ERC	E300090	0.0253		0.45	1.26	1.23	< 0.010	< 0.010	0.63	
7/11/2017	GH_ERC	E300090	0.0109		0.402	1.26	1.23	< 0.010	< 0.010	0.585	
7/25/2017	GH_ERC	E300090	0.0086		0.421	1.26	1.16	< 0.010	< 0.010	0.723	
8/1/2017	GH_ERC	E300090	0.0036		0.389	0.984	1.15	< 0.010	< 0.010	0.707	
9/5/2017	GH_ERC	E300090	< 0.0020		0.382	1.11	1.13	< 0.010	< 0.010	0.785	
9/11/2017	GH_ERC	E300090	0.002		0.381	1.14	1.06	< 0.010	< 0.010	0.755	
10/2/2017	GH_ERC	E300090		0.0038	0.387	1.42	1.16	< 0.010	< 0.010	0.844	
10/10/2017	GH_ERC	E300090	< 0.0020		0.429	1.22	1.12	< 0.010	< 0.010	0.889	
10/17/2017	GH_ERC	E300090	< 0.0020		0.393	1.15	1.19	< 0.010	< 0.010	0.886	
10/24/2017	GH_ERC	E300090	< 0.0020		0.4	1.21	1.22	< 0.010	< 0.010	0.792	
10/31/2017	GH_ERC	E300090	0.0018		0.402	1.24	1.24	< 0.010	< 0.010	0.832	
11/14/2017	GH_ERC	E300090	0.003		0.371	1.34	1.54	< 0.010	< 0.010	0.857	
12/5/2017	GH_ERC	E300090	< 0.0020		0.37	1.27	1.43	< 0.010	< 0.010	0.836	
1/16/2017	GH_ERSC2	E305877									
2/15/2017	GH_ERSC2	E305877									
3/6/2017	GH_ERSC2	E305877									
3/16/2017	GH_ERSC2	E305877									
3/22/2017	GH_ERSC2	E305877									
3/29/2017	GH_ERSC2	E305877									
4/5/2017	GH_ERSC2	E305877									
4/10/2017	GH_ERSC2	E305877									
4/20/2017	GH_ERSC2	E305877									
4/25/2017	GH_ERSC2	E305877	0.0171		1.28	30.2	30	< 0.010	< 0.010	4.83	
5/3/2017	GH_ERSC2	E305877	0.0149		1.17	31.7	29.4	< 0.010	< 0.010	5.1	
5/10/2017	GH_ERSC2	E305877									
5/15/2017	GH_ERSC2	E305877									
5/24/2017	GH_ERSC2	E305877									
5/29/2017	GH_ERSC2	E305877									
6/7/2017	GH_ERSC2	E305877	0.0744		0.69	6.09	6.26	< 0.010	0.011	1.17	
6/12/2017	GH_ERSC2	E305877									
6/19/2017	GH_ERSC2	E305877	0.0393		0.602	4.93	4.59	< 0.010	< 0.010	0.933	
6/27/2017	GH_ERSC2	E305877									
7/4/2017	GH_ERSC2	E305877									
7/11/2017	GH_ERSC2	E305877	0.0199		0.558	4.25	3.88	< 0.010	< 0.010	0.734	
8/2/2017	GH_ERSC2	E305877	0.0122		0.501	4.09	4.07	< 0.010	< 0.010	0.888	
9/13/2017	GH_ERSC2	E305877									
10/3/2017	GH_ERSC2	E305877									
11/14/2017	GH_ERSC2	E305877									
12/18/2017	GH_ERSC2	E305877									
1/16/2017	GH_ERSC4	E305878	0.0035		0.82	1.98	1.94	< 0.010	< 0.010	1.43	
2/15/2017	GH_ERSC4	E305878	< 0.0020		0.361	1.06	1.15	< 0.010	< 0.010	0.79	
3/6/2017	GH_ERSC4	E305878									
3/16/2017	GH_ERSC4	E305878									
3/21/2017	GH_ERSC4	E305878									
3/29/2017	GH_ERSC4	E305878									

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
4/4/2017	GH_ERSC4	E305878									
4/10/2017	GH_ERSC4	E305878									
4/20/2017	GH_ERSC4	E305878	0.0066		0.462	1.77	1.66	< 0.010	< 0.010	0.968	
4/25/2017	GH_ERSC4	E305878									
5/1/2017	GH_ERSC4	E305878	0.003		0.442	1.33	1.33	< 0.010	< 0.010	0.922	
5/10/2017	GH_ERSC4	E305878									
5/15/2017	GH_ERSC4	E305878									
5/24/2017	GH_ERSC4	E305878									
5/29/2017	GH_ERSC4	E305878									
6/5/2017	GH_ERSC4	E305878	0.163		0.831	0.768	0.872	< 0.010	0.03	0.621	
6/12/2017	GH_ERSC4	E305878									
6/19/2017	GH_ERSC4	E305878									
6/27/2017	GH_ERSC4	E305878									
7/10/2017	GH_ERSC4	E305878	0.0153		0.381	0.822	0.694	< 0.010	< 0.010	0.506	
8/2/2017	GH_ERSC4	E305878	0.005		0.394	0.809	0.752	< 0.010	< 0.010	0.63	
9/8/2017	GH_ERSC4	E305878	0.0011		0.356	0.618	0.617	< 0.010	< 0.010	0.659	
9/12/2017	GH_ERSC4	E305878	0.0054		0.437	0.707	0.579	< 0.010	< 0.010	0.663	
10/3/2017	GH_ERSC4	E305878	0.0032		0.367	0.844	0.797	< 0.010	< 0.010	0.671	
11/14/2017	GH_ERSC4	E305878	0.0031		0.349	0.899	0.922	< 0.010	< 0.010	0.708	
12/12/2017	GH_ERSC4	E305878	< 0.0020		0.364	1.04	1.07	< 0.010	< 0.010	0.752	
1/9/2017	GH_FR1	200378	0.0029		1.26	54	52.2	< 0.010	< 0.010	2.36	
2/1/2017	GH_FR1	200378	< 0.0020		1.34	54.7	53.4	< 0.010	< 0.010	2.32	
2/14/2017	GH_FR1	200378	0.0029		1.19	58.3	58.5	< 0.010	< 0.010	2.31	
2/21/2017	GH_FR1	200378	0.0039		1.19	56.8	51.4	< 0.010	< 0.010	2.21	
2/28/2017	GH_FR1	200378	0.0039		1.17	54.3	54.1	< 0.010	< 0.010	2.34	
3/7/2017	GH_FR1	200378	< 0.0020		1.16	54.1	55.3	< 0.010	< 0.010	2.37	
3/14/2017	GH_FR1	200378	0.002		1.16	48.7	51.9	< 0.010	< 0.010	2.19	
3/16/2017	GH_FR1	200378	0.0113		1.45	62.3	61.7	< 0.010	< 0.010	2.38	
3/21/2017	GH_FR1	200378	0.0062		1.39	52.4	53.4	< 0.010	< 0.010	2.64	
3/27/2017	GH_FR1	200378	0.0062		1.4	57.9	56.6	< 0.010	< 0.010	2.72	
4/4/2017	GH_FR1	200378	0.0052		1.41	56.9	53.9	< 0.010	< 0.010	2.86	
4/11/2017	GH_FR1	200378	0.0021		1.46	48.2	52.7	< 0.010	< 0.010	2.73	
4/18/2017	GH_FR1	200378	0.0041		1.4	51.2	51.2	< 0.010	< 0.010	2.74	
4/24/2017	GH_FR1	200378	0.029		1.59	42.7	41.3	< 0.010	0.021	2.16	
5/2/2017	GH_FR1	200378	0.007		1.23	43.1	39.6	< 0.010	< 0.010	2.25	
5/9/2017	GH_FR1	200378	0.0243		1.26	26.2	25.7	< 0.010	0.02	1.58	
5/16/2017	GH_FR1	200378	0.0118		1.12	28.3	27	< 0.010	< 0.010	1.57	
5/23/2017	GH_FR1	200378	0.049		1.08	26	24.5	< 0.010	0.016	1.29	
5/30/2017	GH_FR1	200378	0.0784		1.07	20.7	19.7	< 0.010	0.019	1.1	
6/11/2017	GH_FR1	200378	0.0193		1.16	27.4	26.9	< 0.010	< 0.010	1.32	
6/13/2017	GH_FR1	200378	0.0078		1.12	29.7	28.8	< 0.010	< 0.010	1.41	
6/19/2017	GH_FR1	200378	0.0163		1.14	30.6	28.9	< 0.010	< 0.010	1.43	
6/27/2017	GH_FR1	200378	0.0023		1.2	34.7	31.9	< 0.010	< 0.010	1.5	
7/4/2017	GH_FR1	200378	0.0033		1.16	36.1	35.3	< 0.010	< 0.010	1.58	
7/11/2017	GH_FR1	200378	0.0039		1.27	43.3	39.9	< 0.010	< 0.010	1.56	
7/25/2017	GH_FR1	200378	0.005		1.29	46.6	43.6	< 0.010	< 0.010	1.88	
8/1/2017	GH_FR1	200378	0.0027		1.31	49	48.4	< 0.010	< 0.010	1.96	

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Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
8/8/2017	GH_FR1	200378	< 0.0020		1.14	53.3	48.5	< 0.010	< 0.010	1.85	
8/15/2017	GH_FR1	200378	0.002		1.29	56.3	52.9	< 0.010	< 0.010	2	
8/22/2017	GH_FR1	200378	0.0056		1.24	52.6	50.1	< 0.010	< 0.010	2.01	
9/5/2017	GH_FR1	200378	< 0.0020		1.3	52.5	52.7	< 0.010	< 0.010	2.18	
9/11/2017	GH_FR1	200378	< 0.0010		1.23	52.3	48.8	< 0.010	< 0.010	2.09	
10/2/2017	GH_FR1	200378		0.002	1.22	66.9	57.2	< 0.010	< 0.010	2.28	
10/10/2017	GH_FR1	200378	0.0026		1.55	75.6	75	< 0.010	< 0.010	2.35	
10/17/2017	GH_FR1	200378	< 0.0020		1.31	63.7	63.2	< 0.010	< 0.010	2.25	
10/24/2017	GH_FR1	200378	0.0021		1.35	62.6	63.7	< 0.010	< 0.010	2.12	
10/31/2017	GH_FR1	200378	0.0027		1.21	55.9	55	< 0.010	< 0.010	2.17	
11/7/2017	GH_FR1	200378	0.0017		1.25	69.5	67.6	< 0.010	< 0.010	2.3	
11/14/2017	GH_FR1	200378	0.0015		1.15	61.1	62.6	< 0.010	< 0.010	2.36	
11/21/2017	GH_FR1	200378	0.0022		1.22	65.5	61.8	< 0.010	< 0.010	2.43	
12/5/2017	GH_FR1	200378	< 0.0020		1.15	50.8	56.9	< 0.010	< 0.010	2.29	
1/9/2017	GH_GH1	E102709	0.0054		2.54	133	130	< 0.010	< 0.010	3.15	
2/15/2017	GH_GH1	E102709	0.0054		2.69	143	140	< 0.010	< 0.010	2.98	
3/7/2017	GH_GH1	E102709	0.0053		2.37	124	134	< 0.010	< 0.010	2.79	
3/14/2017	GH_GH1	E102709	0.0029		2.43	118	130	< 0.010	< 0.010	2.71	
3/16/2017	GH_GH1	E102709									
3/21/2017	GH_GH1	E102709									
3/27/2017	GH_GH1	E102709									
4/4/2017	GH_GH1	E102709									
4/11/2017	GH_GH1	E102709									
4/18/2017	GH_GH1	E102709	0.0069		1.8	57.7	54.1	< 0.010	< 0.010	3.06	
4/24/2017	GH_GH1	E102709									
4/27/2017	GH_GH1	E102709									
5/2/2017	GH_GH1	E102709	0.0163		1.35	29.4	27.4	< 0.010	0.016	2.1	
5/3/2017	GH_GH1	E102709									
5/9/2017	GH_GH1	E102709	0.0474		1.69	22.1	21.9	< 0.010	0.044	1.6	
5/10/2017	GH_GH1	E102709									
5/15/2017	GH_GH1	E102709									
5/24/2017	GH_GH1	E102709									
5/29/2017	GH_GH1	E102709									
6/7/2017	GH_GH1	E102709	0.0126		2.05	94	90	< 0.010	< 0.010	2.27	
6/8/2017	GH_GH1	E102709	0.0148		2	93.6	91	< 0.010	< 0.010	2.06	
6/12/2017	GH_GH1	E102709									
6/19/2017	GH_GH1	E102709									
6/27/2017	GH_GH1	E102709									
7/4/2017	GH_GH1	E102709									
7/11/2017	GH_GH1	E102709	0.0069		2.64	157	142	< 0.010	< 0.010	2.11	
8/3/2017	GH_GH1	E102709	0.007		2.8	176	179	< 0.010	< 0.010	2.67	
9/11/2017	GH_GH1	E102709	0.0066		2.85	199	176	< 0.010	< 0.010	2.61	
10/4/2017	GH_GH1	E102709	0.0026		2.7	189	190	< 0.010	< 0.010	2.6	
11/7/2017	GH_GH1	E102709	0.0035		3.03	178	178	< 0.010	< 0.010	2.69	
12/11/2017	GH_GH1	E102709	0.0031		2.91	165	160	< 0.010	< 0.010	3.14	
5/9/2017	GH_GH2	E309911	0.0492		1.7	22.7	22.2	< 0.010	0.041	1.67	
6/7/2017	GH_GH2	E309911	0.0122		1.98	91.2	86.9	< 0.010	< 0.010	2.29	

		Analyte	PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
		Fraction Result Unit	N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
6/19/2017	GH_GH2	E309911	0.0131		2.3	112	110	< 0.010	< 0.010	2.31		
7/11/2017	GH_GH2	E309911	0.0122		2.63	152	144	< 0.010	< 0.010	2.18		
8/3/2017	GH_GH2	E309911										
8/7/2017	GH_GH2	E309911	0.0101		2.7	176	168	< 0.010	< 0.010	2.66		
9/12/2017	GH_GH2	E309911	0.0044		2.92	197	174	< 0.010	< 0.010	2.86		
10/25/2017	GH_GH2	E309911	0.0051		2.59	162	168	< 0.010	< 0.010	3.01		
11/7/2017	GH_GH2	E309911	0.005		2.89	177	178	< 0.010	< 0.010	2.92		
12/11/2017	GH_GH2	E309911	0.0045		2.85	163	158	< 0.010	< 0.010	3.46		
1/16/2017	GH_LC1	E257796										
2/14/2017	GH_LC1	E257796	0.0145		5.33	22.1	20.5	< 0.010	< 0.010	8.15		
2/21/2017	GH_LC1	E257796	0.0115		5.78	26.5	23.6	< 0.010	< 0.010	9.62		
3/6/2017	GH_LC1	E257796	0.0063		6.41	24.1	22.5	< 0.010	< 0.010	5.78		
3/16/2017	GH_LC1	E257796										
3/21/2017	GH_LC1	E257796										
3/27/2017	GH_LC1	E257796										
4/4/2017	GH_LC1	E257796										
4/10/2017	GH_LC1	E257796										
4/18/2017	GH_LC1	E257796	0.0067		6.25	29.6	29.3	< 0.010	< 0.010	7.54		
4/25/2017	GH_LC1	E257796										
5/1/2017	GH_LC1	E257796	0.0059		5.96	34.3	35.5	< 0.010	< 0.010	7.84		
5/8/2017	GH_LC1	E257796										
5/15/2017	GH_LC1	E257796										
5/24/2017	GH_LC1	E257796										
5/29/2017	GH_LC1	E257796										
6/5/2017	GH_LC1	E257796	0.0083		5.97	96.6	87.5	< 0.010	< 0.010	13.3		
6/12/2017	GH_LC1	E257796										
6/19/2017	GH_LC1	E257796										
6/20/2017	GH_LC1	E257796										
6/27/2017	GH_LC1	E257796										
7/4/2017	GH_LC1	E257796										
7/10/2017	GH_LC1	E257796	0.0122		7	58.8	55.8	< 0.010	< 0.010	9.59		
8/2/2017	GH_LC1	E257796	0.0044		6.8	59.7	58.6	< 0.020	< 0.020	11.3		
9/11/2017	GH_LC1	E257796	0.0071		7.22	114	101	< 0.010	< 0.010	15.7		
10/3/2017	GH_LC1	E257796	0.0046		7.61	133	133	< 0.010	< 0.010	19.6		
11/6/2017	GH_LC1	E257796										
12/12/2017	GH_LC1	E257796										
1/16/2017	GH_MC1	200388										
2/15/2017	GH_MC1	200388										
3/6/2017	GH_MC1	200388										
3/16/2017	GH_MC1	200388	0.0251		1.82	2.94	2.61	< 0.010	< 0.010	14.9		
3/22/2017	GH_MC1	200388	0.0136		2.04	4.12	4.2	< 0.010	< 0.010	17.4		
3/27/2017	GH_MC1	200388										
4/4/2017	GH_MC1	200388										
4/10/2017	GH_MC1	200388										
4/18/2017	GH_MC1	200388	0.009		1.42	4.77	4.71	< 0.010	< 0.010	12.8		
4/25/2017	GH_MC1	200388										
5/1/2017	GH_MC1	200388	0.0077		1.19	3	2.95	< 0.010	< 0.010	10.5		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
5/8/2017	GH_MC1	200388										
5/15/2017	GH_MC1	200388										
5/24/2017	GH_MC1	200388										
5/29/2017	GH_MC1	200388										
6/5/2017	GH_MC1	200388	0.0085		1.56	2.17	1.98	< 0.010	< 0.010	12.4		
6/12/2017	GH_MC1	200388										
6/20/2017	GH_MC1	200388										
6/27/2017	GH_MC1	200388										
7/4/2017	GH_MC1	200388										
7/10/2017	GH_MC1	200388	0.0112		2.16	2.1	2.09	< 0.010	< 0.010	13.8		
8/2/2017	GH_MC1	200388										
9/12/2017	GH_MC1	200388										
10/3/2017	GH_MC1	200388										
11/28/2017	GH_MC1	200388	0.0091		1.71	5.07	4.47	< 0.010	< 0.010	22.4		
12/6/2017	GH_MC1	200388	0.0103		1.71	4.81	4.4	< 0.010	< 0.010	18		
1/16/2017	GH_NNC	E305875	0.0079		0.78	0.39	0.363	< 0.010	< 0.010	5.75		
2/15/2017	GH_NNC	E305875										
3/6/2017	GH_NNC	E305875	0.01		0.749	0.439	0.379	< 0.010	< 0.010	5.95		
3/16/2017	GH_NNC	E305875										
3/22/2017	GH_NNC	E305875										
3/28/2017	GH_NNC	E305875										
4/4/2017	GH_NNC	E305875										
4/10/2017	GH_NNC	E305875										
4/20/2017	GH_NNC	E305875	0.0215		0.748	0.208	0.208	< 0.010	< 0.010	3.2		
4/25/2017	GH_NNC	E305875										
5/1/2017	GH_NNC	E305875	0.0058		0.736	0.167	0.184	< 0.010	< 0.010	3.67		
5/8/2017	GH_NNC	E305875										
5/15/2017	GH_NNC	E305875										
5/24/2017	GH_NNC	E305875										
5/29/2017	GH_NNC	E305875										
6/5/2017	GH_NNC	E305875	0.0081		0.788	0.166	0.167	< 0.010	< 0.010	4.32		
6/12/2017	GH_NNC	E305875										
6/19/2017	GH_NNC	E305875										
6/26/2017	GH_NNC	E305875										
7/4/2017	GH_NNC	E305875										
7/10/2017	GH_NNC	E305875	0.0095		0.885	0.189	0.188	< 0.010	< 0.010	4.4		
8/2/2017	GH_NNC	E305875	0.0069		0.922	0.189	0.173	< 0.010	< 0.010	5.66		
9/12/2017	GH_NNC	E305875										
10/3/2017	GH_NNC	E305875										
11/28/2017	GH_NNC	E305875	0.0027		0.834	0.359	0.213	< 0.010	< 0.010	5.88		
12/6/2017	GH_NNC	E305875	0.0043		0.772	0.38	0.301	< 0.010	< 0.010	5.64		
1/9/2017	GH_PC1	200385	0.005		1.09	73.2	68.8	< 0.010	< 0.010	0.915		
2/9/2017	GH_PC1	200385	0.0068		1.15	78.5	69.8	< 0.010	< 0.010	0.951		
2/9/2017	GH_PC1	200385										
3/6/2017	GH_PC1	200385	0.0038		1.02	60.8	68.5	< 0.010	< 0.010	0.988		
3/15/2017	GH_PC1	200385										
3/21/2017	GH_PC1	200385	0.0093		1.17	57	62.2	< 0.010	< 0.010	0.979		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
3/29/2017	GH_PC1	200385										
4/5/2017	GH_PC1	200385	0.0044		0.966	54.3	53.2	< 0.010	< 0.010	0.866		
4/12/2017	GH_PC1	200385										
4/20/2017	GH_PC1	200385										
4/25/2017	GH_PC1	200385										
5/3/2017	GH_PC1	200385	0.0062		1.09	82	71.5	< 0.010	< 0.010	0.925		
5/8/2017	GH_PC1	200385	0.0343		1.27	85.6	78.9	< 0.010	0.027	0.892		
5/17/2017	GH_PC1	200385										
5/23/2017	GH_PC1	200385										
5/31/2017	GH_PC1	200385										
6/6/2017	GH_PC1	200385	0.0079		1.37	105	99.6	< 0.010	< 0.010	1.01		
6/13/2017	GH_PC1	200385										
6/19/2017	GH_PC1	200385										
6/27/2017	GH_PC1	200385										
7/5/2017	GH_PC1	200385	0.005		1.15	75.9	73	< 0.010	< 0.010	0.834		
7/10/2017	GH_PC1	200385										
7/27/2017	GH_PC1	200385	0.0034		1.06	73.9	69.6	< 0.010	< 0.010	0.846		
8/8/2017	GH_PC1	200385										
8/8/2017	GH_PC1	200385	0.0038		1.13	72.6	67.4	< 0.010	< 0.010	0.848		
12/5/2017	GH_PC1	200385										
1/9/2017	GH_RLP	E207437										
2/7/2017	GH_RLP	E207437										
3/16/2017	GH_RLP	E207437	0.46		2.9	0.987	1.32	< 0.010	0.131	9.43		
3/21/2017	GH_RLP	E207437										
3/27/2017	GH_RLP	E207437										
4/4/2017	GH_RLP	E207437										
4/11/2017	GH_RLP	E207437										
4/18/2017	GH_RLP	E207437	0.0223		2.54	1.92	2.03	< 0.010	< 0.010	18.6		
4/25/2017	GH_RLP	E207437										
5/3/2017	GH_RLP	E207437	0.0157		2.78	3.14	2.73	< 0.010	< 0.010	13.4		
5/10/2017	GH_RLP	E207437										
5/15/2017	GH_RLP	E207437										
5/24/2017	GH_RLP	E207437										
5/29/2017	GH_RLP	E207437										
6/7/2017	GH_RLP	E207437										
6/12/2017	GH_RLP	E207437										
6/22/2017	GH_RLP	E207437										
6/27/2017	GH_RLP	E207437										
7/4/2017	GH_RLP	E207437										
7/11/2017	GH_RLP	E207437										
7/27/2017	GH_RLP	E207437	0.032		3.97	4.03	3.85	< 0.010	< 0.010	17.2		
8/3/2017	GH_RLP	E207437										
9/27/2017	GH_RLP	E207437										
10/25/2017	GH_RLP	E207437										
11/14/2017	GH_RLP	E207437										
12/7/2017	GH_RLP	E207437	0.0093		5.86	6.96	7.65	< 0.010	< 0.010	27.9		
1/10/2017	GH_SC1	E221329	0.0076		4.69	697	626	< 0.010	< 0.010	1.72		

		Analyte	PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
		Fraction Result Unit	N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
2/9/2017	GH_SC1	E221329	0.0061		4.93	769	691	< 0.010	< 0.010	1.64		
3/6/2017	GH_SC1	E221329	0.0048		4.58	567	597	< 0.010	< 0.010	1.61		
3/15/2017	GH_SC1	E221329										
3/21/2017	GH_SC1	E221329	0.0223		4.02	416	433	< 0.010	< 0.010	1.92		
3/29/2017	GH_SC1	E221329										
4/5/2017	GH_SC1	E221329	0.0164		3.35	409	371	< 0.010	< 0.010	1.58		
4/12/2017	GH_SC1	E221329										
4/20/2017	GH_SC1	E221329										
4/25/2017	GH_SC1	E221329										
5/2/2017	GH_SC1	E221329										
5/3/2017	GH_SC1	E221329	0.0149		3.6	508	463	< 0.010	< 0.010	2.22		
5/8/2017	GH_SC1	E221329	0.0269		3.47	413	379	< 0.010	< 0.010	1.44		
5/17/2017	GH_SC1	E221329										
5/17/2017	GH_SC1	E221329										
5/17/2017	GH_SC1	E221329										
5/18/2017	GH_SC1	E221329										
5/23/2017	GH_SC1	E221329										
5/31/2017	GH_SC1	E221329										
6/6/2017	GH_SC1	E221329	0.0045		3.52	353	337	< 0.010	< 0.010	1.24		
6/13/2017	GH_SC1	E221329										
6/19/2017	GH_SC1	E221329										
6/27/2017	GH_SC1	E221329										
7/5/2017	GH_SC1	E221329	0.0038		3.76	457	427	< 0.010	< 0.010	1.3		
7/10/2017	GH_SC1	E221329										
8/8/2017	GH_SC1	E221329	0.0033		4.43	547	506	< 0.020	< 0.020	1.44		
9/6/2017	GH_SC1	E221329	0.0043		4.92	637	635	< 0.010	< 0.010	1.59		
9/20/2017	GH_SC1	E221329										
10/4/2017	GH_SC1	E221329	0.0028		4.91	706	696	< 0.010	< 0.010	1.75		
10/19/2017	GH_SC1	E221329	0.004		4.9	557	575	< 0.020	< 0.020	1.65		
11/1/2017	GH_SC1	E221329	0.0027		4.81	669	629	< 0.020	< 0.010	1.71		
11/16/2017	GH_SC1	E221329										
12/5/2017	GH_SC1	E221329	0.0025		4.65	733	720	< 0.010	< 0.020	1.9		
1/1/2017	GH_SC2	E105061										
2/1/2017	GH_SC2	E105061										
3/1/2017	GH_SC2	E105061										
4/1/2017	GH_SC2	E105061										
5/1/2017	GH_SC2	E105061										
6/1/2017	GH_SC2	E105061										
7/1/2017	GH_SC2	E105061										
8/1/2017	GH_SC2	E105061										
9/4/2017	GH_SC2	E105061										
10/2/2017	GH_SC2	E105061										
11/6/2017	GH_SC2	E105061										
12/4/2017	GH_SC2	E105061										
1/10/2017	GH_TC1	E102714	0.011		2.13	109	101	< 0.010	< 0.010	10.2		
2/15/2017	GH_TC1	E102714	0.0178		2.24	94.7	91.9	< 0.010	< 0.010	13.3		
3/6/2017	GH_TC1	E102714	0.015		1.76	106	104	< 0.010	< 0.010	13.2		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
3/16/2017	GH_TC1	E102714										
3/21/2017	GH_TC1	E102714										
3/27/2017	GH_TC1	E102714										
4/4/2017	GH_TC1	E102714										
4/10/2017	GH_TC1	E102714										
4/20/2017	GH_TC1	E102714	0.0325		1.4	41.2	34.1	< 0.010	< 0.010	5.12		
4/25/2017	GH_TC1	E102714										
5/3/2017	GH_TC1	E102714	0.0105		1.28	38.9	35.4	< 0.010	< 0.010	5.78		
5/10/2017	GH_TC1	E102714										
5/15/2017	GH_TC1	E102714										
5/24/2017	GH_TC1	E102714										
5/29/2017	GH_TC1	E102714										
6/7/2017	GH_TC1	E102714	0.0132		1.72	98.8	94	< 0.010	< 0.010	8.03		
6/12/2017	GH_TC1	E102714										
6/19/2017	GH_TC1	E102714	0.0131		1.82	103	103	< 0.010	< 0.010	8.2		
6/27/2017	GH_TC1	E102714										
7/4/2017	GH_TC1	E102714										
7/10/2017	GH_TC1	E102714	0.0128		2.18	141	138	< 0.010	< 0.010	9.14		
8/2/2017	GH_TC1	E102714	0.0243		2.25	147	143	< 0.010	< 0.010	11.6		
9/13/2017	GH_TC1	E102714	0.0111		2.37	182	169	< 0.010	< 0.010	12		
10/4/2017	GH_TC1	E102714	0.0053		2.03	166	167	< 0.010	< 0.010	10.7		
11/6/2017	GH_TC1	E102714	0.0055		1.95	159	144	< 0.010	< 0.050	12.3		
12/12/2017	GH_TC1	E102714	0.0082		1.71	142	141	< 0.010	< 0.010	10.3		
1/10/2017	GH_TC2	E207436	0.0117		1.86	110	104	< 0.010	< 0.010	10		
2/9/2017	GH_TC2	E207436	0.0138		2.39	116	105	< 0.010	< 0.010	14.1		
2/15/2017	GH_TC2	E207436	0.016		2.25	99.3	95.6	< 0.010	< 0.010	13.5		
3/6/2017	GH_TC2	E207436	0.0093		1.82	110	107	< 0.010	< 0.010	13.6		
3/16/2017	GH_TC2	E207436										
3/21/2017	GH_TC2	E207436										
3/28/2017	GH_TC2	E207436										
4/4/2017	GH_TC2	E207436										
4/10/2017	GH_TC2	E207436										
4/20/2017	GH_TC2	E207436	0.0173		1.42	41.7	34.8	< 0.010	< 0.010	5.12		
4/25/2017	GH_TC2	E207436										
5/3/2017	GH_TC2	E207436	0.0089		1.29	39.6	35.5	< 0.010	< 0.010	5.77		
5/10/2017	GH_TC2	E207436										
5/15/2017	GH_TC2	E207436										
5/24/2017	GH_TC2	E207436										
5/29/2017	GH_TC2	E207436										
6/7/2017	GH_TC2	E207436	0.0086		1.79	98.1	95.3	< 0.010	< 0.010	8.23		
6/12/2017	GH_TC2	E207436										
6/19/2017	GH_TC2	E207436	0.0082		1.86	108	106	< 0.010	< 0.010	8.64		
6/27/2017	GH_TC2	E207436										
7/4/2017	GH_TC2	E207436										
7/10/2017	GH_TC2	E207436	0.011		2.15	144	139	< 0.010	< 0.010	9.07		
8/2/2017	GH_TC2	E207436	0.0078		2.18	158	145	< 0.010	< 0.010	11.2		
9/12/2017	GH_TC2	E207436	0.0128		2.45	191	169	< 0.010	< 0.010	12.6		

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
10/3/2017	GH_TC2	E207436	0.0042		2.24	169	170	< 0.010	< 0.010	11.6	
11/14/2017	GH_TC2	E207436	0.0064		1.8	159	153	< 0.010	< 0.010	12	
12/6/2017	GH_TC2	E207436	0.0071		1.92	147	142	< 0.010	< 0.010	10.9	
6/7/2017	GH_TPS	E287438	0.0232		4.52	5.94	6.34	< 0.010	< 0.010	11.1	
6/19/2017	GH_TPS	E287438	0.102		5.51	6.92	6.47	< 0.010	< 0.050	12	
11/21/2017	GH_TPS	E287438	0.0127		9.75	15.8	17.7	< 0.010	< 0.010	18.5	
1/10/2017	GH_WADE	E287433									
2/14/2017	GH_WADE	E287433									
3/6/2017	GH_WADE	E287433									
3/16/2017	GH_WADE	E287433	0.0774		1.62	2.3	2.17	< 0.010	0.029	16.6	
3/22/2017	GH_WADE	E287433	0.023		1.27	2.07	2.13	< 0.010	< 0.010	17	
3/27/2017	GH_WADE	E287433									
3/28/2017	GH_WADE	E287433									
3/30/2017	GH_WADE	E287433									
4/4/2017	GH_WADE	E287433									
4/4/2017	GH_WADE	E287433									
4/10/2017	GH_WADE	E287433									
4/18/2017	GH_WADE	E287433	0.0229		1.11	2.92	2.85	< 0.010	< 0.010	12.9	
4/25/2017	GH_WADE	E287433									
5/1/2017	GH_WADE	E287433	0.021		1.07	2.32	2.21	< 0.010	< 0.010	10.6	
5/8/2017	GH_WADE	E287433									
5/15/2017	GH_WADE	E287433									
5/24/2017	GH_WADE	E287433									
5/29/2017	GH_WADE	E287433									
6/5/2017	GH_WADE	E287433	0.0139		1.31	1.79	1.62	< 0.010	< 0.010	14.1	
6/12/2017	GH_WADE	E287433									
6/20/2017	GH_WADE	E287433									
6/27/2017	GH_WADE	E287433									
7/4/2017	GH_WADE	E287433									
7/10/2017	GH_WADE	E287433	0.0157		1.62	0.891	0.924	< 0.010	< 0.010	16.5	
8/2/2017	GH_WADE	E287433									
9/12/2017	GH_WADE	E287433									
10/3/2017	GH_WADE	E287433									
11/28/2017	GH_WADE	E287433	0.0102		1.44	5.91	5.39	< 0.010	< 0.010	23.2	
12/6/2017	GH_WADE	E287433									
1/10/2017	GH_WC1	E257795									
2/15/2017	GH_WC1	E257795									
3/6/2017	GH_WC1	E257795									
3/16/2017	GH_WC1	E257795									
3/21/2017	GH_WC1	E257795									
3/27/2017	GH_WC1	E257795	0.044		2.68	33.1	30.2	< 0.010	< 0.010	4.43	
4/4/2017	GH_WC1	E257795									
4/10/2017	GH_WC1	E257795									
4/20/2017	GH_WC1	E257795	0.0054		4.25	68	58.6	< 0.010	< 0.010	4.47	
4/25/2017	GH_WC1	E257795									
5/1/2017	GH_WC1	E257795	0.0051		5.54	54	51.3	< 0.010	< 0.010	6.32	
5/3/2017	GH_WC1	E257795									

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
5/8/2017	GH_WC1	E257795										
5/15/2017	GH_WC1	E257795										
5/24/2017	GH_WC1	E257795										
5/29/2017	GH_WC1	E257795										
6/5/2017	GH_WC1	E257795	0.0044		4.52	134	124	< 0.010	< 0.010	11.1		
6/12/2017	GH_WC1	E257795										
6/19/2017	GH_WC1	E257795										
6/27/2017	GH_WC1	E257795										
7/4/2017	GH_WC1	E257795										
7/10/2017	GH_WC1	E257795										
8/2/2017	GH_WC1	E257795										
9/11/2017	GH_WC1	E257795										
10/3/2017	GH_WC1	E257795										
11/6/2017	GH_WC1	E257795										
12/12/2017	GH_WC1	E257795	0.0047		7.64	57.6	51.4	< 0.010	< 0.010	5.03		
1/16/2017	GH_WILLOW_SP1	E305854										
2/14/2017	GH_WILLOW_SP1	E305854										
3/6/2017	GH_WILLOW_SP1	E305854										
3/16/2017	GH_WILLOW_SP1	E305854										
3/22/2017	GH_WILLOW_SP1	E305854										
3/27/2017	GH_WILLOW_SP1	E305854										
4/4/2017	GH_WILLOW_SP1	E305854										
4/10/2017	GH_WILLOW_SP1	E305854										
4/18/2017	GH_WILLOW_SP1	E305854	0.0106		0.796	1.07	1.13	< 0.010	< 0.010	3.85		
4/25/2017	GH_WILLOW_SP1	E305854										
5/3/2017	GH_WILLOW_SP1	E305854	0.0078		0.741	1.03	1.01	< 0.010	< 0.010	3.53		
5/8/2017	GH_WILLOW_SP1	E305854										
5/15/2017	GH_WILLOW_SP1	E305854										
5/24/2017	GH_WILLOW_SP1	E305854										
5/29/2017	GH_WILLOW_SP1	E305854										
6/5/2017	GH_WILLOW_SP1	E305854	0.0118		0.777	3.2	3.2	< 0.010	< 0.010	2.63		
6/12/2017	GH_WILLOW_SP1	E305854										
6/20/2017	GH_WILLOW_SP1	E305854										
6/27/2017	GH_WILLOW_SP1	E305854										
7/4/2017	GH_WILLOW_SP1	E305854										
7/10/2017	GH_WILLOW_SP1	E305854										
8/2/2017	GH_WILLOW_SP1	E305854										
9/12/2017	GH_WILLOW_SP1	E305854										
10/3/2017	GH_WILLOW_SP1	E305854										
11/6/2017	GH_WILLOW_SP1	E305854										
12/6/2017	GH_WILLOW_SP1	E305854										
1/10/2017	GH_WOLF_SP1	E305855										
2/14/2017	GH_WOLF_SP1	E305855										
3/6/2017	GH_WOLF_SP1	E305855										
3/16/2017	GH_WOLF_SP1	E305855										
3/22/2017	GH_WOLF_SP1	E305855										
3/27/2017	GH_WOLF_SP1	E305855										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
4/4/2017	GH_WOLF_SP1	E305855										
4/10/2017	GH_WOLF_SP1	E305855										
4/20/2017	GH_WOLF_SP1	E305855										
4/24/2017	GH_WOLF_SP1	E305855										
5/1/2017	GH_WOLF_SP1	E305855										
5/8/2017	GH_WOLF_SP1	E305855										
5/15/2017	GH_WOLF_SP1	E305855										
5/22/2017	GH_WOLF_SP1	E305855										
5/29/2017	GH_WOLF_SP1	E305855										
6/5/2017	GH_WOLF_SP1	E305855										
6/12/2017	GH_WOLF_SP1	E305855										
6/20/2017	GH_WOLF_SP1	E305855										
6/27/2017	GH_WOLF_SP1	E305855										
7/4/2017	GH_WOLF_SP1	E305855										
7/10/2017	GH_WOLF_SP1	E305855										
8/1/2017	GH_WOLF_SP1	E305855										
9/12/2017	GH_WOLF_SP1	E305855										
10/3/2017	GH_WOLF_SP1	E305855										
11/6/2017	GH_WOLF_SP1	E305855										
12/6/2017	GH_WOLF_SP1	E305855										
1/12/2017	LC_LC1	E216142										
2/14/2017	LC_LC1	E216142										
3/9/2017	LC_LC1	E216142										
3/14/2017	LC_LC1	E216142										
3/21/2017	LC_LC1	E216142										
3/29/2017	LC_LC1	E216142										
4/5/2017	LC_LC1	E216142										
4/11/2017	LC_LC1	E216142										
4/20/2017	LC_LC1	E216142										
4/25/2017	LC_LC1	E216142	0.0057		0.321	1.67	1.6	< 0.010	< 0.010	1.3		243.8
5/1/2017	LC_LC1	E216142	0.07		0.322	2.23	1.99	< 0.010	< 0.010	1.5		258.4
5/5/2017	LC_LC1	E216142										
5/6/2017	LC_LC1	E216142										
5/9/2017	LC_LC1	E216142										188.5
5/9/2017	LC_LC1	E216142										
5/16/2017	LC_LC1	E216142										233.7
5/24/2017	LC_LC1	E216142										158.7
5/30/2017	LC_LC1	E216142										137.1
6/6/2017	LC_LC1	E216142										
6/7/2017	LC_LC1	E216142	0.0051		0.231	2.26	2.12	< 0.010	< 0.010	1		194.6
6/13/2017	LC_LC1	E216142										200
6/20/2017	LC_LC1	E216142										196.5
6/20/2017	LC_LC1	E216142										
6/26/2017	LC_LC1	E216142										199.6
7/6/2017	LC_LC1	E216142	< 0.0020		0.208	2.65	2.45	< 0.010	< 0.010	0.913		197.3
7/10/2017	LC_LC1	E216142										
7/11/2017	LC_LC1	E216142										232.1

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
8/2/2017	LC_LC1	E216142	< 0.0040		0.272	3.24	3.27	< 0.010	< 0.010	1.19		282.4
8/2/2017	LC_LC1	E216142										
8/8/2017	LC_LC1	E216142										295.3
8/15/2017	LC_LC1	E216142										279.7
8/18/2017	LC_LC1	E216142										285.6
8/18/2017	LC_LC1	E216142										
8/21/2017	LC_LC1	E216142										287.4
8/24/2017	LC_LC1	E216142										
8/24/2017	LC_LC1	E216142										288.8
8/27/2017	LC_LC1	E216142										288.9
8/30/2017	LC_LC1	E216142										294.2
9/2/2017	LC_LC1	E216142										295.5
9/5/2017	LC_LC1	E216142	< 0.0020		0.304	3.09	3.16	< 0.010	< 0.010	1.25		280.1
9/5/2017	LC_LC1	E216142										
9/8/2017	LC_LC1	E216142										
10/3/2017	LC_LC1	E216142	< 0.0020		0.3	3.56	3.51	< 0.010	< 0.010	1.38		304.2
11/8/2017	LC_LC1	E216142	0.002		0.26	3.72	3.52	< 0.010	< 0.010	1.78		276.6
11/8/2017	LC_LC1	E216142										
11/30/2017	LC_LC1	E216142										
12/4/2017	LC_LC1	E216142	0.0022		0.298	3.19	3.31	< 0.010	< 0.010	1.66		269.8
12/4/2017	LC_LC1	E216142										
1/9/2017	LC_LC12	E223240										
2/15/2017	LC_LC12	E223240										
3/6/2017	LC_LC12	E223240										
3/14/2017	LC_LC12	E223240										
3/20/2017	LC_LC12	E223240										
3/27/2017	LC_LC12	E223240										
4/3/2017	LC_LC12	E223240										
4/10/2017	LC_LC12	E223240										
4/17/2017	LC_LC12	E223240										
4/24/2017	LC_LC12	E223240										
5/1/2017	LC_LC12	E223240										
5/9/2017	LC_LC12	E223240	0.0076		1.11	53.5	45.7	< 0.010	< 0.010	1.16		571.9
5/16/2017	LC_LC12	E223240										477.4
5/23/2017	LC_LC12	E223240										446.8
5/30/2017	LC_LC12	E223240										461.2
6/6/2017	LC_LC12	E223240	0.0096		0.798	28.7	27.7	< 0.010	< 0.010	0.685		421.4
6/13/2017	LC_LC12	E223240										467
6/20/2017	LC_LC12	E223240										437.1
6/26/2017	LC_LC12	E223240										497.8
7/5/2017	LC_LC12	E223240	0.0023		0.912	31.7	29.3	< 0.010	< 0.010	0.834		531
7/11/2017	LC_LC12	E223240										656
1/9/2017	LC_LC2	200335	0.0026		0.465	5.8	6.02	< 0.010	< 0.010	1.62		410.4
2/14/2017	LC_LC2	200335	0.0061		0.496	7.13	5.95	< 0.010	< 0.010	1.75		350.8
3/6/2017	LC_LC2	200335	0.0022		0.535	6.15	5.96	< 0.010	< 0.010	1.72		323.8
3/13/2017	LC_LC2	200335										310.7
3/16/2017	LC_LC2	200335										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
3/17/2017	LC_LC2	200335	0.0057		0.495	5.78	5.93	< 0.010	< 0.010	1.78		316.4
3/18/2017	LC_LC2	200335										
3/19/2017	LC_LC2	200335										
3/20/2017	LC_LC2	200335										249.4
3/21/2017	LC_LC2	200335										
3/22/2017	LC_LC2	200335										
3/23/2017	LC_LC2	200335										
3/24/2017	LC_LC2	200335										
3/25/2017	LC_LC2	200335										
3/26/2017	LC_LC2	200335										
3/27/2017	LC_LC2	200335										309.4
4/4/2017	LC_LC2	200335	0.0054		0.49	6	5.78	< 0.010	< 0.010	1.71		293.7
4/4/2017	LC_LC2	200335										
4/10/2017	LC_LC2	200335										291.2
4/18/2017	LC_LC2	200335										288.5
4/25/2017	LC_LC2	200335										285.2
5/1/2017	LC_LC2	200335	0.0079		0.446	5.58	4.72	< 0.010	< 0.010	1.66		292.1
5/5/2017	LC_LC2	200335										
5/6/2017	LC_LC2	200335										
5/7/2017	LC_LC2	200335										
5/9/2017	LC_LC2	200335										216.7
5/11/2017	LC_LC2	200335										
5/13/2017	LC_LC2	200335										
5/16/2017	LC_LC2	200335										254
5/18/2017	LC_LC2	200335										
5/23/2017	LC_LC2	200335										214.8
5/24/2017	LC_LC2	200335										
5/25/2017	LC_LC2	200335										
5/30/2017	LC_LC2	200335										211.7
6/1/2017	LC_LC2	200335										
6/5/2017	LC_LC2	200335										
6/6/2017	LC_LC2	200335	0.0083		0.336	2.48	2.52	< 0.010	< 0.010	1.17		214.9
6/13/2017	LC_LC2	200335										224.6
6/20/2017	LC_LC2	200335										219.1
6/26/2017	LC_LC2	200335										227.3
7/5/2017	LC_LC2	200335	0.0026		0.31	3.24	3.01	< 0.010	< 0.010	1.1		224.3
7/6/2017	LC_LC2	200335										
7/10/2017	LC_LC2	200335										
7/11/2017	LC_LC2	200335										264.1
8/2/2017	LC_LC2	200335	0.0062		0.442	5.42	5.51	< 0.010	< 0.010	1.5		318.8
8/2/2017	LC_LC2	200335										
9/6/2017	LC_LC2	200335	0.0026		0.511	8.06	7.63	< 0.010	< 0.010	1.64		323
10/3/2017	LC_LC2	200335	< 0.0020		0.537	9.44	8.5	< 0.010	< 0.010	1.71		335.6
11/8/2017	LC_LC2	200335	0.0036		0.497	8.75	8.24	< 0.010	< 0.010	1.79		310.2
11/8/2017	LC_LC2	200335										
12/4/2017	LC_LC2	200335	0.0034		0.479	7.3	7.48	< 0.010	< 0.010	1.71		274.3
1/2/2017	LC_LC3	200337	0.0037		2.16	74.3	80.1	< 0.010	< 0.010	12.9		942

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
1/2/2017	LC_LC3	200337				63	63.9					
1/9/2017	LC_LC3	200337	0.0117		2.04	35.1	37.2	< 0.010	< 0.010	9.91		1287
1/16/2017	LC_LC3	200337	0.0118		2.37	38.9	39.3	< 0.010	< 0.010	14.2		1029
1/23/2017	LC_LC3	200337	0.0167		2.08	30	31.3	< 0.010	< 0.010	10.3		1022
1/31/2017	LC_LC3	200337	0.0153		2.1	39.4	38.9	< 0.010	< 0.010	10.2		794
2/7/2017	LC_LC3	200337	0.0383		2.13	44.4	38	< 0.010	< 0.010	10.1		1065
2/14/2017	LC_LC3	200337	0.018		2.02	43.8	36.1	< 0.010	< 0.010	9.64		1135
2/20/2017	LC_LC3	200337	0.0195		2.12	48.2	40.4	< 0.010	< 0.010	9.93		1094
2/24/2017	LC_LC3	200337	0.0163		2.27	44.4	38	< 0.010	< 0.010	10		898
2/27/2017	LC_LC3	200337	0.0361		2.1	40.3	37.4	< 0.010	< 0.010	9.87		1061
3/1/2017	LC_LC3	200337										
3/6/2017	LC_LC3	200337	0.0144		1.89	39.1	37.7	< 0.010	< 0.010	8.71		1052
3/13/2017	LC_LC3	200337	0.044		1.94	40.3	36.8	< 0.010	< 0.010	9.02		1027
3/16/2017	LC_LC3	200337										
3/16/2017	LC_LC3	200337										
3/17/2017	LC_LC3	200337	0.0228		2.15	90.3	94.9	< 0.010	0.011	8.4		891
3/18/2017	LC_LC3	200337										
3/19/2017	LC_LC3	200337										
3/20/2017	LC_LC3	200337	0.0277		2.28	58.8	54.9	< 0.010	< 0.010	11.5		686
3/21/2017	LC_LC3	200337										
3/22/2017	LC_LC3	200337										
3/23/2017	LC_LC3	200337										
3/24/2017	LC_LC3	200337										
3/25/2017	LC_LC3	200337										
3/26/2017	LC_LC3	200337										
3/27/2017	LC_LC3	200337	0.023		2.37	50.5	51.2	< 0.010	< 0.010	10.2		962
3/28/2017	LC_LC3	200337										
3/29/2017	LC_LC3	200337										
3/30/2017	LC_LC3	200337										
4/3/2017	LC_LC3	200337	0.0073		2.03	55.2	56.4	< 0.010	< 0.010	9.49		900
4/4/2017	LC_LC3	200337										
4/10/2017	LC_LC3	200337	0.005		2.08	85.2	79.5	< 0.010	< 0.010	9.41		930
4/18/2017	LC_LC3	200337	0.015		1.98	55.6	53.7	< 0.010	< 0.010	10.4		924
4/25/2017	LC_LC3	200337	0.0069		2.15	65.8	56.6	< 0.010	< 0.010	10.2		901
5/1/2017	LC_LC3	200337	0.0108		2	60.8	50	< 0.010	< 0.010	9.48		867
5/4/2017	LC_LC3	200337										
5/7/2017	LC_LC3	200337										
5/9/2017	LC_LC3	200337	0.02		1.55	36.9	45.3	< 0.010	< 0.010	5.09		516
5/16/2017	LC_LC3	200337	0.005		1.31	27.2	26.5	< 0.010	< 0.010	4.33		562.8
5/18/2017	LC_LC3	200337										
5/23/2017	LC_LC3	200337	< 0.0020		1.54	39.4	34.8	< 0.010	< 0.010	5.2		534
5/30/2017	LC_LC3	200337	< 0.0040		1.33	41.2	35.2	< 0.010	< 0.010	3.81		456.2
6/6/2017	LC_LC3	200337										
6/7/2017	LC_LC3	200337	< 0.0040		1.35	39.1	37.2	< 0.010	< 0.010	4.69		573
6/13/2017	LC_LC3	200337	< 0.0020		1.54	48.4	41.9	< 0.010	< 0.010	6.2		656
6/19/2017	LC_LC3	200337	< 0.0020		1.43	44.5	41.1	< 0.010	< 0.010	5.94		511.2
6/26/2017	LC_LC3	200337	0.004		1.44	49.4	42.9	< 0.010	< 0.010	6.13		674

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
7/6/2017	LC_LC3	200337										
7/6/2017	LC_LC3	200337	< 0.0020		1.6	45.2	42.3	< 0.010	< 0.010	6.81		684
7/11/2017	LC_LC3	200337										
7/11/2017	LC_LC3	200337	0.0053		1.72	52.1	45.3	< 0.010	< 0.010	7.13		811
7/13/2017	LC_LC3	200337										
7/14/2017	LC_LC3	200337	0.0032		2.01	79.4	66.8	< 0.010	< 0.010	7.86		
7/14/2017	LC_LC3	200337										
7/18/2017	LC_LC3	200337	0.0077		1.8	59	50.1	< 0.010	< 0.010	8.26		863
7/25/2017	LC_LC3	200337										
7/25/2017	LC_LC3	200337	0.0081		1.7	57.1	48.1	< 0.010	< 0.010	7.89		922
7/26/2017	LC_LC3	200337	0.0037		1.71	59.5	47.4	< 0.010	< 0.010	8.02		
8/2/2017	LC_LC3	200337										
8/2/2017	LC_LC3	200337	< 0.0040		1.9	54.6	50.6	< 0.010	< 0.010	8.9		980
8/8/2017	LC_LC3	200337										
8/8/2017	LC_LC3	200337	0.0047		1.78	63.1	64.6	< 0.010	< 0.010	8.1		965
8/12/2017	LC_LC3	200337	0.0036		1.83	51.1	44.7	< 0.010	< 0.010	6.66		
8/12/2017	LC_LC3	200337										
8/15/2017	LC_LC3	200337										
8/15/2017	LC_LC3	200337	0.0038		1.94	54	52.3	< 0.010	< 0.010	7.61		884
8/18/2017	LC_LC3	200337										886
8/21/2017	LC_LC3	200337	0.0041		1.98	43.3	43.4	< 0.010	< 0.010	7.68		891
8/24/2017	LC_LC3	200337										
8/24/2017	LC_LC3	200337										887
8/25/2017	LC_LC3	200337										
8/27/2017	LC_LC3	200337										
8/27/2017	LC_LC3	200337										874
8/30/2017	LC_LC3	200337										
8/30/2017	LC_LC3	200337	0.0039		1.84	44.7	40	< 0.010	< 0.010	6.93		891
9/2/2017	LC_LC3	200337										
9/2/2017	LC_LC3	200337										906
9/5/2017	LC_LC3	200337										
9/5/2017	LC_LC3	200337	0.003		1.97	43.8	42	< 0.010	< 0.010	7.27		923
9/5/2017	LC_LC3	200337										923
9/8/2017	LC_LC3	200337										881
9/12/2017	LC_LC3	200337	0.0051		2.03	76.7	78.3	< 0.010	< 0.010	7.34		971
9/20/2017	LC_LC3	200337										
9/20/2017	LC_LC3	200337	0.0033		1.85	44.7	41.4	< 0.010	< 0.010	7.9		911
9/21/2017	LC_LC3	200337	0.0045		1.96	43.7	42.1	< 0.010	< 0.010	8.1		
9/25/2017	LC_LC3	200337										
9/25/2017	LC_LC3	200337	0.0021		1.92	44.7	42	< 0.010	< 0.010	8.07		
9/25/2017	LC_LC3	200337	0.002		1.9	45	40.9	< 0.010	< 0.010	7.94		914
10/2/2017	LC_LC3	200337	0.003		1.93	49.3	41.9	< 0.010	< 0.010	8.28		1066
10/10/2017	LC_LC3	200337	0.0042		1.98	48.2	42.6	< 0.010	< 0.010	8.89		949
10/10/2017	LC_LC3	200337										
10/17/2017	LC_LC3	200337	0.0026		1.87	111	110	< 0.010	< 0.010	8.34		953
10/24/2017	LC_LC3	200337	0.0029		1.98	85.1	85.9	< 0.010	< 0.010	9.27		927
10/24/2017	LC_LC3	200337										

		Analyte	PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
		Fraction Result Unit	N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
10/31/2017	LC_LC3	200337	0.0047		2.02	85.2	76.3	< 0.010	< 0.010	10		834
10/31/2017	LC_LC3	200337										
11/6/2017	LC_LC3	200337	0.0035		2.05	88.6	84.6	< 0.010	< 0.010	10.8		822
11/8/2017	LC_LC3	200337										
11/9/2017	LC_LC3	200337	0.0044		2.01	79.6	75.6	< 0.010	< 0.010	10.6		1126
11/14/2017	LC_LC3	200337	0.0029		2.13	79.6	80.2	< 0.010	< 0.010	10.3		828
11/21/2017	LC_LC3	200337	0.0042		1.77	83	80.5	< 0.010	< 0.010	10.4		843
11/28/2017	LC_LC3	200337	0.0039		1.97	80.4	77.2	< 0.010	< 0.010	11.3		854
12/4/2017	LC_LC3	200337	0.0036		2.04	77.4	75.9	< 0.010	< 0.010	11.3		845
12/12/2017	LC_LC3	200337	0.003		2.38	91.7	80.1	< 0.010	< 0.010	12.3		849
12/18/2017	LC_LC3	200337	0.0025		2.19	86	84	< 0.010	< 0.010	11.9		873
12/27/2017	LC_LC3	200337	0.0043		2.13	86	81.5	< 0.010	< 0.010	11.4		1088
12/27/2017	LC_LC3	200337										
1/9/2017	LC_LC4	200044	0.0038		1.2	24.7	23.8	< 0.010	< 0.010	6.41		843.5
2/14/2017	LC_LC4	200044	0.0072		1.04	30	24.7	< 0.010	< 0.010	5.52		673.3
2/24/2017	LC_LC4	200044	0.0035		1.23	29.2	24.7	< 0.010	< 0.010	6.06		552
2/27/2017	LC_LC4	200044	0.0246		1.15	31.1	25.6	< 0.010	< 0.010	5.97		649.9
3/6/2017	LC_LC4	200044	0.0031		1.14	25.9	26.2	< 0.010	< 0.010	5.77		650.4
3/13/2017	LC_LC4	200044	0.036		1.12	27.1	25.6	< 0.010	< 0.010	5.44		624
3/15/2017	LC_LC4	200044										
3/16/2017	LC_LC4	200044										
3/17/2017	LC_LC4	200044	0.0182		1.24	39.1	38.9	< 0.010	< 0.010	5.65		605
3/18/2017	LC_LC4	200044										
3/19/2017	LC_LC4	200044										
3/20/2017	LC_LC4	200044	0.023		1.21	32.6	31.8	< 0.010	< 0.010	5.59		447.4
3/21/2017	LC_LC4	200044										
3/22/2017	LC_LC4	200044										
3/23/2017	LC_LC4	200044										
3/24/2017	LC_LC4	200044										
3/25/2017	LC_LC4	200044										
3/26/2017	LC_LC4	200044										
3/27/2017	LC_LC4	200044	0.0026		1.31	32.1	30.6	< 0.010	< 0.010	6.15		623
4/3/2017	LC_LC4	200044	0.0027		1.19	34.6	31.4	< 0.010	< 0.010	5.92		593.6
4/10/2017	LC_LC4	200044	0.0036		1.23	33.6	31.7	< 0.010	< 0.010	5.88		593.8
4/18/2017	LC_LC4	200044	0.0097		1.16	33	29.9	< 0.010	< 0.010	5.86		596.7
4/24/2017	LC_LC4	200044	0.0067		1.2	31.7	29.1	< 0.010	< 0.010	5.85		583.6
4/27/2017	LC_LC4	200044										
5/1/2017	LC_LC4	200044	0.0096		1.34	34.4	31.3	< 0.010	< 0.010	6.41		611
5/5/2017	LC_LC4	200044										
5/6/2017	LC_LC4	200044										
5/7/2017	LC_LC4	200044										
5/8/2017	LC_LC4	200044										
5/8/2017	LC_LC4	200044	0.0498		1.08	26.8	23.5	< 0.010	0.01	3.25		383
5/10/2017	LC_LC4	200044										
5/11/2017	LC_LC4	200044										
5/13/2017	LC_LC4	200044										
5/14/2017	LC_LC4	200044										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
5/15/2017	LC_LC4	200044	0.0288		0.972	17.3	14.7	< 0.010	< 0.010	2.68		420.8
5/16/2017	LC_LC4	200044										
5/17/2017	LC_LC4	200044										
5/18/2017	LC_LC4	200044										
5/19/2017	LC_LC4	200044										
5/23/2017	LC_LC4	200044	0.0395		0.853	14.6	12.8	< 0.010	< 0.010	2.3		407.6
5/24/2017	LC_LC4	200044										
5/25/2017	LC_LC4	200044										
5/30/2017	LC_LC4	200044	0.0343		0.771	16.4	13.5	< 0.010	< 0.010	1.81		277.7
5/31/2017	LC_LC4	200044										
6/1/2017	LC_LC4	200044										
6/2/2017	LC_LC4	200044										
6/7/2017	LC_LC4	200044	0.0113		0.837	20.2	19.3	< 0.010	< 0.010	2.75		381.8
6/13/2017	LC_LC4	200044	0.0135		0.869	24.7	20.8	< 0.010	< 0.010	3.16		436.6
6/19/2017	LC_LC4	200044	0.0053		0.876	24.1	22.1	< 0.010	< 0.010	3.29		451.9
6/26/2017	LC_LC4	200044	0.006		0.834	25	22.1	< 0.010	< 0.010	3.2		436.6
7/5/2017	LC_LC4	200044	< 0.0020		0.958	26.3	24.4	< 0.010	< 0.010	3.96		467.6
7/11/2017	LC_LC4	200044	0.0025		1.04	29.5	25.5	< 0.010	< 0.010	4.11		548
7/18/2017	LC_LC4	200044	0.0065		1.11	34	30.3	< 0.010	< 0.010	4.97		594
7/25/2017	LC_LC4	200044	0.0068		1.02	33.5	27.9	< 0.010	< 0.010	4.71		615
8/2/2017	LC_LC4	200044	0.009		1.14	31.6	30.2	< 0.010	< 0.010	5.25		659
8/8/2017	LC_LC4	200044	0.0064		1.13	43.1	42.1	< 0.010	< 0.010	5.03		659
8/15/2017	LC_LC4	200044	0.0035		1.21	32.3	30.6	< 0.010	< 0.010	4.94		609
8/18/2017	LC_LC4	200044										626
8/21/2017	LC_LC4	200044	0.0034		1.22	29.1	29.6	< 0.010	< 0.010	5.05		625
8/24/2017	LC_LC4	200044										629
8/27/2017	LC_LC4	200044										634
8/30/2017	LC_LC4	200044	0.0028		1.12	30.9	27.1	< 0.010	< 0.010	4.43		629
9/2/2017	LC_LC4	200044										630
9/5/2017	LC_LC4	200044										631
9/5/2017	LC_LC4	200044	0.0047		1.22	31	30.3	< 0.010	< 0.010	4.87		631
9/8/2017	LC_LC4	200044										633
9/12/2017	LC_LC4	200044	0.004		1.21	30.2	28.8	< 0.010	< 0.010	5.03		643
9/20/2017	LC_LC4	200044	0.0024		1.17	31.4	29.6	< 0.010	< 0.010	5.31		644
9/25/2017	LC_LC4	200044	0.0023		1.19	31.3	28.9	< 0.010	< 0.010	5.27		647
10/2/2017	LC_LC4	200044	< 0.0020		1.22	32.8	28.9	< 0.010	< 0.010	5.41		635
10/10/2017	LC_LC4	200044	0.0028		1.21	30.9	28.6	< 0.010	< 0.010	5.49		620
10/17/2017	LC_LC4	200044	0.0025		1.13	40.9	41	< 0.010	< 0.010	5.21		629
10/24/2017	LC_LC4	200044	0.003		1.22	44.8	47.3	< 0.010	< 0.010	5.75		610.6
10/31/2017	LC_LC4	200044	0.0044		1.27	48	45.6	< 0.010	< 0.010	6.46		599
11/6/2017	LC_LC4	200044	0.0035		1.18	48.2	46.6	< 0.010	< 0.010	6.38		588
11/10/2017	LC_LC4	200044	0.004		1.22	42.9	45.6	< 0.010	< 0.050	6.8		808.3
11/14/2017	LC_LC4	200044	0.003		1.24	44.9	46.2	< 0.010	< 0.010	6.42		592
11/21/2017	LC_LC4	200044	0.0028		1.11	48	47.9	< 0.010	< 0.010	6.37		597.8
11/23/2017	LC_LC4	200044										
11/28/2017	LC_LC4	200044	0.0055		1.1	43.9	42.6	< 0.010	< 0.010	5.73		568.4
12/4/2017	LC_LC4	200044	0.0042		1.23	46.3	46.4	< 0.010	< 0.010	6.83		599.6

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
12/12/2017	LC_LC4	200044	0.0024		1.25	53.3	45.7	< 0.010	< 0.010	7.46		600.3
12/18/2017	LC_LC4	200044	0.0033		1.27	49.4	47.4	< 0.010	< 0.010	7.11		603.3
12/27/2017	LC_LC4	200044	0.0044		1.22	47.4	46	< 0.010	< 0.010	6.8		567.4
1/2/2017	LC_LC5	200028	0.0061		1.18	44.2	36.5	< 0.010	< 0.010	4.1		622
1/9/2017	LC_LC5	200028	0.0027		1.1	37.2	37.1	< 0.010	< 0.010	3.31		813.6
1/16/2017	LC_LC5	200028	0.0118		1.13	37.7	38.5	< 0.010	< 0.010	3.76		640.1
2/14/2017	LC_LC5	200028	0.0079		1.1	45.3	39.1	< 0.010	< 0.010	3.3		672.8
3/6/2017	LC_LC5	200028	< 0.0020		1.07	39.7	38.2	< 0.010	< 0.010	3.23		614.3
3/13/2017	LC_LC5	200028	0.034		1.03	39.8	38.7	< 0.010	< 0.010	3.06		602
3/16/2017	LC_LC5	200028										
3/20/2017	LC_LC5	200028	0.0123		1.46	40.1	35.4	< 0.010	< 0.010	4.85		587
3/27/2017	LC_LC5	200028	0.0044		1.2	43.9	40	< 0.010	< 0.010	3.39		603
4/3/2017	LC_LC5	200028	0.0066		1.15	44.2	40.8	< 0.010	< 0.010	3.54		572
4/10/2017	LC_LC5	200028	0.0049		1.2	42.6	39.2	< 0.010	< 0.010	3.31		566.8
4/18/2017	LC_LC5	200028	0.0086		1.11	42.1	37.6	< 0.010	< 0.010	3.22		565.4
4/25/2017	LC_LC5	200028	0.0192		1.21	40.9	33.8	< 0.010	< 0.010	2.72		559
5/1/2017	LC_LC5	200028	0.0082		1.28	40.4	37.3	< 0.010	< 0.010	3.34		562.8
5/8/2017	LC_LC5	200028	0.0488		1.15	24	21	< 0.010	< 0.010	1.95		362
5/15/2017	LC_LC5	200028	0.0172		1.02	21	19.5	< 0.010	< 0.010	1.87		438
5/24/2017	LC_LC5	200028	0.5		1.61	16.9	15.6	< 0.010	0.052	1.32		398.7
5/31/2017	LC_LC5	200028	0.168		1.28	19.2	18.6	< 0.010	0.02	1.42		261.1
6/6/2017	LC_LC5	200028	0.0252		0.982	22.1	21.3	< 0.010	< 0.010	1.83		411.7
6/13/2017	LC_LC5	200028	0.0137		0.897	23.8	21.6	< 0.010	< 0.010	3.24		438.4
6/19/2017	LC_LC5	200028	< 0.0020		0.949	25.8	23.7	< 0.010	< 0.010	1.98		465.4
6/26/2017	LC_LC5	200028	0.0065		0.989	27.4	24.5	< 0.010	< 0.010	2.06		469.2
7/6/2017	LC_LC5	200028	0.0023		0.992	27.4	25.1	< 0.010	< 0.010	2.22		469.1
7/10/2017	LC_LC5	200028	0.0024		1.13	31.9	27.8	< 0.010	< 0.010	2.38		
7/18/2017	LC_LC5	200028	0.0059		1.08	35.2	29.7	< 0.010	< 0.010	2.61		573
7/25/2017	LC_LC5	200028	0.0161		1.07	36	30.8	< 0.010	< 0.010	2.72		600
8/2/2017	LC_LC5	200028	0.0045		1.18	36.3	35	< 0.010	< 0.010	2.91		
8/8/2017	LC_LC5	200028										651
8/15/2017	LC_LC5	200028	0.0033		1.25	39.5	37.7	< 0.010	< 0.010	2.97		581
8/18/2017	LC_LC5	200028										585
8/21/2017	LC_LC5	200028										592
8/24/2017	LC_LC5	200028										606
8/27/2017	LC_LC5	200028										604
8/30/2017	LC_LC5	200028										605
9/2/2017	LC_LC5	200028										607
9/5/2017	LC_LC5	200028										607
9/5/2017	LC_LC5	200028	0.0039		1.19	38.6	36.8	< 0.010	< 0.010	3.05		607
9/8/2017	LC_LC5	200028										622
9/12/2017	LC_LC5	200028	0.0018		1.21	38.2	29.7	< 0.010	< 0.010	5		613
10/2/2017	LC_LC5	200028	< 0.0020		1.17	44.2	39.2	< 0.010	< 0.010	3.26		592.2
11/7/2017	LC_LC5	200028	0.0019		1.08	47.5	44.1	< 0.010	< 0.010	3.8		573.6
11/28/2017	LC_LC5	200028	0.002		1.94	46.9	45.4	< 0.010	< 0.010	11		536
11/30/2017	LC_LC5	200028										
12/4/2017	LC_LC5	200028	0.0021		1.14	47.8	47	< 0.010	< 0.010	4.59		577

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
1/9/2017	LC_LC7	E216144										
2/14/2017	LC_LC7	E216144										
3/6/2017	LC_LC7	E216144										
3/13/2017	LC_LC7	E216144										
3/17/2017	LC_LC7	E216144										
3/18/2017	LC_LC7	E216144										
3/19/2017	LC_LC7	E216144										
3/20/2017	LC_LC7	E216144										
3/21/2017	LC_LC7	E216144	0.0214		2.3	9.62	9.88	< 0.010	0.028	4.87		291.5
3/21/2017	LC_LC7	E216144										
3/22/2017	LC_LC7	E216144										
3/23/2017	LC_LC7	E216144										
3/25/2017	LC_LC7	E216144										
3/26/2017	LC_LC7	E216144										
3/27/2017	LC_LC7	E216144	0.0092		2.43	18.3	17.6	< 0.010	< 0.010	5.28		401.9
3/28/2017	LC_LC7	E216144										
3/29/2017	LC_LC7	E216144										
3/30/2017	LC_LC7	E216144										
3/31/2017	LC_LC7	E216144										
4/4/2017	LC_LC7	E216144	0.0058		2.15	21.8	20	< 0.010	< 0.010	4.61		397.2
4/11/2017	LC_LC7	E216144										
4/18/2017	LC_LC7	E216144										
4/25/2017	LC_LC7	E216144										
5/1/2017	LC_LC7	E216144	0.0072		2.26	18.2	16.1	< 0.010	< 0.010	3.95		403.9
5/1/2017	LC_LC7	E216144										
5/5/2017	LC_LC7	E216144										
5/6/2017	LC_LC7	E216144	0.0287		1.52	10.2	9.38	< 0.010	0.032	1.99		
5/7/2017	LC_LC7	E216144										
5/8/2017	LC_LC7	E216144										
5/11/2017	LC_LC7	E216144										
5/16/2017	LC_LC7	E216144										
5/23/2017	LC_LC7	E216144										
5/30/2017	LC_LC7	E216144										
5/31/2017	LC_LC7	E216144										
6/6/2017	LC_LC7	E216144	0.0122		0.689	3.06	2.88	< 0.010	< 0.010	1.38		236.4
6/13/2017	LC_LC7	E216144										
6/20/2017	LC_LC7	E216144										
6/26/2017	LC_LC7	E216144										
7/5/2017	LC_LC7	E216144	0.0022		0.45	2.24	2.1	< 0.010	< 0.010	1.38		224.6
7/7/2017	LC_LC7	E216144										
7/11/2017	LC_LC7	E216144										
7/11/2017	LC_LC7	E216144										252.7
7/13/2017	LC_LC7	E216144										
8/2/2017	LC_LC7	E216144	0.0066		0.442	2.65	2.46	< 0.010	< 0.010	1.5		277.1
8/2/2017	LC_LC7	E216144										
8/8/2017	LC_LC7	E216144	0.006									284
8/8/2017	LC_LC7	E216144			0.441	2.65	2.51	< 0.010	< 0.010	1.46		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
9/6/2017	LC_LC7	E216144	< 0.0020		0.477	2.61	2.57	< 0.010	< 0.010	1.62		255.9
9/6/2017	LC_LC7	E216144										
10/3/2017	LC_LC7	E216144	0.0031		0.526	2.78	2.48	< 0.010	< 0.010	1.66		286.9
10/3/2017	LC_LC7	E216144										
11/8/2017	LC_LC7	E216144	0.0021		0.601	3.63	3.35	< 0.010	< 0.010	2.06		280.6
12/4/2017	LC_LC7	E216144	0.0033		0.794	8.33	8.53	< 0.010	< 0.010	2.44		294.2
12/21/2017	LC_LC7	E216144										
5/23/2017	LC_LC7DSTF	E304613										
6/6/2017	LC_LC7DSTF	E304613	0.0108		0.643	3.66	3.75	< 0.010	< 0.010	1.35		
7/6/2017	LC_LC7DSTF	E304613	< 0.0020		0.474	2.28	2.14	< 0.010	< 0.010	1.4		225.3
8/2/2017	LC_LC7DSTF	E304613	0.013									
8/8/2017	LC_LC7DSTF	E304613	0.0063									284.6
8/8/2017	LC_LC7DSTF	E304613			0.46	2.68	2.54	< 0.010	< 0.010	1.48		
1/9/2017	LC_LC8	E219411										
2/14/2017	LC_LC8	E219411										
3/6/2017	LC_LC8	E219411										
3/13/2017	LC_LC8	E219411										
3/21/2017	LC_LC8	E219411										
3/27/2017	LC_LC8	E219411										
4/3/2017	LC_LC8	E219411										
4/11/2017	LC_LC8	E219411										
4/18/2017	LC_LC8	E219411										
4/25/2017	LC_LC8	E219411										
5/1/2017	LC_LC8	E219411										
5/9/2017	LC_LC8	E219411										
5/16/2017	LC_LC8	E219411										
5/23/2017	LC_LC8	E219411										
5/30/2017	LC_LC8	E219411										
6/6/2017	LC_LC8	E219411										
6/13/2017	LC_LC8	E219411										
6/19/2017	LC_LC8	E219411										
6/26/2017	LC_LC8	E219411										
10/3/2017	LC_LC8	E219411										
11/8/2017	LC_LC8	E219411										
12/4/2017	LC_LC8	E219411										
1/9/2017	LC_LC9	E221268										
2/14/2017	LC_LC9	E221268										
3/13/2017	LC_LC9	E221268										
3/16/2017	LC_LC9	E221268										
3/17/2017	LC_LC9	E221268										
3/18/2017	LC_LC9	E221268										
3/19/2017	LC_LC9	E221268										
3/21/2017	LC_LC9	E221268	0.0312		3.86	32.2	32.2	< 0.010	0.013	10.1		316.5
3/21/2017	LC_LC9	E221268										
3/22/2017	LC_LC9	E221268										
3/23/2017	LC_LC9	E221268										
3/24/2017	LC_LC9	E221268										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
3/25/2017	LC_LC9	E221268										
3/26/2017	LC_LC9	E221268										
3/27/2017	LC_LC9	E221268										
3/28/2017	LC_LC9	E221268										
3/29/2017	LC_LC9	E221268										
3/30/2017	LC_LC9	E221268										
3/31/2017	LC_LC9	E221268										
4/4/2017	LC_LC9	E221268	0.0062		3.07	45	43.7	< 0.010	< 0.010	7.87		483.2
4/5/2017	LC_LC9	E221268										
4/11/2017	LC_LC9	E221268										
4/18/2017	LC_LC9	E221268										
4/25/2017	LC_LC9	E221268										
5/1/2017	LC_LC9	E221268										
5/9/2017	LC_LC9	E221268										
5/16/2017	LC_LC9	E221268										
5/23/2017	LC_LC9	E221268										
5/30/2017	LC_LC9	E221268										
6/6/2017	LC_LC9	E221268										
6/13/2017	LC_LC9	E221268										
6/19/2017	LC_LC9	E221268										
6/26/2017	LC_LC9	E221268										
10/3/2017	LC_LC9	E221268										
11/8/2017	LC_LC9	E221268										
12/4/2017	LC_LC9	E221268										
1/2/2017	LC_LCDSSLCC	E297110	0.0022		1.64	58.2	51	< 0.010	< 0.010	9.57		761
1/5/2017	LC_LCDSSLCC	E297110										
1/9/2017	LC_LCDSSLCC	E297110	0.0033		1.45	30.6	30.9	< 0.010	< 0.010	7.63		982
1/13/2017	LC_LCDSSLCC	E297110										
1/16/2017	LC_LCDSSLCC	E297110	0.0044		1.59	34.7	34.8	< 0.010	< 0.010	9.61		797
1/18/2017	LC_LCDSSLCC	E297110										
1/23/2017	LC_LCDSSLCC	E297110	0.0038		1.42	33.9	34.6	< 0.010	< 0.010	7.77		760
1/31/2017	LC_LCDSSLCC	E297110	0.0038		1.37	34.8	34.9	< 0.010	< 0.010	7.3		867
2/7/2017	LC_LCDSSLCC	E297110	0.0217		1.42	41	34.2	< 0.010	< 0.010	7.56		635
2/14/2017	LC_LCDSSLCC	E297110	0.0042		1.43	39.6	34.8	< 0.010	< 0.010	7.44		847
2/21/2017	LC_LCDSSLCC	E297110	0.0052		1.43	33.7	36.3	< 0.010	< 0.010	7.42		
2/21/2017	LC_LCDSSLCC	E297110										824
2/22/2017	LC_LCDSSLCC	E297110										
2/27/2017	LC_LCDSSLCC	E297110	0.0121		1.55	37.7	35.9	< 0.010	< 0.010	7.65		798
3/6/2017	LC_LCDSSLCC	E297110	0.0046		1.43	35.4	35	< 0.010	< 0.010	7.07		784
3/9/2017	LC_LCDSSLCC	E297110										
3/13/2017	LC_LCDSSLCC	E297110	0.04		1.64	36.2	35.6	< 0.010	< 0.010	7.29		764
3/15/2017	LC_LCDSSLCC	E297110										
3/20/2017	LC_LCDSSLCC	E297110	0.0162		1.45	43.3	38.2	< 0.010	< 0.010	6.83		535
3/21/2017	LC_LCDSSLCC	E297110										
3/27/2017	LC_LCDSSLCC	E297110	0.0039		1.61	42.6	41.2	< 0.010	< 0.010	7.38		741
4/3/2017	LC_LCDSSLCC	E297110	0.011		1.54	45.8	41.5	< 0.010	< 0.010	7.44		716
4/10/2017	LC_LCDSSLCC	E297110	0.0035		1.44	45.8	41.3	< 0.010	< 0.010	7.2		716

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
4/18/2017	LC_LCDSSLCC	E297110	0.0123		1.39	44.6	39.6	< 0.010	< 0.010	6.97	718
4/24/2017	LC_LCDSSLCC	E297110									715
4/25/2017	LC_LCDSSLCC	E297110	< 0.0020		1.55	45.8	40.7	< 0.010	< 0.010	7.26	
4/27/2017	LC_LCDSSLCC	E297110									
5/2/2017	LC_LCDSSLCC	E297110	0.0129		1.56	45.9	39.4	< 0.010	< 0.010	7.36	703
5/5/2017	LC_LCDSSLCC	E297110									
5/9/2017	LC_LCDSSLCC	E297110	0.0101		1.15	25.2	22.2	< 0.010	< 0.010	3.72	421.5
5/16/2017	LC_LCDSSLCC	E297110	0.0035		0.964	19.6	18.8	< 0.010	< 0.010	3.14	463.4
5/17/2017	LC_LCDSSLCC	E297110									
5/23/2017	LC_LCDSSLCC	E297110	0.0037		0.899	18.7	16	< 0.010	< 0.010	2.63	412.5
5/30/2017	LC_LCDSSLCC	E297110	0.0076		0.768	20.5	17.2	< 0.010	< 0.010	1.98	304.6
6/7/2017	LC_LCDSSLCC	E297110	< 0.0040		0.933	24.8	24.6	< 0.010	< 0.010	3.3	417.5
6/12/2017	LC_LCDSSLCC	E297110	< 0.0020		1.03	27.9	25.2	< 0.010	< 0.010	3.54	383.6
6/13/2017	LC_LCDSSLCC	E297110									468.9
6/19/2017	LC_LCDSSLCC	E297110	< 0.0020		1.01	29.3	27.3	< 0.010	< 0.010	3.8	496.1
6/20/2017	LC_LCDSSLCC	E297110									
6/20/2017	LC_LCDSSLCC	E297110	0.0028		0.969	31.8	28.9	< 0.010	< 0.010	3.71	
6/26/2017	LC_LCDSSLCC	E297110	< 0.0040		0.989	30.5	27.5	< 0.010	< 0.010	3.77	498.9
7/6/2017	LC_LCDSSLCC	E297110	0.002		1.06	32.8	28.3	< 0.010	< 0.010	4.44	528
7/11/2017	LC_LCDSSLCC	E297110									
7/11/2017	LC_LCDSSLCC	E297110	0.0045		1.19	35.7	32.1	< 0.010	< 0.010	4.73	622
7/13/2017	LC_LCDSSLCC	E297110									
7/18/2017	LC_LCDSSLCC	E297110	0.0057		1.3	44.4	38.1	< 0.010	< 0.010	5.61	683
7/21/2017	LC_LCDSSLCC	E297110									685
7/25/2017	LC_LCDSSLCC	E297110									
7/25/2017	LC_LCDSSLCC	E297110	0.0052		1.18	40.9	36.1	< 0.010	< 0.010	5.4	699
8/2/2017	LC_LCDSSLCC	E297110									
8/2/2017	LC_LCDSSLCC	E297110	0.0046		1.33	40.3	38	< 0.010	< 0.010	6.31	750
8/8/2017	LC_LCDSSLCC	E297110									
8/8/2017	LC_LCDSSLCC	E297110	0.0055		1.34	58.4	56.1	< 0.010	< 0.010	5.71	754
8/15/2017	LC_LCDSSLCC	E297110									
8/15/2017	LC_LCDSSLCC	E297110	0.0041		1.49	41.2	38.2	< 0.010	< 0.010	5.99	700
8/18/2017	LC_LCDSSLCC	E297110									709
8/21/2017	LC_LCDSSLCC	E297110	0.0033		1.49	36.7	37.2	< 0.010	< 0.010	5.94	710
8/24/2017	LC_LCDSSLCC	E297110									
8/24/2017	LC_LCDSSLCC	E297110									714
8/27/2017	LC_LCDSSLCC	E297110									
8/27/2017	LC_LCDSSLCC	E297110									721
8/30/2017	LC_LCDSSLCC	E297110									
8/30/2017	LC_LCDSSLCC	E297110	0.0026		1.39	38.1	35.9	< 0.010	< 0.010	5.8	717
9/2/2017	LC_LCDSSLCC	E297110									743
9/5/2017	LC_LCDSSLCC	E297110									
9/5/2017	LC_LCDSSLCC	E297110	0.0027		1.43	38.2	35.8	< 0.010	< 0.010	5.96	726
9/8/2017	LC_LCDSSLCC	E297110									738
9/12/2017	LC_LCDSSLCC	E297110									
9/12/2017	LC_LCDSSLCC	E297110	0.0055		1.4	39.1	35.5	< 0.010	< 0.010	5.71	734
9/13/2017	LC_LCDSSLCC	E297110									741

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
9/20/2017	LC_LCDSSLCC	E297110									
9/20/2017	LC_LCDSSLCC	E297110	< 0.0020		1.38	41.7	37.1	< 0.010	< 0.010	6.11	736
9/25/2017	LC_LCDSSLCC	E297110	< 0.0020		1.47	39	35.7	< 0.010	< 0.010	6.27	741
9/25/2017	LC_LCDSSLCC	E297110									
9/26/2017	LC_LCDSSLCC	E297110									
10/2/2017	LC_LCDSSLCC	E297110	< 0.0020		1.45	42.2	36.5	< 0.010	< 0.010	6.35	718
10/3/2017	LC_LCDSSLCC	E297110									
10/10/2017	LC_LCDSSLCC	E297110	0.0035		1.46	39.5	36.2	< 0.010	< 0.010	6.42	750
10/10/2017	LC_LCDSSLCC	E297110									
10/17/2017	LC_LCDSSLCC	E297110	< 0.0020		1.34	64.2	62.7	< 0.010	< 0.010	6.24	738
10/18/2017	LC_LCDSSLCC	E297110									
10/24/2017	LC_LCDSSLCC	E297110	< 0.0020		1.46	59.1	61	< 0.010	< 0.010	6.93	734
10/24/2017	LC_LCDSSLCC	E297110									
10/31/2017	LC_LCDSSLCC	E297110	0.0025		1.54	62.7	56.9	< 0.010	< 0.010	7.64	692
11/6/2017	LC_LCDSSLCC	E297110	0.0022		1.43	62.5	57.2	< 0.010	< 0.010	7.55	680
11/10/2017	LC_LCDSSLCC	E297110	0.0023		1.44	56	57.7	< 0.010	< 0.050	7.91	938
11/14/2017	LC_LCDSSLCC	E297110	0.0016		1.52	59.5	60.6	< 0.010	< 0.010	7.68	689
11/16/2017	LC_LCDSSLCC	E297110									
11/21/2017	LC_LCDSSLCC	E297110	0.0019		1.35	62.1	60.6	< 0.010	< 0.010	7.83	711
11/28/2017	LC_LCDSSLCC	E297110									
11/28/2017	LC_LCDSSLCC	E297110	0.002		1.31	55.5	52.6	< 0.010	< 0.010	7.32	651
11/30/2017	LC_LCDSSLCC	E297110									
12/4/2017	LC_LCDSSLCC	E297110	0.0027		1.61	58.2	61	< 0.010	< 0.010	8.78	698
12/12/2017	LC_LCDSSLCC	E297110	0.0013		1.5	67.2	57.8	< 0.010	< 0.010	8.8	690
12/12/2017	LC_LCDSSLCC	E297110									
12/14/2017	LC_LCDSSLCC	E297110									
12/18/2017	LC_LCDSSLCC	E297110	0.0011		1.57	63.3	60.8	< 0.010	< 0.010	8.76	704
12/18/2017	LC_LCDSSLCC	E297110									
12/27/2017	LC_LCDSSLCC	E297110									
12/27/2017	LC_LCDSSLCC	E297110	0.0027		1.51	65.5	61.7	< 0.010	< 0.010	8.47	938
1/2/2017	LC_LCUSWLC	E293369	0.0031		2.28	41.2	39.2	< 0.010	< 0.010	14.9	828
1/9/2017	LC_LCUSWLC	E293369	0.002		2.04	48.6	47.2	< 0.010	< 0.010	10.7	1076
1/16/2017	LC_LCUSWLC	E293369	0.0045		2.19	43.1	42.7	< 0.010	< 0.010	14	871
2/14/2017	LC_LCUSWLC	E293369	0.0158		1.87	55.1	47.6	< 0.010	< 0.010	9.68	918
2/24/2017	LC_LCUSWLC	E293369	0.003		2.17	57.1	47.9	< 0.010	< 0.010	10.6	747
2/27/2017	LC_LCUSWLC	E293369	0.0079		1.89	55.9	46.8	< 0.010	< 0.010	10.3	874
3/6/2017	LC_LCUSWLC	E293369	0.003		1.87	49.5	50.6	< 0.010	< 0.010	9.66	863
3/13/2017	LC_LCUSWLC	E293369	0.033		1.88	53.5	52.7	< 0.010	< 0.010	9.69	841
3/16/2017	LC_LCUSWLC	E293369									
3/18/2017	LC_LCUSWLC	E293369									
3/19/2017	LC_LCUSWLC	E293369									
3/20/2017	LC_LCUSWLC	E293369	0.0286		1.98	51.7	47.4	< 0.010	0.01	8.59	625
3/22/2017	LC_LCUSWLC	E293369									
3/23/2017	LC_LCUSWLC	E293369									
3/24/2017	LC_LCUSWLC	E293369									
3/25/2017	LC_LCUSWLC	E293369									
3/26/2017	LC_LCUSWLC	E293369									

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
3/27/2017	LC_LCUSWLC	E293369	0.0057		2.24	58.2	55.9	< 0.010	< 0.010	10.3	804
3/28/2017	LC_LCUSWLC	E293369									
3/29/2017	LC_LCUSWLC	E293369									
3/30/2017	LC_LCUSWLC	E293369									
4/3/2017	LC_LCUSWLC	E293369	0.0299		2	60.7	56.1	< 0.010	< 0.010	9.82	781
4/10/2017	LC_LCUSWLC	E293369	0.0028		1.83	58.9	50.7	< 0.010	< 0.010	9.07	785
4/18/2017	LC_LCUSWLC	E293369	0.0109		1.9	57	50.4	< 0.010	< 0.010	9.59	792
4/25/2017	LC_LCUSWLC	E293369	0.0077		1.88	54.5	49	< 0.010	< 0.010	9.15	788
5/1/2017	LC_LCUSWLC	E293369	0.011		1.99	53	44.9	< 0.010	< 0.010	9.18	761
5/9/2017	LC_LCUSWLC	E293369	0.0057		1.42	32.6	27.6	< 0.010	< 0.010	4.55	462.1
5/16/2017	LC_LCUSWLC	E293369	< 0.0020		1.17	19.7	19.1	< 0.010	< 0.010	3.7	473.9
5/23/2017	LC_LCUSWLC	E293369	0.0051		1.39	26.3	22.8	< 0.010	< 0.010	4.46	461.3
5/30/2017	LC_LCUSWLC	E293369	0.0046		1.14	22.2	18.2	< 0.010	< 0.010	3.64	363.3
6/7/2017	LC_LCUSWLC	E293369	< 0.0040		1.23	23.3	22.8	< 0.010	< 0.010	4.32	454
6/13/2017	LC_LCUSWLC	E293369	0.0206		1.28	30.7	26.8	< 0.010	< 0.010	5.05	594.2
6/19/2017	LC_LCUSWLC	E293369	< 0.0040		1.23	31.2	28.5	< 0.010	< 0.010	5.13	580
6/26/2017	LC_LCUSWLC	E293369	0.0041		1.3	35.6	30.5	< 0.010	< 0.010	5.58	566
7/6/2017	LC_LCUSWLC	E293369	< 0.0020		1.37	34.4	31.3	< 0.010	< 0.010	6.1	574
7/11/2017	LC_LCUSWLC	E293369	0.0053		1.55	40.8	36.8	< 0.010	< 0.010	6.69	676
7/18/2017	LC_LCUSWLC	E293369	0.008		1.57	45.4	39	< 0.010	< 0.010	7.5	726
7/25/2017	LC_LCUSWLC	E293369	0.0065		1.59	48.7	42.1	< 0.010	< 0.010	7.97	763
8/2/2017	LC_LCUSWLC	E293369	0.0051		1.76	50.3	46.8	< 0.010	< 0.010	8.83	823
8/8/2017	LC_LCUSWLC	E293369	0.0045		1.75	51.2	48.3	< 0.010	< 0.010	8.34	823
8/15/2017	LC_LCUSWLC	E293369	0.0038		2.79	426	441	< 0.010	< 0.010	2.03	712
8/18/2017	LC_LCUSWLC	E293369									708
8/21/2017	LC_LCUSWLC	E293369	0.003		1.83	42.3	42.1	< 0.010	< 0.010	7.35	714
8/24/2017	LC_LCUSWLC	E293369									726
8/27/2017	LC_LCUSWLC	E293369									719
8/30/2017	LC_LCUSWLC	E293369	0.0027		1.74	43	40.5	< 0.010	< 0.010	7.16	713
9/2/2017	LC_LCUSWLC	E293369									709
9/5/2017	LC_LCUSWLC	E293369									720
9/5/2017	LC_LCUSWLC	E293369	0.0035		1.74	43	39.7	< 0.010	< 0.010	7.25	720
9/8/2017	LC_LCUSWLC	E293369									701
9/12/2017	LC_LCUSWLC	E293369	0.0025		1.72	44.3	41.1	< 0.010	< 0.010	7.02	720
9/20/2017	LC_LCUSWLC	E293369	0.0028		1.74	47.3	42.3	< 0.010	< 0.010	7.6	731
9/25/2017	LC_LCUSWLC	E293369	0.0028		1.76	45.9	40.7	< 0.010	< 0.010	7.71	732
10/2/2017	LC_LCUSWLC	E293369	< 0.0020		1.76	46.7	40.9	< 0.010	< 0.010	7.76	873
10/10/2017	LC_LCUSWLC	E293369	0.0038		1.87	49.6	45	< 0.010	< 0.010	9.18	785
10/17/2017	LC_LCUSWLC	E293369	0.0025		1.75	54.6	52.9	< 0.010	< 0.010	8.94	808
10/24/2017	LC_LCUSWLC	E293369	0.0028		1.94	49.6	49.3	< 0.010	< 0.010	10.1	791
10/31/2017	LC_LCUSWLC	E293369	0.0036		1.94	44.7	41	< 0.010	< 0.010	10.3	711
11/6/2017	LC_LCUSWLC	E293369	0.0033		1.98	52.7	35	< 0.010	< 0.010	11.5	764
11/9/2017	LC_LCUSWLC	E293369	0.0036		1.94	44	40.5	< 0.010	< 0.010	11.3	954
11/14/2017	LC_LCUSWLC	E293369	0.0026		2.01	41.8	40.6	< 0.010	< 0.010	10.2	696
11/21/2017	LC_LCUSWLC	E293369	0.0026		1.79	43.3	43.2	< 0.010	< 0.010	10.8	719
11/28/2017	LC_LCUSWLC	E293369	0.0024		1.1	49.8	41.7	< 0.010	< 0.010	6.02	739
12/4/2017	LC_LCUSWLC	E293369	0.0035		2.03	45	44.5	< 0.010	< 0.010	11.6	732

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
12/12/2017	LC_LCUSWLC	E293369	0.0021		2.24	53.6	46.7	< 0.010	< 0.010	12.6	751
12/18/2017	LC_LCUSWLC	E293369	0.0019		2.15	51.2	49.3	< 0.010	< 0.010	12.6	762
12/27/2017	LC_LCUSWLC	E293369	0.0034		2.11	50.6	48.1	< 0.010	< 0.010	12.1	344.2
1/9/2017	LC_SLC	E282149									
1/9/2017	LC_SLC	E282149	0.0026		0.374	1.53	1.62	< 0.010	< 0.010	0.975	402.5
2/14/2017	LC_SLC	E282149	0.0032		0.4	1.82	1.54	< 0.010	< 0.010	1.09	340.7
2/14/2017	LC_SLC	E282149									
3/6/2017	LC_SLC	E282149	0.0024		0.434	1.66	1.52	< 0.010	< 0.010	1.1	315.5
3/9/2017	LC_SLC	E282149									
4/3/2017	LC_SLC	E282149	0.003		0.399	1.48	1.39	< 0.010	< 0.010	1.13	278.7
4/3/2017	LC_SLC	E282149									
5/1/2017	LC_SLC	E282149	< 0.010		0.44	1.28	1.07	< 0.010	< 0.010	1.28	274
5/6/2017	LC_SLC	E282149									
5/7/2017	LC_SLC	E282149									
5/17/2017	LC_SLC	E282149									
5/24/2017	LC_SLC	E282149									
6/7/2017	LC_SLC	E282149	0.0052		0.271	0.463	0.395	< 0.010	< 0.010	0.411	185.3
6/22/2017	LC_SLC	E282149									
7/6/2017	LC_SLC	E282149	0.0021		0.305	0.76	0.691	< 0.010	< 0.010	0.524	207.4
7/13/2017	LC_SLC	E282149									
8/2/2017	LC_SLC	E282149	0.0043		0.357	1.1	1.01	< 0.010	< 0.010	0.791	295.8
8/8/2017	LC_SLC	E282149									313.5
8/15/2017	LC_SLC	E282149									301.2
8/18/2017	LC_SLC	E282149									295.5
8/21/2017	LC_SLC	E282149									297.9
8/24/2017	LC_SLC	E282149									300.4
8/24/2017	LC_SLC	E282149									
8/27/2017	LC_SLC	E282149									301.3
8/30/2017	LC_SLC	E282149									304.8
9/2/2017	LC_SLC	E282149									308.3
9/5/2017	LC_SLC	E282149									
9/5/2017	LC_SLC	E282149	0.0028		0.406	1.42	1.36	< 0.010	< 0.010	0.949	291.8
9/5/2017	LC_SLC	E282149									291.8
9/8/2017	LC_SLC	E282149									309.1
9/29/2017	LC_SLC	E282149									
10/2/2017	LC_SLC	E282149	< 0.0020		0.392	1.56	1.43	< 0.010	< 0.010	0.981	382
10/18/2017	LC_SLC	E282149									
11/8/2017	LC_SLC	E282149	0.0019		0.349	2	1.46	< 0.010	< 0.010	1.05	277.7
11/8/2017	LC_SLC	E282149									
11/16/2017	LC_SLC	E282149									
12/4/2017	LC_SLC	E282149	0.0022		0.358	1.32	1.4	< 0.010	< 0.010	0.878	238.3
12/14/2017	LC_SLC	E282149									
1/9/2017	LC_WLC	E261958	0.0059		2.57	474	501	< 0.010	< 0.010	2.12	241.2
2/14/2017	LC_WLC	E261958	0.0055		2.72	572	540	< 0.010	< 0.010	2.29	2066
3/6/2017	LC_WLC	E261958	< 0.010		2.58	535	495	< 0.010	< 0.010	2.13	1924
3/13/2017	LC_WLC	E261958	0.031		2.22	460	463	< 0.010	< 0.010	2.12	1885
3/18/2017	LC_WLC	E261958									

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
3/19/2017	LC_WLC	E261958										
3/20/2017	LC_WLC	E261958	0.0174		2.69	453	442	< 0.010	< 0.010	2.31		1486
3/21/2017	LC_WLC	E261958										
3/25/2017	LC_WLC	E261958										
3/26/2017	LC_WLC	E261958										
3/27/2017	LC_WLC	E261958	0.0067		2.8	492	475	< 0.010	< 0.010	2.38		1829
4/3/2017	LC_WLC	E261958	0.014		3.44	490	480	< 0.010	< 0.010	2.94		1778
4/10/2017	LC_WLC	E261958	0.0091		2.45	484	445	< 0.010	< 0.010	2.01		1757
4/18/2017	LC_WLC	E261958	0.0098		2.29	490	450	< 0.010	< 0.010	2.16		1653
4/25/2017	LC_WLC	E261958	< 0.010		2.69	591	509	< 0.010	< 0.010	2.15		1825
4/26/2017	LC_WLC	E261958										
5/1/2017	LC_WLC	E261958	0.011		2.67	582	491	< 0.010	< 0.010	2.27		1677
5/1/2017	LC_WLC	E261958										
5/9/2017	LC_WLC	E261958	0.0162		2.65	503	459	< 0.010	< 0.010	2.11		1537
5/16/2017	LC_WLC	E261958	< 0.010		2.13	398	404	< 0.010	< 0.010	1.84		1608
5/23/2017	LC_WLC	E261958	< 0.010		2.36	346	325	< 0.010	< 0.010	1.56		1291
5/30/2017	LC_WLC	E261958	0.0049		1.98	227	196	< 0.010	< 0.010	1.28		950
6/6/2017	LC_WLC	E261958	0.0032		2	203	178	< 0.010	< 0.010	1.12		1066
6/13/2017	LC_WLC	E261958	< 0.0020		2.1	258	212	< 0.010	< 0.010	1.16		1188
6/19/2017	LC_WLC	E261958	< 0.0040		2.03	252	235	< 0.010	< 0.010	1.26		1257
6/26/2017	LC_WLC	E261958	0.0041		2.13	278	250	< 0.010	< 0.010	1.33		1306
7/6/2017	LC_WLC	E261958										
7/6/2017	LC_WLC	E261958	0.0049		2.41	303	285	< 0.010	< 0.010	1.42		1324
7/11/2017	LC_WLC	E261958										
7/11/2017	LC_WLC	E261958	0.0056		2.3	319	289	< 0.010	< 0.010	1.47		1545
7/18/2017	LC_WLC	E261958	0.0108		2.3	354	315	< 0.010	< 0.010	1.59		1612
7/25/2017	LC_WLC	E261958										
7/25/2017	LC_WLC	E261958	0.0091		2.21	388	321	< 0.010	< 0.010	1.73		1680
8/2/2017	LC_WLC	E261958	0.011		2.4	416	372	< 0.010	< 0.010	1.92		1800
8/3/2017	LC_WLC	E261958										
8/8/2017	LC_WLC	E261958										
8/8/2017	LC_WLC	E261958	0.0069		2.37	423	394	< 0.010	< 0.010	1.81		1850
8/15/2017	LC_WLC	E261958										
8/15/2017	LC_WLC	E261958	0.0044		1.82	45	42.4	< 0.010	< 0.010	7.33		1796
8/21/2017	LC_WLC	E261958	0.0072		2.65	427	440	< 0.010	< 0.010	1.99		1823
8/30/2017	LC_WLC	E261958										
8/30/2017	LC_WLC	E261958	0.0047		2.51	489	414	< 0.010	< 0.010	1.88		1833
9/5/2017	LC_WLC	E261958										
9/5/2017	LC_WLC	E261958	0.0052		2.73	505	442	< 0.010	< 0.020	2.17		1897
9/5/2017	LC_WLC	E261958										1897
9/12/2017	LC_WLC	E261958	0.0049		2.75	496	434	< 0.010	< 0.010	2.11		1899
9/20/2017	LC_WLC	E261958										
9/20/2017	LC_WLC	E261958	0.0048		2.52	506	448	< 0.010	< 0.010	2.05		1888
9/25/2017	LC_WLC	E261958										
9/25/2017	LC_WLC	E261958	0.0046		2.58	522	470	< 0.010	< 0.010	2.03		1905
10/3/2017	LC_WLC	E261958	0.0042		2.68	586	490	< 0.010	< 0.010	2.12		1932
10/10/2017	LC_WLC	E261958	0.0053		2.73	552	506	< 0.010	< 0.010	2.2		1940

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
10/10/2017	LC_WLC	E261958										
10/17/2017	LC_WLC	E261958	0.0051		2.47	539	520	< 0.010	< 0.010	2.16		1877
10/24/2017	LC_WLC	E261958	0.0046		2.6	498	508	< 0.020	< 0.020	2.12		1844
10/31/2017	LC_WLC	E261958										
10/31/2017	LC_WLC	E261958	0.0072		2.65	568	478	< 0.020	< 0.020	2.17		1688
11/8/2017	LC_WLC	E261958	0.0055		2.66	510	478	< 0.010	< 0.020	2.33		1736
11/8/2017	LC_WLC	E261958										
11/14/2017	LC_WLC	E261958	0.0052		2.72	524	518	< 0.010	< 0.010	2.07		1767
11/21/2017	LC_WLC	E261958	0.0033		2.28	491	539	< 0.020	< 0.010	2.16		1781
11/28/2017	LC_WLC	E261958	0.005		2.43	516	517	< 0.020	< 0.010	2.02		1782
11/28/2017	LC_WLC	E261958										
12/4/2017	LC_WLC	E261958	0.0065		2.54	539	502	< 0.010	< 0.020	2.11		177.3
12/12/2017	LC_WLC	E261958	0.0061		2.54	546	514	< 0.020	< 0.020	2.15		1738
12/18/2017	LC_WLC	E261958	0.006		2.76	569	548	< 0.010	< 0.010	2.34		1766
12/18/2017	LC_WLC	E261958										
12/27/2017	LC_WLC	E261958	0.0065		2.69	563	491	< 0.010	< 0.020	2.26		2338
4/11/2017	RG_BORDER	E300094	0.0303		0.886	1.61	1.45	< 0.010	0.017	4.69		335.8
4/11/2017	RG_BORDER	E300094	0.0297		0.87	1.5	1.45	< 0.010	< 0.010	4.75		332
4/11/2017	RG_BORDER	E300094	0.0302		0.883	1.43	1.41	< 0.010	< 0.010	4.77		331.7
4/17/2017	RG_BORDER	E300094	0.0417		0.893	1.43	1.43	< 0.010	< 0.010	4.66		325.4
4/17/2017	RG_BORDER	E300094	0.0341		0.866	1.39	1.45	< 0.010	0.16	4.72		324.5
4/17/2017	RG_BORDER	E300094	0.0353		0.872	1.48	1.46	< 0.010	< 0.010	4.65		324.6
4/24/2017	RG_BORDER	E300094	0.0495		1.48	1.57	1.63	< 0.010	0.015	4.05		311.5
4/24/2017	RG_BORDER	E300094	0.0479		1.13	1.58	1.7	< 0.010	0.01	4.2		318.1
4/24/2017	RG_BORDER	E300094	0.0454		1.11	1.59	1.68	< 0.010	0.012	4.07		318.4
5/2/2017	RG_BORDER	E300094	0.06		0.946	1.35	1.36	< 0.010	< 0.010	3.71		293.2
5/2/2017	RG_BORDER	E300094	0.05		0.856	1.51	1.47	< 0.010	< 0.010	3.66		303.4
5/9/2017	RG_BORDER	E300094	0.096		0.949	1.04	0.958	< 0.010	0.015	1.93		224.5
5/9/2017	RG_BORDER	E300094	0.099		0.966	0.984	1.04	< 0.010	0.017	1.92		225
5/9/2017	RG_BORDER	E300094	0.104		0.971	1	0.966	< 0.010	0.017	1.9		226.2
5/16/2017	RG_BORDER	E300094	0.0354		0.683	0.881	0.883	< 0.010	< 0.010	1.61		217.2
5/16/2017	RG_BORDER	E300094	0.0362		0.717	0.809	0.82	< 0.010	< 0.010	1.62		215.4
5/16/2017	RG_BORDER	E300094	0.0323		0.67	0.832	0.899	< 0.010	< 0.010	1.64		216.9
5/23/2017	RG_BORDER	E300094	0.018		0.562	1.26	1.24	< 0.010	< 0.010	2.11		
5/23/2017	RG_BORDER	E300094	0.0189		0.589	1.1	1.13	< 0.010	< 0.010	2.11		238
5/23/2017	RG_BORDER	E300094	0.0162		0.533	1.22	1.26	< 0.010	< 0.010	2.11		236.2
5/30/2017	RG_BORDER	E300094	0.0389		0.795	1.27	1.24	< 0.010	< 0.010	1.56		232.1
5/30/2017	RG_BORDER	E300094	0.0363		0.635	0.999	0.977	< 0.010	< 0.010	1.55		219.1
5/30/2017	RG_BORDER	E300094	0.026		0.576	0.738	0.706	< 0.010	< 0.010	1.64		208.1
6/6/2017	RG_BORDER	E300094	0.0619		0.74	0.744	0.718	< 0.010	< 0.010	1.2		199.8
6/6/2017	RG_BORDER	E300094	0.0589		0.789	0.598	0.563	< 0.010	< 0.010	1.27		188.1
6/6/2017	RG_BORDER	E300094	0.014		0.458	0.884	0.797	< 0.010	< 0.010	1.57		221.9
6/13/2017	RG_BORDER	E300094	0.0296		0.637	0.666	0.67	< 0.010	< 0.010	1.23		184.4
6/13/2017	RG_BORDER	E300094	0.008		0.447	0.738	0.771	< 0.010	< 0.010	1.5		205.9
6/13/2017	RG_BORDER	E300094	0.0477		0.733	0.55	0.608	< 0.010	< 0.010	1.21		186.2
6/20/2017	RG_BORDER	E300094	0.0243		0.555	0.905	0.861	< 0.010	< 0.010	1.31		219.6
6/20/2017	RG_BORDER	E300094	0.0138		0.499	0.603	0.608	< 0.010	< 0.010	1.37		208.8

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
6/20/2017	RG_BORDER	E300094	0.0081		0.487	0.845	0.823	< 0.010	< 0.010	1.44	210.8
6/27/2017	RG_BORDER	E300094	0.0139		0.546	0.925	0.984	< 0.010	< 0.010	1.67	205.2
6/27/2017	RG_BORDER	E300094	0.0085		0.449	0.746	0.833	< 0.010	< 0.010	1.66	207.8
6/27/2017	RG_BORDER	E300094	0.004		0.45	0.729	0.794	< 0.010	< 0.010	1.57	200.5
7/4/2017	RG_BORDER	E300094	0.0118		0.479	0.979	1.09	< 0.010	< 0.010	1.42	320.8
7/4/2017	RG_BORDER	E300094	0.0052		0.38	0.526	0.617	< 0.010	< 0.010	1.64	200.5
7/4/2017	RG_BORDER	E300094	0.0292		0.44	0.733	0.797	< 0.010	< 0.010	1.57	202.4
7/11/2017	RG_BORDER	E300094	0.0096		0.332	0.889	1.07	< 0.010	< 0.010	1.33	214.7
7/11/2017	RG_BORDER	E300094	0.0037		0.385	0.629	0.666	< 0.010	< 0.010	1.93	208.8
7/11/2017	RG_BORDER	E300094	0.0034		0.436	0.776	0.786	< 0.010	< 0.010	1.78	209.5
8/8/2017	RG_BORDER	E300094	0.0036		0.442	0.838	0.912	< 0.010	< 0.010	1.84	218.6
8/8/2017	RG_BORDER	E300094	0.0044		0.457	1.1	1.04	< 0.010	< 0.010	1.5	221.2
8/8/2017	RG_BORDER	E300094	0.0024		0.478	0.983	0.958	< 0.010	< 0.010	1.91	226.2
9/18/2017	RG_BORDER	E300094	0.002		0.469	0.984	0.961	< 0.010	< 0.010	1.58	220.3
9/18/2017	RG_BORDER	E300094	< 0.0020		0.552	1.01	1.01	< 0.010	< 0.010	2.81	252.4
9/18/2017	RG_BORDER	E300094	< 0.0020		0.52	0.962	0.921	< 0.010	< 0.010	2.67	248.1
10/3/2017	RG_BORDER	E300094	0.0023		0.587	0.879	0.909	< 0.010	< 0.010	4.1	290.8
10/3/2017	RG_BORDER	E300094	< 0.0020		0.518	0.951	1.02	< 0.010	< 0.010	2.78	250.3
10/3/2017	RG_BORDER	E300094	0.0022		0.527	0.903	0.946	< 0.010	< 0.010	2.81	249.6
11/8/2017	RG_BORDER	E300094	0.0032		0.556	1.18	1.23	< 0.010	< 0.010	3.48	266.5
11/8/2017	RG_BORDER	E300094	0.0029		0.553	1.09	1.14	< 0.010	< 0.010	3.31	260.2
11/8/2017	RG_BORDER	E300094	0.0061		0.545	1.06	1.07	< 0.010	< 0.010	3.19	261.7
12/5/2017	RG_BORDER	E300094	0.0041		0.593	1.21	1.17	< 0.010	< 0.010	4.61	292.3
12/5/2017	RG_BORDER	E300094	0.0024		0.546	1.08	1.08	< 0.010	< 0.010	3.42	268.9
12/5/2017	RG_BORDER	E300094	0.0026		0.527	1.13	1.11	< 0.010	< 0.010	3.28	264.4
4/4/2017	RG_DSELK	E300230	0.094		1.16	1.77	1.77	< 0.010	0.023	4.99	346.9
4/11/2017	RG_DSELK	E300230	0.294		1.29	1.52	1.51	< 0.010	0.032	4.43	323.6
4/17/2017	RG_DSELK	E300230	0.243		0.805	1.56	1.57	< 0.010	< 0.010	4.88	337.4
4/24/2017	RG_DSELK	E300230	0.935		2.15	1.47	1.61	< 0.010	0.091	4.1	309.1
5/2/2017	RG_DSELK	E300230	0.162		1.12	1.51	1.6	< 0.010	0.027	3.87	308.4
5/9/2017	RG_DSELK	E300230	0.311		1.26	0.909	0.936	< 0.010	0.043	2	237.1
5/16/2017	RG_DSELK	E300230	0.0512		0.686	0.613	0.509	< 0.010	< 0.010	1.91	232.2
5/23/2017	RG_DSELK	E300230	0.0706		0.657	0.395	0.382	< 0.010	0.011	1.83	210.1
5/30/2017	RG_DSELK	E300230	0.178		1.09	1.34	1.31	< 0.010	0.032	1.32	193.1
6/6/2017	RG_DSELK	E300230	0.078		0.744	1.63	1.51	< 0.010	0.01	1.1	211.5
6/6/2017	RG_DSELK	E300230	0.0586		0.59	0.595	0.523	< 0.010	< 0.010	1.21	194.3
6/6/2017	RG_DSELK	E300230	0.0574		0.694	0.543	0.497	< 0.010	< 0.010	1.22	187.7
6/13/2017	RG_DSELK	E300230	0.0355		0.617	0.254	0.293	< 0.010	< 0.010	1.34	188.1
6/13/2017	RG_DSELK	E300230	0.0356		0.609	0.469	0.463	< 0.010	< 0.010	1.34	197.6
6/13/2017	RG_DSELK	E300230	0.0327		0.603	2.01	2.01	< 0.010	< 0.010	1.19	235.1
6/20/2017	RG_DSELK	E300230	0.0186		0.528	0.769	0.731	< 0.010	< 0.010	1.46	212.5
6/20/2017	RG_DSELK	E300230	0.0176		0.496	0.925	0.795	< 0.010	< 0.010	1.42	215.3
6/20/2017	RG_DSELK	E300230	0.0136		0.419	0.464	0.522	< 0.010	0.012	1.61	207.8
6/27/2017	RG_DSELK	E300230	0.0037		0.416	0.641	0.681	< 0.010	< 0.010	1.59	198.1
6/27/2017	RG_DSELK	E300230	0.0081		0.656	0.524	0.506	< 0.010	< 0.010	2.69	200.9
6/27/2017	RG_DSELK	E300230	0.0069		0.411	0.851	0.776	< 0.010	< 0.010	1.8	200.3
7/4/2017	RG_DSELK	E300230	0.0081		0.425	0.408	0.454	< 0.010	< 0.010	1.9	200.4

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
7/4/2017	RG_DSELK	E300230	0.0044		0.437	1.24	1.18	< 0.010	< 0.010	1.66	218
7/4/2017	RG_DSELK	E300230	0.0056		0.462	0.757	0.773	< 0.010	< 0.010	1.55	202
7/11/2017	RG_DSELK	E300230	0.006		0.372	0.586	0.604	< 0.010	< 0.010	1.92	210.2
7/11/2017	RG_DSELK	E300230	0.0032		0.457	1.92	1.73	< 0.010	< 0.010	1.86	203.7
7/11/2017	RG_DSELK	E300230	0.0036		0.415	0.687	0.882	< 0.010	< 0.010	1.76	210.8
8/8/2017	RG_DSELK	E300230	0.0027		0.496	1.19	1.26	< 0.010	< 0.010	2.39	257.8
8/8/2017	RG_DSELK	E300230	0.0073		0.464	1.03	1	< 0.010	< 0.010	1.69	221.9
9/18/2017	RG_DSELK	E300230	0.0024		0.532	1.25	1.13	< 0.010	< 0.010	3.88	288.1
9/18/2017	RG_DSELK	E300230	< 0.0020		0.492	1.2	1.11	< 0.010	< 0.010	3.12	262.8
9/18/2017	RG_DSELK	E300230	< 0.0020		0.51	1.08	1.14	< 0.010	< 0.010	3.12	264.1
10/3/2017	RG_DSELK	E300230	0.0036		0.588	1.98	1.97	< 0.010	< 0.010	3.88	308.9
10/3/2017	RG_DSELK	E300230	0.0024		0.518	0.966	0.982	< 0.010	< 0.010	2.95	258.3
10/3/2017	RG_DSELK	E300230	0.0078		0.552	0.986	1.48	< 0.010	0.048	3.02	257.8
11/8/2017	RG_DSELK	E300230	0.0042		0.648	1.36	1.3	< 0.010	< 0.010	4.77	302.6
11/8/2017	RG_DSELK	E300230	0.0073		0.639	1.32	1.41	< 0.010	< 0.010	4.57	296
11/8/2017	RG_DSELK	E300230	0.0043		0.575	1.1	1.12	< 0.010	< 0.010	3.78	275.8
12/5/2017	RG_DSELK	E300230	0.005		0.628	2.77	2.58	< 0.010	< 0.010	4.71	328.8
12/5/2017	RG_DSELK	E300230	0.0055		0.634	1.82	1.74	< 0.010	< 0.010	5.41	320.1
12/5/2017	RG_DSELK	E300230	0.0092		0.576	1.49	1.52	< 0.010	< 0.010	3.96	287.9
1/3/2017	RG_ELKORES	E294312	0.0296		0.904	9.67	8.62	< 0.010	< 0.010	3.82	484.9
2/8/2017	RG_ELKORES	E294312	0.0358		1.2	8.4	8.45	< 0.010	< 0.010	4.37	493.6
3/7/2017	RG_ELKORES	E294312	0.0453		0.781	8.02	7.8	< 0.010	< 0.010	3.75	477
3/14/2017	RG_ELKORES	E294312	0.0194		0.545	4.95	3.12	< 0.010	0.013	1.96	459.1
3/21/2017	RG_ELKORES	E294312	0.0564		0.88	4.1	4.06	< 0.010	0.013	3.17	347.7
3/28/2017	RG_ELKORES	E294312	0.0159		0.748	5.37	5.24	< 0.010	< 0.010	3.58	370.9
4/4/2017	RG_ELKORES	E294312	0.0123		0.743	5.29	5.62	< 0.010	< 0.010	3.62	363
4/11/2017	RG_ELKORES	E294312	0.0108		0.702	5.87	5.62	< 0.010	< 0.010	3.22	361
4/18/2017	RG_ELKORES	E294312	0.0074		0.721	6	5.95	< 0.010	< 0.010	3.21	399.9
4/25/2017	RG_ELKORES	E294312	0.0378		0.808	5.31	5.76	< 0.010	< 0.010	2.69	360.3
5/1/2017	RG_ELKORES	E294312	0.0176		0.692	5.91	5.67	< 0.010	< 0.010	2.77	371.4
5/9/2017	RG_ELKORES	E294312	0.093		0.866	5.09	5.29	< 0.010	0.02	1.8	321.5
5/16/2017	RG_ELKORES	E294312	0.0439		0.757	5.4	5.47	< 0.010	0.015	1.89	332.2
5/23/2017	RG_ELKORES	E294312	0.151		0.89	4.27	4.54	< 0.010	0.028	1.47	278.5
5/30/2017	RG_ELKORES	E294312	0.22		1.3	3.93	4.04	< 0.010	0.052	1.28	261.4
6/6/2017	RG_ELKORES	E294312	0.134		0.945	4.46	4.33	< 0.010	0.028	1.21	277.1
6/13/2017	RG_ELKORES	E294312	0.0721		0.733	4.25	4.69	< 0.010	0.011	1.31	303.2
6/20/2017	RG_ELKORES	E294312	0.0358		0.606	4.95	4.84	< 0.010	< 0.010	1.34	307
6/27/2017	RG_ELKORES	E294312	0.0178		0.603	4.96	5.15	< 0.010	< 0.010	1.46	320.9
7/4/2017	RG_ELKORES	E294312	0.0095		0.603	5.17	5.45	< 0.010	< 0.010	1.75	336.8
7/11/2017	RG_ELKORES	E294312	0.052		0.761	5.79	5.42	< 0.010	< 0.010	1.66	344.5
8/1/2017	RG_ELKORES	E294312	0.0064		0.657	6.87	7.03	< 0.010	< 0.010	2.42	402.3
9/19/2017	RG_ELKORES	E294312	0.0028		0.716	7.75	7.97	< 0.010	< 0.010	2.88	439.8
10/3/2017	RG_ELKORES	E294312	< 0.0020		0.675	8.27	8.01	< 0.010	< 0.010	3.12	448.5
11/8/2017	RG_ELKORES	E294312	0.0036		0.724	8.38	9.32	< 0.010	< 0.010	3.87	484.5
12/5/2017	RG_ELKORES	E294312	0.0026		0.631	8.02	8.18	< 0.010	< 0.010	3.15	436.6
4/4/2017	RG_GRASMERE	E300092	0.0407		0.93	1.63	1.61	< 0.010	< 0.010	5.21	343.9
4/4/2017	RG_GRASMERE	E300092	0.0383		0.941	1.68	1.66	< 0.010	< 0.010	5.27	343.7

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
4/11/2017	RG_GRASMERE	E300092	0.0639		1.01	1.46	1.51	< 0.010	0.013	4.45	331.4
4/17/2017	RG_GRASMERE	E300092	0.0673		0.975	1.64	1.65	< 0.010	0.011	4.74	337.5
4/24/2017	RG_GRASMERE	E300092	0.0584		1.06	1.5	1.51	< 0.010	0.013	4.3	352.6
5/2/2017	RG_GRASMERE	E300092	0.451		1.78	1.41	1.72	< 0.010	0.093	4.04	312.7
5/9/2017	RG_GRASMERE	E300092	0.284		1.21	0.96	0.999	< 0.010	0.035	1.97	238.1
5/16/2017	RG_GRASMERE	E300092	0.0204		0.648	0.672	0.74	< 0.010	< 0.010	1.8	232.2
5/23/2017	RG_GRASMERE	E300092	0.0272		0.575	0.525	0.542	< 0.010	< 0.010	2.01	215.2
5/30/2017	RG_GRASMERE	E300092	0.064		0.71	0.323	0.283	< 0.010	0.01	1.42	184.8
6/6/2017	RG_GRASMERE	E300092	0.0658		0.582	1.09	1.03	< 0.010	< 0.010	1.16	173.3
6/6/2017	RG_GRASMERE	E300092	0.0529		0.879	0.515	0.463	< 0.010	< 0.010	1.3	193.6
6/6/2017	RG_GRASMERE	E300092	0.0348		0.573	0.221	0.177	< 0.010	0.013	1.24	187.7
6/13/2017	RG_GRASMERE	E300092	0.0455		0.648	0.463	0.528	< 0.010	< 0.010	1.22	183.4
6/13/2017	RG_GRASMERE	E300092	0.0363		0.635	0.615	0.64	< 0.010	< 0.010	1.25	198.3
6/13/2017	RG_GRASMERE	E300092	0.0243		0.546	0.989	1.05	< 0.010	< 0.010	1.29	204.9
6/20/2017	RG_GRASMERE	E300092	0.0219		0.541	1.07	1.06	< 0.010	< 0.010	1.44	221.9
6/20/2017	RG_GRASMERE	E300092	0.0129		0.493	0.542	0.542	< 0.010	< 0.010	1.47	205.5
6/20/2017	RG_GRASMERE	E300092	0.0153		0.476	0.778	0.728	< 0.010	< 0.010	1.46	211.2
6/27/2017	RG_GRASMERE	E300092	0.0108		0.43	1.18	1.28	< 0.010	< 0.010	1.63	222
6/27/2017	RG_GRASMERE	E300092	0.0054		0.413	0.89	0.992	< 0.010	< 0.010	1.67	211.1
6/27/2017	RG_GRASMERE	E300092	0.0046		0.421	0.644	0.703	< 0.010	< 0.010	1.58	197.6
7/4/2017	RG_GRASMERE	E300092	0.0081		0.408	0.718	0.749	< 0.010	< 0.010	1.73	200.8
7/4/2017	RG_GRASMERE	E300092	0.0046		0.424	0.72	0.621	< 0.010	< 0.010	1.67	201
7/4/2017	RG_GRASMERE	E300092	0.0237		0.437	0.66	0.77	< 0.010	< 0.010	1.52	201.5
7/11/2017	RG_GRASMERE	E300092	0.0074		0.406	0.758	0.963	< 0.010	< 0.010	1.81	217.1
7/11/2017	RG_GRASMERE	E300092	0.0055		0.387	0.242	0.321	< 0.010	< 0.010	2.12	201.6
7/11/2017	RG_GRASMERE	E300092	0.0048		0.409	0.709	0.767	< 0.010	< 0.010	1.7	204.4
8/8/2017	RG_GRASMERE	E300092	0.0023		0.504	1.15	1.03	< 0.010	< 0.010	2.39	255.2
8/8/2017	RG_GRASMERE	E300092	< 0.0020		0.454	1.1	1.01	< 0.010	< 0.010	2.01	236.1
9/18/2017	RG_GRASMERE	E300092	< 0.0020		0.519	1.26	1.19	< 0.010	< 0.010	3.49	280.7
9/18/2017	RG_GRASMERE	E300092	< 0.0020		0.5	1.15	1.12	< 0.010	< 0.010	3.04	260.7
9/18/2017	RG_GRASMERE	E300092	0.0077		0.492	1.04	1.02	< 0.010	< 0.010	3.04	259.7
10/3/2017	RG_GRASMERE	E300092	0.0024		0.553	1.19	1.21	< 0.010	< 0.010	3.41	276.4
10/3/2017	RG_GRASMERE	E300092	0.0024		0.52	0.985	0.918	< 0.010	< 0.010	2.91	256.9
10/3/2017	RG_GRASMERE	E300092	< 0.0020		0.514	0.909	1.07	< 0.010	< 0.010	2.96	256.9
11/8/2017	RG_GRASMERE	E300092	0.0037		0.579	1.19	1.14	< 0.010	< 0.010	4.07	291.3
11/8/2017	RG_GRASMERE	E300092	0.0037		0.722	1.22	0.347	< 0.010	< 0.010	6.57	278.7
11/8/2017	RG_GRASMERE	E300092	0.007		0.57	1.1	1.25	< 0.010	< 0.010	3.68	273.5
12/5/2017	RG_GRASMERE	E300092	0.0048		0.658	0.811	0.82	< 0.010	< 0.010	6.34	319.6
12/5/2017	RG_GRASMERE	E300092	0.0073		0.607	1.34	1.22	< 0.010	< 0.010	4.8	294.1
12/5/2017	RG_GRASMERE	E300092	0.005		0.563	1.24	1.2	< 0.010	< 0.010	3.73	274.7
4/24/2017	RG_KERRRD	E300095	0.057		0.902	0.118	0.147	< 0.010	< 0.010	4.76	299.2
5/2/2017	RG_KERRRD	E300095	0.0208		0.702	0.115	0.128	< 0.010	< 0.010	4.54	295.2
5/9/2017	RG_KERRRD	E300095	0.102		0.793	0.112	0.15	< 0.010	0.022	1.91	221.6
5/16/2017	RG_KERRRD	E300095	0.0278		0.622	0.105	0.082	< 0.010	< 0.010	1.98	224.1
5/23/2017	RG_KERRRD	E300095	0.0983		0.792	0.091	0.121	< 0.010	0.011	1.93	198.1
5/30/2017	RG_KERRRD	E300095	0.149		0.831	0.087	0.11	< 0.010	0.015	1.4	175.6
6/6/2017	RG_KERRRD	E300095	0.0616		0.713	0.075	0.057	< 0.010	< 0.010	1.35	177.5

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
6/6/2017	RG_KERRRD	E300095	0.0513		0.683	0.08	0.095	< 0.010	< 0.010	1.39	180.2
6/13/2017	RG_KERRRD	E300095	0.0284		0.575	0.072	0.091	< 0.010	< 0.010	1.52	194.9
6/13/2017	RG_KERRRD	E300095	0.0308		0.565	0.091	0.158	< 0.010	< 0.010	1.53	193.2
6/20/2017	RG_KERRRD	E300095	0.016		0.451	0.087	0.121	< 0.010	0.019	1.75	200
6/20/2017	RG_KERRRD	E300095	0.0162		0.453	0.073	0.111	< 0.010	0.021	1.77	199.5
6/20/2017	RG_KERRRD	E300095	0.0137		0.457	0.107	0.1	< 0.010	0.027	1.77	197.4
6/27/2017	RG_KERRRD	E300095	0.0081		0.414	0.083	0.099	< 0.010	< 0.010	2.14	194.3
6/27/2017	RG_KERRRD	E300095	0.0076		0.418	0.073	0.085	< 0.010	< 0.010	2.08	194.2
6/27/2017	RG_KERRRD	E300095	0.0075		0.403	0.104	0.114	< 0.010	< 0.010	1.99	193.9
7/4/2017	RG_KERRRD	E300095	0.0052		0.427	0.146	0.152	< 0.010	< 0.010	2	9.04
7/4/2017	RG_KERRRD	E300095	0.0069		0.405	0.104	0.092	< 0.010	< 0.010	1.99	191.9
7/4/2017	RG_KERRRD	E300095	0.0051		0.421	0.365	0.407	< 0.010	< 0.010	1.82	193.8
7/11/2017	RG_KERRRD	E300095	0.006		0.391	0.101	0.144	< 0.010	< 0.010	2.11	200.4
7/11/2017	RG_KERRRD	E300095	0.0046		0.392	0.1	0.176	< 0.010	< 0.010	2.15	199.6
7/11/2017	RG_KERRRD	E300095	0.0041		0.437	0.505	0.608	< 0.010	< 0.010	1.95	204.3
8/8/2017	RG_KERRRD	E300095	0.0035		0.519	0.266	0.245	< 0.010	< 0.010	2.8	256
8/8/2017	RG_KERRRD	E300095	0.0036		0.541	0.177	0.163	< 0.010	< 0.010	3.45	254
8/8/2017	RG_KERRRD	E300095	0.0023		0.515	0.428	0.493	< 0.010	< 0.010	2.78	237
9/18/2017	RG_KERRRD	E300095	0.003		0.551	0.304	0.273	< 0.010	< 0.010	4.75	288.3
9/18/2017	RG_KERRRD	E300095	< 0.0020		0.506	0.642	0.625	< 0.010	< 0.010	3.63	266.9
9/18/2017	RG_KERRRD	E300095	0.0022		0.493	0.65	0.642	< 0.010	< 0.010	3.51	266.8
10/3/2017	RG_KERRRD	E300095	0.0033		0.662	0.227	0.243	< 0.010	< 0.010	5.88	313.4
10/3/2017	RG_KERRRD	E300095	< 0.0020		0.553	0.906	0.989	< 0.010	< 0.010	3.51	266.2
10/3/2017	RG_KERRRD	E300095	0.0023		0.519	0.851	0.952	< 0.010	< 0.010	3.06	265.8
11/8/2017	RG_KERRRD	E300095	0.0035		0.729	0.371	0.294	< 0.010	< 0.010	6.62	316.2
11/8/2017	RG_KERRRD	E300095	0.0031		0.705	0.361	0.311	< 0.010	< 0.010	6.47	316.2
11/8/2017	RG_KERRRD	E300095	0.0047		0.623	0.405	1.24	< 0.010	< 0.010	4.41	315.7
12/5/2017	RG_KERRRD	E300095	0.0059		0.678	0.126	0.159	< 0.010	< 0.010	6.95	307
12/5/2017	RG_KERRRD	E300095	0.0058		0.672	0.136	0.149	< 0.010	< 0.010	7.1	291.5
12/5/2017	RG_KERRRD	E300095	0.0069		0.656	0.124	0.113	< 0.010	< 0.010	6.56	291.3
4/4/2017	RG_USGOLD	E300093	0.0274		0.874	1.61	1.65	< 0.010	< 0.010	5.13	341.9
4/4/2017	RG_USGOLD	E300093	0.0243		0.865	1.6	1.65	< 0.010	< 0.010	5.07	342.1
4/11/2017	RG_USGOLD	E300093	0.0568		0.842	1.5	1.53	< 0.010	< 0.010	4.56	330
4/17/2017	RG_USGOLD	E300093	0.0616		0.842	1.59	1.66	< 0.010	< 0.010	4.78	336.4
4/24/2017	RG_USGOLD	E300093	0.195		1.46	1.62	1.52	< 0.010	0.032	4	310.1
5/2/2017	RG_USGOLD	E300093	0.131		1.31	1.18	1.33	< 0.010	0.023	3.96	320.1
5/9/2017	RG_USGOLD	E300093	0.097		0.886	0.949	0.982	< 0.010	0.016	1.92	237.9
5/16/2017	RG_USGOLD	E300093	0.0266		0.618	0.764	0.748	< 0.010	< 0.010	1.79	233.7
5/23/2017	RG_USGOLD	E300093	0.0396		0.584	0.797	0.798	< 0.010	< 0.010	1.83	213.7
5/30/2017	RG_USGOLD	E300093	0.081		0.77	0.986	0.983	< 0.010	0.011	1.4	203.8
5/30/2017	RG_USGOLD	E300093	0.0718		0.772	1.41	1.35	< 0.010	0.013	1.32	201.8
5/30/2017	RG_USGOLD	E300093	0.0568		0.731	1.53	1.46	< 0.010	0.012	1.32	194.8
6/6/2017	RG_USGOLD	E300093	0.0767		0.739	1.57	1.54	< 0.010	< 0.010	1.16	211.6
6/6/2017	RG_USGOLD	E300093	0.053		0.675	0.229	0.22	< 0.010	< 0.010	1.31	186.6
6/6/2017	RG_USGOLD	E300093	0.0411		0.595	0.979	0.918	< 0.010	< 0.010	1.35	209.7
6/13/2017	RG_USGOLD	E300093	0.0466		0.672	0.352	0.458	< 0.010	< 0.010	1.2	186.2
6/13/2017	RG_USGOLD	E300093	0.0314		0.589	0.818	0.968	< 0.010	< 0.010	1.24	200.9

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
6/13/2017	RG_USGOLD	E300093	0.0102		0.442	0.726	0.749	< 0.010	< 0.010	1.4	190.4
6/20/2017	RG_USGOLD	E300093	0.02		0.552	1.15	1.1	< 0.010	< 0.010	1.35	218.9
6/20/2017	RG_USGOLD	E300093	0.0098		0.473	0.633	0.59	< 0.010	< 0.010	1.41	206.5
6/20/2017	RG_USGOLD	E300093	0.0215		0.476	0.821	0.828	< 0.010	< 0.010	1.43	211.6
6/27/2017	RG_USGOLD	E300093	0.0125		0.448	1.34	1.56	< 0.010	0.081	1.54	226
6/27/2017	RG_USGOLD	E300093	0.0079		0.404	0.525	0.598	< 0.010	< 0.010	1.72	210.1
6/27/2017	RG_USGOLD	E300093	0.0033		0.432	0.707	0.757	< 0.010	< 0.010	1.55	199.1
7/4/2017	RG_USGOLD	E300093	0.0088		0.41	0.6	0.619	< 0.010	< 0.010	1.66	202.1
7/4/2017	RG_USGOLD	E300093	0.0041		0.409	0.816	0.769	< 0.010	< 0.010	1.67	204.3
7/4/2017	RG_USGOLD	E300093	0.0093		0.45	0.764	0.808	< 0.010	< 0.010	1.57	202.3
7/11/2017	RG_USGOLD	E300093	0.0062		0.411	1.3	1.26	< 0.010	< 0.010	1.62	219.8
7/11/2017	RG_USGOLD	E300093	0.005		0.387	0.44	0.404	< 0.010	< 0.010	2.03	205.8
7/11/2017	RG_USGOLD	E300093	0.0033		0.437	0.698	0.833	< 0.010	< 0.010	1.79	209.2
8/8/2017	RG_USGOLD	E300093	0.0041		0.433	1.02	1.05	< 0.010	< 0.010	1.51	223.1
8/8/2017	RG_USGOLD	E300093	0.0032		0.531	1.96	2.02	< 0.010	< 0.010	2.61	279.7
8/8/2017	RG_USGOLD	E300093	< 0.0020		0.498	1.07	1.01	< 0.010	< 0.010	2.19	234
9/18/2017	RG_USGOLD	E300093	0.0047		0.498	1.59	1.68	< 0.010	< 0.010	2.41	262.2
9/18/2017	RG_USGOLD	E300093	< 0.0020		0.523	1.16	1.08	< 0.010	< 0.010	3.04	269.9
9/18/2017	RG_USGOLD	E300093	< 0.0020		0.485	1.01	0.966	< 0.010	< 0.010	2.92	255
10/3/2017	RG_USGOLD	E300093	0.0035		0.621	0.886	0.964	< 0.010	< 0.010	4.63	301.2
10/3/2017	RG_USGOLD	E300093	< 0.0020		0.524	0.934	0.979	< 0.010	< 0.010	3.01	256.1
10/3/2017	RG_USGOLD	E300093	< 0.0020		0.528	0.944	0.941	< 0.010	< 0.010	2.99	255.7
11/8/2017	RG_USGOLD	E300093	0.0042		0.589	1.11	1.13	< 0.010	< 0.010	4.02	280.5
11/8/2017	RG_USGOLD	E300093	0.002		0.587	1.14	1.25	< 0.010	< 0.010	3.63	270.8
11/8/2017	RG_USGOLD	E300093	0.0029		0.571	1.11	1.09	< 0.010	< 0.010	3.63	269.7
12/5/2017	RG_USGOLD	E300093	0.0044		0.625	1.43	1.52	< 0.010	< 0.010	5.11	308.9
12/5/2017	RG_USGOLD	E300093	0.0034		0.563	1.24	1.22	< 0.010	< 0.010	3.82	274.5
12/5/2017	RG_USGOLD	E300093	0.0037		0.552	1.28	1.18	< 0.010	< 0.010	3.58	272
1/1/2017	WL_BFWB_OUT_SP21	E291569	0.0474		2.45	9.08	10.9	< 0.010	< 0.010	7.54	
1/2/2017	WL_BFWB_OUT_SP21	E291569	0.051		2.44	11.6	11.5	< 0.010	< 0.010	7.93	
1/3/2017	WL_BFWB_OUT_SP21	E291569	0.0384		2.99	24.4	14.3	< 0.010	< 0.010	14.7	
1/4/2017	WL_BFWB_OUT_SP21	E291569				9.9	10.5				
1/5/2017	WL_BFWB_OUT_SP21	E291569	0.0413		2.71	16.4	13.5	< 0.010	< 0.010	9.95	
1/6/2017	WL_BFWB_OUT_SP21	E291569				10.9	12				
1/7/2017	WL_BFWB_OUT_SP21	E291569				10.6	11.9				
1/8/2017	WL_BFWB_OUT_SP21	E291569	0.0496		2.7	10.8	11.7	< 0.010	< 0.010	9.12	
1/9/2017	WL_BFWB_OUT_SP21	E291569	0.056		2.53	31	14.3	< 0.010	< 0.010	8.24	
1/10/2017	WL_BFWB_OUT_SP21	E291569	0.048		2.53	16.7	14.2	< 0.010	< 0.010	8.01	
1/11/2017	WL_BFWB_OUT_SP21	E291569				11.1	12.1				
1/12/2017	WL_BFWB_OUT_SP21	E291569	0.041		2.57	15.6	14.1	< 0.010	< 0.010	8.16	
1/12/2017	WL_BFWB_OUT_SP21	E291569				10.2	11				
1/13/2017	WL_BFWB_OUT_SP21	E291569				10.5	11.2				
1/14/2017	WL_BFWB_OUT_SP21	E291569				10.8	11				
1/15/2017	WL_BFWB_OUT_SP21	E291569	0.05		2.52	11.4	11.1	< 0.010	< 0.010	8.63	
1/16/2017	WL_BFWB_OUT_SP21	E291569	0.0439		3.61	10.5	11.1	< 0.010	< 0.010	18	
1/17/2017	WL_BFWB_OUT_SP21	E291569	0.0384		3.12	10.1	11	< 0.010	< 0.010	13.7	
1/18/2017	WL_BFWB_OUT_SP21	E291569				9.76	10.8				

		Analyte	PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
		Fraction Result Unit	N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
1/19/2017	WL_BFWB_OUT_SP21	E291569	0.0379		2.7	17.5	15.1	< 0.010	< 0.010	10.8		
1/20/2017	WL_BFWB_OUT_SP21	E291569										
1/21/2017	WL_BFWB_OUT_SP21	E291569										
1/22/2017	WL_BFWB_OUT_SP21	E291569	0.0485		3.06	23.5	13.5	< 0.010	< 0.010	14.5		
1/23/2017	WL_BFWB_OUT_SP21	E291569	0.0544		2.71	19.9	13.9	< 0.010	< 0.010	11.4		
1/24/2017	WL_BFWB_OUT_SP21	E291569	0.05		2.71	16.7	14.9	< 0.010	< 0.010	10.3		
1/25/2017	WL_BFWB_OUT_SP21	E291569										
1/26/2017	WL_BFWB_OUT_SP21	E291569	0.0509		2.32	13	12.7	< 0.010	< 0.010	7.78		
1/27/2017	WL_BFWB_OUT_SP21	E291569										
1/28/2017	WL_BFWB_OUT_SP21	E291569										
1/29/2017	WL_BFWB_OUT_SP21	E291569	0.0471		2.68	11.4	13.2	< 0.010	< 0.010	12		
1/30/2017	WL_BFWB_OUT_SP21	E291569	0.051		37.6	11.1	12.9	< 0.050	< 0.050	12.1		
1/31/2017	WL_BFWB_OUT_SP21	E291569	0.0518		2.62	9.28	11.4	< 0.050	< 0.050	10.9		
1/31/2017	WL_BFWB_OUT_SP21	E291569										
2/1/2017	WL_BFWB_OUT_SP21	E291569										
2/1/2017	WL_BFWB_OUT_SP21	E291569										
2/2/2017	WL_BFWB_OUT_SP21	E291569	0.0539		2.6	13.9	13.7	< 0.010	< 0.010	9.5		
2/2/2017	WL_BFWB_OUT_SP21	E291569										
2/3/2017	WL_BFWB_OUT_SP21	E291569										
2/3/2017	WL_BFWB_OUT_SP21	E291569										
2/4/2017	WL_BFWB_OUT_SP21	E291569										
2/4/2017	WL_BFWB_OUT_SP21	E291569										
2/5/2017	WL_BFWB_OUT_SP21	E291569	0.0643		2.54	12.5	10.5	< 0.010	< 0.010	7.66		
2/6/2017	WL_BFWB_OUT_SP21	E291569	0.0666		2.63	21.6	11.5	< 0.010	< 0.010	7.88		
2/6/2017	WL_BFWB_OUT_SP21	E291569										
2/7/2017	WL_BFWB_OUT_SP21	E291569	0.0685		2.76	18.3	12.9	< 0.010	< 0.010	8.43		
2/8/2017	WL_BFWB_OUT_SP21	E291569										
2/8/2017	WL_BFWB_OUT_SP21	E291569				11.7	12.5					
2/9/2017	WL_BFWB_OUT_SP21	E291569	0.0518		2.47	13.2	13.5	< 0.010	< 0.010	9.19		
2/10/2017	WL_BFWB_OUT_SP21	E291569										
2/10/2017	WL_BFWB_OUT_SP21	E291569										
2/11/2017	WL_BFWB_OUT_SP21	E291569										
2/11/2017	WL_BFWB_OUT_SP21	E291569										
2/12/2017	WL_BFWB_OUT_SP21	E291569	0.0545		2.84	12.9	12.8	< 0.010	< 0.010	13.8		
2/12/2017	WL_BFWB_OUT_SP21	E291569										
2/13/2017	WL_BFWB_OUT_SP21	E291569	0.0474		2.7	14.7	13.6	< 0.010	< 0.010	11.7		
2/13/2017	WL_BFWB_OUT_SP21	E291569										
2/14/2017	WL_BFWB_OUT_SP21	E291569	0.0505		2.32	14.5	12.7	< 0.010	< 0.010	9.66		
2/14/2017	WL_BFWB_OUT_SP21	E291569										
2/15/2017	WL_BFWB_OUT_SP21	E291569										
2/16/2017	WL_BFWB_OUT_SP21	E291569	0.064		2.53	16.5	13.8	< 0.010	< 0.010	9.2		
2/16/2017	WL_BFWB_OUT_SP21	E291569										
2/17/2017	WL_BFWB_OUT_SP21	E291569										
2/17/2017	WL_BFWB_OUT_SP21	E291569										
2/18/2017	WL_BFWB_OUT_SP21	E291569										
2/18/2017	WL_BFWB_OUT_SP21	E291569										
2/19/2017	WL_BFWB_OUT_SP21	E291569										

		Analyte	PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
		Fraction Result Unit	N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
2/19/2017	WL_BFWB_OUT_SP21	E291569	0.0612		42.8	15.1	15.2	< 0.010	< 0.010	9.31		
2/19/2017	WL_BFWB_OUT_SP21	E291569										
2/20/2017	WL_BFWB_OUT_SP21	E291569	0.0698		2.66	13.7	14.1	< 0.010	< 0.010	9.43		
2/20/2017	WL_BFWB_OUT_SP21	E291569										
2/21/2017	WL_BFWB_OUT_SP21	E291569										
2/21/2017	WL_BFWB_OUT_SP21	E291569	0.0616		2.37	15.2	14	< 0.010	< 0.010	8.1		
2/21/2017	WL_BFWB_OUT_SP21	E291569										
2/22/2017	WL_BFWB_OUT_SP21	E291569										
2/22/2017	WL_BFWB_OUT_SP21	E291569										
2/23/2017	WL_BFWB_OUT_SP21	E291569	0.0569		2.71	12.8	13.3	< 0.010	< 0.010	9.03		
2/23/2017	WL_BFWB_OUT_SP21	E291569										
2/24/2017	WL_BFWB_OUT_SP21	E291569										
2/24/2017	WL_BFWB_OUT_SP21	E291569										
2/25/2017	WL_BFWB_OUT_SP21	E291569										
2/25/2017	WL_BFWB_OUT_SP21	E291569										
2/26/2017	WL_BFWB_OUT_SP21	E291569	0.0565		2.47	25	12.5	< 0.010	< 0.010	9.58		
2/26/2017	WL_BFWB_OUT_SP21	E291569										
2/27/2017	WL_BFWB_OUT_SP21	E291569	0.0496		3.39	24.1	11.2	< 0.010	< 0.010	11.5		
2/27/2017	WL_BFWB_OUT_SP21	E291569										
2/28/2017	WL_BFWB_OUT_SP21	E291569	0.0469		2.44	14.5	12.6	< 0.010	< 0.010	8.7		
2/28/2017	WL_BFWB_OUT_SP21	E291569										
3/1/2017	WL_BFWB_OUT_SP21	E291569										
3/2/2017	WL_BFWB_OUT_SP21	E291569	0.0366		2.57	15.4	13.5	< 0.010	< 0.010	12.1		
3/2/2017	WL_BFWB_OUT_SP21	E291569										
3/3/2017	WL_BFWB_OUT_SP21	E291569										
3/3/2017	WL_BFWB_OUT_SP21	E291569										
3/4/2017	WL_BFWB_OUT_SP21	E291569										
3/4/2017	WL_BFWB_OUT_SP21	E291569										
3/5/2017	WL_BFWB_OUT_SP21	E291569										
3/5/2017	WL_BFWB_OUT_SP21	E291569	0.0476		2.63	26.1	16	< 0.010	< 0.010	9.58		
3/5/2017	WL_BFWB_OUT_SP21	E291569										
3/6/2017	WL_BFWB_OUT_SP21	E291569	0.0612		2.46	15.1	14.8	< 0.010	< 0.010	9.07		
3/6/2017	WL_BFWB_OUT_SP21	E291569										
3/7/2017	WL_BFWB_OUT_SP21	E291569	0.0711		2.65	26.4	13.8	< 0.010	< 0.010	8.62		
3/7/2017	WL_BFWB_OUT_SP21	E291569										
3/8/2017	WL_BFWB_OUT_SP21	E291569										
3/8/2017	WL_BFWB_OUT_SP21	E291569										
3/8/2017	WL_BFWB_OUT_SP21	E291569										
3/9/2017	WL_BFWB_OUT_SP21	E291569										
3/9/2017	WL_BFWB_OUT_SP21	E291569	0.0632		2.23	16.2	14.4	< 0.010	< 0.010	8.69		
3/9/2017	WL_BFWB_OUT_SP21	E291569										
3/10/2017	WL_BFWB_OUT_SP21	E291569			2.55	21.8	14.2	< 0.010	< 0.010	9.28		
3/10/2017	WL_BFWB_OUT_SP21	E291569										
3/11/2017	WL_BFWB_OUT_SP21	E291569			2.33	41.6	12.5	< 0.010	< 0.010	8.48		
3/11/2017	WL_BFWB_OUT_SP21	E291569										
3/12/2017	WL_BFWB_OUT_SP21	E291569			2.24	50.5	16.7	< 0.010	< 0.010	8.95		
3/12/2017	WL_BFWB_OUT_SP21	E291569	0.0332									

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
3/12/2017	WL_BFWB_OUT_SP21	E291569										
3/13/2017	WL_BFWB_OUT_SP21	E291569	0.0672		2.57	19.4	17.3	< 0.010	< 0.010	9.25		
3/13/2017	WL_BFWB_OUT_SP21	E291569										
3/14/2017	WL_BFWB_OUT_SP21	E291569	0.0576		2.34	12.9	15.3	< 0.010	< 0.010	7.93		
3/14/2017	WL_BFWB_OUT_SP21	E291569										
3/15/2017	WL_BFWB_OUT_SP21	E291569			2.39	9.53	14.7	< 0.010	< 0.010	8.55		
3/15/2017	WL_BFWB_OUT_SP21	E291569										
3/16/2017	WL_BFWB_OUT_SP21	E291569	0.0416		2.5	30.6	16	< 0.010	< 0.010	8.74		
3/16/2017	WL_BFWB_OUT_SP21	E291569										
3/20/2017	WL_BFWB_OUT_SP21	E291569			4.11	27.8	14.7	< 0.010	< 0.010	25.3		
3/20/2017	WL_BFWB_OUT_SP21	E291569	0.0267									
3/21/2017	WL_BFWB_OUT_SP21	E291569										
3/21/2017	WL_BFWB_OUT_SP21	E291569	0.0441		6.08	26.6	20.4	< 0.010	< 0.010	40.4		
3/21/2017	WL_BFWB_OUT_SP21	E291569										
3/22/2017	WL_BFWB_OUT_SP21	E291569			4.56	41.7	20.6	< 0.010	< 0.010	25.6		
3/22/2017	WL_BFWB_OUT_SP21	E291569										
3/23/2017	WL_BFWB_OUT_SP21	E291569	0.0397		4.17	24.6	20.4	< 0.010	< 0.010	18.6		
3/23/2017	WL_BFWB_OUT_SP21	E291569										
3/24/2017	WL_BFWB_OUT_SP21	E291569			3.64	40.5	19.6	< 0.010	< 0.010	13.8		
3/24/2017	WL_BFWB_OUT_SP21	E291569										
3/25/2017	WL_BFWB_OUT_SP21	E291569			2.7	21	19.9	< 0.010	< 0.010	7.42		
3/25/2017	WL_BFWB_OUT_SP21	E291569										
3/26/2017	WL_BFWB_OUT_SP21	E291569	0.0381									
3/26/2017	WL_BFWB_OUT_SP21	E291569										
3/27/2017	WL_BFWB_OUT_SP21	E291569	0.0343		2.42	30.3	17.5	< 0.010	< 0.010	6.55		
3/27/2017	WL_BFWB_OUT_SP21	E291569										
3/28/2017	WL_BFWB_OUT_SP21	E291569	0.0408		2.49	32.5	16.2	< 0.010	< 0.010	7.05		
3/28/2017	WL_BFWB_OUT_SP21	E291569										
3/29/2017	WL_BFWB_OUT_SP21	E291569			2.44	31.7	15.2	< 0.010	< 0.010	7.18		
3/29/2017	WL_BFWB_OUT_SP21	E291569										
3/30/2017	WL_BFWB_OUT_SP21	E291569	0.0363		39.7	13.9	15.3	< 0.010	< 0.010	7.25		
3/31/2017	WL_BFWB_OUT_SP21	E291569			39.7	14.7	15.4	< 0.010	< 0.010	7.64		
3/31/2017	WL_BFWB_OUT_SP21	E291569										
4/1/2017	WL_BFWB_OUT_SP21	E291569			2.81	25.9	15	< 0.010	< 0.010	10.8		
4/1/2017	WL_BFWB_OUT_SP21	E291569										
4/2/2017	WL_BFWB_OUT_SP21	E291569			2.63	30	15.1	< 0.010	< 0.010	9.03		
4/2/2017	WL_BFWB_OUT_SP21	E291569	0.0328									
4/2/2017	WL_BFWB_OUT_SP21	E291569										
4/3/2017	WL_BFWB_OUT_SP21	E291569	0.0571		2.59	21.9	15.8	< 0.010	< 0.010	8.93		
4/3/2017	WL_BFWB_OUT_SP21	E291569										
4/4/2017	WL_BFWB_OUT_SP21	E291569	0.0442		2.77	9.85	15.9	< 0.010	< 0.010	8.7		
4/4/2017	WL_BFWB_OUT_SP21	E291569										
4/5/2017	WL_BFWB_OUT_SP21	E291569			2.54	22.9	15.9	< 0.010	< 0.010	9.12		
4/5/2017	WL_BFWB_OUT_SP21	E291569										
4/6/2017	WL_BFWB_OUT_SP21	E291569	0.0439		2.75	35	17.8	< 0.010	< 0.010	9.16		
4/6/2017	WL_BFWB_OUT_SP21	E291569										
4/7/2017	WL_BFWB_OUT_SP21	E291569			2.88	25.6	17.2	< 0.010	< 0.010	9.34		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
4/7/2017	WL_BFWB_OUT_SP21	E291569										
4/8/2017	WL_BFWB_OUT_SP21	E291569			2.8	31.5	15.9	< 0.010	< 0.010	8.14		
4/8/2017	WL_BFWB_OUT_SP21	E291569										
4/9/2017	WL_BFWB_OUT_SP21	E291569	0.0387		2.79	38.6	17	< 0.010	< 0.010	8.76		
4/9/2017	WL_BFWB_OUT_SP21	E291569										
4/10/2017	WL_BFWB_OUT_SP21	E291569	0.0379		2.64	28.8	16.9	< 0.010	< 0.010	8.49		
4/10/2017	WL_BFWB_OUT_SP21	E291569										
4/11/2017	WL_BFWB_OUT_SP21	E291569	0.038		2.57	50.7	15.7	< 0.010	< 0.010	8.42		
4/11/2017	WL_BFWB_OUT_SP21	E291569										
4/12/2017	WL_BFWB_OUT_SP21	E291569			2.75	49.5	16.9	< 0.010	< 0.010	9.75		
4/12/2017	WL_BFWB_OUT_SP21	E291569										
4/13/2017	WL_BFWB_OUT_SP21	E291569	0.0443		3	46.3	17.1	< 0.010	< 0.010	12.2		
4/13/2017	WL_BFWB_OUT_SP21	E291569										
4/14/2017	WL_BFWB_OUT_SP21	E291569			2.81	42.3	17.6	< 0.010	< 0.010	10.3		
4/14/2017	WL_BFWB_OUT_SP21	E291569										
4/15/2017	WL_BFWB_OUT_SP21	E291569			2.46	40.9	16.8	< 0.010	< 0.010	9.39		
4/15/2017	WL_BFWB_OUT_SP21	E291569										
4/16/2017	WL_BFWB_OUT_SP21	E291569	0.0409		2.51	42.5	17	< 0.010	< 0.010	8.55		
4/16/2017	WL_BFWB_OUT_SP21	E291569										
4/17/2017	WL_BFWB_OUT_SP21	E291569	0.0413		2.53	22.2	17.5	< 0.010	< 0.010	8.45		
4/17/2017	WL_BFWB_OUT_SP21	E291569										
4/18/2017	WL_BFWB_OUT_SP21	E291569	0.0361		2.57	19.3	16.8	< 0.010	< 0.010	8.81		
4/18/2017	WL_BFWB_OUT_SP21	E291569										
4/19/2017	WL_BFWB_OUT_SP21	E291569			2.54	24.5	19.1	< 0.010	< 0.010	8.71		
4/19/2017	WL_BFWB_OUT_SP21	E291569										
4/20/2017	WL_BFWB_OUT_SP21	E291569	0.0324		2.44	18	19.4	< 0.010	< 0.010	8.25		
4/20/2017	WL_BFWB_OUT_SP21	E291569										
4/21/2017	WL_BFWB_OUT_SP21	E291569			2.39	17.8	19	< 0.010	< 0.010	8		
4/21/2017	WL_BFWB_OUT_SP21	E291569										
4/22/2017	WL_BFWB_OUT_SP21	E291569			2.44	18	19.1	< 0.010	< 0.010	7.88		
4/22/2017	WL_BFWB_OUT_SP21	E291569										
4/23/2017	WL_BFWB_OUT_SP21	E291569	0.0253		2.37	17.4	17.5	< 0.010	< 0.010	7.89		
4/23/2017	WL_BFWB_OUT_SP21	E291569										
4/24/2017	WL_BFWB_OUT_SP21	E291569	0.0275		2.49	16.2	17.9	< 0.010	< 0.010	8.08		
4/24/2017	WL_BFWB_OUT_SP21	E291569										
4/25/2017	WL_BFWB_OUT_SP21	E291569	0.0156		2.45	76.4	18.5	< 0.010	< 0.010	8.37		
4/25/2017	WL_BFWB_OUT_SP21	E291569										
4/26/2017	WL_BFWB_OUT_SP21	E291569			2.46	74.7	18.5	< 0.010	< 0.010	8.17		
4/27/2017	WL_BFWB_OUT_SP21	E291569	0.0413		2.49	45.6	17.6	< 0.010	< 0.010	7.44		
4/27/2017	WL_BFWB_OUT_SP21	E291569										
4/28/2017	WL_BFWB_OUT_SP21	E291569			2.5	51.8	17.2	< 0.010	< 0.010	7.38		
4/28/2017	WL_BFWB_OUT_SP21	E291569										
4/29/2017	WL_BFWB_OUT_SP21	E291569			2.47	34.9	17.6	< 0.010	< 0.010	7.59		
4/29/2017	WL_BFWB_OUT_SP21	E291569										
4/30/2017	WL_BFWB_OUT_SP21	E291569	0.0249		2.43	48	17.3	< 0.010	< 0.010	7.71		
4/30/2017	WL_BFWB_OUT_SP21	E291569										
5/1/2017	WL_BFWB_OUT_SP21	E291569	0.0309		2.45	46	16.9	< 0.010	< 0.010	7.75		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
5/1/2017	WL_BFWB_OUT_SP21	E291569										
5/2/2017	WL_BFWB_OUT_SP21	E291569			2.45	12.5	15.5	< 0.010	< 0.010	7.36		
5/2/2017	WL_BFWB_OUT_SP21	E291569	0.0334									
5/2/2017	WL_BFWB_OUT_SP21	E291569										
5/3/2017	WL_BFWB_OUT_SP21	E291569			2.75	14	17	< 0.010	< 0.010	8.58		
5/3/2017	WL_BFWB_OUT_SP21	E291569										
5/4/2017	WL_BFWB_OUT_SP21	E291569	0.0368		2.67	58.9	16.5	< 0.010	< 0.010	8.44		
5/4/2017	WL_BFWB_OUT_SP21	E291569										
5/5/2017	WL_BFWB_OUT_SP21	E291569			2.77	31.4	15.9	< 0.010	< 0.010	8.6		
5/5/2017	WL_BFWB_OUT_SP21	E291569										
5/5/2017	WL_BFWB_OUT_SP21	E291569										
5/6/2017	WL_BFWB_OUT_SP21	E291569			2.7	13.8	15.9	< 0.010	< 0.010	7.49		
5/6/2017	WL_BFWB_OUT_SP21	E291569										
5/7/2017	WL_BFWB_OUT_SP21	E291569	0.0255		2.65	13.2	16.9	< 0.010	< 0.010	6.84		
5/7/2017	WL_BFWB_OUT_SP21	E291569										
5/8/2017	WL_BFWB_OUT_SP21	E291569	0.0455		2.54	16.7	16.9	< 0.010	< 0.010	5.94		
5/8/2017	WL_BFWB_OUT_SP21	E291569										
5/9/2017	WL_BFWB_OUT_SP21	E291569	0.0281		2.48	14.7	17.7	< 0.010	< 0.010	5.21		
5/9/2017	WL_BFWB_OUT_SP21	E291569										
5/10/2017	WL_BFWB_OUT_SP21	E291569			2.49	15.1	18	< 0.010	< 0.010	5.46		
5/10/2017	WL_BFWB_OUT_SP21	E291569										
5/11/2017	WL_BFWB_OUT_SP21	E291569	0.024		2.5	15.1	17.6	< 0.010	< 0.010	5.13		
5/11/2017	WL_BFWB_OUT_SP21	E291569										
5/12/2017	WL_BFWB_OUT_SP21	E291569			2.62	15.6	17.8	< 0.010	< 0.010	5.2		
5/12/2017	WL_BFWB_OUT_SP21	E291569										
5/13/2017	WL_BFWB_OUT_SP21	E291569			2.19	15.5	16.8	< 0.010	< 0.010	3.84		
5/13/2017	WL_BFWB_OUT_SP21	E291569										
5/14/2017	WL_BFWB_OUT_SP21	E291569	0.0364		2.6	18	17.8	< 0.010	< 0.010	4.89		
5/14/2017	WL_BFWB_OUT_SP21	E291569										
5/15/2017	WL_BFWB_OUT_SP21	E291569			2.69		17.6		< 0.010	4.33		
5/15/2017	WL_BFWB_OUT_SP21	E291569	0.0398									
5/15/2017	WL_BFWB_OUT_SP21	E291569										
5/16/2017	WL_BFWB_OUT_SP21	E291569	0.0295		2.54	15.8	17.9	< 0.010	< 0.020	4.47		
5/16/2017	WL_BFWB_OUT_SP21	E291569										
5/17/2017	WL_BFWB_OUT_SP21	E291569			2.44	14.3	16.4	< 0.010	< 0.060	4.08		
5/17/2017	WL_BFWB_OUT_SP21	E291569										
5/18/2017	WL_BFWB_OUT_SP21	E291569	0.0295		2.56	15.1	17.5	< 0.010	< 0.010	4.29		
5/18/2017	WL_BFWB_OUT_SP21	E291569										
5/19/2017	WL_BFWB_OUT_SP21	E291569			2.63	15.9	17.5	< 0.010	< 0.010	4.67		
5/19/2017	WL_BFWB_OUT_SP21	E291569										
5/20/2017	WL_BFWB_OUT_SP21	E291569			2.66		19.1		< 0.010	5.22		
5/20/2017	WL_BFWB_OUT_SP21	E291569										
5/21/2017	WL_BFWB_OUT_SP21	E291569	0.0233		2.55	16.2	19.8	< 0.010	< 0.010	4.65		
5/21/2017	WL_BFWB_OUT_SP21	E291569										
5/22/2017	WL_BFWB_OUT_SP21	E291569	0.0387		2.81	17.4	21	< 0.010	< 0.010	4.76		
5/22/2017	WL_BFWB_OUT_SP21	E291569										
5/23/2017	WL_BFWB_OUT_SP21	E291569	0.0227		2.53	17.9	19.2	< 0.010	< 0.010	4.3		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
5/23/2017	WL_BFWB_OUT_SP21	E291569										
5/24/2017	WL_BFWB_OUT_SP21	E291569			2.51	18.6	18.8	< 0.010	< 0.010	4.14		
5/24/2017	WL_BFWB_OUT_SP21	E291569										
5/25/2017	WL_BFWB_OUT_SP21	E291569	0.0286			15.5	18.7	< 0.010				
5/25/2017	WL_BFWB_OUT_SP21	E291569										
5/25/2017	WL_BFWB_OUT_SP21	E291569										
5/26/2017	WL_BFWB_OUT_SP21	E291569					18.6					
5/26/2017	WL_BFWB_OUT_SP21	E291569			2.4	15.7	18.1	< 0.010	< 0.010	3.97		
5/26/2017	WL_BFWB_OUT_SP21	E291569										
5/27/2017	WL_BFWB_OUT_SP21	E291569			2.47	14.5	18.2	< 0.010	< 0.010	4.05		
5/27/2017	WL_BFWB_OUT_SP21	E291569										
5/28/2017	WL_BFWB_OUT_SP21	E291569	0.019		2.49	14.6	17.4	< 0.010	< 0.010	4.12		
5/28/2017	WL_BFWB_OUT_SP21	E291569										
5/29/2017	WL_BFWB_OUT_SP21	E291569	0.0142		2.6	15	17.3	< 0.010	< 0.010	4.23		
5/29/2017	WL_BFWB_OUT_SP21	E291569										
5/30/2017	WL_BFWB_OUT_SP21	E291569	0.0087		2.71	14.6	17.8	< 0.010	< 0.010	8.34		
5/30/2017	WL_BFWB_OUT_SP21	E291569										
5/31/2017	WL_BFWB_OUT_SP21	E291569			2.48	12.8	15.6	< 0.010	< 0.010	4.95		
5/31/2017	WL_BFWB_OUT_SP21	E291569										
5/31/2017	WL_BFWB_OUT_SP21	E291569										
6/1/2017	WL_BFWB_OUT_SP21	E291569	0.0216		2.42	13.2	15.9	< 0.010	< 0.010	4.63		
6/1/2017	WL_BFWB_OUT_SP21	E291569										
6/2/2017	WL_BFWB_OUT_SP21	E291569			2.78	13	15.1	< 0.010	< 0.010	8.14		
6/2/2017	WL_BFWB_OUT_SP21	E291569										
6/3/2017	WL_BFWB_OUT_SP21	E291569										
6/3/2017	WL_BFWB_OUT_SP21	E291569			2.58	13.2	13.7	< 0.010	< 0.010	5.76		
6/4/2017	WL_BFWB_OUT_SP21	E291569	0.0136		2.45	12.7	14	< 0.010	< 0.010	4.18		
6/4/2017	WL_BFWB_OUT_SP21	E291569										
6/5/2017	WL_BFWB_OUT_SP21	E291569	0.0152		2.37	11.8	13.1	< 0.010	< 0.010	3.88		
6/5/2017	WL_BFWB_OUT_SP21	E291569										
6/6/2017	WL_BFWB_OUT_SP21	E291569	0.0116		2.53	11	13.4	< 0.010	< 0.010	4.41		
6/6/2017	WL_BFWB_OUT_SP21	E291569										
6/7/2017	WL_BFWB_OUT_SP21	E291569			2.48	10.9	12.1	< 0.010	< 0.010	4.8		
6/7/2017	WL_BFWB_OUT_SP21	E291569										
6/8/2017	WL_BFWB_OUT_SP21	E291569	0.0123		2.51	11.7	13.2	< 0.010	< 0.010	5.09		
6/8/2017	WL_BFWB_OUT_SP21	E291569										
6/9/2017	WL_BFWB_OUT_SP21	E291569			2.63	11.7	14.4	< 0.010	< 0.010	5.65		
6/9/2017	WL_BFWB_OUT_SP21	E291569										
6/10/2017	WL_BFWB_OUT_SP21	E291569			2.59	12.2	13.7	< 0.010	< 0.010	5.4		
6/10/2017	WL_BFWB_OUT_SP21	E291569										
6/11/2017	WL_BFWB_OUT_SP21	E291569	0.0143		2.93	12.3	13.1	< 0.010	< 0.010	8.45		
6/11/2017	WL_BFWB_OUT_SP21	E291569										
6/12/2017	WL_BFWB_OUT_SP21	E291569	0.0154		2.72	11	12.5	< 0.010	< 0.010	6.75		
6/12/2017	WL_BFWB_OUT_SP21	E291569										
6/12/2017	WL_BFWB_OUT_SP21	E291569										
6/13/2017	WL_BFWB_OUT_SP21	E291569	0.0136		2.45	11	12	< 0.010	< 0.010	5.64		
6/13/2017	WL_BFWB_OUT_SP21	E291569										

		Analyte	PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
		Fraction Result Unit	N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
6/14/2017	WL_BFWB_OUT_SP21	E291569			2.28	11	12.1	< 0.010	< 0.010	4.41		
6/14/2017	WL_BFWB_OUT_SP21	E291569										
6/15/2017	WL_BFWB_OUT_SP21	E291569	0.0158		2.35	11.4	13.3	< 0.010	< 0.010	4.05		
6/15/2017	WL_BFWB_OUT_SP21	E291569										
6/16/2017	WL_BFWB_OUT_SP21	E291569			2.4	11.3	13	< 0.010	< 0.010	3.96		
6/16/2017	WL_BFWB_OUT_SP21	E291569										
6/17/2017	WL_BFWB_OUT_SP21	E291569			2.29	12	13.2	< 0.010	< 0.010	3.41		
6/17/2017	WL_BFWB_OUT_SP21	E291569										
6/18/2017	WL_BFWB_OUT_SP21	E291569	0.0144			11.2		< 0.010				
6/18/2017	WL_BFWB_OUT_SP21	E291569										
6/19/2017	WL_BFWB_OUT_SP21	E291569	0.015		2.35	12.3	13.7	< 0.010	< 0.010	3.56		
6/19/2017	WL_BFWB_OUT_SP21	E291569										
6/20/2017	WL_BFWB_OUT_SP21	E291569	0.0152		2.55	11.9	13.7	< 0.010	0.031	3.86		
6/22/2017	WL_BFWB_OUT_SP21	E291569	0.0152		3.14	13.4	15.1	< 0.010	< 0.010	11.6		
6/22/2017	WL_BFWB_OUT_SP21	E291569										
6/23/2017	WL_BFWB_OUT_SP21	E291569			2.67	12.6	15.5	< 0.010	< 0.010	6.13		
6/23/2017	WL_BFWB_OUT_SP21	E291569										
6/24/2017	WL_BFWB_OUT_SP21	E291569			2.57	13.3	14.7	< 0.010	< 0.010	5.14		
6/24/2017	WL_BFWB_OUT_SP21	E291569										
6/25/2017	WL_BFWB_OUT_SP21	E291569	0.0208		2.4	12.2	14.2	< 0.010	< 0.010	4.22		
6/25/2017	WL_BFWB_OUT_SP21	E291569										
6/26/2017	WL_BFWB_OUT_SP21	E291569	0.0201		2.4	12.4	15.1	< 0.010	< 0.010	3.82		
6/27/2017	WL_BFWB_OUT_SP21	E291569	0.0176		2.48	12.3	14.1	< 0.010	< 0.010	4		
6/28/2017	WL_BFWB_OUT_SP21	E291569			2.49	12.3	13.2	< 0.010	< 0.010	3.82		
6/29/2017	WL_BFWB_OUT_SP21	E291569	0.0144		2.16	12.1	13.5	< 0.010	< 0.010	3.52		
6/29/2017	WL_BFWB_OUT_SP21	E291569										
6/30/2017	WL_BFWB_OUT_SP21	E291569			2.2	11.9	13.1	< 0.010	< 0.010	3.33		
7/1/2017	WL_BFWB_OUT_SP21	E291569			3.02	11.9	13.8	< 0.010	< 0.010	4.39		
7/2/2017	WL_BFWB_OUT_SP21	E291569	0.0127		2.54	12.7	13.6	< 0.010	< 0.010	3.71		
7/3/2017	WL_BFWB_OUT_SP21	E291569	0.0134		2.61	12	14	< 0.010	< 0.010	3.94		
7/3/2017	WL_BFWB_OUT_SP21	E291569										
7/4/2017	WL_BFWB_OUT_SP21	E291569	0.0122		2.46	11.5	12.2	< 0.010	< 0.010	3.74		
7/5/2017	WL_BFWB_OUT_SP21	E291569			2.46	11.5	12.5	< 0.010	< 0.010	3.71		
7/6/2017	WL_BFWB_OUT_SP21	E291569	0.0102		2.51	12.3	14.2	< 0.010	< 0.010	3.83		
7/7/2017	WL_BFWB_OUT_SP21	E291569			2.53	10.9	14.4	< 0.010	< 0.010	3.84		
7/8/2017	WL_BFWB_OUT_SP21	E291569			2.59	12	13.1	< 0.010	< 0.010	3.92		
7/9/2017	WL_BFWB_OUT_SP21	E291569	0.0104		2.54	12.2	13.3	< 0.010	< 0.010	3.97		
7/10/2017	WL_BFWB_OUT_SP21	E291569										
7/10/2017	WL_BFWB_OUT_SP21	E291569	0.0111		2.49	11.8	13.8	< 0.010	< 0.010	3.92		
7/11/2017	WL_BFWB_OUT_SP21	E291569	0.0096		2.61	11.6	14.9	< 0.010	< 0.010	4.23		
7/12/2017	WL_BFWB_OUT_SP21	E291569			2.67	12.9	13.9	< 0.010	< 0.010	4.26		
7/12/2017	WL_BFWB_OUT_SP21	E291569										
7/13/2017	WL_BFWB_OUT_SP21	E291569	0.0171		2.43	12.5	14.1	< 0.010	< 0.010	3.79		
7/14/2017	WL_BFWB_OUT_SP21	E291569	0.0126		2.42	13.6	14.8	< 0.010	< 0.010	3.74		
7/14/2017	WL_BFWB_OUT_SP21	E291569										
7/14/2017	WL_BFWB_OUT_SP21	E291569										
7/15/2017	WL_BFWB_OUT_SP21	E291569										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
7/16/2017	WL_BFWB_OUT_SP21	E291569										
7/16/2017	WL_BFWB_OUT_SP21	E291569										
7/17/2017	WL_BFWB_OUT_SP21	E291569	0.0108		3.36	14.7	15.8	< 0.010	< 0.010	14.7		
7/18/2017	WL_BFWB_OUT_SP21	E291569	0.0217		3.84	16.3	17.5	< 0.010	< 0.010	18.5		
7/19/2017	WL_BFWB_OUT_SP21	E291569			3.15	17.9	19.5	< 0.010	< 0.010	11.1		
7/20/2017	WL_BFWB_OUT_SP21	E291569	0.013		2.8	15.8	18.7	< 0.010	< 0.010	6.71		
7/20/2017	WL_BFWB_OUT_SP21	E291569										
7/21/2017	WL_BFWB_OUT_SP21	E291569			2.68	18.1	17.8	< 0.010	< 0.010	5.14		
7/22/2017	WL_BFWB_OUT_SP21	E291569			2.57	14.6	16.9	< 0.010	< 0.010	4.45		
7/22/2017	WL_BFWB_OUT_SP21	E291569										
7/23/2017	WL_BFWB_OUT_SP21	E291569	0.0095		2.56	15.8	16.7	< 0.010	< 0.010	4.23		
7/24/2017	WL_BFWB_OUT_SP21	E291569	0.0097		2.57	15.1	16.9	< 0.010	< 0.010	4.31		
7/25/2017	WL_BFWB_OUT_SP21	E291569	0.0073		2.47	17.3	16.5	< 0.010	< 0.010	4.28		
7/26/2017	WL_BFWB_OUT_SP21	E291569			2.55	19	17.7	< 0.010	< 0.010	4.44		
7/27/2017	WL_BFWB_OUT_SP21	E291569	0.0119		2.75	20.1	20.7	< 0.010	< 0.010	4.42		
7/28/2017	WL_BFWB_OUT_SP21	E291569			2.83	19.1	21.6	< 0.010	< 0.010	4.64		
7/29/2017	WL_BFWB_OUT_SP21	E291569			2.57	18.6	18.3	< 0.010	< 0.010	3.94		
7/30/2017	WL_BFWB_OUT_SP21	E291569	0.0107		2.76	18.9	19.1	< 0.010	< 0.010	4.17		
7/31/2017	WL_BFWB_OUT_SP21	E291569	0.0127		2.72	18.2	18.9	< 0.010	< 0.010	4.83		
8/1/2017	WL_BFWB_OUT_SP21	E291569	0.011		2.53	16.2	19.4	< 0.010	< 0.010	5.11		
8/2/2017	WL_BFWB_OUT_SP21	E291569			2.49	16.4	18	< 0.010	< 0.010	4.67		
8/3/2017	WL_BFWB_OUT_SP21	E291569	0.0071		2.61	15.6	16.5	< 0.010	< 0.010	4.41		
8/4/2017	WL_BFWB_OUT_SP21	E291569			2.83	15.9	17.1	< 0.010	< 0.010	4.5		
8/5/2017	WL_BFWB_OUT_SP21	E291569			2.7	17.6	16.3	< 0.010	< 0.010	4.32		
8/6/2017	WL_BFWB_OUT_SP21	E291569	0.0132			17.4	15.6	< 0.010				
8/7/2017	WL_BFWB_OUT_SP21	E291569	0.0147		2.66	17	19	< 0.010	< 0.010	4.29		
8/8/2017	WL_BFWB_OUT_SP21	E291569	0.0105		2.36	17	17.5	0.014	< 0.010	3.77		
8/9/2017	WL_BFWB_OUT_SP21	E291569			3	17.9	18.7	< 0.010	< 0.010	8.5		
8/9/2017	WL_BFWB_OUT_SP21	E291569										
8/10/2017	WL_BFWB_OUT_SP21	E291569	0.0097		3.22	16.2	17.9	< 0.010	< 0.010	11.1		
8/11/2017	WL_BFWB_OUT_SP21	E291569			2.69	16.2	18	< 0.010	< 0.010	6.53		
8/11/2017	WL_BFWB_OUT_SP21	E291569										
8/12/2017	WL_BFWB_OUT_SP21	E291569	0.0104		2.62	17.5	19	< 0.010	< 0.010	4.07		
8/13/2017	WL_BFWB_OUT_SP21	E291569	0.0132		2.71	14.1	19	< 0.010	< 0.010	4.57		
8/13/2017	WL_BFWB_OUT_SP21	E291569										
8/14/2017	WL_BFWB_OUT_SP21	E291569	0.0102		2.62	16.3	18	< 0.010	< 0.010	4.17		
8/15/2017	WL_BFWB_OUT_SP21	E291569	0.0154		2.68	16.6	17.8	< 0.010	< 0.010	4.38		
8/16/2017	WL_BFWB_OUT_SP21	E291569			2.75	17.5	18.6	< 0.010	< 0.010	4.52		
8/17/2017	WL_BFWB_OUT_SP21	E291569	0.0122		2.56	15.6	16.6	< 0.010	< 0.010	4.34		
8/18/2017	WL_BFWB_OUT_SP21	E291569			2.58		16.1		< 0.010	4.52		
8/19/2017	WL_BFWB_OUT_SP21	E291569			2.77	15.7	16.4	< 0.010	< 0.010	4.93		
8/20/2017	WL_BFWB_OUT_SP21	E291569	0.0166		2.77	14.9	16	< 0.010	< 0.010	5.15		
8/21/2017	WL_BFWB_OUT_SP21	E291569	0.0178		2.75	14.6	16.7	< 0.010	< 0.010	5.32		
8/22/2017	WL_BFWB_OUT_SP21	E291569		0.0151	2.6	16.1	21.6	< 0.010	< 0.010	5.14		
8/23/2017	WL_BFWB_OUT_SP21	E291569			2.78	13.9	15.6	< 0.010	< 0.010	5.52		
8/24/2017	WL_BFWB_OUT_SP21	E291569	0.0112		2.92	15.3	16.6	< 0.010	< 0.010	8.33		
8/25/2017	WL_BFWB_OUT_SP21	E291569			2.81	15.3	16.8	< 0.010	< 0.010	7.11		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
8/25/2017	WL_BFWB_OUT_SP21	E291569										
8/26/2017	WL_BFWB_OUT_SP21	E291569			2.71	14.7	15.6	< 0.010	< 0.010	6.21		
8/26/2017	WL_BFWB_OUT_SP21	E291569										
8/27/2017	WL_BFWB_OUT_SP21	E291569	0.0105		2.76	14.3	15.7	< 0.010	< 0.010	6.08		
8/28/2017	WL_BFWB_OUT_SP21	E291569	0.0105		2.71	14	14.9	< 0.010	< 0.010	6.02		
8/29/2017	WL_BFWB_OUT_SP21	E291569	0.0086		2.75	12.8	13.5	< 0.010	< 0.010	5.81		
8/30/2017	WL_BFWB_OUT_SP21	E291569			2.72	12.6	13.1	< 0.010	< 0.010	5.73		
8/31/2017	WL_BFWB_OUT_SP21	E291569	0.0106		2.87	11.4	12.9	< 0.010	< 0.010	5.82		
9/1/2017	WL_BFWB_OUT_SP21	E291569			2.77	12	13	< 0.010	< 0.010	5.6		
9/2/2017	WL_BFWB_OUT_SP21	E291569			2.59	13.5	13.4	< 0.010	< 0.010	5.52		
9/3/2017	WL_BFWB_OUT_SP21	E291569	0.0124		2.57	13.2	13.7	< 0.010	< 0.010	5.56		
9/4/2017	WL_BFWB_OUT_SP21	E291569	0.0199		2.71	11.8	12.4	< 0.010	< 0.010	5.73		
9/5/2017	WL_BFWB_OUT_SP21	E291569	0.0118		2.68	11.8	13	< 0.010	< 0.010	5.95		
9/6/2017	WL_BFWB_OUT_SP21	E291569			2.6	10.9	12.4	< 0.010	< 0.010	6.11		
9/7/2017	WL_BFWB_OUT_SP21	E291569	0.0105		2.6	10.2	12.6	< 0.010	< 0.010	6.14		
9/8/2017	WL_BFWB_OUT_SP21	E291569			2.69	10.7	11.6	< 0.010	< 0.010	6.32		
9/9/2017	WL_BFWB_OUT_SP21	E291569			2.73	9.98	11.4	< 0.010	< 0.010	6.42		
9/10/2017	WL_BFWB_OUT_SP21	E291569	0.0125		2.57	10.5	11.1	< 0.010	< 0.010	6.03		
9/11/2017	WL_BFWB_OUT_SP21	E291569	0.0131		2.6	10.9	11.4	< 0.010	< 0.010	6.26		
9/12/2017	WL_BFWB_OUT_SP21	E291569	0.0135		2.66	11	11.2	< 0.010	< 0.010	6.45		
9/13/2017	WL_BFWB_OUT_SP21	E291569			2.7	10.3	11	< 0.010	< 0.010	6.68		
9/14/2017	WL_BFWB_OUT_SP21	E291569	0.0154		3.16	12.8	10.4	< 0.010	< 0.010	11.5		
9/15/2017	WL_BFWB_OUT_SP21	E291569			2.98	12.4	12.5	< 0.010	< 0.010	9.73		
9/16/2017	WL_BFWB_OUT_SP21	E291569			2.86	11.1	11.3	< 0.010	< 0.010	7.82		
9/17/2017	WL_BFWB_OUT_SP21	E291569	0.0129		2.73	11.1	12	< 0.010	< 0.010	7.09		
9/18/2017	WL_BFWB_OUT_SP21	E291569	0.0119		2.6	10.9	11.5	< 0.010	< 0.010	6.62		
9/19/2017	WL_BFWB_OUT_SP21	E291569	0.0137		2.6	11.1	12.3	< 0.010	< 0.010	6.82		
9/20/2017	WL_BFWB_OUT_SP21	E291569			2.55	10.8	11.4	< 0.010	0.014	6.34		
9/21/2017	WL_BFWB_OUT_SP21	E291569	0.013		2.56	9.31	12.3	< 0.010	< 0.010	5.94		
9/21/2017	WL_BFWB_OUT_SP21	E291569										
9/22/2017	WL_BFWB_OUT_SP21	E291569			2.54	9.77	13	< 0.010	< 0.010	6.02		
9/23/2017	WL_BFWB_OUT_SP21	E291569			3.08	10	10.2	< 0.010	< 0.010	7.6		
9/24/2017	WL_BFWB_OUT_SP21	E291569	0.0104		2.79	10.9	10.6	< 0.010	< 0.010	6.86		
9/24/2017	WL_BFWB_OUT_SP21	E291569										
9/25/2017	WL_BFWB_OUT_SP21	E291569	0.0128		2.78	10.8	11.2	< 0.010	< 0.010	6.81		
9/26/2017	WL_BFWB_OUT_SP21	E291569	0.0129		2.75	11.4	11.2	< 0.010	< 0.010	6.03		
9/26/2017	WL_BFWB_OUT_SP21	E291569										
9/27/2017	WL_BFWB_OUT_SP21	E291569			2.54	11.1	11.4	< 0.010	< 0.010	6.26		
9/28/2017	WL_BFWB_OUT_SP21	E291569	0.0133		2.6	10.3	11.3	< 0.010	< 0.010	6.46		
9/28/2017	WL_BFWB_OUT_SP21	E291569										
9/29/2017	WL_BFWB_OUT_SP21	E291569			2.61		11.6		< 0.010	6.58		
9/29/2017	WL_BFWB_OUT_SP21	E291569				10.6		< 0.010				
9/30/2017	WL_BFWB_OUT_SP21	E291569			2.92	9.9	11.3	< 0.010	< 0.010	8.95		
9/30/2017	WL_BFWB_OUT_SP21	E291569										
10/1/2017	WL_BFWB_OUT_SP21	E291569		0.0125	2.94	10.1	10.9	< 0.010	< 0.010	8.32		
10/2/2017	WL_BFWB_OUT_SP21	E291569										
10/2/2017	WL_BFWB_OUT_SP21	E291569		0.0149	2.72	9.92	10.6	< 0.010	< 0.010	7.06		

		Analyte	PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
		Fraction Result Unit	N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
10/3/2017	WL_BFWB_OUT_SP21	E291569		0.0124	2.75	8.9	10.5	< 0.010	< 0.010	7.14		
10/4/2017	WL_BFWB_OUT_SP21	E291569			2.7	11.6	11.4	< 0.010	< 0.010	7.11		
10/5/2017	WL_BFWB_OUT_SP21	E291569			2.56		11.7		0.018	7.02		
10/5/2017	WL_BFWB_OUT_SP21	E291569	0.0132			10.8		< 0.010				
10/6/2017	WL_BFWB_OUT_SP21	E291569			2.56	10.8	11.3	< 0.010	< 0.010	7.04		
10/6/2017	WL_BFWB_OUT_SP21	E291569										
10/7/2017	WL_BFWB_OUT_SP21	E291569			2.76	10.7	10	< 0.010	< 0.010	7.3		
10/7/2017	WL_BFWB_OUT_SP21	E291569										
10/8/2017	WL_BFWB_OUT_SP21	E291569			2.69	11	10.3	< 0.010	< 0.010	7.31		
10/9/2017	WL_BFWB_OUT_SP21	E291569	0.0085		2.78	10.5	10.4	< 0.010	< 0.010	7.25		
10/9/2017	WL_BFWB_OUT_SP21	E291569										
10/10/2017	WL_BFWB_OUT_SP21	E291569	0.01		2.55	9.86	10.8	< 0.010	< 0.010	6.89		
10/11/2017	WL_BFWB_OUT_SP21	E291569	0.0086		2.68	11.1	11.6	< 0.010	< 0.010	7.87		
10/12/2017	WL_BFWB_OUT_SP21	E291569	0.0174		2.53	11	11.8	< 0.010	< 0.010	7.24		
10/13/2017	WL_BFWB_OUT_SP21	E291569			2.81	10.5	11.1	< 0.025	< 0.015	7.34		
10/14/2017	WL_BFWB_OUT_SP21	E291569			2.74	10.5	11.6	< 0.010	< 0.010	8.05		
10/15/2017	WL_BFWB_OUT_SP21	E291569	0.0109		2.72	10.5	11.8	< 0.010	< 0.010	8.09		
10/16/2017	WL_BFWB_OUT_SP21	E291569	0.0135		2.73	10.8	12.4	< 0.010	< 0.010	8.2		
10/17/2017	WL_BFWB_OUT_SP21	E291569										
10/18/2017	WL_BFWB_OUT_SP21	E291569	0.0101		2.58	9.55	10.2	< 0.010	< 0.010	7.76		
10/19/2017	WL_BFWB_OUT_SP21	E291569	0.0095		2.72	9.69	10.4	< 0.010	< 0.010	12.7		
10/20/2017	WL_BFWB_OUT_SP21	E291569			2.64	9	9.52	< 0.010	< 0.030	12.7		
10/21/2017	WL_BFWB_OUT_SP21	E291569			2.9	7.44	8.59	< 0.010	< 0.010	12.8		
10/21/2017	WL_BFWB_OUT_SP21	E291569										
10/22/2017	WL_BFWB_OUT_SP21	E291569	0.0092		2.47	7.14	6.96	< 0.010	< 0.010	11.8		
10/23/2017	WL_BFWB_OUT_SP21	E291569	0.0081		2.58	7.15	7.47	< 0.010	< 0.010	11.6		
10/24/2017	WL_BFWB_OUT_SP21	E291569	0.0089		2.46	6.52	6.84	< 0.010	< 0.010	11.4		
10/25/2017	WL_BFWB_OUT_SP21	E291569			2.39	5.33	6.74	< 0.010	< 0.010	11.9		
10/26/2017	WL_BFWB_OUT_SP21	E291569	0.011		2.33	6.27	7.48	< 0.010	< 0.010	10.7		
10/27/2017	WL_BFWB_OUT_SP21	E291569			2.27	6.28	7.01	< 0.010	< 0.010	10.3		
10/28/2017	WL_BFWB_OUT_SP21	E291569			2.41	6.55	6.47	< 0.010	< 0.010	11.3		
10/28/2017	WL_BFWB_OUT_SP21	E291569										
10/29/2017	WL_BFWB_OUT_SP21	E291569	0.0123		2.41	6.23	6.79	< 0.010	< 0.010	12		
10/30/2017	WL_BFWB_OUT_SP21	E291569	0.0123		2.4	6.43	6.56	< 0.010	< 0.010	11.5		
10/31/2017	WL_BFWB_OUT_SP21	E291569	0.0119		2.58	6.42	6.75	< 0.010	< 0.010	12.9		
11/1/2017	WL_BFWB_OUT_SP21	E291569			2.4	5.93	5.77	< 0.010	< 0.050	11.7		
11/2/2017	WL_BFWB_OUT_SP21	E291569	0.0115		2.48	5.9	6.11	< 0.010	< 0.010	12.7		
11/3/2017	WL_BFWB_OUT_SP21	E291569			2.42		5.86		< 0.010	12.9		
11/3/2017	WL_BFWB_OUT_SP21	E291569				5.55		< 0.010				
11/4/2017	WL_BFWB_OUT_SP21	E291569			2.58	5.24	5.24	< 0.010	< 0.010	14.5		
11/5/2017	WL_BFWB_OUT_SP21	E291569	0.0093		2.32	5.39	5.43	< 0.010	< 0.010	13.1		
11/5/2017	WL_BFWB_OUT_SP21	E291569										
11/6/2017	WL_BFWB_OUT_SP21	E291569	0.0098		2.33	5.38	5.3	< 0.010	< 0.010	13.3		
11/7/2017	WL_BFWB_OUT_SP21	E291569	0.0079		2.42	5.19	5.07	< 0.010	< 0.010	13.5		
11/8/2017	WL_BFWB_OUT_SP21	E291569										
11/8/2017	WL_BFWB_OUT_SP21	E291569			2.35	9.34	4.79	< 0.010	< 0.010	13.3		
11/9/2017	WL_BFWB_OUT_SP21	E291569	0.0079		2.37	4.33	4.24	< 0.010	< 0.010	13.5		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
11/9/2017	WL_BFWB_OUT_SP21	E291569										
11/10/2017	WL_BFWB_OUT_SP21	E291569			2.58	4.4	4.54	< 0.010	< 0.010	16		
11/10/2017	WL_BFWB_OUT_SP21	E291569			2.75	4.12	4.98	< 0.010	< 0.010	18.8		
11/10/2017	WL_BFWB_OUT_SP21	E291569										
11/11/2017	WL_BFWB_OUT_SP21	E291569			2.39	4.41	5.24	< 0.010	< 0.010	17.1		
11/11/2017	WL_BFWB_OUT_SP21	E291569										
11/12/2017	WL_BFWB_OUT_SP21	E291569	0.0075		2.32	4.51	4.71	< 0.010	< 0.010	16.4		
11/12/2017	WL_BFWB_OUT_SP21	E291569										
11/13/2017	WL_BFWB_OUT_SP21	E291569	0.0076		2.58	4.63	4.15	< 0.010	< 0.010	14.7		
11/13/2017	WL_BFWB_OUT_SP21	E291569										
11/14/2017	WL_BFWB_OUT_SP21	E291569	0.01		2.49	4.45	4.03	< 0.010	< 0.010	14.2		
11/15/2017	WL_BFWB_OUT_SP21	E291569			2.4	4.55	4.33	< 0.010	< 0.010	14.6		
11/16/2017	WL_BFWB_OUT_SP21	E291569	0.0103		2.52	4.15	3.91	< 0.010	< 0.040	14.6		
11/16/2017	WL_BFWB_OUT_SP21	E291569			2.49	3.85	3.61	< 0.010	< 0.010	14.8		
11/17/2017	WL_BFWB_OUT_SP21	E291569			2.42	3.85	3.89	< 0.010	< 0.050	14.6		
11/17/2017	WL_BFWB_OUT_SP21	E291569			2.37	3.75	3.8	< 0.010	< 0.010	14.2		
11/18/2017	WL_BFWB_OUT_SP21	E291569			2.33	3.59	4.04	< 0.010	< 0.010	14.4		
11/18/2017	WL_BFWB_OUT_SP21	E291569										
11/19/2017	WL_BFWB_OUT_SP21	E291569	0.0087		2.2	3.58	3.54	< 0.010	< 0.010	13.8		
11/20/2017	WL_BFWB_OUT_SP21	E291569	0.0085		2.28	3.31	3.63	< 0.010	< 0.010	14.4		
11/21/2017	WL_BFWB_OUT_SP21	E291569	0.0071		2.24	3.39	3.5	< 0.010	< 0.010	14.2		
11/22/2017	WL_BFWB_OUT_SP21	E291569			2.14	3.44	3.48	< 0.010	< 0.010	13.6		
11/23/2017	WL_BFWB_OUT_SP21	E291569	0.0083		2.56	3.56	3.85	< 0.010	< 0.010	13.5		
11/23/2017	WL_BFWB_OUT_SP21	E291569										
11/24/2017	WL_BFWB_OUT_SP21	E291569			2.51	3.46	3.69	< 0.010	< 0.010	13.2		
11/24/2017	WL_BFWB_OUT_SP21	E291569			2.29	3.23	3.58	< 0.010	< 0.010	14.8		
11/25/2017	WL_BFWB_OUT_SP21	E291569			2.21	3.74	3.4	< 0.010	< 0.010	12.8		
11/26/2017	WL_BFWB_OUT_SP21	E291569	0.0088		2.13	3.93	3.37	< 0.010	< 0.010	12.2		
11/27/2017	WL_BFWB_OUT_SP21	E291569	0.0097		2.25	3.62	3.43	< 0.010	< 0.010	12.3		
11/28/2017	WL_BFWB_OUT_SP21	E291569			2.53	3.7	3.97	< 0.010	< 0.010	17		
11/28/2017	WL_BFWB_OUT_SP21	E291569	0.0108		2.73	3.83	4.33	< 0.010	< 0.010	18.2		
11/29/2017	WL_BFWB_OUT_SP21	E291569			2.48	3.69	3.84	< 0.010	< 0.010	15.7		
11/30/2017	WL_BFWB_OUT_SP21	E291569	0.0072		2.47	3.69	3.89	< 0.010	< 0.010	17.3		
11/30/2017	WL_BFWB_OUT_SP21	E291569			2.46	4.1	3.92	< 0.010	< 0.020	17		
12/1/2017	WL_BFWB_OUT_SP21	E291569			2.36	3.6	4.04	< 0.010	< 0.010	16		
12/2/2017	WL_BFWB_OUT_SP21	E291569			2.38	3.8	4.05	< 0.010	< 0.010	15		
12/3/2017	WL_BFWB_OUT_SP21	E291569	0.0079		2.34	3.97	3.85	< 0.010	< 0.010	14.6		
12/4/2017	WL_BFWB_OUT_SP21	E291569	0.0082		2.34	3.7	3.97	< 0.010	< 0.010	14.4		
12/5/2017	WL_BFWB_OUT_SP21	E291569	0.0066		2.27	4.11	4.06	< 0.010	< 0.010	14.5		
12/6/2017	WL_BFWB_OUT_SP21	E291569			2.39	4.24	4.38	< 0.010	< 0.010	15.3		
12/6/2017	WL_BFWB_OUT_SP21	E291569			2.51	4.21	4.32	< 0.010	< 0.020	15.1		
12/6/2017	WL_BFWB_OUT_SP21	E291569										
12/7/2017	WL_BFWB_OUT_SP21	E291569	0.0072		2.41	3.93	4.23	< 0.010	0.014	14.5		
12/7/2017	WL_BFWB_OUT_SP21	E291569										
12/8/2017	WL_BFWB_OUT_SP21	E291569			2.47	4.49	4.34	< 0.010	0.014	14.7		
12/9/2017	WL_BFWB_OUT_SP21	E291569				4.54		< 0.010				
12/10/2017	WL_BFWB_OUT_SP21	E291569	0.0092		2.38	4.18	4.03	< 0.010	< 0.010	14.9		

		Analyte	PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
		Fraction Result Unit	N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
12/11/2017	WL_BFWB_OUT_SP21	E291569	0.0096		2.36	4.02	4.06	< 0.010	< 0.010	15.2		
12/12/2017	WL_BFWB_OUT_SP21	E291569	0.0086		2.3	3.65	4.17	< 0.010	< 0.010	13.7		
12/13/2017	WL_BFWB_OUT_SP21	E291569			2.3	3.47	4.09	< 0.010	< 0.010	13.6		
12/14/2017	WL_BFWB_OUT_SP21	E291569	0.0094		2.52	4.09	3.98	< 0.010	< 0.010	15		
12/15/2017	WL_BFWB_OUT_SP21	E291569			2.5	3.55	3.72	< 0.010	< 0.010	15.3		
12/16/2017	WL_BFWB_OUT_SP21	E291569			2.48	3.37	3.43	< 0.010	< 0.010	15.3		
12/17/2017	WL_BFWB_OUT_SP21	E291569	0.0082		2.54	3.47	3.44	< 0.010	< 0.010	15.7		
12/18/2017	WL_BFWB_OUT_SP21	E291569	0.0098		2.63	3.28	3.57	< 0.010	< 0.010	15.9		
12/19/2017	WL_BFWB_OUT_SP21	E291569			2.56	3.33	3.13	< 0.010	< 0.010	14.5		
12/20/2017	WL_BFWB_OUT_SP21	E291569	0.0146		2.46	3.2	3.35	< 0.010	< 0.010	14.4		
12/20/2017	WL_BFWB_OUT_SP21	E291569			2.54	3.03	3.21	< 0.010	< 0.010	16.9		
12/21/2017	WL_BFWB_OUT_SP21	E291569	0.009		2.45	4.36	3.45	< 0.010	< 0.010	14.5		
12/22/2017	WL_BFWB_OUT_SP21	E291569			2.36	3.89	3.61	< 0.010	< 0.010	14.3		
12/23/2017	WL_BFWB_OUT_SP21	E291569			2.68	3.64	523	< 0.010	< 0.010	2.18		
12/23/2017	WL_BFWB_OUT_SP21	E291569										
12/24/2017	WL_BFWB_OUT_SP21	E291569			2.49	3.6	3.42	< 0.010	< 0.010	14		
12/25/2017	WL_BFWB_OUT_SP21	E291569	0.0092		2.39	3.55	3.64	< 0.010	< 0.010	13.3		
12/26/2017	WL_BFWB_OUT_SP21	E291569	0.0101		2.34	3.7	3.65	< 0.010	< 0.010	13.3		
12/27/2017	WL_BFWB_OUT_SP21	E291569	0.0085		2.41	3.58	3.42	< 0.010	< 0.010	14		
12/28/2017	WL_BFWB_OUT_SP21	E291569			2.23	3.52	3.44	< 0.010	< 0.010	15.1		
12/29/2017	WL_BFWB_OUT_SP21	E291569	0.0073		2.2	3.27	3.33	< 0.010	< 0.010	15.5		
12/30/2017	WL_BFWB_OUT_SP21	E291569			2.19	3.34	3.19	< 0.010	< 0.010	14.7		
12/31/2017	WL_BFWB_OUT_SP21	E291569	0.0074		2.57	3.12	3.24	< 0.010	< 0.010	13.7		
1/1/2017	WL_LCI_SP02	E293370			2.44	35.1	35.1	< 0.010	< 0.010	15.1		
1/2/2017	WL_LCI_SP02	E293370			2.33	53.8	43.9	< 0.010	< 0.010	14.3		
1/3/2017	WL_LCI_SP02	E293370			2.49	54.6	45.2	< 0.010	< 0.010	16.5		
1/4/2017	WL_LCI_SP02	E293370										
1/5/2017	WL_LCI_SP02	E293370			2.25	57	48.5	< 0.010	< 0.010	13		
1/6/2017	WL_LCI_SP02	E293370										
1/7/2017	WL_LCI_SP02	E293370										
1/8/2017	WL_LCI_SP02	E293370			2.18	44.3	42.8	< 0.010	< 0.010	12		
1/9/2017	WL_LCI_SP02	E293370	0.0054		2.12	58.9	53	< 0.010	< 0.010	11.8		
1/10/2017	WL_LCI_SP02	E293370			2.14	63	52.8	< 0.010	< 0.010	11.8		
1/11/2017	WL_LCI_SP02	E293370										
1/12/2017	WL_LCI_SP02	E293370			2.27	59.2	49.6	< 0.010	< 0.010	13.7		
1/13/2017	WL_LCI_SP02	E293370										
1/14/2017	WL_LCI_SP02	E293370										
1/15/2017	WL_LCI_SP02	E293370			2.19	59.9	60.6	< 0.010	< 0.010	12.6		
1/16/2017	WL_LCI_SP02	E293370			2.09	54.5	47	< 0.010	< 0.010	13.1		
1/17/2017	WL_LCI_SP02	E293370			2.21	39.5	39	< 0.010	< 0.010	13.4		
1/18/2017	WL_LCI_SP02	E293370	0.019		2.17	55.5	48.1	< 0.010	< 0.010	14.2		
1/19/2017	WL_LCI_SP02	E293370			2.29	57.8	48.8	< 0.010	< 0.010	14.6		
1/20/2017	WL_LCI_SP02	E293370										
1/21/2017	WL_LCI_SP02	E293370										
1/22/2017	WL_LCI_SP02	E293370			2.05	60.5	51.2	< 0.010	< 0.010	11.3		
1/23/2017	WL_LCI_SP02	E293370			2.17	71.3	48.8	< 0.010	< 0.010	11.9		
1/24/2017	WL_LCI_SP02	E293370			2.07	61.1	52.6	< 0.010	< 0.010	11.6		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
1/25/2017	WL_LCI_SP02	E293370										
1/26/2017	WL_LCI_SP02	E293370			1.82	55.1	46.5	< 0.010	< 0.010	9.32		
1/27/2017	WL_LCI_SP02	E293370										
1/28/2017	WL_LCI_SP02	E293370										
1/29/2017	WL_LCI_SP02	E293370			1.94	53.7	53.3	< 0.010	< 0.010	10.7		
1/30/2017	WL_LCI_SP02	E293370			1.99	54.5	48.6	< 0.010	< 0.010	10.7		
1/31/2017	WL_LCI_SP02	E293370			1.94	52.6	46.3	< 0.010	< 0.010	10.4		
2/1/2017	WL_LCI_SP02	E293370										
2/1/2017	WL_LCI_SP02	E293370	0.0056		1.82	56	49	< 0.010	< 0.010	9.76		
2/2/2017	WL_LCI_SP02	E293370			2.02	58.4	49.8	< 0.010	< 0.010	10.4		
2/3/2017	WL_LCI_SP02	E293370										
2/4/2017	WL_LCI_SP02	E293370										
2/5/2017	WL_LCI_SP02	E293370			1.98	59.8	50.2	< 0.010	< 0.010	8.85		
2/6/2017	WL_LCI_SP02	E293370			2	58.3	51.1	< 0.010	< 0.010	8.8		
2/7/2017	WL_LCI_SP02	E293370	0.0051		2.04	59.9	51.3	< 0.010	< 0.010	9.09		
2/8/2017	WL_LCI_SP02	E293370										
2/8/2017	WL_LCI_SP02	E293370	0.0079		1.94	56.5	49.5	< 0.010	< 0.010	10.2		
2/9/2017	WL_LCI_SP02	E293370										
2/10/2017	WL_LCI_SP02	E293370			1.94	68.8	58.3	< 0.010	< 0.010	9.97		
2/11/2017	WL_LCI_SP02	E293370										
2/12/2017	WL_LCI_SP02	E293370			1.93	64.6	50.8	< 0.010	< 0.010	10.5		
2/13/2017	WL_LCI_SP02	E293370			1.9	59	51.6	< 0.010	< 0.010	10.2		
2/14/2017	WL_LCI_SP02	E293370			2.03	59.9	51.6	< 0.010	< 0.010	10.3		
2/15/2017	WL_LCI_SP02	E293370										
2/16/2017	WL_LCI_SP02	E293370			1.94	64.5	50.1	< 0.010	< 0.010	10.1		
2/17/2017	WL_LCI_SP02	E293370										
2/18/2017	WL_LCI_SP02	E293370										
2/19/2017	WL_LCI_SP02	E293370			2	61.3	52.9	< 0.010	< 0.010	10.4		
2/20/2017	WL_LCI_SP02	E293370			2.19	61.2	51.2	< 0.010	< 0.010	11.6		
2/21/2017	WL_LCI_SP02	E293370			1.92	63.6	53.1	< 0.010	< 0.010	10.4		
2/22/2017	WL_LCI_SP02	E293370										
2/22/2017	WL_LCI_SP02	E293370	0.0083									
2/23/2017	WL_LCI_SP02	E293370			2.12	60.8	51.2	< 0.010	< 0.010	10.7		
2/24/2017	WL_LCI_SP02	E293370										
2/25/2017	WL_LCI_SP02	E293370										
2/26/2017	WL_LCI_SP02	E293370			1.91	56.8	50.3	< 0.010	< 0.010	10.2		
2/27/2017	WL_LCI_SP02	E293370			2.08	65.1	48.5	< 0.010	< 0.010	10.3		
2/28/2017	WL_LCI_SP02	E293370			1.83	55.6	50.2	< 0.010	< 0.010	9.73		
3/1/2017	WL_LCI_SP02	E293370										
3/2/2017	WL_LCI_SP02	E293370			1.88	52	53.3	< 0.010	< 0.010	9.96		
3/3/2017	WL_LCI_SP02	E293370										
3/4/2017	WL_LCI_SP02	E293370										
3/5/2017	WL_LCI_SP02	E293370			2	52.8	53.6	< 0.010	< 0.010	10.4		
3/6/2017	WL_LCI_SP02	E293370	0.0066		1.93	52.2	51.5	< 0.010	< 0.010	9.97		
3/7/2017	WL_LCI_SP02	E293370			2.02	54	52.9	< 0.010	< 0.010	9.15		
3/8/2017	WL_LCI_SP02	E293370										
3/9/2017	WL_LCI_SP02	E293370			1.65	54	50.1	< 0.010	< 0.010	8.98		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
3/10/2017	WL_LCI_SP02	E293370			1.79	60.5	50.4	< 0.010	< 0.010	9.72		
3/11/2017	WL_LCI_SP02	E293370			1.84	53.1	54.1	< 0.010	< 0.010	9.8		
3/12/2017	WL_LCI_SP02	E293370			1.75	49.6	51.2	< 0.010	< 0.010	10.1		
3/13/2017	WL_LCI_SP02	E293370			1.83	54.4	52.2	< 0.010	< 0.010	9.92		
3/14/2017	WL_LCI_SP02	E293370			1.71	50.5	48.1	< 0.010	< 0.010	8.19		
3/15/2017	WL_LCI_SP02	E293370			1.83	49.1	48.7	< 0.010	< 0.010	9.34		
3/16/2017	WL_LCI_SP02	E293370			1.96	57.1	56.3	< 0.010	0.024	9.17		
3/20/2017	WL_LCI_SP02	E293370			1.93	60.9	56.4	< 0.010	< 0.010	9.52		
3/21/2017	WL_LCI_SP02	E293370			2.12	68.4	65.6	< 0.010	0.013	10.3		
3/22/2017	WL_LCI_SP02	E293370			2.09	67.4	64.3	< 0.010	< 0.010	10.5		
3/23/2017	WL_LCI_SP02	E293370			2.06	67.4	61.8	< 0.010	< 0.010	9.55		
3/24/2017	WL_LCI_SP02	E293370			2.16	64.2	60.3	< 0.010	< 0.010	9.63		
3/25/2017	WL_LCI_SP02	E293370			2.08	63.8	62.6	< 0.010	< 0.010	9.74		
3/26/2017	WL_LCI_SP02	E293370			2.05	64	62.9	< 0.010	< 0.010	9.7		
3/27/2017	WL_LCI_SP02	E293370			2.05	70.7	65.3	< 0.010	< 0.010	9.86		
3/28/2017	WL_LCI_SP02	E293370			2.2	72.6	67.4	< 0.010	< 0.010	10.5		
3/29/2017	WL_LCI_SP02	E293370			2.23	71.8	69.2	< 0.010	< 0.010	10.9		
3/30/2017	WL_LCI_SP02	E293370			2.17	68.2	68.9	< 0.010	< 0.010	10.9		
3/31/2017	WL_LCI_SP02	E293370			2.31	107	96.3	< 0.010	< 0.010	10.5		
4/1/2017	WL_LCI_SP02	E293370			2.1	68.1	65.9	< 0.010	< 0.010	10.9		
4/2/2017	WL_LCI_SP02	E293370			2.04	68.8	66.4	< 0.010	< 0.010	10.4		
4/3/2017	WL_LCI_SP02	E293370	0.008		2.07	70.4	69.9	< 0.010	< 0.010	10.7		
4/4/2017	WL_LCI_SP02	E293370			2.31	69.5	70.5	< 0.010	< 0.010	10.6		
4/5/2017	WL_LCI_SP02	E293370			2.04	71.4	72	< 0.010	< 0.010	11.5		
4/6/2017	WL_LCI_SP02	E293370			2.29	72.4	69.7	< 0.010	< 0.010	11		
4/7/2017	WL_LCI_SP02	E293370										
4/7/2017	WL_LCI_SP02	E293370			2.29	62.9	69.2	< 0.010	< 0.010	11.3		
4/8/2017	WL_LCI_SP02	E293370			2.34	73.4	77.9	< 0.010	< 0.010	10.7		
4/9/2017	WL_LCI_SP02	E293370			2.27	70.3	70.5	< 0.010	< 0.010	11		
4/10/2017	WL_LCI_SP02	E293370			2.04	68.6	69.5	< 0.010	< 0.010	10.3		
4/12/2017	WL_LCI_SP02	E293370			2.23	74.7	71.8	< 0.010	< 0.010	11.3		
4/13/2017	WL_LCI_SP02	E293370			2	68	64.9	< 0.010	< 0.010	10.8		
4/14/2017	WL_LCI_SP02	E293370			2.1	71.3	68.5	< 0.010	< 0.010	10.8		
4/15/2017	WL_LCI_SP02	E293370			2.03	68.6	63.1	< 0.010	< 0.010	11.7		
4/16/2017	WL_LCI_SP02	E293370			2.17	71.8	68.8	< 0.010	< 0.010	11.2		
4/17/2017	WL_LCI_SP02	E293370			2.22	70.7	63.8	< 0.010	< 0.010	11.5		
4/18/2017	WL_LCI_SP02	E293370			2.12	68.5	64.4	< 0.010	< 0.010	10.9		
4/19/2017	WL_LCI_SP02	E293370			2.11	61.9	60.2	< 0.010	< 0.010	11.3		
4/20/2017	WL_LCI_SP02	E293370			1.92	67.5	60.7	< 0.010	< 0.010	10		
4/21/2017	WL_LCI_SP02	E293370			1.94	68.9	59.8	< 0.010	< 0.010	10.1		
4/22/2017	WL_LCI_SP02	E293370			2.23	73.1	69.4	< 0.010	< 0.010	11		
4/23/2017	WL_LCI_SP02	E293370			2	66.7	70.4	< 0.010	< 0.010	11.2		
4/24/2017	WL_LCI_SP02	E293370			2.05	68.3	71.3	< 0.010	< 0.010	11.3		
4/25/2017	WL_LCI_SP02	E293370			2.02	76.3	70.8	< 0.010	< 0.010	11.3		
4/26/2017	WL_LCI_SP02	E293370			2.02	76.3	70.1	< 0.010	< 0.010	11.1		
4/27/2017	WL_LCI_SP02	E293370			1.97	68	63.4	< 0.010	< 0.010	10.7		
4/28/2017	WL_LCI_SP02	E293370			1.94	65.9	61.4	< 0.010	< 0.010	10.3		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
4/29/2017	WL_LCI_SP02	E293370			2.1	68.3	64.4	< 0.010	< 0.010	10.9		
4/30/2017	WL_LCI_SP02	E293370			2.15	68.4	66.3	< 0.010	< 0.010	11.3		
5/1/2017	WL_LCI_SP02	E293370	0.0042		2.12	68.9	62	< 0.010	< 0.010	10.9		
5/2/2017	WL_LCI_SP02	E293370			1.93	59	59.1	< 0.010	< 0.010	10.2		
5/3/2017	WL_LCI_SP02	E293370			1.93	59.8	58	< 0.010	< 0.010	10.2		
5/4/2017	WL_LCI_SP02	E293370			1.98	59.9	58.8	< 0.010	< 0.010	10.7		
5/5/2017	WL_LCI_SP02	E293370			1.64	62.7	58.8	< 0.010	< 0.010	9.04		
5/6/2017	WL_LCI_SP02	E293370			1.94	91	89.1	< 0.010	< 0.010	10.5		
5/7/2017	WL_LCI_SP02	E293370			1.7	83.1	84.2	< 0.010	< 0.010	7.9		
5/8/2017	WL_LCI_SP02	E293370			1.59	59.7	59.2	< 0.010	< 0.010	6.37		
5/9/2017	WL_LCI_SP02	E293370			1.55	43.7	43	< 0.010	< 0.010	5.5		
5/10/2017	WL_LCI_SP02	E293370			1.66	38.1	40.3	< 0.010	< 0.010	6.34		
5/11/2017	WL_LCI_SP02	E293370			1.68	42.7	35.5	< 0.010	< 0.010	7.59		
5/12/2017	WL_LCI_SP02	E293370			1.73	39	39.5	< 0.010	< 0.010	7.44		
5/13/2017	WL_LCI_SP02	E293370			1.63	40.2	37.4	< 0.010	< 0.010	7.44		
5/14/2017	WL_LCI_SP02	E293370			1.61	40.5	38.2	< 0.010	< 0.010	7.41		
5/15/2017	WL_LCI_SP02	E293370										
5/16/2017	WL_LCI_SP02	E293370			1.47	32.3	31.6	< 0.010	< 0.010	5.41		
5/17/2017	WL_LCI_SP02	E293370			1.47	34.1	35.8	< 0.010	< 0.010	5.73		
5/18/2017	WL_LCI_SP02	E293370			1.58	41.2	40	< 0.010	< 0.010	6.03		
5/19/2017	WL_LCI_SP02	E293370			1.63	40.7	42.4	< 0.010	< 0.010	6.48		
5/20/2017	WL_LCI_SP02	E293370										
5/21/2017	WL_LCI_SP02	E293370			1.63	47.6	46	< 0.010	< 0.010	7.11		
5/22/2017	WL_LCI_SP02	E293370			1.8	46.6	58.6	< 0.010	< 0.010	8.56		
5/23/2017	WL_LCI_SP02	E293370			1.73	53.3	54.8	< 0.010	< 0.010	7.65		
5/24/2017	WL_LCI_SP02	E293370			1.65	50.4	48.4	< 0.010	< 0.010	6.19		
5/25/2017	WL_LCI_SP02	E293370			1.44	50.5	47.1	< 0.010	< 0.010	5.36		
5/26/2017	WL_LCI_SP02	E293370			1.51	45.7	45.9	< 0.010	< 0.010	5.21		
5/27/2017	WL_LCI_SP02	E293370			1.4	43.8	35.4	< 0.010	< 0.010	4.56		
5/28/2017	WL_LCI_SP02	E293370			1.54	49.2	47.8	< 0.010	< 0.010	5.52		
5/29/2017	WL_LCI_SP02	E293370			1.56	43	47.2	< 0.010	< 0.010	5.79		
5/30/2017	WL_LCI_SP02	E293370			1.29	50.5	37.3	< 0.010	< 0.010	4.45		
5/31/2017	WL_LCI_SP02	E293370			1.42	47.9	51.4	< 0.010	< 0.010	5.02		
6/1/2017	WL_LCI_SP02	E293370			1.6	50.6	58.8	< 0.010	< 0.010	5.07		
6/2/2017	WL_LCI_SP02	E293370			1.51	51.9	51.9	< 0.010	< 0.010	4.78		
6/3/2017	WL_LCI_SP02	E293370			2.55	49.2	13.9	< 0.010	< 0.010	5.78		
6/4/2017	WL_LCI_SP02	E293370			1.6	48.6	50.9	< 0.010	< 0.010	5.55		
6/5/2017	WL_LCI_SP02	E293370	0.0035									
6/5/2017	WL_LCI_SP02	E293370			1.61	49.3	49.2	< 0.010	< 0.010	5.65		
6/6/2017	WL_LCI_SP02	E293370			1.54	47.8	45.8	< 0.010	< 0.010	5.44		
6/7/2017	WL_LCI_SP02	E293370			1.6	50.7	47.1	< 0.010	< 0.010	5.87		
6/8/2017	WL_LCI_SP02	E293370			1.7	42.1	50.8	< 0.010	< 0.010	6.5		
6/9/2017	WL_LCI_SP02	E293370			1.64	46	46.9	< 0.010	< 0.010	6.13		
6/10/2017	WL_LCI_SP02	E293370			1.54	43.1	40.5	< 0.010	< 0.010	5.53		
6/11/2017	WL_LCI_SP02	E293370			1.59	44.7	45.2	< 0.010	< 0.010	5.45		
6/12/2017	WL_LCI_SP02	E293370	< 0.0020		1.55	46	44.8	< 0.010	< 0.010	5.61		
6/13/2017	WL_LCI_SP02	E293370			1.71	52.2	53.1	< 0.010	< 0.010	7.08		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
6/13/2017	WL_LCI_SP02	E293370										
6/14/2017	WL_LCI_SP02	E293370			1.72	54.7	56.2	< 0.010	< 0.010	7.36		
6/14/2017	WL_LCI_SP02	E293370										
6/15/2017	WL_LCI_SP02	E293370			1.61	60.9	52.1	< 0.010	< 0.010	6.88		
6/15/2017	WL_LCI_SP02	E293370										
6/16/2017	WL_LCI_SP02	E293370			1.48	46.8	42.8	< 0.010	< 0.010	6		
6/16/2017	WL_LCI_SP02	E293370										
6/17/2017	WL_LCI_SP02	E293370			1.56	47.2	46.1	< 0.010	0.017	6.33		
6/17/2017	WL_LCI_SP02	E293370										
6/18/2017	WL_LCI_SP02	E293370			1.54	50.6	48.8	< 0.010	0.025	6.51		
6/18/2017	WL_LCI_SP02	E293370										
6/19/2017	WL_LCI_SP02	E293370			1.61	54.2	51.4	< 0.010	0.053	6.94		
6/19/2017	WL_LCI_SP02	E293370										
6/20/2017	WL_LCI_SP02	E293370										
6/21/2017	WL_LCI_SP02	E293370										
6/22/2017	WL_LCI_SP02	E293370			1.78	65.3	64.6	< 0.010	< 0.010	7.78		
6/22/2017	WL_LCI_SP02	E293370										
6/23/2017	WL_LCI_SP02	E293370			1.7	57.6	55.5	< 0.010	< 0.010	7.26		
6/23/2017	WL_LCI_SP02	E293370										
6/24/2017	WL_LCI_SP02	E293370			1.71	64.3	64.8	< 0.010	< 0.010	7.61		
6/24/2017	WL_LCI_SP02	E293370										
6/25/2017	WL_LCI_SP02	E293370			1.71	64.3	64.1	< 0.010	< 0.010	7.71		
6/25/2017	WL_LCI_SP02	E293370										
6/26/2017	WL_LCI_SP02	E293370			1.74	69.9	66.2	< 0.010	< 0.010	8.05		
6/27/2017	WL_LCI_SP02	E293370			1.6	53.3	56.7	< 0.010	< 0.010	7.66		
6/28/2017	WL_LCI_SP02	E293370			1.56	59.1	54.9	< 0.010	< 0.010	7.4		
6/29/2017	WL_LCI_SP02	E293370			1.51	55.2	51.4	< 0.010	< 0.010	7.34		
6/30/2017	WL_LCI_SP02	E293370			1.53	56	56.4	< 0.010	< 0.010	7.31		
7/1/2017	WL_LCI_SP02	E293370			1.81	56.7	58.4	< 0.010	< 0.010	8.54		
7/2/2017	WL_LCI_SP02	E293370			1.72	49.6	58.3	< 0.010	< 0.010	8.32		
7/3/2017	WL_LCI_SP02	E293370			1.62	52.2	55	< 0.010	< 0.010	7.69		
7/4/2017	WL_LCI_SP02	E293370			1.87	60.5	58.6	< 0.010	< 0.010	8.68		
7/5/2017	WL_LCI_SP02	E293370			1.85	58.8	58.1	< 0.010	< 0.010	8.46		
7/6/2017	WL_LCI_SP02	E293370			1.83	62.2	60	< 0.010	< 0.010	8.18		
7/7/2017	WL_LCI_SP02	E293370			1.83	62.4	59.6	< 0.010	< 0.010	8.63		
7/8/2017	WL_LCI_SP02	E293370			1.77	56.8	58.7	< 0.010	< 0.010	8.79		
7/9/2017	WL_LCI_SP02	E293370			1.77	54	61.1	< 0.010	< 0.010	8.95		
7/10/2017	WL_LCI_SP02	E293370	0.0034		1.83	51.4	63.8	< 0.010	< 0.010	9.48		
7/11/2017	WL_LCI_SP02	E293370			1.82	54.7	58.6	< 0.010	< 0.010	9.13		
7/12/2017	WL_LCI_SP02	E293370			1.77	59.9	60.3	< 0.010	< 0.010	8.83		
7/13/2017	WL_LCI_SP02	E293370			1.75	56.2	56.7	< 0.010	< 0.010	8.58		
7/14/2017	WL_LCI_SP02	E293370	0.0058		1.78	58.4	57.3	< 0.010	< 0.010	8.83		
7/14/2017	WL_LCI_SP02	E293370										
7/15/2017	WL_LCI_SP02	E293370										
7/16/2017	WL_LCI_SP02	E293370										
7/17/2017	WL_LCI_SP02	E293370			1.75	68.3	65.2	< 0.010	< 0.010	8.14		
7/18/2017	WL_LCI_SP02	E293370			1.86	66	66.9	< 0.010	< 0.010	9.46		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
7/19/2017	WL_LCI_SP02	E293370			1.98	64.4	66.6	< 0.010	< 0.010	9.68		
7/20/2017	WL_LCI_SP02	E293370			1.79	58.5	60.8	< 0.010	< 0.010	8.97		
7/21/2017	WL_LCI_SP02	E293370			1.89	59.7	60.4	< 0.010	< 0.010	9.24		
7/22/2017	WL_LCI_SP02	E293370			1.84	54.9	59	< 0.010	< 0.010	9.15		
7/23/2017	WL_LCI_SP02	E293370			1.92	57.8	58.6	< 0.010	< 0.010	9.47		
7/24/2017	WL_LCI_SP02	E293370			1.84	56.1	58.2	< 0.010	< 0.010	9.19		
7/25/2017	WL_LCI_SP02	E293370			1.83	61.8	57.2	< 0.010	< 0.010	9.78		
7/26/2017	WL_LCI_SP02	E293370			1.85	64.2	54.5	< 0.010	< 0.010	9.77		
7/27/2017	WL_LCI_SP02	E293370			2.1	63.8	69.4	< 0.010	< 0.010	10.5		
7/28/2017	WL_LCI_SP02	E293370			2.08	65.9	69	< 0.010	< 0.010	10.7		
7/29/2017	WL_LCI_SP02	E293370			1.93	59.9	61.6	< 0.010	< 0.010	9.6		
7/30/2017	WL_LCI_SP02	E293370			2.05	60.5	60.2	< 0.010	< 0.010	9.78		
7/31/2017	WL_LCI_SP02	E293370			1.92	59.4	61	< 0.010	< 0.010	9.78		
8/1/2017	WL_LCI_SP02	E293370			1.76	60.4	57.7	< 0.010	< 0.010	9.1		
8/2/2017	WL_LCI_SP02	E293370			1.85	57.7	56.7	< 0.010	< 0.010	9.45		
8/3/2017	WL_LCI_SP02	E293370			1.69	56.2	54.4	< 0.010	< 0.010	8.71		
8/4/2017	WL_LCI_SP02	E293370			1.86	57.6	58.2	< 0.010	< 0.010	9.4		
8/5/2017	WL_LCI_SP02	E293370			1.7	52.4	50	< 0.010	< 0.010	8.49		
8/6/2017	WL_LCI_SP02	E293370			1.91	53.5	52.7	< 0.010	< 0.010	9.1		
8/7/2017	WL_LCI_SP02	E293370			1.91	52.2	54.1	< 0.010	< 0.010	9.59		
8/8/2017	WL_LCI_SP02	E293370			1.91	61	65.1	0.059	< 0.050	9.5		
8/9/2017	WL_LCI_SP02	E293370			1.78	91.3	87.8	< 0.010	< 0.010	7.62		
8/11/2017	WL_LCI_SP02	E293370			1.96	54	54.2	< 0.010	< 0.010	9.2		
8/12/2017	WL_LCI_SP02	E293370			1.85	50.1	50.6	< 0.010	< 0.010	7.99		
8/13/2017	WL_LCI_SP02	E293370			1.9	49.2	52.2	< 0.010	< 0.010	8.31		
8/13/2017	WL_LCI_SP02	E293370										
8/14/2017	WL_LCI_SP02	E293370	0.0049		1.89	48.5	51.6	< 0.010	< 0.010	8.09		
8/15/2017	WL_LCI_SP02	E293370			1.99	51.1	50.9	< 0.010	< 0.010	8.43		
8/16/2017	WL_LCI_SP02	E293370			1.92	52.2	49.5	< 0.010	< 0.010	8.17		
8/17/2017	WL_LCI_SP02	E293370			1.8	49.8	49.5	< 0.010	< 0.010	8.1		
8/18/2017	WL_LCI_SP02	E293370										
8/19/2017	WL_LCI_SP02	E293370			1.96	50.9	52.1	< 0.010	< 0.010	8.65		
8/20/2017	WL_LCI_SP02	E293370			1.94	50.3	51.8	< 0.010	< 0.010	8.43		
8/21/2017	WL_LCI_SP02	E293370			1.91	49.6	49.6	< 0.010	< 0.010	8.19		
8/22/2017	WL_LCI_SP02	E293370			1.86	54.8	55.8	< 0.010	< 0.010	8.25		
8/23/2017	WL_LCI_SP02	E293370			1.89	50.9	50.2	< 0.010	< 0.010	8.38		
8/24/2017	WL_LCI_SP02	E293370			1.97	49.9	52.1	< 0.010	< 0.010	8.74		
8/25/2017	WL_LCI_SP02	E293370			1.9	50	50.2	< 0.010	< 0.010	8.37		
8/26/2017	WL_LCI_SP02	E293370			1.89	52.2	53.5	< 0.010	< 0.010	8.62		
8/27/2017	WL_LCI_SP02	E293370			1.87	52.1	52.9	< 0.010	< 0.010	8.41		
8/28/2017	WL_LCI_SP02	E293370			1.88	51.8	52.7	< 0.010	< 0.010	8.44		
8/29/2017	WL_LCI_SP02	E293370			1.88	48.9	49.7	< 0.010	< 0.010	8.22		
8/30/2017	WL_LCI_SP02	E293370			1.88	49.4	49.3	< 0.010	< 0.010	8.17		
8/31/2017	WL_LCI_SP02	E293370			1.92	47.3	47.2	< 0.010	< 0.010	8.08		
9/1/2017	WL_LCI_SP02	E293370			1.95	46.9	47.8	< 0.010	< 0.010	8.26		
9/2/2017	WL_LCI_SP02	E293370										
9/2/2017	WL_LCI_SP02	E293370			1.8	48.3	49.6	< 0.010	< 0.010	7.96		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
9/3/2017	WL_LCI_SP02	E293370										
9/3/2017	WL_LCI_SP02	E293370			1.78	49.5	49.4	< 0.010	< 0.010	7.94		
9/4/2017	WL_LCI_SP02	E293370										
9/4/2017	WL_LCI_SP02	E293370			1.96	48.6	49	< 0.010	< 0.010	8.21		
9/5/2017	WL_LCI_SP02	E293370										
9/5/2017	WL_LCI_SP02	E293370			1.89	47.9	47.7	< 0.010	< 0.010	7.95		
9/6/2017	WL_LCI_SP02	E293370										
9/6/2017	WL_LCI_SP02	E293370			1.85	47.4	47.3	< 0.010	< 0.010	7.89		
9/7/2017	WL_LCI_SP02	E293370										
9/7/2017	WL_LCI_SP02	E293370			1.82	44.6	45.7	< 0.010	< 0.010	7.16		
9/7/2017	WL_LCI_SP02	E293370			1.78	49.8	49.1	< 0.010	< 0.010	8.6		
9/8/2017	WL_LCI_SP02	E293370										
9/8/2017	WL_LCI_SP02	E293370			1.89	47.7	48.7	< 0.010	< 0.010	7.85		
9/9/2017	WL_LCI_SP02	E293370										
9/9/2017	WL_LCI_SP02	E293370			1.83	48.4	48	< 0.010	< 0.010	7.77		
9/10/2017	WL_LCI_SP02	E293370										
9/10/2017	WL_LCI_SP02	E293370			1.83	50.4	51.2	< 0.010	< 0.010	8.1		
9/11/2017	WL_LCI_SP02	E293370										
9/11/2017	WL_LCI_SP02	E293370			1.9	52.8	48	< 0.010	< 0.010	8.13		
9/12/2017	WL_LCI_SP02	E293370										
9/12/2017	WL_LCI_SP02	E293370	0.0018		1.91	50.5	53.6	< 0.010	< 0.010	8.64		
9/13/2017	WL_LCI_SP02	E293370										
9/13/2017	WL_LCI_SP02	E293370			2	66	68.2	< 0.010	< 0.010	8.39		
9/14/2017	WL_LCI_SP02	E293370										
9/14/2017	WL_LCI_SP02	E293370			2.09	63.2	65.3	< 0.010	< 0.010	9.5		
9/15/2017	WL_LCI_SP02	E293370										
9/15/2017	WL_LCI_SP02	E293370			1.85	52.6	53.3	< 0.010	< 0.010	8.1		
9/16/2017	WL_LCI_SP02	E293370										
9/16/2017	WL_LCI_SP02	E293370			1.88	50	51.3	< 0.010	< 0.010	8.45		
9/17/2017	WL_LCI_SP02	E293370										
9/17/2017	WL_LCI_SP02	E293370			1.91	50	49.4	< 0.010	< 0.010	8.74		
9/18/2017	WL_LCI_SP02	E293370										
9/18/2017	WL_LCI_SP02	E293370			1.91	49.7	50.8	< 0.010	< 0.010	8.53		
9/18/2017	WL_LCI_SP02	E293370				44.7	46.9					
9/19/2017	WL_LCI_SP02	E293370										
9/19/2017	WL_LCI_SP02	E293370			1.86	49.8	51.6	< 0.010	< 0.010	7.46		
9/20/2017	WL_LCI_SP02	E293370										
9/20/2017	WL_LCI_SP02	E293370			1.87	52.5	55.6	< 0.010	< 0.010	8.35		
9/20/2017	WL_LCI_SP02	E293370				44	43.7					
9/21/2017	WL_LCI_SP02	E293370										
9/21/2017	WL_LCI_SP02	E293370			1.86	45.8	47.7	< 0.010	< 0.010	8.4		
9/21/2017	WL_LCI_SP02	E293370	0.0024		1.88	49.1	51.1	< 0.010	< 0.010	8.77		
9/22/2017	WL_LCI_SP02	E293370										
9/22/2017	WL_LCI_SP02	E293370			1.85	46.5	45.9	< 0.010	< 0.010	8.41		
9/23/2017	WL_LCI_SP02	E293370										
9/23/2017	WL_LCI_SP02	E293370			1.76	44.1	47.6	< 0.010	< 0.010	8.08		
9/24/2017	WL_LCI_SP02	E293370										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
9/24/2017	WL_LCI_SP02	E293370			1.92	52.3	52.5	< 0.010	< 0.010	8.85		
9/25/2017	WL_LCI_SP02	E293370										
9/25/2017	WL_LCI_SP02	E293370			1.86	48.3	49.1	< 0.010	< 0.010	8.75		
9/26/2017	WL_LCI_SP02	E293370										
9/26/2017	WL_LCI_SP02	E293370			1.82	51.9	53.5	< 0.010	< 0.010	8.73		
9/27/2017	WL_LCI_SP02	E293370										
9/27/2017	WL_LCI_SP02	E293370			1.79	51.2	52.8	< 0.010	< 0.010	8.41		
9/28/2017	WL_LCI_SP02	E293370										
9/28/2017	WL_LCI_SP02	E293370			1.91	49.2	50.5	< 0.010	< 0.010	8.61		
9/29/2017	WL_LCI_SP02	E293370										
9/29/2017	WL_LCI_SP02	E293370			1.89	48.3	49.3	< 0.010	< 0.010	8.59		
9/30/2017	WL_LCI_SP02	E293370										
9/30/2017	WL_LCI_SP02	E293370			1.94	48	49.5	< 0.010	< 0.010	8.47		
10/1/2017	WL_LCI_SP02	E293370										
10/1/2017	WL_LCI_SP02	E293370			1.87	50.2	49.5	< 0.010	< 0.010	8.62		
10/2/2017	WL_LCI_SP02	E293370										
10/2/2017	WL_LCI_SP02	E293370		0.0018	1.98	49.4	49.2	< 0.010	< 0.010	8.66		
10/2/2017	WL_LCI_SP02	E293370				46.6	47.3					
10/3/2017	WL_LCI_SP02	E293370										
10/3/2017	WL_LCI_SP02	E293370			1.85	50.3	51.8	< 0.010	< 0.010	8.61		
10/4/2017	WL_LCI_SP02	E293370										
10/4/2017	WL_LCI_SP02	E293370			1.89	53.5	53.2	< 0.010	< 0.010	8.99		
10/5/2017	WL_LCI_SP02	E293370										
10/5/2017	WL_LCI_SP02	E293370			1.89	49.2	50.4	< 0.010	< 0.010	9.01		
10/6/2017	WL_LCI_SP02	E293370										
10/6/2017	WL_LCI_SP02	E293370			1.91	48.9	48.9	< 0.010	< 0.010	9.21		
10/7/2017	WL_LCI_SP02	E293370										
10/7/2017	WL_LCI_SP02	E293370			1.77	52.3	49.6	< 0.010	< 0.010	8.47		
10/8/2017	WL_LCI_SP02	E293370										
10/8/2017	WL_LCI_SP02	E293370			1.78	51.7	50.1	< 0.010	< 0.010	8.48		
10/9/2017	WL_LCI_SP02	E293370										
10/9/2017	WL_LCI_SP02	E293370			1.95	53.3	57.3	< 0.010	< 0.010	9.9		
10/10/2017	WL_LCI_SP02	E293370										
10/10/2017	WL_LCI_SP02	E293370			1.92	50.3	51.1	< 0.010	< 0.010	9.42		
10/11/2017	WL_LCI_SP02	E293370										
10/11/2017	WL_LCI_SP02	E293370			1.97	53.1	52.7	< 0.010	< 0.010	10.1		
10/12/2017	WL_LCI_SP02	E293370										
10/12/2017	WL_LCI_SP02	E293370			1.87	52.2	53	< 0.010	< 0.010	9.64		
10/13/2017	WL_LCI_SP02	E293370										
10/13/2017	WL_LCI_SP02	E293370			2.02	52.3	52.5	< 0.025	< 0.010	9.63		
10/14/2017	WL_LCI_SP02	E293370										
10/14/2017	WL_LCI_SP02	E293370			1.77	55.9	56.4	< 0.010	< 0.010	9.01		
10/15/2017	WL_LCI_SP02	E293370										
10/15/2017	WL_LCI_SP02	E293370			1.68	54.6	55.9	< 0.010	< 0.010	8.68		
10/16/2017	WL_LCI_SP02	E293370										
10/16/2017	WL_LCI_SP02	E293370			1.77	54.3	55.9	< 0.010	< 0.010	8.88		
10/17/2017	WL_LCI_SP02	E293370										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
10/17/2017	WL_LCI_SP02	E293370			2.1	104	110	< 0.010	< 0.010	8.37		
10/18/2017	WL_LCI_SP02	E293370										
10/18/2017	WL_LCI_SP02	E293370			1.97	121	120	< 0.010	< 0.010	7.49		
10/19/2017	WL_LCI_SP02	E293370										
10/19/2017	WL_LCI_SP02	E293370			1.98	121	120	< 0.010	< 0.010	8.11		
10/20/2017	WL_LCI_SP02	E293370										
10/20/2017	WL_LCI_SP02	E293370			1.97	115	117	< 0.010	< 0.010	8.8		
10/21/2017	WL_LCI_SP02	E293370										
10/21/2017	WL_LCI_SP02	E293370			2.08	102	100	< 0.010	0.017	9.09		
10/22/2017	WL_LCI_SP02	E293370										
10/22/2017	WL_LCI_SP02	E293370			2.14	106	105	< 0.010	< 0.010	9.39		
10/23/2017	WL_LCI_SP02	E293370										
10/23/2017	WL_LCI_SP02	E293370			2.05	107	107	< 0.010	< 0.010	9.77		
10/24/2017	WL_LCI_SP02	E293370			2.18	103	98	< 0.010	< 0.010	9.32		
10/25/2017	WL_LCI_SP02	E293370			2.03	102	104	< 0.010	< 0.010	8.69		
10/26/2017	WL_LCI_SP02	E293370			2.23	104	107	< 0.010	< 0.010	10.2		
10/27/2017	WL_LCI_SP02	E293370			2.13	96.2	95	< 0.010	< 0.010	10.4		
10/28/2017	WL_LCI_SP02	E293370										
10/29/2017	WL_LCI_SP02	E293370			2	94.2	94.6	< 0.010	< 0.010	9.66		
10/30/2017	WL_LCI_SP02	E293370			2.02	88.5	89.7	< 0.010	< 0.010	9.88		
10/31/2017	WL_LCI_SP02	E293370			2.11	93.1	93.8	< 0.010	< 0.010	10.1		
11/1/2017	WL_LCI_SP02	E293370			2.16	97.9	96.9	< 0.010	< 0.010	9.88		
11/2/2017	WL_LCI_SP02	E293370			2.09	97.2	103	< 0.010	< 0.010	10.6		
11/3/2017	WL_LCI_SP02	E293370			2.07	93	98.1	< 0.010	< 0.010	10.4		
11/4/2017	WL_LCI_SP02	E293370			2.12	97.1	98.1	< 0.010	< 0.010	10.1		
11/5/2017	WL_LCI_SP02	E293370			1.97	95	97.1	< 0.010	< 0.010	10.2		
11/6/2017	WL_LCI_SP02	E293370	0.0028		1.97	102	98.9	< 0.010	< 0.010	9.73		
11/7/2017	WL_LCI_SP02	E293370			1.96	112	110	< 0.010	< 0.010	9.73		
11/8/2017	WL_LCI_SP02	E293370			1.89	84	86.7	< 0.010	< 0.010	9.7		
11/9/2017	WL_LCI_SP02	E293370			1.94	93.8	92	< 0.010	< 0.010	9.27		
11/10/2017	WL_LCI_SP02	E293370			1.95	90.1	91.2	< 0.010	< 0.010	9.41		
11/11/2017	WL_LCI_SP02	E293370			1.98	90.1	88.6	< 0.010	< 0.010	9.21		
11/12/2017	WL_LCI_SP02	E293370			2	90.4	91.5	< 0.010	< 0.010	8.94		
11/13/2017	WL_LCI_SP02	E293370			2.01	102	105	< 0.010	< 0.010	10		
11/14/2017	WL_LCI_SP02	E293370			2.07	110	99.8	< 0.010	< 0.010	10.4		
11/15/2017	WL_LCI_SP02	E293370			2.02	103	104	< 0.010	< 0.010	10.8		
11/16/2017	WL_LCI_SP02	E293370			2.14	115	110	< 0.010	< 0.010	9.98		
11/17/2017	WL_LCI_SP02	E293370			2.2	96.7	94.8	< 0.010	< 0.020	10.8		
11/18/2017	WL_LCI_SP02	E293370			2.04	95.3	96.9	< 0.010	< 0.010	10.3		
11/19/2017	WL_LCI_SP02	E293370			2.06	101	101	< 0.010	< 0.010	10.6		
11/20/2017	WL_LCI_SP02	E293370			2.12	93.7	98.3	< 0.010	< 0.010	10.6		
11/21/2017	WL_LCI_SP02	E293370			2.03	97.3	100	< 0.010	< 0.010	10.2		
11/22/2017	WL_LCI_SP02	E293370			2.01	95.5	101	< 0.010	< 0.010	10.4		
11/23/2017	WL_LCI_SP02	E293370			1.96	114	113	< 0.010	< 0.010	9.46		
11/24/2017	WL_LCI_SP02	E293370			2.01	122	122	< 0.010	< 0.010	9.42		
11/25/2017	WL_LCI_SP02	E293370			2.08	111	110	< 0.010	< 0.010	10.5		
11/26/2017	WL_LCI_SP02	E293370			2.02	99.7	97.9	< 0.010	0.017	10.5		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
11/27/2017	WL_LCI_SP02	E293370			2.05	95.6	97.3	< 0.030	< 0.010	10.8		
11/28/2017	WL_LCI_SP02	E293370			2.32	94.6	95.4	< 0.010	< 0.010	11.6		
11/29/2017	WL_LCI_SP02	E293370			2.25	87.7	91	< 0.010	< 0.010	10.8		
11/30/2017	WL_LCI_SP02	E293370			2.11	85.3	87.9	< 0.010	< 0.010	11.6		
12/1/2017	WL_LCI_SP02	E293370			2.05	89.8	90	< 0.010	< 0.010	11.2		
12/2/2017	WL_LCI_SP02	E293370			2.08	94.4	97	< 0.010	< 0.010	10.6		
12/3/2017	WL_LCI_SP02	E293370			2.08	99.2	101	< 0.010	< 0.010	10.6		
12/4/2017	WL_LCI_SP02	E293370	0.0023		2.05	88.9	90.1	< 0.010	< 0.010	10.9		
12/5/2017	WL_LCI_SP02	E293370			2.18	104	104	< 0.010	< 0.010	11.3		
12/6/2017	WL_LCI_SP02	E293370			2.13	100	96.2	< 0.010	< 0.010	11.4		
12/7/2017	WL_LCI_SP02	E293370			2.17	89.1	88	< 0.010	< 0.010	10.6		
12/8/2017	WL_LCI_SP02	E293370			2.23	89.3	94.4	< 0.010	< 0.010	11.2		
12/9/2017	WL_LCI_SP02	E293370			2.08	97.2	89.6	< 0.010	< 0.010	11.8		
12/10/2017	WL_LCI_SP02	E293370			2.11	92.8	85.9	< 0.010	< 0.010	11.9		
12/11/2017	WL_LCI_SP02	E293370			2.13	94.2	88.4	< 0.010	< 0.010	12		
12/12/2017	WL_LCI_SP02	E293370			2.03	85.9	96.8	< 0.010	< 0.010	10.6		
12/13/2017	WL_LCI_SP02	E293370			2.06	97.2	109	< 0.010	< 0.010	10.6		
12/14/2017	WL_LCI_SP02	E293370			2.16	102	97.9	< 0.010	< 0.010	11.8		
12/15/2017	WL_LCI_SP02	E293370			1.95	99.3	96.5	< 0.010	< 0.010	10.8		
12/16/2017	WL_LCI_SP02	E293370			2.3	97.9	101	< 0.010	< 0.010	12.1		
12/17/2017	WL_LCI_SP02	E293370			2.31	100	97.4	< 0.010	< 0.010	12.4		
12/18/2017	WL_LCI_SP02	E293370			2.3	113	110	< 0.010	< 0.010	11.5		
12/19/2017	WL_LCI_SP02	E293370			2.44	96.7	104	< 0.010	< 0.010	12.5		
12/20/2017	WL_LCI_SP02	E293370			2.43	95.7	104	< 0.010	< 0.010	12.5		
12/21/2017	WL_LCI_SP02	E293370			2.2	128	107	< 0.010	< 0.010	12.4		
12/22/2017	WL_LCI_SP02	E293370			2.03	127	117	< 0.010	< 0.010	10.6		
12/23/2017	WL_LCI_SP02	E293370			2.15	113	112	< 0.010	< 0.010	9.72		
12/24/2017	WL_LCI_SP02	E293370			2.17	130	129	< 0.010	< 0.010	9.68		
12/25/2017	WL_LCI_SP02	E293370			2.11	115	115	< 0.010	< 0.010	10.2		
12/26/2017	WL_LCI_SP02	E293370			2.12	111	110	< 0.010	< 0.010	10.3		
12/27/2017	WL_LCI_SP02	E293370			2.25	107	114	< 0.010	< 0.010	11.6		
12/28/2017	WL_LCI_SP02	E293370			2.3	112	115	< 0.010	< 0.010	11.4		
12/29/2017	WL_LCI_SP02	E293370			2.14	108	109	< 0.010	< 0.010	10.9		
12/30/2017	WL_LCI_SP02	E293370			2.32	114	120	< 0.010	< 0.010	11.8		
12/31/2017	WL_LCI_SP02	E293370										
12/31/2017	WL_LCI_SP02	E293370			2.17	103	102	< 0.010	< 0.010	10.1		
1/1/2017	WL_WLCI_SP01	E293371			2.46	354	346	< 0.010	< 0.010	2		
1/3/2017	WL_WLCI_SP01	E293371			2.5	561	474	< 0.010	< 0.010	2.06		
1/4/2017	WL_WLCI_SP01	E293371										
1/5/2017	WL_WLCI_SP01	E293371			2.48	566	489	< 0.010	< 0.010	2.01		
1/6/2017	WL_WLCI_SP01	E293371										
1/7/2017	WL_WLCI_SP01	E293371										
1/8/2017	WL_WLCI_SP01	E293371			2.58	424	434	< 0.010	< 0.010	2.2		
1/9/2017	WL_WLCI_SP01	E293371	0.0083		2.62	608	521	< 0.010	< 0.010	2.25		
1/10/2017	WL_WLCI_SP01	E293371			2.5	587	483	< 0.010	< 0.010	2.12		
1/11/2017	WL_WLCI_SP01	E293371										
1/12/2017	WL_WLCI_SP01	E293371			2.42	587	513	< 0.010	< 0.010	2.18		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
1/13/2017	WL_WLCI_SP01	E293371										
1/14/2017	WL_WLCI_SP01	E293371										
1/15/2017	WL_WLCI_SP01	E293371			2.47	398	394	< 0.010	< 0.010	2.11		
1/16/2017	WL_WLCI_SP01	E293371			2.59	578	510	< 0.010	< 0.010	2.19		
1/17/2017	WL_WLCI_SP01	E293371			2.65	385	396	< 0.010	< 0.010	2.17		
1/18/2017	WL_WLCI_SP01	E293371	0.023		2.52	562	502	< 0.010	< 0.010	2.21		
1/19/2017	WL_WLCI_SP01	E293371			2.66	590	521	< 0.010	< 0.010	2.29		
1/20/2017	WL_WLCI_SP01	E293371										
1/21/2017	WL_WLCI_SP01	E293371										
1/22/2017	WL_WLCI_SP01	E293371			2.63	587	520	< 0.010	< 0.010	2.32		
1/23/2017	WL_WLCI_SP01	E293371			2.72	555	558	< 0.010	< 0.010	2.4		
1/24/2017	WL_WLCI_SP01	E293371			2.75	611	540	< 0.010	< 0.010	2.36		
1/25/2017	WL_WLCI_SP01	E293371										
1/26/2017	WL_WLCI_SP01	E293371			2.51	557	491	< 0.010	< 0.010	2.14		
1/27/2017	WL_WLCI_SP01	E293371										
1/28/2017	WL_WLCI_SP01	E293371										
1/29/2017	WL_WLCI_SP01	E293371			2.57	542	527	< 0.010	< 0.010	2.3		
1/30/2017	WL_WLCI_SP01	E293371			2.6	537	493	< 0.010	< 0.010	2.3		
1/31/2017	WL_WLCI_SP01	E293371			2.5	426	437	< 0.050	< 0.050	2.15		
2/1/2017	WL_WLCI_SP01	E293371			2.6	576	499	< 0.010	< 0.010	2.12		
2/1/2017	WL_WLCI_SP01	E293371	0.013		2.41	445	459	< 0.050	< 0.050	2.03		
2/2/2017	WL_WLCI_SP01	E293371			2.61	567	516	< 0.010	< 0.010	2.18		
2/3/2017	WL_WLCI_SP01	E293371										
2/4/2017	WL_WLCI_SP01	E293371										
2/5/2017	WL_WLCI_SP01	E293371			2.75	509	466	< 0.010	< 0.010	1.87		
2/6/2017	WL_WLCI_SP01	E293371			2.73	567	487	< 0.010	< 0.010	1.97		
2/7/2017	WL_WLCI_SP01	E293371	0.0081		2.82	569	471	< 0.010	< 0.010	1.97		
2/8/2017	WL_WLCI_SP01	E293371										
2/8/2017	WL_WLCI_SP01	E293371	0.0082		2.37	556	464	< 0.010	< 0.010	2.01		
2/9/2017	WL_WLCI_SP01	E293371										
2/10/2017	WL_WLCI_SP01	E293371			2.55	589	534	< 0.010	< 0.010	2.2		
2/11/2017	WL_WLCI_SP01	E293371										
2/12/2017	WL_WLCI_SP01	E293371			2.62	628	540	< 0.010	< 0.010	2.35		
2/13/2017	WL_WLCI_SP01	E293371			2.7	593	549	< 0.010	< 0.010	2.42		
2/14/2017	WL_WLCI_SP01	E293371			2.38	611	529	< 0.010	< 0.010	2.13		
2/15/2017	WL_WLCI_SP01	E293371										
2/16/2017	WL_WLCI_SP01	E293371			2.7	603	536	< 0.010	< 0.010	2.3		
2/17/2017	WL_WLCI_SP01	E293371										
2/18/2017	WL_WLCI_SP01	E293371										
2/19/2017	WL_WLCI_SP01	E293371			2.75	609	569	< 0.010	< 0.010	2.56		
2/20/2017	WL_WLCI_SP01	E293371			2.67	588	528	< 0.010	< 0.010	2.34		
2/21/2017	WL_WLCI_SP01	E293371			2.43	544	500	< 0.010	< 0.010	2.14		
2/22/2017	WL_WLCI_SP01	E293371										
2/22/2017	WL_WLCI_SP01	E293371	0.0097									
2/23/2017	WL_WLCI_SP01	E293371			2.77	586	503	< 0.010	< 0.010	2.32		
2/24/2017	WL_WLCI_SP01	E293371										
2/25/2017	WL_WLCI_SP01	E293371										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
2/26/2017	WL_WLCI_SP01	E293371			2.81	579	503	< 0.010	< 0.010	2.47		
2/27/2017	WL_WLCI_SP01	E293371			2.62	564	493	< 0.010	< 0.010	2.32		
2/28/2017	WL_WLCI_SP01	E293371			2.43	587	505	< 0.010	< 0.010	2.11		
3/1/2017	WL_WLCI_SP01	E293371										
3/2/2017	WL_WLCI_SP01	E293371			2.45	471	482	< 0.010	< 0.010	2.19		
3/3/2017	WL_WLCI_SP01	E293371										
3/4/2017	WL_WLCI_SP01	E293371										
3/5/2017	WL_WLCI_SP01	E293371			2.54	479	505	< 0.010	< 0.010	2.19		
3/6/2017	WL_WLCI_SP01	E293371	0.008		2.59	479	484	< 0.010	< 0.010	2.21		
3/7/2017	WL_WLCI_SP01	E293371			2.85	487	472	< 0.010	0.011	2.1		
3/8/2017	WL_WLCI_SP01	E293371										
3/9/2017	WL_WLCI_SP01	E293371			2.35	480	495	< 0.010	< 0.010	2.21		
3/10/2017	WL_WLCI_SP01	E293371			2.76	556	569	< 0.010	< 0.010	2.41		
3/11/2017	WL_WLCI_SP01	E293371			2.69	594	587	< 0.010	< 0.010	2.27		
3/12/2017	WL_WLCI_SP01	E293371			2.29	531	542	< 0.010	< 0.010	2.06		
3/13/2017	WL_WLCI_SP01	E293371			2.4	497	516	< 0.010	< 0.010	2.13		
3/14/2017	WL_WLCI_SP01	E293371			2.48	536	532	< 0.020	< 0.020	2.1		
3/15/2017	WL_WLCI_SP01	E293371			2.69	443	455	< 0.010	< 0.010	2.03		
3/16/2017	WL_WLCI_SP01	E293371			2.77	408	403	< 0.010	0.043	1.9		
3/20/2017	WL_WLCI_SP01	E293371			2.8	556	522	< 0.010	< 0.010	2.57		
3/21/2017	WL_WLCI_SP01	E293371			2.7	567	548	< 0.010	< 0.010	2.55		
3/22/2017	WL_WLCI_SP01	E293371			2.68	578	549	< 0.010	< 0.010	2.65		
3/23/2017	WL_WLCI_SP01	E293371			2.78	570	561	< 0.010	< 0.010	2.34		
3/24/2017	WL_WLCI_SP01	E293371			2.77	573	549	< 0.020	< 0.020	2.24		
3/25/2017	WL_WLCI_SP01	E293371			2.63	561	550	< 0.010	< 0.010	2.25		
3/26/2017	WL_WLCI_SP01	E293371			2.53	560	558	< 0.010	< 0.010	2.17		
3/27/2017	WL_WLCI_SP01	E293371			2.6	583	555	< 0.010	< 0.010	2.22		
3/28/2017	WL_WLCI_SP01	E293371			2.81	611	577	< 0.010	< 0.010	2.43		
3/29/2017	WL_WLCI_SP01	E293371			2.94	608	596	< 0.010	< 0.010	2.53		
3/30/2017	WL_WLCI_SP01	E293371			2.43	459	445	< 0.010	< 0.010	2.35		
3/31/2017	WL_WLCI_SP01	E293371			2.76	576	560	< 0.010	< 0.010	2.3		
4/1/2017	WL_WLCI_SP01	E293371			2.65	526	510	< 0.010	< 0.010	2.43		
4/2/2017	WL_WLCI_SP01	E293371			2.64	565	540	< 0.010	< 0.010	2.28		
4/3/2017	WL_WLCI_SP01	E293371	0.0084		2.7	652	545	< 0.010	< 0.010	2.36		
4/4/2017	WL_WLCI_SP01	E293371			2.92	544	578	< 0.010	< 0.010	2.36		
4/5/2017	WL_WLCI_SP01	E293371			2.63	546	565	< 0.010	< 0.010	2.5		
4/6/2017	WL_WLCI_SP01	E293371			2.9	572	555	< 0.010	< 0.010	2.3		
4/7/2017	WL_WLCI_SP01	E293371			3	500	564	< 0.010	< 0.010	2.5		
4/8/2017	WL_WLCI_SP01	E293371			2.91	537	544	< 0.010	< 0.010	2.3		
4/9/2017	WL_WLCI_SP01	E293371			2.93	541	577	< 0.010	< 0.010	2.44		
4/10/2017	WL_WLCI_SP01	E293371			2.56	549	545	< 0.010	< 0.010	2.19		
4/11/2017	WL_WLCI_SP01	E293371			2.71	605	559	< 0.010	< 0.010	2.34		
4/12/2017	WL_WLCI_SP01	E293371			2.66	575	548	< 0.010	< 0.010	2.36		
4/13/2017	WL_WLCI_SP01	E293371			2.41	529	502	< 0.010	< 0.010	2.25		
4/14/2017	WL_WLCI_SP01	E293371			2.74	563	556	< 0.010	< 0.010	2.47		
4/15/2017	WL_WLCI_SP01	E293371			2.64	550	554	< 0.010	< 0.010	2.45		
4/16/2017	WL_WLCI_SP01	E293371			2.5	584	532	< 0.010	< 0.010	2.27		

Analyte		PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit		N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number									
4/17/2017	WL_WLCI_SP01	E293371			2.59	528	543	< 0.010	< 0.010	2.29	
4/18/2017	WL_WLCI_SP01	E293371			2.74	505	533	< 0.010	< 0.010	2.34	
4/19/2017	WL_WLCI_SP01	E293371			2.67	447	460	< 0.010	< 0.010	2.4	
4/20/2017	WL_WLCI_SP01	E293371			2.45	560	503	< 0.010	< 0.010	2.12	
4/21/2017	WL_WLCI_SP01	E293371			2.4	555	493	< 0.010	< 0.010	2.08	
4/22/2017	WL_WLCI_SP01	E293371			2.57	582	590	< 0.010	< 0.010	2.4	
4/23/2017	WL_WLCI_SP01	E293371			2.57	525	588	< 0.010	< 0.010	2.34	
4/24/2017	WL_WLCI_SP01	E293371			2.58	521	554	< 0.010	< 0.010	2.31	
4/25/2017	WL_WLCI_SP01	E293371			2.61	610	570	< 0.010	< 0.010	2.37	
4/26/2017	WL_WLCI_SP01	E293371			2.62	617	579	< 0.010	< 0.010	2.37	
4/27/2017	WL_WLCI_SP01	E293371			2.59	555	554	< 0.010	< 0.010	2.31	
4/28/2017	WL_WLCI_SP01	E293371			2.57	549	531	< 0.010	< 0.010	2.33	
4/29/2017	WL_WLCI_SP01	E293371			2.71	594	536	< 0.010	< 0.010	2.34	
4/30/2017	WL_WLCI_SP01	E293371			2.75	604	568	< 0.010	< 0.010	2.45	
5/1/2017	WL_WLCI_SP01	E293371	0.0063		2.72	608	555	< 0.010	< 0.010	2.4	
5/2/2017	WL_WLCI_SP01	E293371			2.5	520	512	< 0.010	< 0.010	2.12	
5/3/2017	WL_WLCI_SP01	E293371			2.48	529	511	< 0.010	< 0.010	2.11	
5/4/2017	WL_WLCI_SP01	E293371			2.53	526	516	< 0.010	< 0.010	2.19	
5/5/2017	WL_WLCI_SP01	E293371			2.42	490	495	< 0.010	< 0.010	2.26	
5/6/2017	WL_WLCI_SP01	E293371			2.53	450	459	< 0.010	< 0.010	2.16	
5/7/2017	WL_WLCI_SP01	E293371			2.49	490	487	< 0.010	< 0.010	2.2	
5/8/2017	WL_WLCI_SP01	E293371			2.44	516	508	< 0.010	< 0.010	2.18	
5/9/2017	WL_WLCI_SP01	E293371			2.53	509	522	< 0.010	< 0.010	2.08	
5/10/2017	WL_WLCI_SP01	E293371			2.45	479	499	< 0.010	< 0.010	2.05	
5/11/2017	WL_WLCI_SP01	E293371			2.72	468	440	< 0.010	< 0.010	2.24	
5/12/2017	WL_WLCI_SP01	E293371			2.54	458	460	< 0.010	< 0.010	2.11	
5/13/2017	WL_WLCI_SP01	E293371			2.45	472	456	< 0.010	< 0.010	2.06	
5/14/2017	WL_WLCI_SP01	E293371			2.43	521	490	< 0.010	< 0.010	2.06	
5/15/2017	WL_WLCI_SP01	E293371			2.38		381	< 0.010	< 0.010	2.14	
5/16/2017	WL_WLCI_SP01	E293371			2.22	400	383	< 0.010	< 0.010	1.97	
5/17/2017	WL_WLCI_SP01	E293371			2.23	372	390	< 0.010	< 0.010	1.97	
5/18/2017	WL_WLCI_SP01	E293371			2.32	393	395	< 0.010	< 0.010	1.89	
5/19/2017	WL_WLCI_SP01	E293371			2.37	385	391	< 0.010	< 0.010	1.87	
5/20/2017	WL_WLCI_SP01	E293371									
5/21/2017	WL_WLCI_SP01	E293371			2.33	379	380	< 0.010	< 0.010	1.85	
5/22/2017	WL_WLCI_SP01	E293371			2.37	395	387	< 0.010	< 0.010	1.93	
5/23/2017	WL_WLCI_SP01	E293371			2.34	386	390	< 0.010	< 0.010	1.85	
5/24/2017	WL_WLCI_SP01	E293371			2.33	352	350	< 0.010	< 0.010	1.73	
5/25/2017	WL_WLCI_SP01	E293371			2.03	293	282	< 0.010	< 0.010	1.55	
5/26/2017	WL_WLCI_SP01	E293371			2.12	288	281	< 0.010	< 0.010	1.4	
5/27/2017	WL_WLCI_SP01	E293371			2.28	292	293	< 0.010	< 0.010	1.54	
5/28/2017	WL_WLCI_SP01	E293371			2.27	274	284	< 0.010	< 0.010	1.58	
5/29/2017	WL_WLCI_SP01	E293371			2.19	244	240	< 0.010	< 0.010	1.45	
5/30/2017	WL_WLCI_SP01	E293371			1.99	210	219	< 0.010	< 0.010	1.58	
5/31/2017	WL_WLCI_SP01	E293371			1.9	228	205	< 0.010	< 0.010	1.23	
6/1/2017	WL_WLCI_SP01	E293371			2.23	221	223	< 0.010	< 0.010	1.21	
6/2/2017	WL_WLCI_SP01	E293371			2.13	202	186	< 0.010	< 0.010	1.12	

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
6/3/2017	WL_WLCI_SP01	E293371			2.14	175	180	< 0.010	< 0.010	1.13		
6/4/2017	WL_WLCI_SP01	E293371			2.15	175	179	< 0.010	< 0.010	1.13		
6/5/2017	WL_WLCI_SP01	E293371	0.0057		2.06	177	177	< 0.010	< 0.010	1.09		
6/6/2017	WL_WLCI_SP01	E293371			2.09	182	189	< 0.010	< 0.010	1.1		
6/6/2017	WL_WLCI_SP01	E293371										
6/7/2017	WL_WLCI_SP01	E293371			2.19	174	189	< 0.010	< 0.010	1.14		
6/8/2017	WL_WLCI_SP01	E293371			2.06	179	177	< 0.010	< 0.010	1.14		
6/9/2017	WL_WLCI_SP01	E293371			1.92	179	168	< 0.010	< 0.010	0.98		
6/10/2017	WL_WLCI_SP01	E293371			2.14	185	222	< 0.010	< 0.010	1.14		
6/11/2017	WL_WLCI_SP01	E293371			2.12	203	199	< 0.010	< 0.010	1.1		
6/12/2017	WL_WLCI_SP01	E293371	0.0051		2.14	217	213	< 0.010	< 0.010	1.12		
6/13/2017	WL_WLCI_SP01	E293371			2.09	213	214	< 0.010	< 0.010	1.14		
6/13/2017	WL_WLCI_SP01	E293371										
6/14/2017	WL_WLCI_SP01	E293371			2.08	220	213	< 0.010	< 0.010	1.16		
6/14/2017	WL_WLCI_SP01	E293371										
6/15/2017	WL_WLCI_SP01	E293371			1.99	223	217	< 0.010	< 0.010	1.11		
6/15/2017	WL_WLCI_SP01	E293371										
6/16/2017	WL_WLCI_SP01	E293371			2.09	217	219	< 0.010	< 0.010	1.18		
6/16/2017	WL_WLCI_SP01	E293371										
6/17/2017	WL_WLCI_SP01	E293371			2.08	219	230	< 0.010	0.017	1.27		
6/17/2017	WL_WLCI_SP01	E293371										
6/18/2017	WL_WLCI_SP01	E293371			2.1	227	234	< 0.010	0.035	1.27		
6/18/2017	WL_WLCI_SP01	E293371										
6/19/2017	WL_WLCI_SP01	E293371			2.12	254	243	< 0.010	0.064	1.34		
6/19/2017	WL_WLCI_SP01	E293371										
6/20/2017	WL_WLCI_SP01	E293371										
6/21/2017	WL_WLCI_SP01	E293371										
6/22/2017	WL_WLCI_SP01	E293371			2.25	254	259	< 0.010	< 0.010	1.39		
6/22/2017	WL_WLCI_SP01	E293371										
6/23/2017	WL_WLCI_SP01	E293371			2.18	251	258	< 0.010	< 0.010	1.38		
6/23/2017	WL_WLCI_SP01	E293371										
6/24/2017	WL_WLCI_SP01	E293371			2.07	251	249	< 0.010	< 0.010	1.26		
6/24/2017	WL_WLCI_SP01	E293371										
6/25/2017	WL_WLCI_SP01	E293371			2.1	261	257	< 0.010	< 0.010	1.31		
6/25/2017	WL_WLCI_SP01	E293371										
6/26/2017	WL_WLCI_SP01	E293371			2.1	261	264	< 0.010	< 0.010	1.32		
6/27/2017	WL_WLCI_SP01	E293371			2.14	274	265	< 0.010	< 0.010	1.31		
6/28/2017	WL_WLCI_SP01	E293371			2.1	278	278	< 0.010	< 0.010	1.35		
6/29/2017	WL_WLCI_SP01	E293371			2.37	273	280	< 0.010	< 0.010	1.25		
6/30/2017	WL_WLCI_SP01	E293371			2.08	283	286	< 0.010	< 0.010	1.4		
7/1/2017	WL_WLCI_SP01	E293371			2.03	293	255	< 0.010	< 0.010	1.38		
7/2/2017	WL_WLCI_SP01	E293371			2.31	286	305	< 0.010	< 0.010	1.57		
7/3/2017	WL_WLCI_SP01	E293371			2.22	283	303	< 0.010	< 0.010	1.5		
7/4/2017	WL_WLCI_SP01	E293371			2.47	294	309	< 0.010	< 0.010	1.61		
7/5/2017	WL_WLCI_SP01	E293371			2.55	308	309	< 0.010	< 0.010	1.65		
7/6/2017	WL_WLCI_SP01	E293371			2.37	315	298	< 0.010	< 0.010	1.55		
7/7/2017	WL_WLCI_SP01	E293371			2.4	329	315	< 0.010	< 0.010	1.67		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
7/8/2017	WL_WLCI_SP01	E293371			2.37	291	309	< 0.010	< 0.010	1.59		
7/9/2017	WL_WLCI_SP01	E293371			2.33	274	324	< 0.010	< 0.010	1.64		
7/10/2017	WL_WLCI_SP01	E293371	0.004		2.36	292	319	< 0.010	< 0.010	1.64		
7/11/2017	WL_WLCI_SP01	E293371			2.42	307	307	< 0.010	< 0.010	1.78		
7/12/2017	WL_WLCI_SP01	E293371			2.46	311	312	< 0.010	< 0.010	1.78		
7/13/2017	WL_WLCI_SP01	E293371			2.28	315	311	< 0.010	< 0.010	1.57		
7/14/2017	WL_WLCI_SP01	E293371	0.0077		2.27	313	313	< 0.010	< 0.010	1.59		
7/14/2017	WL_WLCI_SP01	E293371										
7/15/2017	WL_WLCI_SP01	E293371										
7/16/2017	WL_WLCI_SP01	E293371										
7/17/2017	WL_WLCI_SP01	E293371			2.3	339	336	< 0.010	< 0.010	1.59		
7/18/2017	WL_WLCI_SP01	E293371			2.37	359	353	< 0.010	< 0.010	1.77		
7/19/2017	WL_WLCI_SP01	E293371			2.55	345	368	< 0.010	< 0.010	1.89		
7/20/2017	WL_WLCI_SP01	E293371			2.24	334	330	< 0.010	< 0.010	1.67		
7/21/2017	WL_WLCI_SP01	E293371			2.39	333	351	< 0.010	< 0.010	1.71		
7/22/2017	WL_WLCI_SP01	E293371			2.44	327	343	< 0.010	< 0.010	1.8		
7/23/2017	WL_WLCI_SP01	E293371			2.41	332	340	< 0.010	< 0.010	1.81		
7/24/2017	WL_WLCI_SP01	E293371			2.48	340	354	< 0.010	< 0.010	1.83		
7/25/2017	WL_WLCI_SP01	E293371			2.44	382	343	< 0.010	< 0.010	1.86		
7/26/2017	WL_WLCI_SP01	E293371			2.31	376	335	< 0.010	< 0.010	1.83		
7/27/2017	WL_WLCI_SP01	E293371			2.77	388	416	< 0.010	< 0.010	2.1		
7/28/2017	WL_WLCI_SP01	E293371			2.66	403	431	< 0.010	< 0.010	2.06		
7/29/2017	WL_WLCI_SP01	E293371			2.64	382	393	< 0.010	< 0.010	1.91		
7/30/2017	WL_WLCI_SP01	E293371			2.61	388	384	< 0.010	< 0.010	1.88		
7/31/2017	WL_WLCI_SP01	E293371			2.52	376	378	< 0.010	< 0.010	1.86		
8/1/2017	WL_WLCI_SP01	E293371			2.44	384	379	< 0.010	< 0.010	1.81		
8/2/2017	WL_WLCI_SP01	E293371			2.52	363	387	< 0.010	< 0.010	1.95		
8/3/2017	WL_WLCI_SP01	E293371			2.28	366	366	< 0.010	< 0.010	1.78		
8/4/2017	WL_WLCI_SP01	E293371			2.26	380	388	< 0.010	< 0.010	1.74		
8/5/2017	WL_WLCI_SP01	E293371			2.51	406	404	< 0.010	< 0.010	1.9		
8/6/2017	WL_WLCI_SP01	E293371				404	355	< 0.010				
8/7/2017	WL_WLCI_SP01	E293371			2.56	392	409	< 0.010	< 0.010	1.89		
8/8/2017	WL_WLCI_SP01	E293371			2.45	378	393	0.072	0.14	1.82		
8/9/2017	WL_WLCI_SP01	E293371			2.28	379	365	< 0.010	< 0.010	1.84		
8/11/2017	WL_WLCI_SP01	E293371			2.53	394	392	< 0.010	0.012	1.95		
8/12/2017	WL_WLCI_SP01	E293371			2.55	396	414	< 0.010	< 0.010	1.78		
8/12/2017	WL_WLCI_SP01	E293371	0.0051		2.49	455	402	< 0.010	< 0.010	1.77		
8/13/2017	WL_WLCI_SP01	E293371			2.53	406	423	< 0.010	< 0.010	1.82		
8/13/2017	WL_WLCI_SP01	E293371										
8/14/2017	WL_WLCI_SP01	E293371	0.0045		2.58	413	425	< 0.010	< 0.010	1.81		
8/15/2017	WL_WLCI_SP01	E293371			2.69	429	426	< 0.010	< 0.010	1.99		
8/16/2017	WL_WLCI_SP01	E293371			2.7	436	419	< 0.010	< 0.010	1.95		
8/17/2017	WL_WLCI_SP01	E293371			2.42	406	407	< 0.010	< 0.010	1.89		
8/18/2017	WL_WLCI_SP01	E293371										
8/19/2017	WL_WLCI_SP01	E293371			2.7	436	434	< 0.010	< 0.010	2.01		
8/20/2017	WL_WLCI_SP01	E293371			2.73	433	447	< 0.010	< 0.010	2		
8/21/2017	WL_WLCI_SP01	E293371			2.72	425	438	< 0.010	< 0.010	2.01		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
8/22/2017	WL_WLCI_SP01	E293371			2.65	494	488	< 0.010	< 0.010	2.03		
8/23/2017	WL_WLCI_SP01	E293371			2.44	435	409	< 0.010	< 0.010	1.92		
8/24/2017	WL_WLCI_SP01	E293371			2.53	410	420	< 0.010	< 0.010	1.97		
8/25/2017	WL_WLCI_SP01	E293371			2.59	445	439	< 0.010	< 0.010	2.03		
8/26/2017	WL_WLCI_SP01	E293371			2.67	457	466	< 0.010	< 0.010	2.14		
8/27/2017	WL_WLCI_SP01	E293371			2.6	473	472	< 0.010	< 0.010	2.15		
8/28/2017	WL_WLCI_SP01	E293371			2.56	482	445	< 0.010	< 0.010	2.07		
8/29/2017	WL_WLCI_SP01	E293371			2.63	429	435	< 0.010	< 0.010	2.1		
8/30/2017	WL_WLCI_SP01	E293371			2.7	430	442	< 0.010	< 0.010	2.18		
8/31/2017	WL_WLCI_SP01	E293371			2.75	426	415	< 0.010	< 0.010	2.04		
9/1/2017	WL_WLCI_SP01	E293371			2.78	422	422	< 0.010	< 0.010	2.08		
9/2/2017	WL_WLCI_SP01	E293371										
9/2/2017	WL_WLCI_SP01	E293371			2.51	464	458	< 0.010	< 0.010	2.06		
9/3/2017	WL_WLCI_SP01	E293371										
9/3/2017	WL_WLCI_SP01	E293371			2.52	450	451	< 0.010	< 0.010	2.07		
9/4/2017	WL_WLCI_SP01	E293371										
9/4/2017	WL_WLCI_SP01	E293371			2.71	438	437	< 0.010	< 0.010	2.07		
9/5/2017	WL_WLCI_SP01	E293371										
9/5/2017	WL_WLCI_SP01	E293371			2.72	445	447	< 0.010	< 0.010	2.12		
9/6/2017	WL_WLCI_SP01	E293371										
9/6/2017	WL_WLCI_SP01	E293371			2.57	450	448	< 0.010	< 0.010	2.14		
9/7/2017	WL_WLCI_SP01	E293371										
9/7/2017	WL_WLCI_SP01	E293371			2.29	389	386	< 0.010	< 0.010	1.84		
9/8/2017	WL_WLCI_SP01	E293371										
9/8/2017	WL_WLCI_SP01	E293371			2.72	452	452	< 0.010	< 0.010	2.09		
9/9/2017	WL_WLCI_SP01	E293371										
9/9/2017	WL_WLCI_SP01	E293371			2.75	461	451	< 0.010	< 0.010	2.13		
9/10/2017	WL_WLCI_SP01	E293371										
9/10/2017	WL_WLCI_SP01	E293371			2.67	477	472	< 0.010	< 0.010	2.17		
9/11/2017	WL_WLCI_SP01	E293371										
9/11/2017	WL_WLCI_SP01	E293371			2.74	471	463	< 0.010	< 0.010	2.19		
9/12/2017	WL_WLCI_SP01	E293371										
9/12/2017	WL_WLCI_SP01	E293371	0.0031		2.68	478	459	< 0.010	< 0.010	2.12		
9/13/2017	WL_WLCI_SP01	E293371										
9/13/2017	WL_WLCI_SP01	E293371			2.91	501	509	< 0.010	< 0.010	2.18		
9/14/2017	WL_WLCI_SP01	E293371										
9/14/2017	WL_WLCI_SP01	E293371			2.77	498	504	< 0.010	< 0.010	2.09		
9/15/2017	WL_WLCI_SP01	E293371										
9/15/2017	WL_WLCI_SP01	E293371			2.73	485	487	< 0.010	0.014	2.12		
9/16/2017	WL_WLCI_SP01	E293371										
9/16/2017	WL_WLCI_SP01	E293371			2.82	444	479	< 0.010	< 0.010	2.19		
9/17/2017	WL_WLCI_SP01	E293371										
9/17/2017	WL_WLCI_SP01	E293371			2.68	443	464	< 0.010	< 0.010	2.09		
9/18/2017	WL_WLCI_SP01	E293371										
9/18/2017	WL_WLCI_SP01	E293371			2.69	466	470	< 0.010	< 0.010	2.1		
9/19/2017	WL_WLCI_SP01	E293371										
9/19/2017	WL_WLCI_SP01	E293371			2.62	475	471	< 0.010	< 0.010	1.93		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
9/20/2017	WL_WLCI_SP01	E293371										
9/20/2017	WL_WLCI_SP01	E293371			2.6	506	479	< 0.010	0.011	2.05		
9/21/2017	WL_WLCI_SP01	E293371										
9/21/2017	WL_WLCI_SP01	E293371			2.65	444	461	< 0.010	< 0.010	2.12		
9/22/2017	WL_WLCI_SP01	E293371										
9/22/2017	WL_WLCI_SP01	E293371			3.05	443	456	< 0.010	< 0.010	2.47		
9/23/2017	WL_WLCI_SP01	E293371										
9/23/2017	WL_WLCI_SP01	E293371			2.6	440	462	< 0.010	< 0.010	2.07		
9/24/2017	WL_WLCI_SP01	E293371										
9/24/2017	WL_WLCI_SP01	E293371			2.68	483	502	< 0.010	< 0.010	2.13		
9/25/2017	WL_WLCI_SP01	E293371										
9/25/2017	WL_WLCI_SP01	E293371			2.69	480	470	< 0.010	< 0.010	2.14		
9/26/2017	WL_WLCI_SP01	E293371										
9/26/2017	WL_WLCI_SP01	E293371			2.63	502	491	< 0.010	< 0.010	2.08		
9/27/2017	WL_WLCI_SP01	E293371										
9/27/2017	WL_WLCI_SP01	E293371			2.59	501	507	< 0.010	< 0.010	2.13		
9/28/2017	WL_WLCI_SP01	E293371										
9/28/2017	WL_WLCI_SP01	E293371			2.69	477	477	< 0.010	< 0.010	2.16		
9/29/2017	WL_WLCI_SP01	E293371										
9/29/2017	WL_WLCI_SP01	E293371			2.72	490	496	< 0.010	< 0.010	2.14		
9/30/2017	WL_WLCI_SP01	E293371										
9/30/2017	WL_WLCI_SP01	E293371			2.77	499	474	< 0.010	< 0.010	2.14		
10/1/2017	WL_WLCI_SP01	E293371										
10/1/2017	WL_WLCI_SP01	E293371			2.8	474	484	< 0.010	< 0.010	2.22		
10/2/2017	WL_WLCI_SP01	E293371										
10/2/2017	WL_WLCI_SP01	E293371		0.0048	2.88	500	515	< 0.010	< 0.010	2.22		
10/3/2017	WL_WLCI_SP01	E293371										
10/3/2017	WL_WLCI_SP01	E293371			2.77	516	509	< 0.010	< 0.010	2.17		
10/4/2017	WL_WLCI_SP01	E293371										
10/4/2017	WL_WLCI_SP01	E293371			2.7	535	519	< 0.010	< 0.010	2.2		
10/5/2017	WL_WLCI_SP01	E293371										
10/5/2017	WL_WLCI_SP01	E293371			2.82	495	501	< 0.010	< 0.010	2.24		
10/6/2017	WL_WLCI_SP01	E293371										
10/6/2017	WL_WLCI_SP01	E293371			2.77	500	492	< 0.010	< 0.010	2.22		
10/7/2017	WL_WLCI_SP01	E293371										
10/7/2017	WL_WLCI_SP01	E293371			2.52	517	516	< 0.010	< 0.010	2.08		
10/8/2017	WL_WLCI_SP01	E293371										
10/8/2017	WL_WLCI_SP01	E293371			2.51	521	509	< 0.010	< 0.010	2		
10/9/2017	WL_WLCI_SP01	E293371										
10/9/2017	WL_WLCI_SP01	E293371			2.8	505	511	< 0.010	< 0.010	2.28		
10/10/2017	WL_WLCI_SP01	E293371										
10/10/2017	WL_WLCI_SP01	E293371			2.63	491	501	< 0.010	< 0.010	2.22		
10/11/2017	WL_WLCI_SP01	E293371										
10/11/2017	WL_WLCI_SP01	E293371			2.77	524	505	< 0.010	< 0.010	2.23		
10/12/2017	WL_WLCI_SP01	E293371										
10/12/2017	WL_WLCI_SP01	E293371			2.57	490	512	< 0.010	< 0.010	2.18		
10/13/2017	WL_WLCI_SP01	E293371										

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
10/13/2017	WL_WLCI_SP01	E293371			2.92	509	497	< 0.020	0.014	2.17		
10/14/2017	WL_WLCI_SP01	E293371										
10/14/2017	WL_WLCI_SP01	E293371			2.42	516	510	< 0.010	< 0.010	2.08		
10/15/2017	WL_WLCI_SP01	E293371										
10/15/2017	WL_WLCI_SP01	E293371			2.34	511	512	< 0.010	< 0.010	2.04		
10/16/2017	WL_WLCI_SP01	E293371										
10/16/2017	WL_WLCI_SP01	E293371			2.41	494	488	< 0.010	< 0.010	2.05		
10/17/2017	WL_WLCI_SP01	E293371										
10/17/2017	WL_WLCI_SP01	E293371			2.92	502	493	< 0.010	< 0.010	2.26		
10/18/2017	WL_WLCI_SP01	E293371										
10/18/2017	WL_WLCI_SP01	E293371			2.69	520	526	0.016	0.042	2.17		
10/19/2017	WL_WLCI_SP01	E293371										
10/19/2017	WL_WLCI_SP01	E293371			2.74	511	525	< 0.010	< 0.010	2.27		
10/20/2017	WL_WLCI_SP01	E293371										
10/20/2017	WL_WLCI_SP01	E293371			2.61	519	517	< 0.010	< 0.010	2.17		
10/21/2017	WL_WLCI_SP01	E293371										
10/21/2017	WL_WLCI_SP01	E293371			2.55	468	484	< 0.010	0.012	2.26		
10/21/2017	WL_WLCI_SP01	E293371										
10/22/2017	WL_WLCI_SP01	E293371										
10/22/2017	WL_WLCI_SP01	E293371			2.77	504	494	< 0.010	< 0.010	2.24		
10/23/2017	WL_WLCI_SP01	E293371										
10/23/2017	WL_WLCI_SP01	E293371			2.55	505	495	< 0.010	< 0.010	2.21		
10/24/2017	WL_WLCI_SP01	E293371			2.42	455	423	< 0.010	< 0.010	1.86		
10/25/2017	WL_WLCI_SP01	E293371			2.62	450	450	< 0.010	< 0.010	2.03		
10/26/2017	WL_WLCI_SP01	E293371			2.9	526	517	< 0.010	< 0.010	2.35		
10/27/2017	WL_WLCI_SP01	E293371			3.03	533	532	< 0.010	< 0.010	2.33		
10/27/2017	WL_WLCI_SP01	E293371										
10/28/2017	WL_WLCI_SP01	E293371			2.6	498	506	< 0.010	< 0.010	2.21		
10/29/2017	WL_WLCI_SP01	E293371			2.55	471	495	< 0.010	< 0.010	2.09		
10/30/2017	WL_WLCI_SP01	E293371			2.61	494	503	< 0.010	< 0.010	2.08		
10/31/2017	WL_WLCI_SP01	E293371			2.68	523	527	< 0.010	< 0.010	2.26		
11/1/2017	WL_WLCI_SP01	E293371			2.62	515	516	< 0.010	< 0.010	2.1		
11/2/2017	WL_WLCI_SP01	E293371			2.65	538	550	< 0.010	< 0.010	2.17		
11/3/2017	WL_WLCI_SP01	E293371			2.58	528	546	< 0.010	< 0.010	2.22		
11/4/2017	WL_WLCI_SP01	E293371			2.45	520	517	< 0.010	< 0.010	2.05		
11/5/2017	WL_WLCI_SP01	E293371			2.69	534	520	< 0.010	< 0.010	2.07		
11/6/2017	WL_WLCI_SP01	E293371	0.006		2.56	527	515	< 0.010	< 0.010	2.06		
11/7/2017	WL_WLCI_SP01	E293371			2.53	518	522	< 0.010	< 0.010	2.17		
11/8/2017	WL_WLCI_SP01	E293371			2.64	507	515	< 0.010	< 0.010	2.22		
11/9/2017	WL_WLCI_SP01	E293371			2.57	468	481	< 0.010	< 0.010	2.1		
11/10/2017	WL_WLCI_SP01	E293371			2.64	466	494	< 0.010	< 0.010	1.99		
11/11/2017	WL_WLCI_SP01	E293371			2.48	531	465	< 0.010	< 0.010	2		
11/12/2017	WL_WLCI_SP01	E293371			2.56	483	482	< 0.010	< 0.010	2.01		
11/13/2017	WL_WLCI_SP01	E293371			2.59	529	521	< 0.010	0.015	2.23		
11/14/2017	WL_WLCI_SP01	E293371			2.66	530	515	< 0.010	< 0.010	2.31		
11/15/2017	WL_WLCI_SP01	E293371			2.67	531	531	< 0.010	< 0.010	2.49		
11/16/2017	WL_WLCI_SP01	E293371			2.72	511	478	< 0.010	< 0.010	2.23		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
11/17/2017	WL_WLCI_SP01	E293371			2.73	500	478	< 0.010	< 0.020	2.36		
11/17/2017	WL_WLCI_SP01	E293371										
11/18/2017	WL_WLCI_SP01	E293371			2.6	496	512	< 0.010	0.011	2.22		
11/19/2017	WL_WLCI_SP01	E293371			2.65	513	508	< 0.010	< 0.010	2.4		
11/20/2017	WL_WLCI_SP01	E293371			2.54	507	510	< 0.010	0.018	2.41		
11/21/2017	WL_WLCI_SP01	E293371			2.46	509	510	< 0.010	< 0.010	2.06		
11/22/2017	WL_WLCI_SP01	E293371			2.44	507	524	< 0.010	< 0.010	2.11		
11/23/2017	WL_WLCI_SP01	E293371			2.47	549	523	< 0.010	< 0.010	2.1		
11/24/2017	WL_WLCI_SP01	E293371			2.35	526	507	< 0.010	< 0.010	2.04		
11/25/2017	WL_WLCI_SP01	E293371			2.42	521	515	< 0.010	< 0.010	2.23		
11/26/2017	WL_WLCI_SP01	E293371			2.47	516	502	< 0.010	< 0.010	2.17		
11/27/2017	WL_WLCI_SP01	E293371			2.55	512	523	< 0.010	< 0.010	2.31		
11/28/2017	WL_WLCI_SP01	E293371			2.92	527	523	< 0.010	< 0.010	2.45		
11/29/2017	WL_WLCI_SP01	E293371			2.74	531	559	< 0.010	< 0.010	2.28		
11/30/2017	WL_WLCI_SP01	E293371			2.62	492	497	< 0.010	< 0.010	2.35		
12/1/2017	WL_WLCI_SP01	E293371			2.6	505	494	< 0.010	< 0.010	2.32		
12/2/2017	WL_WLCI_SP01	E293371			2.57	505	528	< 0.010	< 0.010	2.1		
12/3/2017	WL_WLCI_SP01	E293371			2.57	512	535	< 0.010	< 0.010	2.19		
12/4/2017	WL_WLCI_SP01	E293371	0.0051		2.54	521	525	< 0.010	< 0.010	2.1		
12/5/2017	WL_WLCI_SP01	E293371			2.62	527	532	< 0.010	< 0.010	2.34		
12/6/2017	WL_WLCI_SP01	E293371			2.64	547	524	< 0.010	< 0.010	2.36		
12/6/2017	WL_WLCI_SP01	E293371										
12/6/2017	WL_WLCI_SP01	E293371										
12/7/2017	WL_WLCI_SP01	E293371			2.61	521	509	< 0.010	< 0.010	2.27		
12/8/2017	WL_WLCI_SP01	E293371			2.67	517	520	< 0.010	< 0.010	2.34		
12/9/2017	WL_WLCI_SP01	E293371			2.59	537	522	< 0.010	< 0.010	2.29		
12/10/2017	WL_WLCI_SP01	E293371			2.6	545	511	< 0.010	< 0.010	2.3		
12/11/2017	WL_WLCI_SP01	E293371			2.58	537	514	< 0.010	< 0.010	2.38		
12/12/2017	WL_WLCI_SP01	E293371			2.53	496	554	< 0.010	0.045	2.13		
12/13/2017	WL_WLCI_SP01	E293371			2.66	489	568	< 0.010	< 0.010	2.24		
12/13/2017	WL_WLCI_SP01	E293371			2.56	551	515	< 0.010	< 0.020	2.96		
12/14/2017	WL_WLCI_SP01	E293371			2.65	539	555	< 0.010	< 0.010	2.19		
12/15/2017	WL_WLCI_SP01	E293371			2.69	554	529	< 0.010	< 0.010	2.3		
12/16/2017	WL_WLCI_SP01	E293371			2.79	546	551	< 0.010	< 0.010	2.3		
12/17/2017	WL_WLCI_SP01	E293371			2.76	554	541	< 0.010	< 0.010	2.34		
12/18/2017	WL_WLCI_SP01	E293371			2.86	541	550	< 0.010	< 0.010	2.41		
12/19/2017	WL_WLCI_SP01	E293371			2.97	516	538	< 0.010	< 0.010	2.46		
12/20/2017	WL_WLCI_SP01	E293371			2.79	504	518	< 0.010	0.012	2.32		
12/21/2017	WL_WLCI_SP01	E293371			2.54	519	511	< 0.010	< 0.010	2.24		
12/22/2017	WL_WLCI_SP01	E293371			2.56	582	539	< 0.010	< 0.010	2.25		
12/22/2017	WL_WLCI_SP01	E293371			2.79	512	510	< 0.010	< 0.010	3.12		
12/23/2017	WL_WLCI_SP01	E293371			2.51	530	530	< 0.010	< 0.010	2.29		
12/23/2017	WL_WLCI_SP01	E293371			2.6		523		< 0.010	2.3		
12/24/2017	WL_WLCI_SP01	E293371			2.67	550	528	< 0.010	< 0.010	2.16		
12/25/2017	WL_WLCI_SP01	E293371			2.66	541	537	< 0.010	< 0.010	2.07		
12/26/2017	WL_WLCI_SP01	E293371			2.65	540	531	< 0.010	< 0.010	2.05		
12/27/2017	WL_WLCI_SP01	E293371			2.75	522	537	< 0.010	< 0.010	2.37		

Analyte			PHOSPHORUS	PHOSPHORUS	POTASSIUM	SELENIUM	SELENIUM	SILVER	SILVER	SODIUM	Specific conductivity, temperature corrected value (25 C)	Specific conductivity, temperature corrected value (25 C)
Fraction Result Unit			N mg/l	T mg/l	T mg/l	D ug/l	T ug/l	D mg/l	T mg/l	T mg/l	N us/cm	N uS/cm at 25 C
Sample Date	Location	EMS Number										
12/28/2017	WL_WLCI_SP01	E293371			3.02	526	588	< 0.010	< 0.010	2.65		
12/29/2017	WL_WLCI_SP01	E293371			2.73	540	515	< 0.010	< 0.010	2.44		
12/30/2017	WL_WLCI_SP01	E293371			2.78	514	516	< 0.010	< 0.010	2.43		
12/30/2017	WL_WLCI_SP01	E293371										
12/31/2017	WL_WLCI_SP01	E293371			2.93	512	519	< 0.010	< 0.010	2.33		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
1/5/2017	CM_CC1	200209	0.854	0.807	771	0.83	0.05	0.047	< 0.00010	< 0.00010	< 10	< 10		
1/17/2017	CM_CC1	200209	0.805	0.807	755	1.8	0.055	0.056	< 0.00010	< 0.00010	< 10	< 10	1330	0.082
1/24/2017	CM_CC1	200209	0.855	0.861	737	1.56	0.045	0.047	< 0.00010	< 0.00010	< 10	< 10		
1/29/2017	CM_CC1	200209				1.86								
1/30/2017	CM_CC1	200209	0.816	0.818	706	0.9	0.045	0.044	< 0.00010	< 0.00010	< 10	< 10		
1/31/2017	CM_CC1	200209	0.794	0.817	776		< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10		
2/1/2017	CM_CC1	200209	0.782	0.854	771	0.4	< 0.050	0.05	< 0.00050	< 0.00050	< 10	< 10	1490	0.439
2/7/2017	CM_CC1	200209	0.778	0.814	731	0.63	0.046	0.049	< 0.00010	< 0.00010	< 10	< 10		
2/21/2017	CM_CC1	200209	0.721	0.729	679	2.39	0.038	0.038	< 0.00010	< 0.00010	< 10	< 10		
3/1/2017	CM_CC1	200209	0.735	0.765	734	1.2	0.05	0.045	< 0.00010	< 0.00010	< 10	< 10	1370	0.856
3/7/2017	CM_CC1	200209	0.987	0.986	778	2.11	0.048	0.047	< 0.00010	< 0.00010	< 10	< 10		
3/22/2017	CM_CC1	200209				3.2								
3/22/2017	CM_CC1	200209	0.762	0.824	627		0.033	0.042	< 0.00010	< 0.00010	< 10	< 10	1150	0.559
3/29/2017	CM_CC1	200209	0.799	0.756	617	3.32	0.035	0.03	< 0.00010	< 0.00010	< 10	< 10	1170	0.73
4/4/2017	CM_CC1	200209				4.2								
4/5/2017	CM_CC1	200209	0.864	0.788	620	3.6	0.034	0.032	< 0.00010	< 0.00010	< 10	< 10	1150	0.764
4/12/2017	CM_CC1	200209	0.714	0.68	590	4.2	0.038	0.039	< 0.00010	< 0.00010	< 10	< 10	1110	0.861
4/19/2017	CM_CC1	200209	0.774	0.824	628	5.1	0.039	0.04	< 0.00010	< 0.00010	< 10	< 10	1230	0.986
4/26/2017	CM_CC1	200209	0.608	0.607	529	4.8	0.035	0.038	< 0.00010	< 0.00010	< 10	< 10	1030	0.571
5/2/2017	CM_CC1	200209	0.657	0.673	573	6.39	0.037	0.052	< 0.00010	< 0.00010	< 10	< 10	1100	0.57
5/9/2017	CM_CC1	200209	0.493	0.481	446	6.31	0.029	0.03	< 0.00010	< 0.00010	< 10	< 10	848	0.577
5/16/2017	CM_CC1	200209	0.438	0.426	461	4.72	0.035	0.032	< 0.00010	0.00014	< 10	< 10	859	0.882
5/17/2017	CM_CC1	200209												
5/17/2017	CM_CC1	200209												
5/18/2017	CM_CC1	200209												
5/23/2017	CM_CC1	200209	0.473	0.479	397	7.05	0.033	0.035	< 0.00010	< 0.00010	< 10	< 10	777	0.624
5/30/2017	CM_CC1	200209	0.43	0.412	389	5.64	0.035	0.037	< 0.00010	< 0.00010	< 10	< 10	777	0.611
6/6/2017	CM_CC1	200209	0.473	0.483	416	5.71	0.039	0.041	< 0.00010	< 0.00010	< 10	< 10	876	1.33
6/14/2017	CM_CC1	200209	0.605	0.632	511	4.5	0.045	0.045	< 0.00010	< 0.00010	< 10	< 10	1030	0.924
6/21/2017	CM_CC1	200209	0.706	0.694	602	8.5	0.048	0.05	< 0.00010	< 0.00010	< 10	< 10	1090	0.92
6/28/2017	CM_CC1	200209	0.716	0.719	615	9.8	0.047	0.047	< 0.00010	< 0.00010	< 10	< 10	1210	0.811
7/5/2017	CM_CC1	200209	0.737	0.729	676	10.73	0.051	0.048	< 0.00010	< 0.00010	< 10	< 10	1210	0.683
7/12/2017	CM_CC1	200209	0.81	0.786	718	11	0.057	0.06	< 0.00010	< 0.00010	< 10	< 10	1300	0.25
7/19/2017	CM_CC1	200209	0.736	0.717	720	13.44	0.055	0.052	< 0.00010	< 0.00010	< 10	< 10	1270	0.584
7/25/2017	CM_CC1	200209	0.717	0.732	725	15.14	0.049	0.051	< 0.00010	< 0.00010	< 10	< 10	1270	0.775
8/1/2017	CM_CC1	200209	0.724	0.731	735	12.61	0.05	0.05	< 0.00010	< 0.00010	< 10	< 10	1330	0.45
8/8/2017	CM_CC1	200209	0.712	0.715	743	12.04	0.057	0.052	< 0.00010	< 0.00010	< 10	< 10	1360	0.86
8/15/2017	CM_CC1	200209	0.694	0.727	733		0.053	0.052	< 0.00010	< 0.00010	< 10	< 10	1370	0.591
8/15/2017	CM_CC1	200209				12.34								
8/22/2017	CM_CC1	200209	0.664	0.717	739	11.18	0.051	0.05	< 0.00010	< 0.00010	< 10	< 10	1310	0.272
8/29/2017	CM_CC1	200209	0.701	0.685	715	11.38	0.05	0.048	< 0.00010	0.00013	< 10	< 10	1290	0.63
9/5/2017	CM_CC1	200209	0.623	0.683	757	9.85	0.046	0.049	< 0.00010	< 0.00010	< 10	< 10	1380	0.27
9/12/2017	CM_CC1	200209	0.698	0.69	754	10.25	0.047	0.052	< 0.00010	< 0.00010	< 10	< 10	1330	0.382
9/19/2017	CM_CC1	200209	0.525	0.541	739	6.95	0.038	0.045	< 0.00010	< 0.00010	< 10	< 10	1270	< 0.050
10/4/2017	CM_CC1	200209	0.703	0.695	777	5.7	0.043	0.04	< 0.00010	< 0.00010	< 10	< 10	1410	0.38
11/7/2017	CM_CC1	200209	0.814	0.803	756	2.53	0.042	0.034	< 0.00010	< 0.00010	< 10	< 10	1330	0.533
12/6/2017	CM_CC1	200209	0.745	0.791	713	1.85	0.044	0.044	< 0.00010	< 0.00010	< 10	< 10	1290	< 0.20

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
1/17/2017	CM_CCPD	E206438	0.504	0.498	740	2.2	0.054	0.054	< 0.00010	< 0.00010	< 10	< 10	1340	0.358
2/1/2017	CM_CCPD	E206438	0.463	0.494	832	2.4	0.05	0.053	< 0.00050	< 0.00050	< 10	< 10	1590	0.264
3/1/2017	CM_CCPD	E206438	0.475	0.474	896	2.2	0.044	0.044	< 0.00010	< 0.00010	< 10	< 10	1560	0.735
4/5/2017	CM_CCPD	E206438	0.699	0.741	712	3	0.04	0.044	< 0.00010	< 0.00010	< 10	< 10	1370	0.9
4/12/2017	CM_CCPD	E206438				3.8								
4/19/2017	CM_CCPD	E206438												
4/19/2017	CM_CCPD	E206438				5.7								
4/26/2017	CM_CCPD	E206438				6.3								
5/2/2017	CM_CCPD	E206438	0.546	0.565	782	6.75	0.041	0.059	< 0.00010	< 0.00010	< 10	< 10	1390	0.567
5/6/2017	CM_CCPD	E206438												
5/9/2017	CM_CCPD	E206438				7.77								
5/16/2017	CM_CCPD	E206438				4.22								
5/17/2017	CM_CCPD	E206438												
5/17/2017	CM_CCPD	E206438												
5/18/2017	CM_CCPD	E206438												
5/23/2017	CM_CCPD	E206438				5.86								
5/30/2017	CM_CCPD	E206438	0.342	0.369	491	5.02	0.036	0.038	< 0.00010	< 0.00010	< 10	< 10	955	0.739
6/6/2017	CM_CCPD	E206438	0.292	0.302	448	7.2	0.039	0.041	< 0.00010	< 0.00010	< 10	< 10	961	0.576
6/14/2017	CM_CCPD	E206438	0.315	0.327	473	5.4	0.038	0.041	< 0.00010	< 0.00010	< 10	< 10	1060	0.55
6/21/2017	CM_CCPD	E206438	0.356	0.356	666	7.9	0.044	0.052	< 0.00010	< 0.00010	< 10	< 10	1180	0.57
6/28/2017	CM_CCPD	E206438	0.417	0.42	729	7.98	0.047	0.048	< 0.00010	< 0.00010	< 10	< 10	1450	0.601
7/5/2017	CM_CCPD	E206438	0.464	0.463	782	12.5	0.046	0.047	< 0.00010	< 0.00010	< 10	< 10	1380	0.222
7/12/2017	CM_CCPD	E206438	0.507	0.489	824	11.2	0.055	0.054	< 0.00010	< 0.00010	< 10	< 10	1600	< 0.050
7/19/2017	CM_CCPD	E206438	0.483	0.47	849	12.54	0.061	0.058	< 0.00010	< 0.00010	< 10	< 10	1620	0.47
7/25/2017	CM_CCPD	E206438	0.489	0.484	871	11.61	0.052	0.052	< 0.00010	< 0.00010	< 10	< 10	1660	0.611
8/1/2017	CM_CCPD	E206438	0.494	0.501	900	14.15	0.059	0.061	< 0.00010	< 0.00010	< 10	< 10	1510	0.391
8/22/2017	CM_CCPD	E206438	0.471	0.524	889	12.29	0.058	0.061	< 0.00010	< 0.00010	< 10	< 10	1720	0.354
9/12/2017	CM_CCPD	E206438	0.618	0.637	945	11.66	0.067	0.07	< 0.00010	< 0.00010	< 10	< 10	1630	0.458
9/19/2017	CM_CCPD	E206438	0.622	0.631	1000	8.12	0.063	0.079	< 0.00010	< 0.00010	< 10	< 10	1740	< 1.0
10/3/2017	CM_CCPD	E206438	0.601	0.663	989	7.52	0.053	0.051	< 0.00010	< 0.00010	< 10	< 10	1700	0.43
10/10/2017	CM_CCPD	E206438	0.587	0.623	1000	5.71	0.046	0.051	< 0.00010	0.00014	< 10	< 10	1860	0.624
10/11/2017	CM_CCPD	E206438												
10/24/2017	CM_CCPD	E206438	0.847	0.852	963	3.93	0.043	0.043	< 0.00010	< 0.00010	< 10	< 10	1760	0.87
11/7/2017	CM_CCPD	E206438	0.913	0.891	987	1.86	0.047	0.043	< 0.00010	< 0.00010	< 10	< 10	1750	0.967
11/22/2017	CM_CCPD	E206438	0.876	0.82	972	2.92	0.049	0.049	< 0.00010	< 0.00010	< 10	< 10	1830	0.813
11/28/2017	CM_CCPD	E206438	1.21	1.29	887	2.86	0.066	0.063	< 0.00010	< 0.00010	< 10	< 10	1650	1.44
12/6/2017	CM_CCPD	E206438	0.916	0.946	889	2.89	0.062	0.062	< 0.00010	< 0.00010	< 10	< 10	1550	0.47
12/12/2017	CM_CCPD	E206438	0.862	0.768	850	2.96	0.064	0.064	< 0.00010	< 0.00010	< 10	< 10	1600	0.905
12/19/2017	CM_CCPD	E206438	0.785	0.825	797	2.6	0.056	0.058	< 0.00020	< 0.00020	< 10	< 10	1510	0.706
12/27/2017	CM_CCPD	E206438	0.706	0.731	841	2.7	0.056	0.056	< 0.00010	< 0.00010	< 10	< 10	1620	< 0.20
1/18/2017	CM_MC1	E258175	0.142	0.144	13.3	0.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	156	< 0.050
2/1/2017	CM_MC1	E258175	0.144	0.157	14	0.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	165	0.058
3/1/2017	CM_MC1	E258175	0.132	0.137	14.3	0.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	156	0.055
4/5/2017	CM_MC1	E258175	0.148	0.14	12.6	0.8	< 0.010	0.07	< 0.00010	< 0.00010	< 10	< 10	178	0.696
4/12/2017	CM_MC1	E258175	0.131	0.122	12.4	1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	158	0.069
4/19/2017	CM_MC1	E258175	0.138	0.149	13	0.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	149	0.054
4/26/2017	CM_MC1	E258175	0.137	0.144	11.5	0.08	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	170	< 0.050

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
5/2/2017	CM_MC1	E258175	0.137	0.14	11.2	1.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	148	0.098
5/9/2017	CM_MC1	E258175	0.112	0.112	7.06	1.13	< 0.010	0.019	< 0.00010	< 0.00010	< 10	< 10	100	< 0.050
5/16/2017	CM_MC1	E258175	0.11	0.117	7.57	1.28	< 0.010	< 0.010	< 0.00010	0.00016	< 10	< 10	124	0.066
5/23/2017	CM_MC1	E258175	0.0932	0.0986	5.34	1.82	< 0.010	0.035	< 0.00010	< 0.00010	< 10	< 10	116	0.152
5/30/2017	CM_MC1	E258175	0.0692	0.0695	4.63	2.32	0.014	0.04	< 0.00010	< 0.00010	< 10	< 10	101	0.186
6/6/2017	CM_MC1	E258175	0.0657	0.0647	4.39	1.95	< 0.010	0.029	< 0.00010	< 0.00010	< 10	< 10	111	0.087
6/14/2017	CM_MC1	E258175	0.0639	0.0664	17.8	3.3	< 0.010	0.024	< 0.00010	< 0.00010	< 10	< 10	97	0.14
6/21/2017	CM_MC1	E258175	0.0719	0.0713	5.89	4.1	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	110	< 0.050
6/28/2017	CM_MC1	E258175	0.09	0.0903	7.49	4.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	128	< 0.050
7/4/2017	CM_MC1	E258175	0.105	0.102	8.84		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	138	0.091
7/4/2017	CM_MC1	E258175				7.2								
7/12/2017	CM_MC1	E258175	0.122	0.117	10.6	6.9	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	152	< 0.050
7/19/2017	CM_MC1	E258175	0.129	0.125	11.4	7.31	0.01	< 0.010	< 0.00010	< 0.00010	< 10	< 10	158	0.197
7/25/2017	CM_MC1	E258175	0.137	0.134	12.5	6.95	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	162	0.104
8/1/2017	CM_MC1	E258175	0.149	0.151	12.5	8.24	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	179	< 0.050
8/8/2017	CM_MC1	E258175	0.157	0.156	13.1	8.42	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	144	< 0.050
8/15/2017	CM_MC1	E258175	0.153	0.156	14.4	7.66	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	161	< 0.050
8/22/2017	CM_MC1	E258175	0.153	0.163	14.2	6.76	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	171	< 0.050
8/29/2017	CM_MC1	E258175	0.163	0.159	12.3	7.79	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	160	< 0.050
9/12/2017	CM_MC1	E258175	0.171	0.176	13.9	6.52	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	180	< 0.050
9/19/2017	CM_MC1	E258175	0.159	0.165	13.4	5.64	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	170	< 0.050
9/26/2017	CM_MC1	E258175	0.159	0.159	12.9	4.69	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	178	< 0.050
10/2/2017	CM_MC1	E258175	0.155	0.162	13.2	3.46	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	166	< 0.20
10/10/2017	CM_MC1	E258175	0.17	0.169	14.1	3.07	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	177	< 0.050
10/17/2017	CM_MC1	E258175	0.16	0.165	14	3.58	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	179	0.124
10/24/2017	CM_MC1	E258175	0.14	0.146	15.3	2.03	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	170	0.097
10/31/2017	CM_MC1	E258175	0.16	0.155	85.2	1.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	163	0.09
11/7/2017	CM_MC1	E258175	0.162	0.165	14.3	1.01	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	172	< 0.050
12/6/2017	CM_MC1	E258175	0.145	0.151	12.8	0.52	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	137	< 0.20
1/5/2017	CM_MC2	E258937	0.512	0.502	399	-0.06	0.024	0.022	< 0.00010	< 0.00010	< 10	< 10		
1/12/2017	CM_MC2	E258937	0.466	0.487	358	0.01	0.018	0.019	< 0.00010	< 0.00010	< 10	< 10		
1/17/2017	CM_MC2	E258937	0.472	0.48	397	0	0.025	0.029	< 0.00010	< 0.00010	< 10	< 10	776	0.13
1/24/2017	CM_MC2	E258937	0.482	0.474	380	0	0.018	0.019	< 0.00010	< 0.00010	< 10	< 10		
1/29/2017	CM_MC2	E258937				0.74								
1/30/2017	CM_MC2	E258937	0.449	0.467	349	0.01	0.018	0.018	< 0.00010	< 0.00010	< 10	< 10	754	0.243
1/31/2017	CM_MC2	E258937	0.534	0.537	441		0.022	0.022	< 0.00010	< 0.00010	< 10	< 10		
2/1/2017	CM_MC2	E258937	0.496	0.524	403	-0.1	0.018	0.02	< 0.00010	< 0.00010	< 10	< 10	833	1.09
2/7/2017	CM_MC2	E258937	0.452	0.477	366	-0.03	0.019	0.033	< 0.00010	< 0.00010	< 10	< 10		
2/21/2017	CM_MC2	E258937	0.394	0.411	319	1.04	0.014	0.016	< 0.00010	< 0.00010	< 10	< 10		
2/28/2017	CM_MC2	E258937	0.417	0.419	369	-0.04	0.016	0.017	< 0.00010	< 0.00010	< 10	< 10	733	0.08
3/1/2017	CM_MC2	E258937	0.418	0.424	342	0	0.015	0.018	< 0.00010	< 0.00010	< 10	< 10	698	0.441
3/7/2017	CM_MC2	E258937	0.459	0.482	373	0	0.021	0.022	< 0.00010	< 0.00010	< 10	< 10	764	0.15
3/14/2017	CM_MC2	E258937	0.486	0.479	361	0.96	0.021	0.03	< 0.00010	< 0.00010	< 10	< 10	753	0.148
3/21/2017	CM_MC2	E258937	0.295	0.303	178	0.52	0.01	0.014	< 0.00010	< 0.00010	< 10	< 10	423	0.2
3/22/2017	CM_MC2	E258937				1.46								
3/29/2017	CM_MC2	E258937				3.27								
4/5/2017	CM_MC2	E258937	0.497	0.465	309	2.68	0.014	0.017	< 0.00010	< 0.00010	< 10	< 10	693	0.423

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
4/12/2017	CM_MC2	E258937				1.9								
4/12/2017	CM_MC2	E258937	0.39	0.379	264	1.9	0.016	0.016	< 0.00010	< 0.00010	< 10	< 10	617	0.373
4/19/2017	CM_MC2	E258937	0.427	0.436	286	4.4	0.018	0.018	< 0.00010	< 0.00010	< 10	< 10	674	0.544
4/24/2017	CM_MC2	E258937	0.352	0.334	236	3.52	0.014	0.022	< 0.00010	< 0.00010	< 10	< 10	541	0.296
5/2/2017	CM_MC2	E258937	0.36	0.435	237	2.64	0.015	0.04	< 0.00010	< 0.00010	< 10	< 10	544	0.242
5/9/2017	CM_MC2	E258937	0.231	0.248	164	4.12	0.012	0.025	< 0.00010	< 0.00010	< 10	< 10	408	0.058
5/16/2017	CM_MC2	E258937	0.239	0.236	178	2.98	0.013	0.024	< 0.00010	0.0002	< 10	< 10	421	0.251
5/23/2017	CM_MC2	E258937	0.211	0.216	123	5.87	0.013	0.042	< 0.00010	< 0.00010	< 10	< 10	326	0.262
5/30/2017	CM_MC2	E258937	0.142	0.164	106	5.72	0.012	0.046	< 0.00010	< 0.00010	< 10	< 10	280	0.315
6/6/2017	CM_MC2	E258937	0.165	0.17	105	4.32	0.016	0.038	< 0.00010	< 0.00010	< 10	< 10	304	0.15
6/13/2017	CM_MC2	E258937	0.196	0.199	123	8.09	0.015	0.019	< 0.00010	< 0.00010	< 10	< 10	321	0.232
6/14/2017	CM_MC2	E258937	0.172	0.18	104	4.8	0.013	0.029	< 0.00010	< 0.00010	< 10	< 10	279	0.25
6/21/2017	CM_MC2	E258937	0.184	0.186	120	6.4	0.011	0.021	< 0.00010	< 0.00010	< 10	< 10	311	0.162
6/28/2017	CM_MC2	E258937	0.199	0.2	130	7.3	0.026	0.014	< 0.00010	< 0.00010	< 10	< 10	332	0.14
7/4/2017	CM_MC2	E258937	0.238	0.23	162	12.44	0.015	0.017	< 0.00010	< 0.00010	< 10	< 10	407	0.206
7/12/2017	CM_MC2	E258937	0.32	0.315	236	10.6	0.021	0.026	< 0.00010	< 0.00010	< 10	< 10	516	0.395
7/19/2017	CM_MC2	E258937	0.343	0.34	276	11.78	0.034	0.024	< 0.00010	< 0.00010	< 10	< 10	587	0.52
7/25/2017	CM_MC2	E258937	0.352	0.348	280	15.15	0.017	0.019	< 0.00010	< 0.00010	< 10	< 10	558	0.266
8/1/2017	CM_MC2	E258937	0.379	0.375	284	11.3	0.018	0.018	< 0.00010	< 0.00010	< 10	< 10	614	0.205
8/8/2017	CM_MC2	E258937	0.415	0.409	333	11.12	0.025	0.024	< 0.00010	< 0.00010	< 10	< 10	668	0.45
8/15/2017	CM_MC2	E258937	0.372	0.385	322	12.39	0.02	0.021	< 0.00010	< 0.00010	< 10	< 10	667	< 0.050
8/22/2017	CM_MC2	E258937	0.395	0.434	376	9.96	0.022	0.022	< 0.00010	< 0.00010	< 10	< 10	757	0.353
8/29/2017	CM_MC2	E258937	0.449	0.425	378	12.35	0.022	0.019	< 0.00010	0.0001	< 10	< 10	720	0.4
9/12/2017	CM_MC2	E258937	0.43	0.458	430	9.03	0.018	0.017	< 0.00010	< 0.00010	< 10	< 10	799	0.295
9/19/2017	CM_MC2	E258937	0.344	0.346	344	6.42	0.012	0.02	< 0.00010	< 0.00010	< 10	< 10	682	0.288
9/26/2017	CM_MC2	E258937	0.328	0.322	288	6.23	0.013	0.012	< 0.00010	< 0.00010	< 10	< 10	640	0.174
10/2/2017	CM_MC2	E258937	0.401	0.408	315	3.83	0.014	0.014	< 0.00010	< 0.00010	< 10	< 10	737	0.288
10/2/2017	CM_MC2	E258937	0.414	0.435	331	3.49	0.016	0.016	< 0.00010	< 0.00010	< 10	< 10	793	0.27
10/3/2017	CM_MC2	E258937	0.411	0.42	400	3.2	0.017	0.021	< 0.00010	< 0.00010	< 10	< 10	808	0.251
10/5/2017	CM_MC2	E258937	0.409	0.413	362	7.39	0.016	0.013	< 0.00010	< 0.00010	< 10	< 10	760	0.352
10/6/2017	CM_MC2	E258937	0.402	0.413	351	4.86	0.014	0.013	< 0.00010	< 0.00010	< 10	< 10	761	0.22
10/10/2017	CM_MC2	E258937	0.392	0.396	342	4.11	0.013	0.015	< 0.00010	< 0.00010	< 10	< 10	741	0.545
10/11/2017	CM_MC2	E258937	0.409	0.411	366	3.66	0.013	0.019	< 0.00010	< 0.00010	< 10	< 10	712	2.21
10/12/2017	CM_MC2	E258937	0.39	0.404	346	3.57	0.012	0.014	< 0.00010	< 0.00010	< 10	< 10	800	0.613
10/16/2017	CM_MC2	E258937	0.406	0.433	343	4.9	0.014	0.012	< 0.00010	< 0.00010	< 10	< 10	808	0.12
10/17/2017	CM_MC2	E258937	0.42	0.414	337	5.87	0.013	0.016	< 0.00010	< 0.00010	< 10	< 10	765	0.51
10/19/2017	CM_MC2	E258937	0.39	0.439	319	4.27	0.022	0.107	< 0.00010	< 0.00010	< 10	19	631	1.75
10/20/2017	CM_MC2	E258937	0.307	0.312	245	4.98	0.013	0.016	< 0.00010	< 0.00010	< 10	< 10	536	0.5
10/23/2017	CM_MC2	E258937	0.347	0.354	270	3.42	0.012	0.013	< 0.00010	< 0.00010	< 10	< 10	608	0.483
10/24/2017	CM_MC2	E258937	0.4	0.396	289	2.81	0.013	0.014	< 0.00010	< 0.00010	< 10	< 10	677	0.434
10/26/2017	CM_MC2	E258937	0.373	0.361	287	3.63	0.013	0.013	< 0.00010	< 0.00010	< 10	< 10	1430	0.224
10/30/2017	CM_MC2	E258937	0.427	0.428	318	2.08	0.012	0.015	< 0.00010	< 0.00010	< 10	< 10	739	0.169
10/31/2017	CM_MC2	E258937	0.416	0.423	372	1.55	0.014	0.016	< 0.00010	< 0.00010	< 10	< 10	766	0.143
11/7/2017	CM_MC2	E258937	0.444	0.429	326	-0.02	0.014	0.013	< 0.00010	< 0.00010	< 10	< 10	704	0.366
11/9/2017	CM_MC2	E258937	0.443	0.446	343	1.22	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	708	0.451
11/14/2017	CM_MC2	E258937	0.427	0.425	336	1.54	< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10	791	0.288
11/21/2017	CM_MC2	E258937	0.406	0.413	351	0.75	0.014	0.012	< 0.00010	< 0.00010	< 10	< 10	806	0.083

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
11/28/2017	CM_MC2	E258937	0.401	0.407	268	1.3	0.015	0.018	< 0.00010	< 0.00010	< 10	< 10	604	0.384
12/6/2017	CM_MC2	E258937	0.493	0.503	389	-0.04	0.02	0.022	< 0.00010	< 0.00010	< 10	< 10	782	0.33
12/12/2017	CM_MC2	E258937	0.446	0.421	377	0.06	0.017	0.019	< 0.00010	< 0.00010	< 10	< 10	761	0.225
12/19/2017	CM_MC2	E258937	0.414	0.411	322	0.11	0.016	0.018	< 0.00010	< 0.00010	< 10	< 10	721	0.284
12/27/2017	CM_MC2	E258937	0.438	0.452	366	0.02	0.018	0.027	< 0.00010	< 0.00010	< 10	< 10	768	< 0.20
4/12/2017	CM_PC2	E298733				3.1								
4/19/2017	CM_PC2	E298733	0.107	0.11	72.2	4.9	0.018	0.02	< 0.00010	< 0.00010	< 10	< 10	254	0.249
4/26/2017	CM_PC2	E298733				3.8								
5/2/2017	CM_PC2	E298733	0.105	0.113		4.01	0.018	0.035	< 0.00010	< 0.00010	< 10	< 10		0.154
5/9/2017	CM_PC2	E298733				3.17								
5/16/2017	CM_PC2	E298733				3.16								
5/23/2017	CM_PC2	E298733				3.45								
5/30/2017	CM_PC2	E298733				3.53								
6/6/2017	CM_PC2	E298733	0.112	0.115		3.99	0.013	0.014	< 0.00010	< 0.00010	< 10	< 10		< 0.050
6/14/2017	CM_PC2	E298733				4								
6/21/2017	CM_PC2	E298733				4.6								
6/28/2017	CM_PC2	E298733				4.79								
7/5/2017	CM_PC2	E298733	0.0944	0.092	18.9	5.86	0.013	0.012	< 0.00010	< 0.00010	< 10	< 10	171	0.141
7/12/2017	CM_PC2	E298733												
7/19/2017	CM_PC2	E298733												
7/25/2017	CM_PC2	E298733												
8/1/2017	CM_PC2	E298733												
8/8/2017	CM_PC2	E298733												
8/15/2017	CM_PC2	E298733												
8/22/2017	CM_PC2	E298733												
8/29/2017	CM_PC2	E298733												
9/5/2017	CM_PC2	E298733												
9/12/2017	CM_PC2	E298733												
9/19/2017	CM_PC2	E298733												
9/26/2017	CM_PC2	E298733												
10/3/2017	CM_PC2	E298733												
10/10/2017	CM_PC2	E298733												
10/17/2017	CM_PC2	E298733												
10/24/2017	CM_PC2	E298733												
10/31/2017	CM_PC2	E298733												
11/7/2017	CM_PC2	E298733												
11/14/2017	CM_PC2	E298733												
11/21/2017	CM_PC2	E298733												
11/24/2017	CM_PC2	E298733	0.15	0.154	64.7	3.86	0.023	0.022	< 0.00010	< 0.00010	< 10	< 10	261	0.136
11/28/2017	CM_PC2	E298733												
12/6/2017	CM_PC2	E298733												
12/12/2017	CM_PC2	E298733												
12/19/2017	CM_PC2	E298733												
12/27/2017	CM_PC2	E298733												
1/17/2017	CM_SOW	E298734	0.73	0.75	527	1.3	0.015	0.016	< 0.00010	< 0.00010	< 10	< 10	1120	0.062
2/1/2017	CM_SOW	E298734	0.703	0.773	545	5	< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10	1150	0.149
3/1/2017	CM_SOW	E298734	0.712	0.689	503	1.1	0.014	0.014	< 0.00010	< 0.00010	< 10	< 10	1010	0.126

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
4/5/2017	CM_SOW	E298734	0.674	0.682	434	7.6	0.015	0.023	< 0.00010	< 0.00010	< 10	< 10	874	0.133
5/2/2017	CM_SOW	E298734	1.23	1.23	879	9.59	0.028	0.053	< 0.00010	< 0.00010	< 10	< 10	1530	0.716
6/6/2017	CM_SOW	E298734	0.972	0.998	683	16.56	0.025	0.026	0.00016	< 0.00010	< 10	< 10	1380	0.201
7/4/2017	CM_SOW	E298734	1.48	1.41	611	22.14	0.053	0.056	< 0.00010	< 0.00010	< 10	< 10	1270	0.331
8/1/2017	CM_SOW	E298734	1.02	0.969	640	20.49	0.031	0.032	< 0.00010	< 0.00010	< 10	< 10	1180	0.112
9/12/2017	CM_SOW	E298734	0.841	0.847	637	14.03	0.025	0.021	< 0.00010	< 0.00010	< 10	< 10	1120	0.13
10/4/2017	CM_SOW	E298734	0.717	0.734	567	5.41	0.018	0.02	< 0.00010	< 0.00010	< 10	< 10	1000	0.12
11/7/2017	CM_SOW	E298734	1.15	1.41	300	-0.06	0.09	0.568	< 0.00010	0.00074	< 10	1170	742	3.81
12/5/2017	CM_SOW	E298734	0.758	1.07	112	-0.02	0.039	1.27	< 0.00010	0.00136	< 10	2040	375	9.75
1/5/2017	CM_SPD	E102488	1.52	1.49	1010	0.17	0.077	0.076	< 0.00010	< 0.00010	< 10	< 10		
1/17/2017	CM_SPD	E102488	1.42	1.46	1040	0.2	0.08	0.081	< 0.00020	< 0.00020	< 10	< 10	1760	0.199
1/24/2017	CM_SPD	E102488	1.53	1.44	1010	0.53	0.07	0.066	< 0.00010	< 0.00010	< 10	< 10		
1/29/2017	CM_SPD	E102488				0.39								
1/30/2017	CM_SPD	E102488	1.47	1.45	1030	0.3	0.069	0.069	< 0.00010	< 0.00010	< 10	< 10		
1/31/2017	CM_SPD	E102488	1.31	1.46	1050		0.071	0.081	< 0.00050	< 0.00050	< 10	< 10		
2/1/2017	CM_SPD	E102488	1.32	1.46	1050	0.1	0.066	0.073	< 0.00050	< 0.00050	< 10	< 10	1880	< 0.25
2/7/2017	CM_SPD	E102488	1.43	1.39	980	0.09	0.068	0.069	< 0.00010	< 0.00010	< 10	< 10		
2/21/2017	CM_SPD	E102488	1.16	1.19	829	0.56	0.054	0.056	< 0.00010	< 0.00010	< 10	< 10		
3/1/2017	CM_SPD	E102488	1.15	1.1	929	0.1	0.059	0.057	< 0.00010	< 0.00010	< 10	< 10	1650	0.597
3/7/2017	CM_SPD	E102488	1.54	1.69	989	1.02	0.067	0.073	< 0.00010	< 0.00010	< 10	< 10		
3/29/2017	CM_SPD	E102488				2.52								
3/29/2017	CM_SPD	E102488			744									
4/5/2017	CM_SPD	E102488	1.22	1.22	738	2.88	0.033	0.038	< 0.00010	< 0.00010	< 10	< 10	1370	1.2
4/10/2017	CM_SPD	E102488												
4/12/2017	CM_SPD	E102488			730	3.4								
4/19/2017	CM_SPD	E102488			718	5.1								
4/26/2017	CM_SPD	E102488			625	4.6								
4/27/2017	CM_SPD	E102488												
4/28/2017	CM_SPD	E102488												
4/28/2017	CM_SPD	E102488												
5/2/2017	CM_SPD	E102488	0.935	0.961	660	5.63	0.037	0.052	< 0.00010	< 0.00010	< 10	< 10	1190	0.94
5/5/2017	CM_SPD	E102488												
5/5/2017	CM_SPD	E102488												
5/6/2017	CM_SPD	E102488												
5/6/2017	CM_SPD	E102488												
5/6/2017	CM_SPD	E102488												
5/7/2017	CM_SPD	E102488												
5/9/2017	CM_SPD	E102488			537	6.4								
5/16/2017	CM_SPD	E102488			598	6.13								
5/17/2017	CM_SPD	E102488												
5/17/2017	CM_SPD	E102488												
5/18/2017	CM_SPD	E102488												
5/23/2017	CM_SPD	E102488			633	9.81								
5/30/2017	CM_SPD	E102488			697	8.95								
6/6/2017	CM_SPD	E102488	1.29	1.33	706	9.24	0.066	0.068	< 0.00010	< 0.00010	< 10	< 10	1390	1.21
6/14/2017	CM_SPD	E102488			740	8.3								

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
6/21/2017	CM_SPD	E102488			784	11.2								
6/28/2017	CM_SPD	E102488			753	13.2								
7/4/2017	CM_SPD	E102488	1.48	1.46	836	16.89	0.077	0.082	< 0.00010	< 0.00010	< 10	< 10	1470	1.63
7/12/2017	CM_SPD	E102488			893	15.3								
7/19/2017	CM_SPD	E102488			874	15.62								
7/25/2017	CM_SPD	E102488			906	14.97								
8/1/2017	CM_SPD	E102488	1.52	1.5	904	18.79	0.086	0.095	< 0.00010	< 0.00010	< 10	< 10	1540	0.992
8/8/2017	CM_SPD	E102488			896	17.32								
8/15/2017	CM_SPD	E102488			887	16.58								
8/22/2017	CM_SPD	E102488	1.25	1.38	911	15.69	0.08	0.076	< 0.00010	< 0.00010	< 10	< 10	1550	0.591
8/29/2017	CM_SPD	E102488			912	15.31								
9/5/2017	CM_SPD	E102488			927	13.9								
9/12/2017	CM_SPD	E102488	1.27	1.27	920	13.85	0.07	0.068	< 0.00010	< 0.00010	< 10	< 10	1570	0.797
9/19/2017	CM_SPD	E102488			979	8.17								
10/3/2017	CM_SPD	E102488	1.15	1.25	956	7.42	0.06	0.059	< 0.00010	< 0.00010	< 10	< 10	1630	0.771
10/19/2017	CM_SPD	E102488												
10/19/2017	CM_SPD	E102488												
10/20/2017	CM_SPD	E102488												
10/23/2017	CM_SPD	E102488												
11/7/2017	CM_SPD	E102488	1.23	1.21	956	0.73	0.057	0.052	< 0.00010	< 0.00010	< 10	< 10	1720	0.79
11/22/2017	CM_SPD	E102488	1.17	1.14	981	0.7	0.048	0.05	< 0.00010	< 0.00010	< 10	< 10	1710	0.629
12/6/2017	CM_SPD	E102488	0.867	0.855	774	0.57	0.037	0.038	< 0.00010	< 0.00010	< 10	< 10	1330	0.3
1/10/2017	EV_AQ1	E210369												
2/8/2017	EV_AQ1	E210369												
3/7/2017	EV_AQ1	E210369												
3/15/2017	EV_AQ1	E210369	0.104	0.106	23.4	0.02	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	142	0.349
3/15/2017	EV_AQ1	E210369												
3/16/2017	EV_AQ1	E210369												
3/17/2017	EV_AQ1	E210369												
3/18/2017	EV_AQ1	E210369												
3/19/2017	EV_AQ1	E210369												
3/19/2017	EV_AQ1	E210369												
3/20/2017	EV_AQ1	E210369												
3/21/2017	EV_AQ1	E210369												
3/22/2017	EV_AQ1	E210369	0.23	0.222	51.5	1.3	< 0.010	0.035	< 0.00010	< 0.00010	< 10	< 10	379	0.276
3/23/2017	EV_AQ1	E210369												
3/24/2017	EV_AQ1	E210369												
3/28/2017	EV_AQ1	E210369												
4/4/2017	EV_AQ1	E210369	0.238	0.228	50.1	4.93	< 0.010	0.026	< 0.00010	< 0.00010	< 10	< 10	399	0.171
4/12/2017	EV_AQ1	E210369												
4/20/2017	EV_AQ1	E210369												
4/26/2017	EV_AQ1	E210369												
5/3/2017	EV_AQ1	E210369	0.239	0.235	51.3	9.24	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	396	0.265
5/10/2017	EV_AQ1	E210369												
5/17/2017	EV_AQ1	E210369												
5/24/2017	EV_AQ1	E210369												
5/31/2017	EV_AQ1	E210369												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
6/5/2017	EV_AQ1	E210369	0.206	0.208	49.1	16.16	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	370	0.204
6/14/2017	EV_AQ1	E210369												
6/21/2017	EV_AQ1	E210369												
6/28/2017	EV_AQ1	E210369												
7/5/2017	EV_AQ1	E210369												
7/11/2017	EV_AQ1	E210369												
8/2/2017	EV_AQ1	E210369												
9/12/2017	EV_AQ1	E210369												
10/3/2017	EV_AQ1	E210369												
11/15/2017	EV_AQ1	E210369												
12/6/2017	EV_AQ1	E210369												
1/10/2017	EV_AQ6	E302170	0.241	0.236	49.9	-0.13	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	389	< 0.050
2/8/2017	EV_AQ6	E302170												
2/16/2017	EV_AQ6	E302170	0.179	0.19	38.7	0.28	< 0.010	0.02	< 0.00010	< 0.00010	< 10	< 10	290	< 0.050
2/23/2017	EV_AQ6	E302170												
3/8/2017	EV_AQ6	E302170	0.207	0.217	54	0.11	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	385	0.068
3/15/2017	EV_AQ6	E302170												
3/15/2017	EV_AQ6	E302170												
3/16/2017	EV_AQ6	E302170												
3/17/2017	EV_AQ6	E302170												
3/18/2017	EV_AQ6	E302170												
3/18/2017	EV_AQ6	E302170												
3/19/2017	EV_AQ6	E302170												
3/20/2017	EV_AQ6	E302170												
3/21/2017	EV_AQ6	E302170												
3/22/2017	EV_AQ6	E302170												
3/23/2017	EV_AQ6	E302170												
3/24/2017	EV_AQ6	E302170												
3/28/2017	EV_AQ6	E302170												
3/31/2017	EV_AQ6	E302170												
4/4/2017	EV_AQ6	E302170	0.203	0.202	47.3	3.43	< 0.010	0.016	< 0.00010	< 0.00010	< 10	< 10	373	0.194
4/12/2017	EV_AQ6	E302170												
4/20/2017	EV_AQ6	E302170												
4/26/2017	EV_AQ6	E302170												
5/2/2017	EV_AQ6	E302170												
5/3/2017	EV_AQ6	E302170	0.213	0.204	49.4	7.43	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	372	0.26
5/7/2017	EV_AQ6	E302170												
5/10/2017	EV_AQ6	E302170												
5/17/2017	EV_AQ6	E302170												
5/18/2017	EV_AQ6	E302170												
5/24/2017	EV_AQ6	E302170												
5/31/2017	EV_AQ6	E302170												
6/5/2017	EV_AQ6	E302170	0.217	0.212	54.6	15.11	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	391	0.184
6/14/2017	EV_AQ6	E302170												
6/21/2017	EV_AQ6	E302170												
6/28/2017	EV_AQ6	E302170												
7/5/2017	EV_AQ6	E302170												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
7/11/2017	EV_AQ6	E302170	0.54	0.551	37.7	14.18	0.021	0.051	< 0.00010	< 0.00010	< 10	< 10	426	0.23
8/2/2017	EV_AQ6	E302170	0.209	0.209		16.41	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10		
8/2/2017	EV_AQ6	E302170			39.6								301	0.098
8/10/2017	EV_AQ6	E302170				15.44								
9/12/2017	EV_AQ6	E302170	0.197	0.206	28.5	14.78	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	281	0.103
10/3/2017	EV_AQ6	E302170	0.2	0.198	27.6	6.46	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	288	0.053
11/15/2017	EV_AQ6	E302170	0.232	0.23	42.5	1.06	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	375	< 0.20
11/23/2017	EV_AQ6	E302170												
11/23/2017	EV_AQ6	E302170												
11/24/2017	EV_AQ6	E302170												
12/6/2017	EV_AQ6	E302170	0.263	0.269	66.5	0.41	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	456	0.091
1/10/2017	EV_BC1	E102685												
2/7/2017	EV_BC1	E102685												
3/7/2017	EV_BC1	E102685												
3/16/2017	EV_BC1	E102685												
3/17/2017	EV_BC1	E102685												
3/18/2017	EV_BC1	E102685												
3/18/2017	EV_BC1	E102685												
3/20/2017	EV_BC1	E102685	0.574	0.643	582	0.93	0.036	0.042	< 0.00010	< 0.00010	< 10	< 10	1130	0.69
3/29/2017	EV_BC1	E102685	0.632	0.64	824	2.97	0.038	0.046	< 0.00010	< 0.00010	< 10	< 10	1550	0.392
4/5/2017	EV_BC1	E102685	0.702	0.657	913	6.05	0.052	0.049	< 0.00010	< 0.00010	< 10	< 10	1830	0.466
4/7/2017	EV_BC1	E102685												
4/12/2017	EV_BC1	E102685												
4/20/2017	EV_BC1	E102685												
4/26/2017	EV_BC1	E102685												
5/2/2017	EV_BC1	E102685	0.643	0.647	1280	10.09	0.05	0.051	< 0.00020	< 0.00020	< 10	< 10	2260	0.297
5/10/2017	EV_BC1	E102685												
5/18/2017	EV_BC1	E102685												
5/24/2017	EV_BC1	E102685												
5/31/2017	EV_BC1	E102685												
6/2/2017	EV_BC1	E102685												
6/6/2017	EV_BC1	E102685	0.692	0.687	713	11.86	0.06	0.059	< 0.00010	< 0.00010	< 10	< 10	1500	0.127
6/14/2017	EV_BC1	E102685												
6/21/2017	EV_BC1	E102685												
6/28/2017	EV_BC1	E102685												
7/5/2017	EV_BC1	E102685												
7/12/2017	EV_BC1	E102685	1.2	1.22	661	11.6	0.097	0.097	< 0.00010	< 0.00010	< 10	< 10	1420	< 0.050
8/3/2017	EV_BC1	E102685	0.76	0.743		12.92	0.079	0.071	< 0.00010	< 0.00010	< 10	< 10		
8/3/2017	EV_BC1	E102685			773								1500	0.532
8/9/2017	EV_BC1	E102685				13.83								
9/12/2017	EV_BC1	E102685												
10/2/2017	EV_BC1	E102685												
10/4/2017	EV_BC1	E102685	0.886	0.897	703	7.77	0.06	0.066	< 0.00010	< 0.00010	< 10	< 10	1460	0.98
11/10/2017	EV_BC1	E102685												
11/15/2017	EV_BC1	E102685	0.925	0.923	940	2.72	0.055	0.051	< 0.00010	< 0.00010	< 10	< 10	1730	< 0.20
11/23/2017	EV_BC1	E102685												
12/6/2017	EV_BC1	E102685	0.776	0.748	722	1.54	0.061	0.062	< 0.00010	< 0.00010	< 10	< 10	1420	< 0.25

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
1/9/2017	EV_BLM2	E298592	0.154	0.157	46.3	0.31	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	257	0.075
2/23/2017	EV_BLM2	E298592	0.167	0.17	43.1	0.45	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	221	0.198
3/6/2017	EV_BLM2	E298592	0.163	0.171	43	0.93	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	252	0.22
3/15/2017	EV_BLM2	E298592												
3/22/2017	EV_BLM2	E298592												
3/28/2017	EV_BLM2	E298592												
4/3/2017	EV_BLM2	E298592	0.193	0.199	23	0.97	< 0.010	0.018	< 0.00010	< 0.00010	< 10	< 10	219	0.3
4/11/2017	EV_BLM2	E298592												
4/19/2017	EV_BLM2	E298592												
4/20/2017	EV_BLM2	E298592												
4/21/2017	EV_BLM2	E298592												
4/22/2017	EV_BLM2	E298592												
4/23/2017	EV_BLM2	E298592												
4/25/2017	EV_BLM2	E298592												
5/2/2017	EV_BLM2	E298592	0.186	0.204	22.3	2.59	< 0.010	0.084	< 0.00010	0.00011	< 10	< 74	199	0.366
5/9/2017	EV_BLM2	E298592												
5/16/2017	EV_BLM2	E298592												
5/23/2017	EV_BLM2	E298592												
5/24/2017	EV_BLM2	E298592												
5/30/2017	EV_BLM2	E298592												
6/5/2017	EV_BLM2	E298592	0.117	0.117	32.6	6.64	< 0.010	0.025	< 0.00010	< 0.00010	< 10	< 10	190	0.224
6/13/2017	EV_BLM2	E298592												
6/20/2017	EV_BLM2	E298592												
6/27/2017	EV_BLM2	E298592												
7/4/2017	EV_BLM2	E298592												
7/10/2017	EV_BLM2	E298592	0.141	0.141	42.9	9.15	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	232	0.144
8/1/2017	EV_BLM2	E298592	0.164	0.157	47.2	9.84	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	275	0.143
8/10/2017	EV_BLM2	E298592				9.09								
8/15/2017	EV_BLM2	E298592												
9/11/2017	EV_BLM2	E298592	0.153	0.16	45.8	7.37	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	228	< 0.050
10/2/2017	EV_BLM2	E298592	0.163	0.158	45.3	3.71	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	258	< 0.20
11/14/2017	EV_BLM2	E298592	0.153	0.165	40.6	0.8	< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10	244	0.06
12/1/2017	EV_BLM2	E298592	0.163	0.163	39.3	-0.02	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	223	< 0.20
1/9/2017	EV_DC1	E298590	0.178	0.186	782	-0.01	0.023	0.023	< 0.00010	< 0.00010	< 10	< 10	1480	0.107
2/21/2017	EV_DC1	E298590	0.182	0.182	767	0.04	0.022	0.022	< 0.00010	< 0.00010	< 10	< 10	1460	0.128
3/6/2017	EV_DC1	E298590	0.171	0.189	791	-0.01	0.021	0.021	< 0.00010	< 0.00010	< 10	< 10	1560	0.131
3/15/2017	EV_DC1	E298590												
3/21/2017	EV_DC1	E298590												
3/28/2017	EV_DC1	E298590												
4/3/2017	EV_DC1	E298590	0.144	0.145	540	0.82	0.023	0.024	< 0.00010	< 0.00010	< 10	< 10	1060	0.168
4/11/2017	EV_DC1	E298590												
4/19/2017	EV_DC1	E298590												
4/25/2017	EV_DC1	E298590												
5/1/2017	EV_DC1	E298590	0.119	0.123	442	3.71	0.018	0.024	< 0.00010	< 0.00010	< 10	< 10	920	0.253
5/9/2017	EV_DC1	E298590												
5/16/2017	EV_DC1	E298590												
5/23/2017	EV_DC1	E298590												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
5/30/2017	EV_DC1	E298590												
6/5/2017	EV_DC1	E298590	0.148	0.145	485	6.94	0.024	0.027	< 0.00010	< 0.00010	< 10	< 10	1060	0.195
6/13/2017	EV_DC1	E298590												
6/20/2017	EV_DC1	E298590												
6/27/2017	EV_DC1	E298590												
7/4/2017	EV_DC1	E298590												
7/10/2017	EV_DC1	E298590	0.172	0.169	694	11.67	0.029	0.029	< 0.00010	< 0.00010	< 10	< 10	1320	0.28
8/1/2017	EV_DC1	E298590	0.19	0.191	755	12.27	0.031	0.033	< 0.00010	< 0.00010	< 10	< 10	1650	0.284
9/11/2017	EV_DC1	E298590	0.179	0.187	847	9.88	0.028	0.027	< 0.00010	< 0.00010	< 10	< 10	1500	0.394
10/2/2017	EV_DC1	E298590												
10/4/2017	EV_DC1	E298590	0.172	0.184	862	3.12	0.023	0.023	< 0.00010	< 0.00010	< 10	< 10	1560	0.532
10/6/2017	EV_DC1	E298590												
11/14/2017	EV_DC1	E298590	0.2	0.198	887	0.52	< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10	1550	0.229
12/1/2017	EV_DC1	E298590	0.186	0.193	841	0.26	0.018	0.021	< 0.00010	< 0.00010	< 10	< 10	1520	0.34
1/18/2017	EV_EC1	200097	0.209	0.209	799	5.01	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1410	0.078
2/23/2017	EV_EC1	200097	0.207	0.214	739	3.65	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1380	< 0.050
3/8/2017	EV_EC1	200097	0.194	0.196	770	3.28	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	1480	0.088
3/16/2017	EV_EC1	200097												
3/19/2017	EV_EC1	200097												
3/29/2017	EV_EC1	200097												
4/4/2017	EV_EC1	200097	0.211	0.202	728	3.78	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1440	0.15
4/12/2017	EV_EC1	200097												
4/19/2017	EV_EC1	200097												
4/26/2017	EV_EC1	200097												
5/3/2017	EV_EC1	200097	0.189	0.183	657	5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1210	0.146
5/10/2017	EV_EC1	200097												
5/17/2017	EV_EC1	200097												
5/24/2017	EV_EC1	200097												
5/31/2017	EV_EC1	200097												
6/7/2017	EV_EC1	200097				5.77								
6/14/2017	EV_EC1	200097	0.194	0.19	686	5.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1300	0.134
6/21/2017	EV_EC1	200097												
6/28/2017	EV_EC1	200097												
7/5/2017	EV_EC1	200097												
7/11/2017	EV_EC1	200097	0.183	0.187	632	6.28	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1140	< 0.20
8/2/2017	EV_EC1	200097	0.186	0.188		6.49	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/2/2017	EV_EC1	200097			649								1260	0.384
9/12/2017	EV_EC1	200097	0.187	0.191	660	5.75	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1310	< 0.050
10/3/2017	EV_EC1	200097	0.19	0.183	669	4.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1340	0.68
11/15/2017	EV_EC1	200097	0.205	0.21	756	4.31	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1430	< 0.20
12/6/2017	EV_EC1	200097	0.199	0.21	762	3.53	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1430	< 0.050
1/10/2017	EV_ER1	200393	0.225	0.214	90.7	-0.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	317	0.065
2/7/2017	EV_ER1	200393	0.223	0.234	96.3	-0.03	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	333	0.097
2/20/2017	EV_ER1	200393	0.217	0.235	95.8	2.34	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	306	< 0.050
3/7/2017	EV_ER1	200393	0.245	0.222	92.5	-0.06	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	333	0.076
3/16/2017	EV_ER1	200393	0.206	0.207	90.7	2.1	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	288	0.21
3/19/2017	EV_ER1	200393												

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Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
3/20/2017	EV_ER1	200393	0.182	0.185	73.8	0.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	248	< 0.20
3/29/2017	EV_ER1	200393	0.196	0.214	84.5	3.33	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	301	0.323
4/5/2017	EV_ER1	200393	0.223	0.213	89.2	2.61	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	314	0.154
4/12/2017	EV_ER1	200393	0.192	0.184	85.1	3.07	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	324	0.252
4/20/2017	EV_ER1	200393	0.183	0.173	78.2	2.97	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	262	0.251
4/26/2017	EV_ER1	200393	0.171	0.168	68.5	4.29	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	277	0.214
5/2/2017	EV_ER1	200393	0.188	0.182	71.9	4.56	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	284	0.164
5/10/2017	EV_ER1	200393	0.128	0.136	43.4	5.24	< 0.010	0.023	< 0.00010	< 0.00010	< 10	11	206	0.26
5/17/2017	EV_ER1	200393	0.139	0.133	46.2	4.91	< 0.010	0.028	< 0.00010	< 0.00010	< 10	< 10	220	0.179
5/24/2017	EV_ER1	200393	0.085	0.121	24.3	5.04	< 0.010	0.217	< 0.00010	< 0.00010	< 10	23	197	0.97
5/30/2017	EV_ER1	200393	0.0852	0.116	27.1	4.75	< 0.010	0.106	< 0.00010	< 0.00010	< 10	13	162	0.136
6/6/2017	EV_ER1	200393	0.101	0.107	31.7	5.09	< 0.010	0.035	< 0.00010	< 0.00010	< 10	< 10	176	0.227
6/13/2017	EV_ER1	200393	0.12	0.117	39.4	6.59	< 0.010	0.025	< 0.00010	< 0.00010	< 10	< 10	201	0.209
6/21/2017	EV_ER1	200393	0.124	0.129	38.7	8.14	< 0.010	0.018	< 0.00010	< 0.00010	< 10	< 10	194	0.143
6/28/2017	EV_ER1	200393	0.143	0.144	44.1	9.49	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	247	0.107
7/5/2017	EV_ER1	200393	0.162	0.159	50	10.53	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	227	0.123
7/12/2017	EV_ER1	200393	0.171	0.172	56.4	9.78	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	238	0.347
8/3/2017	EV_ER1	200393	0.204	0.202		10.12	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/3/2017	EV_ER1	200393			64.8								268	0.105
9/12/2017	EV_ER1	200393	0.215	0.221	73.6	9.89	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	268	0.296
10/3/2017	EV_ER1	200393	0.219	0.226	82.9	4.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	309	0.19
11/15/2017	EV_ER1	200393	0.223	0.22	91.1	2.82	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	331	< 0.20
12/6/2017	EV_ER1	200393	0.207	0.201	89.2	0.83	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	297	0.108
1/10/2017	EV_ER2	200111	0.237	0.236	79.2	-0.02	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	301	0.16
2/7/2017	EV_ER2	200111	0.234	0.244	85	-0.02	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	312	0.142
3/6/2017	EV_ER2	200111	0.23	0.252	83.3	2.14	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	322	0.081
3/16/2017	EV_ER2	200111			79.8								287	
3/17/2017	EV_ER2	200111												
3/18/2017	EV_ER2	200111												
3/19/2017	EV_ER2	200111												
3/20/2017	EV_ER2	200111												
3/21/2017	EV_ER2	200111												
3/28/2017	EV_ER2	200111												
4/3/2017	EV_ER2	200111	0.238	0.25	87.2	5.99	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	329	0.141
4/11/2017	EV_ER2	200111												
4/20/2017	EV_ER2	200111												
4/25/2017	EV_ER2	200111												
5/4/2017	EV_ER2	200111	0.22	0.233	86.8	5.24	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	327	0.27
5/9/2017	EV_ER2	200111												
5/16/2017	EV_ER2	200111												
5/23/2017	EV_ER2	200111												
5/31/2017	EV_ER2	200111												
6/5/2017	EV_ER2	200111	0.149	0.157	35.3	7.72	< 0.010	0.05	< 0.00010	< 0.00010	< 10	< 10	205	0.259
6/13/2017	EV_ER2	200111												
6/20/2017	EV_ER2	200111												
6/27/2017	EV_ER2	200111												
7/4/2017	EV_ER2	200111												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
7/10/2017	EV_ER2	200111	0.177	0.178	43.3	12.17	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	232	0.25
8/1/2017	EV_ER2	200111	0.206	0.202	53.3	12.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	275	0.194
8/9/2017	EV_ER2	200111				11.41								
9/11/2017	EV_ER2	200111	0.214	0.219	60	10.71	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	239	0.069
10/2/2017	EV_ER2	200111	0.228	0.229	68.6	6.57	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	291	< 0.20
11/14/2017	EV_ER2	200111	0.244	0.233	82.1	3.3	< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10	298	0.147
12/7/2017	EV_ER2	200111	0.249	0.232	83.1	1.26	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	312	0.29
1/10/2017	EV_ER4	200027	0.266	0.26	88.4	-0.04	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	331	< 0.050
2/21/2017	EV_ER4	200027	0.263	0.265	90.7	2.61	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	321	0.068
3/6/2017	EV_ER4	200027	0.254	0.278	89.5	0.51	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	343	0.071
3/15/2017	EV_ER4	200027	0.26	0.248	92.9	3.14	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	319	0.081
3/19/2017	EV_ER4	200027												
3/20/2017	EV_ER4	200027	0.255	0.273	89.5	1.43	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	293	0.26
3/28/2017	EV_ER4	200027	0.243	0.252	99.9	2.68	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	338	0.101
4/3/2017	EV_ER4	200027	0.249	0.256	98	2.76	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	343	0.066
4/11/2017	EV_ER4	200027	0.266	0.249	97.6	2.91	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	345	0.12
4/19/2017	EV_ER4	200027	0.224	0.236	102	3.94	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	358	0.139
4/24/2017	EV_ER4	200027	0.22	0.221	102	4.15	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	348	0.64
5/1/2017	EV_ER4	200027	0.215	0.232	91.2	4.19	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	371	0.133
5/9/2017	EV_ER4	200027	0.183	0.195	60.6	4.98	< 0.010	0.022	< 0.00010	< 0.00010	< 10	15	264	0.258
5/16/2017	EV_ER4	200027	0.171	0.186	52.6	4.35	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	248	0.221
5/23/2017	EV_ER4	200027	0.168	0.165	48.3	6.01	< 0.010	0.025	< 0.00010	< 0.00010	< 10	< 10	247	0.296
5/30/2017	EV_ER4	200027	0.147	0.168	37.8	5.89	< 0.010	0.08	< 0.00010	< 0.00010	< 10	50	213	0.453
6/6/2017	EV_ER4	200027	0.152	0.148	38.3	5.97	< 0.010	0.039	< 0.00010	< 0.00010	< 10	18	214	0.309
6/13/2017	EV_ER4	200027	0.165	0.161	42.5	7.06	< 0.010	0.028	< 0.00010	< 0.00010	< 10	11	227	0.246
6/20/2017	EV_ER4	200027	0.172	0.173	42.7	8	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	231	0.198
6/21/2017	EV_ER4	200027												
6/27/2017	EV_ER4	200027	0.189	0.192	42.8	9.23	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	230	0.162
7/4/2017	EV_ER4	200027	0.178	0.2	41.3	9.08	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	222	0.101
7/10/2017	EV_ER4	200027	0.189	0.187	44.8	11.08	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	219	0.34
7/25/2017	EV_ER4	200027	0.228	0.222	53	10.27	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	248	0.186
8/1/2017	EV_ER4	200027	0.222	0.218	55	11.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	276	0.1
8/15/2017	EV_ER4	200027												
9/11/2017	EV_ER4	200027	0.229	0.235	61.8	10.17	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	256	0.076
10/2/2017	EV_ER4	200027	0.255	0.255	76.4	6.57	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	310	0.21
11/14/2017	EV_ER4	200027	0.261	0.26	90.5	3.02	< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10	328	0.137
12/7/2017	EV_ER4	200027	0.265	0.255	90.1	1.44	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	329	0.24
1/9/2017	EV_FC1	E298591												
2/19/2017	EV_FC1	E298591												
3/6/2017	EV_FC1	E298591												
3/16/2017	EV_FC1	E298591	0.376	0.433	59.5	0.46	< 0.010	0.064	< 0.00010	< 0.00010	< 10	< 10	286	0.57
3/21/2017	EV_FC1	E298591												
3/28/2017	EV_FC1	E298591												
4/3/2017	EV_FC1	E298591	0.355	0.37	46.3	2.43	< 0.010	0.051	< 0.00010	< 0.00010	< 10	13	291	0.263
4/11/2017	EV_FC1	E298591												
4/19/2017	EV_FC1	E298591												
4/20/2017	EV_FC1	E298591												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
4/21/2017	EV_FC1	E298591												
4/25/2017	EV_FC1	E298591												
5/2/2017	EV_FC1	E298591	0.302	0.288	29.9	3.18	< 0.010	0.024	< 0.00010	< 0.00010	< 10	20	222	0.22
5/9/2017	EV_FC1	E298591												
5/16/2017	EV_FC1	E298591												
5/23/2017	EV_FC1	E298591												
5/30/2017	EV_FC1	E298591												
6/5/2017	EV_FC1	E298591	0.383	0.38	42.6	8.08	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	286	0.21
6/13/2017	EV_FC1	E298591												
6/20/2017	EV_FC1	E298591												
6/27/2017	EV_FC1	E298591												
7/4/2017	EV_FC1	E298591												
7/10/2017	EV_FC1	E298591	0.531	0.525	72.2	11.77	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	393	0.193
8/1/2017	EV_FC1	E298591	0.609	0.608	109	13.75	0.012	0.015	< 0.00010	< 0.00010	< 10	< 10	463	0.143
8/15/2017	EV_FC1	E298591												
9/11/2017	EV_FC1	E298591	0.604	0.628	137	9.27	0.011	0.013	< 0.00010	< 0.00010	< 10	< 10	448	0.068
10/2/2017	EV_FC1	E298591	0.615	0.621	127	5.21	0.01	0.017	< 0.00010	< 0.00010	< 10	< 10	477	0.29
11/14/2017	EV_FC1	E298591	0.499	0.53	89.4	0.66	< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10	381	0.131
12/1/2017	EV_FC1	E298591	0.493	0.465	83.9	0.91	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	338	< 0.20
1/19/2017	EV_GC2	E208043	0.419	0.415	309	0.88	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	727	0.337
1/31/2017	EV_GC2	E208043	0.432	0.423	310	0.45	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	678	0.118
2/8/2017	EV_GC2	E208043	0.424	0.439	310	0.21	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	782	0.131
2/16/2017	EV_GC2	E208043												
2/16/2017	EV_GC2	E208043	0.4	0.359	241	0.95	< 0.010	0.016	< 0.00010	< 0.00010	< 10	< 10	597	< 0.050
2/17/2017	EV_GC2	E208043												
2/17/2017	EV_GC2	E208043												
3/6/2017	EV_GC2	E208043	0.457	0.489	273	0.38	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	733	0.158
3/15/2017	EV_GC2	E208043												
3/15/2017	EV_GC2	E208043												
3/16/2017	EV_GC2	E208043												
3/17/2017	EV_GC2	E208043												
3/18/2017	EV_GC2	E208043												
3/18/2017	EV_GC2	E208043												
3/19/2017	EV_GC2	E208043												
3/20/2017	EV_GC2	E208043												
3/28/2017	EV_GC2	E208043												
4/5/2017	EV_GC2	E208043	0.427	0.434	164	3.58	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	530	0.228
4/11/2017	EV_GC2	E208043												
4/20/2017	EV_GC2	E208043												
4/24/2017	EV_GC2	E208043												
5/2/2017	EV_GC2	E208043	0.37	0.351	235	5.89	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	642	0.135
5/3/2017	EV_GC2	E208043												
5/4/2017	EV_GC2	E208043	0.355	0.373	247	6.92	< 0.010	0.017	< 0.00010	< 0.00010	< 10	< 10	621	0.274
5/7/2017	EV_GC2	E208043												
5/11/2017	EV_GC2	E208043												
5/18/2017	EV_GC2	E208043												
5/23/2017	EV_GC2	E208043												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
5/30/2017	EV_GC2	E208043				12.18								
5/30/2017	EV_GC2	E208043	0.289	0.307	369		< 0.010	0.016	< 0.00010	< 0.00010	< 10	< 10	795	0.128
6/6/2017	EV_GC2	E208043	0.304	0.287	359	9.9	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	818	0.155
6/13/2017	EV_GC2	E208043												
6/20/2017	EV_GC2	E208043												
6/27/2017	EV_GC2	E208043												
7/4/2017	EV_GC2	E208043												
7/12/2017	EV_GC2	E208043	0.386	0.395	324	13.61	0.011	0.014	< 0.00010	< 0.00010	< 10	< 10	688	0.38
7/24/2017	EV_GC2	E208043				17.57								
8/3/2017	EV_GC2	E208043	0.328	0.335		13.91	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/3/2017	EV_GC2	E208043			352								781	0.122
8/9/2017	EV_GC2	E208043				14.41								
9/1/2017	EV_GC2	E208043												
9/11/2017	EV_GC2	E208043	0.343	0.36	343	13.79	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	740	0.111
9/26/2017	EV_GC2	E208043												
9/27/2017	EV_GC2	E208043												
9/28/2017	EV_GC2	E208043												
10/3/2017	EV_GC2	E208043	0.382	0.389	300	7.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	693	0.18
10/13/2017	EV_GC2	E208043	0.373	0.395	299	4.48	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	770	0.267
10/16/2017	EV_GC2	E208043				3.57								
10/24/2017	EV_GC2	E208043				4.27								
10/30/2017	EV_GC2	E208043												
10/30/2017	EV_GC2	E208043	0.477	0.449	278	3.16	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	670	0.159
11/14/2017	EV_GC2	E208043	0.429	0.462	285	1.1	< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10	676	0.147
11/23/2017	EV_GC2	E208043												
11/23/2017	EV_GC2	E208043												
11/24/2017	EV_GC2	E208043												
12/6/2017	EV_GC2	E208043	0.445	0.449	293	0.57	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	706	0.213
1/1/2017	EV_GH1	E296310												
1/2/2017	EV_GH1	E296310												
1/9/2017	EV_GH1	E296310												
1/16/2017	EV_GH1	E296310												
1/23/2017	EV_GH1	E296310												
1/30/2017	EV_GH1	E296310												
2/6/2017	EV_GH1	E296310												
2/13/2017	EV_GH1	E296310												
2/20/2017	EV_GH1	E296310												
2/27/2017	EV_GH1	E296310												
3/6/2017	EV_GH1	E296310												
3/13/2017	EV_GH1	E296310												
3/20/2017	EV_GH1	E296310												
3/27/2017	EV_GH1	E296310												
4/1/2017	EV_GH1	E296310												
4/3/2017	EV_GH1	E296310												
4/9/2017	EV_GH1	E296310	0.237	0.311	91.2	7.54	< 0.010	0.145	< 0.00010	0.00023	< 10	< 10	323	15.9
4/10/2017	EV_GH1	E296310												
4/17/2017	EV_GH1	E296310												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
4/24/2017	EV_GH1	E296310												
5/1/2017	EV_GH1	E296310												
5/8/2017	EV_GH1	E296310												
5/15/2017	EV_GH1	E296310												
5/22/2017	EV_GH1	E296310												
5/29/2017	EV_GH1	E296310												
6/5/2017	EV_GH1	E296310												
6/12/2017	EV_GH1	E296310												
6/19/2017	EV_GH1	E296310												
6/26/2017	EV_GH1	E296310												
7/1/2017	EV_GH1	E296310												
7/3/2017	EV_GH1	E296310												
7/10/2017	EV_GH1	E296310												
7/17/2017	EV_GH1	E296310												
7/24/2017	EV_GH1	E296310												
7/31/2017	EV_GH1	E296310												
8/7/2017	EV_GH1	E296310												
8/14/2017	EV_GH1	E296310												
8/21/2017	EV_GH1	E296310												
8/28/2017	EV_GH1	E296310												
9/4/2017	EV_GH1	E296310												
9/11/2017	EV_GH1	E296310												
9/18/2017	EV_GH1	E296310												
9/25/2017	EV_GH1	E296310												
10/1/2017	EV_GH1	E296310												
10/2/2017	EV_GH1	E296310												
10/3/2017	EV_GH1	E296310	0.334	4.83	107	26.62	0.037	7.16	< 0.00010	0.0029	< 10	274	289	407
10/9/2017	EV_GH1	E296310												
10/16/2017	EV_GH1	E296310												
10/23/2017	EV_GH1	E296310												
10/30/2017	EV_GH1	E296310												
11/6/2017	EV_GH1	E296310												
11/13/2017	EV_GH1	E296310												
11/20/2017	EV_GH1	E296310												
11/27/2017	EV_GH1	E296310												
12/4/2017	EV_GH1	E296310												
12/11/2017	EV_GH1	E296310												
12/18/2017	EV_GH1	E296310												
12/25/2017	EV_GH1	E296310												
1/10/2017	EV_GT1	E206231	0.713	0.678	705	1.95	0.046	0.051	< 0.00010	< 0.00010	< 10	< 10	1390	0.115
1/31/2017	EV_GT1	E206231				3.22								
2/7/2017	EV_GT1	E206231	0.667	0.702	673	1.95	0.046	0.046	< 0.00010	< 0.00010	< 10	< 10	1400	< 0.050
2/17/2017	EV_GT1	E206231												
3/7/2017	EV_GT1	E206231	0.694	0.703	655	2.96	0.043	0.043	< 0.00010	< 0.00010	< 10	< 10	1360	0.121
3/16/2017	EV_GT1	E206231												
3/17/2017	EV_GT1	E206231												
3/18/2017	EV_GT1	E206231												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
3/18/2017	EV_GT1	E206231												
3/19/2017	EV_GT1	E206231												
3/19/2017	EV_GT1	E206231												
3/20/2017	EV_GT1	E206231												
3/29/2017	EV_GT1	E206231	0.284	0.297	826	5.32	0.032	0.049	< 0.00010	< 0.00010	< 10	< 10	1490	0.642
4/5/2017	EV_GT1	E206231	0.303	0.309	844	5.63	0.041	0.043	< 0.00010	< 0.00010	< 10	< 10	1540	0.293
4/12/2017	EV_GT1	E206231												
4/20/2017	EV_GT1	E206231												
4/26/2017	EV_GT1	E206231												
5/2/2017	EV_GT1	E206231	0.276	0.284	770	9.38	0.036	0.04	< 0.00010	< 0.00010	< 10	< 10	1440	0.253
5/10/2017	EV_GT1	E206231												
5/17/2017	EV_GT1	E206231												
5/24/2017	EV_GT1	E206231												
5/31/2017	EV_GT1	E206231												
6/6/2017	EV_GT1	E206231	0.605	0.576	763	6.54	0.065	0.066	< 0.00010	< 0.00010	< 10	< 10	1270	0.105
6/14/2017	EV_GT1	E206231												
6/21/2017	EV_GT1	E206231												
6/28/2017	EV_GT1	E206231												
7/5/2017	EV_GT1	E206231												
7/12/2017	EV_GT1	E206231	0.646	0.662	721	7.51	0.075	0.077	< 0.00010	< 0.00010	< 10	< 10	1200	< 0.050
8/3/2017	EV_GT1	E206231	0.614	0.628		9.22	0.08	0.077	< 0.00010	< 0.00010	< 10	< 10		
8/3/2017	EV_GT1	E206231			780								1550	0.466
9/12/2017	EV_GT1	E206231	0.612	0.636	798	8.71	0.077	0.074	< 0.00010	< 0.00010	< 10	< 10	1520	< 0.050
10/2/2017	EV_GT1	E206231	0.774	0.766	869	6.96	0.065	0.073	< 0.00010	< 0.00010	< 10	< 10	1630	0.29
10/3/2017	EV_GT1	E206231												
10/4/2017	EV_GT1	E206231												
10/26/2017	EV_GT1	E206231												
10/27/2017	EV_GT1	E206231												
11/2/2017	EV_GT1	E206231												
11/3/2017	EV_GT1	E206231												
11/6/2017	EV_GT1	E206231												
11/7/2017	EV_GT1	E206231												
11/8/2017	EV_GT1	E206231												
11/9/2017	EV_GT1	E206231												
11/10/2017	EV_GT1	E206231												
11/15/2017	EV_GT1	E206231	0.71	0.702	840	3.72	0.058	0.063	< 0.00010	< 0.00010	< 10	< 10	1580	< 0.20
11/16/2017	EV_GT1	E206231												
11/23/2017	EV_GT1	E206231												
12/6/2017	EV_GT1	E206231	0.731	0.709	726	2.99	0.064	0.064	< 0.00010	< 0.00010	< 10	< 10	1400	< 0.25
1/9/2017	EV_HC1	E102682	0.124	0.128	209	0.02	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	490	< 0.050
2/21/2017	EV_HC1	E102682	0.129	0.131	204	1.11	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	492	0.081
3/6/2017	EV_HC1	E102682	0.132	0.139	210	0.49	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	510	0.138
3/15/2017	EV_HC1	E102682	0.137	0.129	217	0.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	501	0.103
3/21/2017	EV_HC1	E102682	0.131	0.136	192	1.06	< 0.010	0.019	< 0.00010	< 0.00010	< 10	< 10	455	0.112
3/24/2017	EV_HC1	E102682	0.126	0.135	189	1.49	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	460	0.135
3/28/2017	EV_HC1	E102682	0.129	0.133	180	2.18	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	458	0.118
4/3/2017	EV_HC1	E102682	0.13	0.132	181	1.92	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	466	0.15

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
4/11/2017	EV_HC1	E102682	0.133	0.132	170	2.34	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	462	0.166
4/19/2017	EV_HC1	E102682	0.122	0.122	184	3.3	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	460	0.179
4/24/2017	EV_HC1	E102682	0.113	0.111	147	3.16	< 0.010	0.017	< 0.00010	< 0.00010	< 10	< 10	398	0.22
5/2/2017	EV_HC1	E102682	0.125	0.122	174	3.37	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	330	0.095
5/9/2017	EV_HC1	E102682	0.0873	0.0922	87.8	3.87	< 0.010	0.017	< 0.00010	< 0.00010	< 10	< 10	311	0.234
5/16/2017	EV_HC1	E102682	0.0945	0.0951	105	3.59	< 0.010	0.017	< 0.00010	< 0.00010	< 10	< 10	333	0.195
5/23/2017	EV_HC1	E102682	0.0894	0.0888	81.7	4.52	< 0.010	0.034	< 0.00010	< 0.00010	< 10	< 10	274	0.205
5/30/2017	EV_HC1	E102682	0.0833	0.0758	70.8	4.68	< 0.010	0.02	< 0.00010	< 0.00010	< 10	< 10	252	0.181
6/6/2017	EV_HC1	E102682	0.0809	0.0767	81.3	4.51	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	280	0.128
6/13/2017	EV_HC1	E102682	0.0861	0.0868	98.4	5.55	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	326	0.092
6/20/2017	EV_HC1	E102682	0.0995	0.0941	110	6.27	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	369	0.135
6/27/2017	EV_HC1	E102682	0.112	0.105	121	7.33	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	387	0.12
7/4/2017	EV_HC1	E102682	0.0966	0.106	131	7.84	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	408	0.064
7/10/2017	EV_HC1	E102682	0.103	0.102	146	8.58	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	406	0.103
7/25/2017	EV_HC1	E102682	0.119	0.117	161	8.99	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	436	0.069
8/1/2017	EV_HC1	E102682	0.112	0.116	178	9.51	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	500	0.068
8/10/2017	EV_HC1	E102682												
9/11/2017	EV_HC1	E102682	0.115	0.117	188	9.25	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	434	0.075
10/2/2017	EV_HC1	E102682	0.129	0.125	189	5.31	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	474	< 0.20
10/10/2017	EV_HC1	E102682	0.12	0.119	205	2.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	495	0.051
10/17/2017	EV_HC1	E102682	0.126	0.129	199	3.57	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	492	< 0.050
10/24/2017	EV_HC1	E102682	0.138	0.133	211	2.52	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	525	0.088
10/31/2017	EV_HC1	E102682				1.18								
10/31/2017	EV_HC1	E102682	0.156	0.126	211		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	483	0.105
11/14/2017	EV_HC1	E102682	0.128	0.133	218	1.78	< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10	520	0.201
12/1/2017	EV_HC1	E102682	0.131	0.131	221	1.28	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	495	< 0.20
1/19/2017	EV_LC1	E258135	0.408	0.406	91	3.29	0.011	< 0.010	< 0.00010	< 0.00010	< 10	< 10	521	0.104
2/20/2017	EV_LC1	E258135	0.361	0.384	66.6	2.81	0.013	0.017	< 0.00010	< 0.00010	< 10	< 10	428	0.06
3/7/2017	EV_LC1	E258135	0.416	0.433	73.9	3.55	0.013	0.02	< 0.00010	< 0.00010	< 10	< 10	503	0.128
3/15/2017	EV_LC1	E258135												
3/16/2017	EV_LC1	E258135												
3/17/2017	EV_LC1	E258135												
3/20/2017	EV_LC1	E258135												
3/28/2017	EV_LC1	E258135	0.463	0.482	127	8.49	0.013	0.019	< 0.00010	< 0.00010	< 10	< 10	640	0.158
4/5/2017	EV_LC1	E258135	0.466	0.463	123	8.32	0.014	0.014	< 0.00010	< 0.00010	< 10	< 10	588	0.151
4/11/2017	EV_LC1	E258135												
4/19/2017	EV_LC1	E258135												
4/24/2017	EV_LC1	E258135												
5/2/2017	EV_LC1	E258135	0.416	0.432	90.1	10.99	0.012	0.013	< 0.00010	< 0.00010	< 10	< 10	547	0.073
5/7/2017	EV_LC1	E258135												
5/11/2017	EV_LC1	E258135												
5/18/2017	EV_LC1	E258135												
5/23/2017	EV_LC1	E258135												
5/30/2017	EV_LC1	E258135												
6/6/2017	EV_LC1	E258135	0.412	0.409	149	16.59	0.024	0.023	< 0.00010	< 0.00010	< 10	< 10	633	0.121
6/13/2017	EV_LC1	E258135												
6/20/2017	EV_LC1	E258135												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
6/27/2017	EV_LC1	E258135												
7/4/2017	EV_LC1	E258135												
7/12/2017	EV_LC1	E258135	0.463	0.47	135	17.03	0.022	0.024	< 0.00010	< 0.00010	< 10	< 10	592	0.13
8/3/2017	EV_LC1	E258135	0.457	0.456		18.06	0.018	0.017	< 0.00010	< 0.00010	< 10	< 10		
8/3/2017	EV_LC1	E258135			83.6								611	0.069
8/9/2017	EV_LC1	E258135				18.16								
9/11/2017	EV_LC1	E258135	0.423	0.436	86.1	14.62	0.013	0.013	< 0.00010	< 0.00010	< 10	< 10	620	< 0.050
10/2/2017	EV_LC1	E258135	0.279	0.437	87.8	9.68	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	583	< 0.20
11/14/2017	EV_LC1	E258135	0.401	0.386	94	2.36	< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10	558	< 0.050
12/6/2017	EV_LC1	E258135	0.422	0.401	106	2.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	596	< 0.050
1/10/2017	EV_MC2	E300091	0.207	0.194	146	0.38	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	430	0.109
1/31/2017	EV_MC2	E300091				1.73								
2/7/2017	EV_MC2	E300091	0.201	0.213	166	0.28	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	449	0.247
2/21/2017	EV_MC2	E300091	0.196	0.197	148	0.72	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	429	0.106
3/7/2017	EV_MC2	E300091	0.214	0.228	172	0.78	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	472	0.096
3/16/2017	EV_MC2	E300091	0.182	0.184	136	1.13	< 0.010	0.015	< 0.00010	< 0.00010	< 10	< 10	373	0.51
3/17/2017	EV_MC2	E300091												
3/18/2017	EV_MC2	E300091												
3/19/2017	EV_MC2	E300091												
3/20/2017	EV_MC2	E300091	0.147	0.148	92.8	1.76	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	257	0.2
3/22/2017	EV_MC2	E300091												
3/23/2017	EV_MC2	E300091												
3/24/2017	EV_MC2	E300091												
3/29/2017	EV_MC2	E300091	0.157	0.176	111	3.35	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	327	0.099
4/5/2017	EV_MC2	E300091	0.175	0.175	106	2.25	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	339	0.125
4/12/2017	EV_MC2	E300091	0.157	0.151	94.1	2.75	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	322	0.229
4/20/2017	EV_MC2	E300091	0.155	0.151	86.5	2.05	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	252	0.219
4/24/2017	EV_MC2	E300091	0.147	0.138	68.2	4.36	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	222	0.31
5/2/2017	EV_MC2	E300091	0.149	0.15	71	4.22	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	288	0.168
5/9/2017	EV_MC2	E300091	0.102	0.108	45.4	3.27	< 0.010	0.032	< 0.00010	< 0.00010	< 10	21	198	0.265
5/16/2017	EV_MC2	E300091	0.111	0.112	55.4	3.41	< 0.010	0.017	< 0.00010	< 0.00010	< 10	< 10	220	
5/23/2017	EV_MC2	E300091	0.0784	0.0857	30	3.74	< 0.010	0.073	< 0.00010	< 0.00010	< 10	21	153	0.256
5/30/2017	EV_MC2	E300091	0.0771	0.0789	29.1	6.61	< 0.010	0.07	< 0.00010	< 0.00010	< 10	12	160	0.409
6/6/2017	EV_MC2	E300091	0.0792	0.0787	38	4.1	< 0.010	0.026	< 0.00010	< 0.00010	< 10	< 10	157	0.165
6/14/2017	EV_MC2	E300091	0.093	0.0978	46.9	6.27	< 0.010	0.027	< 0.00010	< 0.00010	< 10	< 10	193	0.172
6/21/2017	EV_MC2	E300091	0.105	0.102	54.8	7.46	< 0.010	0.015	< 0.00010	< 0.00010	< 10	< 10	205	0.121
6/28/2017	EV_MC2	E300091	0.126	0.121	71.8	8.74	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	290	0.139
7/5/2017	EV_MC2	E300091	0.148	0.147	89.8	11.14	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	308	0.255
7/12/2017	EV_MC2	E300091	0.169	0.17	109	10.6	0.012	0.011	< 0.00010	< 0.00010	< 10	< 10	346	0.397
7/25/2017	EV_MC2	E300091	0.19	0.178	116	13.45	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	362	0.292
8/3/2017	EV_MC2	E300091	0.184	0.189		9.53	0.01	0.011	< 0.00010	< 0.00010	< 10	< 10		
8/3/2017	EV_MC2	E300091			139								401	0.151
9/12/2017	EV_MC2	E300091	0.212	0.22	179	10.8	0.012	0.011	< 0.00010	< 0.00010	< 10	< 10	484	0.27
10/2/2017	EV_MC2	E300091	0.178	0.197	133	6	< 0.010	< 0.010	< 0.00010	0.00014	< 10	< 10	420	< 0.20
10/10/2017	EV_MC2	E300091	0.17	0.173	125	4.66	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	394	0.193
10/16/2017	EV_MC2	E300091												
10/17/2017	EV_MC2	E300091	0.24	0.24	194	6.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	544	0.237

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
10/24/2017	EV_MC2	E300091	0.189	0.181	110	3.83	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	352	0.204
10/31/2017	EV_MC2	E300091				1.5								
10/31/2017	EV_MC2	E300091	0.198	0.165	120		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	354	0.158
11/15/2017	EV_MC2	E300091	0.208	0.213	173	3.48	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	477	0.51
12/6/2017	EV_MC2	E300091	0.185	0.186	134	0.56	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	359	0.212
1/10/2017	EV_MC2A	E310168	0.167	0.161	104	-0.03	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	326	0.062
1/31/2017	EV_MC2A	E310168				0.01								
2/7/2017	EV_MC2A	E310168	0.156	0.165	111	-0.01	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	348	0.094
3/7/2017	EV_MC2A	E310168	0.165	0.16	111	-0.05	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	334	0.094
3/16/2017	EV_MC2A	E310168												
3/17/2017	EV_MC2A	E310168												
3/18/2017	EV_MC2A	E310168												
3/19/2017	EV_MC2A	E310168												
3/20/2017	EV_MC2A	E310168												
3/29/2017	EV_MC2A	E310168	0.14	0.147	80.7	2.53	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	279	< 0.050
4/5/2017	EV_MC2A	E310168	0.158	0.159	83.7	2.24	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	288	0.137
5/2/2017	EV_MC2A	E310168	0.135	0.136	52.7	5.81	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	237	0.139
6/6/2017	EV_MC2A	E310168	0.0635	0.0676	24.7	4.71	< 0.010	0.031	< 0.00010	< 0.00010	< 10	< 10	141	0.155
7/12/2017	EV_MC2A	E310168	0.125	0.128	66.2	9.19	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	277	0.14
8/3/2017	EV_MC2A	E310168	0.155	0.151		9.28	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/3/2017	EV_MC2A	E310168			85.6								300	0.134
9/12/2017	EV_MC2A	E310168	0.157	0.162	106	11.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	324	0.412
10/2/2017	EV_MC2A	E310168	0.156	0.159	94.2	5.64	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	334	< 0.20
11/15/2017	EV_MC2A	E310168				1.87								
11/15/2017	EV_MC2A	E310168	0.153	0.148	98.6		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	323	< 0.20
12/6/2017	EV_MC2A	E310168	0.135	0.129	79.7	-0.01	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	250	0.107
1/20/2017	EV_MC3	200203	0.154	0.164	60.4	0.12	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	236	0.115
2/7/2017	EV_MC3	200203	0.158	0.164	64.5	-0.02	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	265	0.116
3/7/2017	EV_MC3	200203	0.162	0.162	61	-0.01	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	242	0.054
3/16/2017	EV_MC3	200203	0.149	0.143	68.4	0.39	< 0.010	0.065	< 0.00010	< 0.00010	< 10	< 10	255	0.25
3/19/2017	EV_MC3	200203												
3/20/2017	EV_MC3	200203	0.12	0.126	52.4	0.19	< 0.010	0.02	< 0.00010	< 0.00010	< 10	< 10	183	0.26
3/29/2017	EV_MC3	200203	0.141	0.146	57.7	2.25	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	217	< 0.050
4/4/2017	EV_MC3	200203	0.156	0.154	59.6	3.29	< 0.010	0.025	< 0.00010	< 0.00010	< 10	< 10	246	0.137
4/12/2017	EV_MC3	200203	0.144	0.143	51.3	2.97	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	246	0.163
4/20/2017	EV_MC3	200203	0.142	0.143	50.2	1.5	< 0.010	0.013	< 0.00010	< 0.00010	< 10	< 10	175	0.177
4/26/2017	EV_MC3	200203	0.124	0.125	37.3	3.03	< 0.010	0.016	< 0.00010	< 0.00010	< 10	< 10	192	0.172
5/3/2017	EV_MC3	200203	0.131	0.127	37.3	4.7	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	190	0.111
5/10/2017	EV_MC3	200203	0.0899	0.0956	27.8	3.48	< 0.010	0.028	< 0.00010	< 0.00010	< 10	28	147	0.212
5/17/2017	EV_MC3	200203	0.102	0.1	30.6	3.56	< 0.010	0.046	< 0.00010	< 0.00010	< 10	< 10	161	0.182
5/24/2017	EV_MC3	200203	0.0615	0.0939	14.7	3.68	< 0.010	0.245	< 0.00010	< 0.00010	< 10	27	142	0.802
5/30/2017	EV_MC3	200203	0.0589	0.0707	17.9	6.9	< 0.010	0.07	< 0.00010	< 0.00010	< 10	11	113	0.225
6/6/2017	EV_MC3	200203	0.0613	0.0634	20.1	5.08	< 0.010	0.035	< 0.00010	< 0.00010	< 10	< 10	130	0.166
6/13/2017	EV_MC3	200203	0.0814	0.0769	25.9	6.13	< 0.010	0.016	< 0.00010	< 0.00010	< 10	< 10	143	0.125
6/21/2017	EV_MC3	200203	0.0755	0.0775	24.1	6.57	< 0.010	0.017	< 0.00010	< 0.00010	< 10	< 10	123	0.098
6/28/2017	EV_MC3	200203	0.093	0.0904	29.4	9.93	< 0.010	0.016	< 0.00010	< 0.00010	< 10	< 10	173	0.087
7/5/2017	EV_MC3	200203	0.115	0.11	38.1	8.72	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	182	0.113

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
7/11/2017	EV_MC3	200203	0.124	0.127	44.1	10.12	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	183	< 0.20
8/2/2017	EV_MC3	200203	0.144	0.151		11.96	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/2/2017	EV_MC3	200203			48.6								219	0.119
9/12/2017	EV_MC3	200203	0.155	0.161	47.5	11.71	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	227	0.064
10/2/2017	EV_MC3	200203	0.145	0.163	49.2	4.58	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	235	< 0.20
11/15/2017	EV_MC3	200203	0.153	0.158	52.5	1.79	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	234	< 0.20
12/6/2017	EV_MC3	200203	0.129	0.128	47.3	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	192	0.053
1/18/2017	EV_MG1	E208057	0.174	0.178	572	0.39	0.015	0.016	< 0.00010	< 0.00010	< 10	< 10	1120	0.132
2/23/2017	EV_MG1	E208057	0.161	0.169	533	0.23	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	1010	< 0.050
3/8/2017	EV_MG1	E208057	0.14	0.152	481	0.27	0.014	0.016	< 0.00010	< 0.00010	< 10	< 10	974	0.103
3/16/2017	EV_MG1	E208057												
3/19/2017	EV_MG1	E208057												
3/29/2017	EV_MG1	E208057												
4/4/2017	EV_MG1	E208057	0.105	0.103	254	2.02	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	582	0.242
4/12/2017	EV_MG1	E208057												
4/19/2017	EV_MG1	E208057												
4/26/2017	EV_MG1	E208057												
5/2/2017	EV_MG1	E208057												
5/3/2017	EV_MG1	E208057	0.109	0.103	317	5.25	0.017	0.02	< 0.00010	< 0.00010	< 10	< 10	686	0.149
5/10/2017	EV_MG1	E208057												
5/17/2017	EV_MG1	E208057												
5/24/2017	EV_MG1	E208057												
5/31/2017	EV_MG1	E208057												
6/7/2017	EV_MG1	E208057				10.44								
6/14/2017	EV_MG1	E208057	0.102	0.101	336	11.03	0.02	0.02	< 0.00010	< 0.00010	< 10	< 10	676	0.248
6/21/2017	EV_MG1	E208057												
6/28/2017	EV_MG1	E208057												
7/5/2017	EV_MG1	E208057												
7/11/2017	EV_MG1	E208057	0.123	0.131	437	17.78	0.012	0.012	< 0.00010	< 0.00010	< 10	< 10	813	0.68
8/2/2017	EV_MG1	E208057	0.146	0.145		19.56	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10		
8/2/2017	EV_MG1	E208057			533								925	0.394
8/10/2017	EV_MG1	E208057				19.86								
9/12/2017	EV_MG1	E208057	0.153	0.152	621	13.11	0.011	0.011	< 0.00010	< 0.00010	< 10	< 10	1000	0.27
10/3/2017	EV_MG1	E208057	0.15	0.157	596	5.48	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1020	0.42
10/17/2017	EV_MG1	E208057												
10/18/2017	EV_MG1	E208057												
11/15/2017	EV_MG1	E208057	0.191	0.192	709	2.2	0.014	0.015	< 0.00010	< 0.00010	< 10	< 10	1190	< 0.20
11/23/2017	EV_MG1	E208057												
12/6/2017	EV_MG1	E208057	0.162	0.164	581	1.01	0.015	< 0.030	< 0.00010	< 0.00010	< 10	< 10	1060	0.209
1/10/2017	EV_OC1	E102679	0.5	0.485	39.5	-0.04	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	401	0.353
2/8/2017	EV_OC1	E102679	0.535	0.537	40.6	0.23	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	404	0.296
2/20/2017	EV_OC1	E102679	0.512	0.564	62.3	0.64	< 0.010	0.023	< 0.00010	< 0.00010	< 10	< 10	330	0.299
2/21/2017	EV_OC1	E102679												
3/6/2017	EV_OC1	E102679	0.691	0.66	66.5	0.64	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	423	0.277
3/14/2017	EV_OC1	E102679												
3/15/2017	EV_OC1	E102679												
3/15/2017	EV_OC1	E102679												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
3/16/2017	EV_OC1	E102679												
3/17/2017	EV_OC1	E102679	0.426	0.431	61.7	0.95	< 0.010	0.055	< 0.00010	< 0.00010	< 10	< 10	319	0.76
3/18/2017	EV_OC1	E102679												
3/19/2017	EV_OC1	E102679												
3/20/2017	EV_OC1	E102679												
3/21/2017	EV_OC1	E102679												
3/22/2017	EV_OC1	E102679												
3/28/2017	EV_OC1	E102679												
4/3/2017	EV_OC1	E102679	0.623	0.625	86.6	6.27	0.01	0.019	< 0.00010	< 0.00010	< 10	< 10	431	0.292
4/11/2017	EV_OC1	E102679												
4/20/2017	EV_OC1	E102679												
4/25/2017	EV_OC1	E102679												
5/4/2017	EV_OC1	E102679	0.625	0.642	87.8	9.19	< 0.010	0.013	< 0.00010	< 0.00010	< 10	< 10	440	0.274
5/7/2017	EV_OC1	E102679												
5/9/2017	EV_OC1	E102679												
5/16/2017	EV_OC1	E102679												
5/23/2017	EV_OC1	E102679												
5/31/2017	EV_OC1	E102679												
6/5/2017	EV_OC1	E102679	0.524	0.527	72.4	16.67	0.015	0.017	< 0.00010	< 0.00010	< 10	< 10	416	0.179
6/13/2017	EV_OC1	E102679												
6/20/2017	EV_OC1	E102679												
6/27/2017	EV_OC1	E102679												
7/4/2017	EV_OC1	E102679												
7/10/2017	EV_OC1	E102679	0.449	0.437	59.2	20.03	0.01	0.013	< 0.00010	< 0.00010	< 10	< 10	372	0.231
8/1/2017	EV_OC1	E102679	0.423	0.41	52.8	18.65	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	393	0.176
9/11/2017	EV_OC1	E102679	0.355	0.362	44.3	13.83	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	309	0.076
10/2/2017	EV_OC1	E102679	0.371	0.365	47.8	7.28	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	346	< 0.20
11/14/2017	EV_OC1	E102679	0.485	0.496	60.2	1.37	< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10	399	0.161
12/7/2017	EV_OC1	E102679	0.679	0.693	99	0.71	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	472	0.21
1/9/2017	EV_SM1	E102681	0.686	0.718	66	0.08	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	349	0.086
2/23/2017	EV_SM1	E102681	0.842	0.77	72.3	0.26	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	309	< 0.050
3/6/2017	EV_SM1	E102681	0.908	0.887	76.2	0.39	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	359	0.077
3/15/2017	EV_SM1	E102681												
3/19/2017	EV_SM1	E102681												
3/20/2017	EV_SM1	E102681												
3/21/2017	EV_SM1	E102681												
3/22/2017	EV_SM1	E102681												
3/23/2017	EV_SM1	E102681												
3/28/2017	EV_SM1	E102681												
3/29/2017	EV_SM1	E102681												
4/3/2017	EV_SM1	E102681	0.764	0.79	59.2	2.64	< 0.010	0.018	< 0.00010	< 0.00010	< 10	< 10	322	0.187
4/11/2017	EV_SM1	E102681												
4/19/2017	EV_SM1	E102681												
4/25/2017	EV_SM1	E102681												
5/2/2017	EV_SM1	E102681	0.785	0.794	59.6	6.53	< 0.010	0.042	< 0.00010	< 0.00010	< 10	44	303	0.167
5/7/2017	EV_SM1	E102681												
5/8/2017	EV_SM1	E102681												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
5/9/2017	EV_SM1	E102681												
5/10/2017	EV_SM1	E102681												
5/11/2017	EV_SM1	E102681												
5/12/2017	EV_SM1	E102681												
5/13/2017	EV_SM1	E102681												
5/14/2017	EV_SM1	E102681												
5/15/2017	EV_SM1	E102681												
5/16/2017	EV_SM1	E102681												
5/17/2017	EV_SM1	E102681												
5/18/2017	EV_SM1	E102681												
5/19/2017	EV_SM1	E102681												
5/20/2017	EV_SM1	E102681												
5/23/2017	EV_SM1	E102681												
5/24/2017	EV_SM1	E102681												
5/25/2017	EV_SM1	E102681												
5/26/2017	EV_SM1	E102681												
5/27/2017	EV_SM1	E102681												
5/28/2017	EV_SM1	E102681												
5/29/2017	EV_SM1	E102681												
5/30/2017	EV_SM1	E102681												
6/5/2017	EV_SM1	E102681	0.502	0.49	43.5	11.14	< 0.010	0.026	< 0.00010	< 0.00010	< 10	< 10	277	0.146
6/13/2017	EV_SM1	E102681												
6/20/2017	EV_SM1	E102681												
6/27/2017	EV_SM1	E102681												
7/4/2017	EV_SM1	E102681												
7/10/2017	EV_SM1	E102681	0.764	0.753	71.9	20.08	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	300	0.106
8/1/2017	EV_SM1	E102681	0.826	0.815	35.2	20.29	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	331	0.123
9/11/2017	EV_SM1	E102681	0.823	0.807	81.8	15.83	0.012	0.01	< 0.00010	< 0.00010	< 10	< 10	299	< 0.050
10/2/2017	EV_SM1	E102681	0.868	0.876	82.6	9.56	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	323	< 0.20
10/4/2017	EV_SM1	E102681												
10/6/2017	EV_SM1	E102681												
10/10/2017	EV_SM1	E102681												
11/14/2017	EV_SM1	E102681	0.864	0.916	90.3	1.39	< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10	333	0.104
11/23/2017	EV_SM1	E102681												
12/1/2017	EV_SM1	E102681	0.852	0.833	83.6	1.55	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	317	< 0.20
1/18/2017	EV_SP1	E296311	0.128	0.133	723	2.65	0.17	0.174	< 0.00010	< 0.00010	< 10	< 10	1350	0.097
2/23/2017	EV_SP1	E296311	0.134	0.132	679	3.28	0.146	0.145	< 0.00010	< 0.00010	< 10	< 10	1290	< 0.050
3/8/2017	EV_SP1	E296311	0.162	0.166	763	1.39	0.052	0.055	< 0.00010	< 0.00010	< 10	< 10	1410	0.187
3/16/2017	EV_SP1	E296311												
3/19/2017	EV_SP1	E296311												
3/29/2017	EV_SP1	E296311												
4/4/2017	EV_SP1	E296311	0.108	0.108	617	5.42	0.105	0.115	< 0.00010	< 0.00010	< 10	< 10	1180	0.127
4/12/2017	EV_SP1	E296311												
4/19/2017	EV_SP1	E296311												
4/26/2017	EV_SP1	E296311												
5/3/2017	EV_SP1	E296311	0.127	0.125	750	6.11	0.11	0.112	< 0.00010	< 0.00010	< 10	< 10	1250	0.121
5/10/2017	EV_SP1	E296311												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
5/17/2017	EV_SP1	E296311												
5/24/2017	EV_SP1	E296311												
5/31/2017	EV_SP1	E296311												
6/7/2017	EV_SP1	E296311				10.25								
6/14/2017	EV_SP1	E296311	0.124	0.13	773	9.98	0.133	0.142	< 0.00010	< 0.00010	< 10	< 10	1210	0.12
6/21/2017	EV_SP1	E296311												
6/28/2017	EV_SP1	E296311												
7/5/2017	EV_SP1	E296311												
7/11/2017	EV_SP1	E296311	0.134	0.135	779	14.02	0.174	0.172	< 0.00010	< 0.00010	< 10	< 10	1380	0.28
8/2/2017	EV_SP1	E296311	0.139	0.138		16.6	0.189	0.177	< 0.00010	< 0.00010	< 10	< 10		
8/2/2017	EV_SP1	E296311			848								1470	0.347
9/12/2017	EV_SP1	E296311	0.145	0.147	913	12.85	0.197	0.183	< 0.00010	< 0.00010	< 10	< 10	1580	< 0.050
10/3/2017	EV_SP1	E296311	0.147	0.161	902	5.96	0.184	0.193	< 0.00010	< 0.00010	< 10	< 10	1660	0.143
10/3/2017	EV_SP1	E296311												
10/17/2017	EV_SP1	E296311	0.155	0.154	990	5.82	0.192	0.186	< 0.00010	< 0.00010	< 10	< 10	1670	0.514
11/15/2017	EV_SP1	E296311	0.164	0.163	983	3.89	0.197	0.202	< 0.00010	< 0.00010	< 10	< 10	1650	0.3
12/6/2017	EV_SP1	E296311	0.14	0.145	907	3.01	0.199	0.196	< 0.00010	< 0.00010	< 10	< 10	1580	< 0.050
1/10/2017	EV_SPR2	E298594	0.252	0.246	110	2.98	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	477	0.099
2/8/2017	EV_SPR2	E298594	0.236	0.243	119	3.72	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	504	0.097
2/23/2017	EV_SPR2	E298594	0.258	0.268	101	4.54	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	478	< 0.050
3/7/2017	EV_SPR2	E298594	0.262	0.26	107	4.91	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	503	0.094
3/15/2017	EV_SPR2	E298594												
3/22/2017	EV_SPR2	E298594												
3/28/2017	EV_SPR2	E298594	0.226	0.238	66.3	3.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	480	0.199
4/4/2017	EV_SPR2	E298594	0.24	0.229	63	5.15	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	488	0.201
5/3/2017	EV_SPR2	E298594	0.243	0.231	62.2	6.75	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	453	0.185
6/5/2017	EV_SPR2	E298594	0.229	0.223	63.3	7.87	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	436	0.141
7/11/2017	EV_SPR2	E298594	0.224	0.226	68.5	7.66	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	404	< 0.20
8/2/2017	EV_SPR2	E298594	0.239	0.241		8.65	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/2/2017	EV_SPR2	E298594			85.5								437	0.127
9/12/2017	EV_SPR2	E298594	0.244	0.259	105	10.21	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	447	0.33
10/3/2017	EV_SPR2	E298594	0.26	0.258	110	9.64	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	494	0.091
11/15/2017	EV_SPR2	E298594	0.247	0.251	112	7.88	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	493	0.23
12/6/2017	EV_SPR2	E298594	0.242	0.248	102	6.72	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	458	0.12
1/18/2017	EV_TC1	E298593												
2/23/2017	EV_TC1	E298593												
3/8/2017	EV_TC1	E298593												
3/16/2017	EV_TC1	E298593	0.0508	0.0518	53.5	1.12	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	267	< 0.20
3/19/2017	EV_TC1	E298593												
3/29/2017	EV_TC1	E298593												
4/4/2017	EV_TC1	E298593	0.0458	0.0469	56.7	1.49	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	252	0.184
4/12/2017	EV_TC1	E298593												
4/19/2017	EV_TC1	E298593												
4/26/2017	EV_TC1	E298593												
5/3/2017	EV_TC1	E298593	0.0404	0.0384	50.2	2.85	0.013	0.016	< 0.00010	< 0.00010	< 10	< 10	235	0.136
5/10/2017	EV_TC1	E298593												
5/17/2017	EV_TC1	E298593												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
5/24/2017	EV_TC1	E298593												
5/31/2017	EV_TC1	E298593												
6/7/2017	EV_TC1	E298593				6.65								
6/14/2017	EV_TC1	E298593	0.0506	0.05	58.6	7.1	0.011	0.011	< 0.00010	< 0.00010	< 10	< 10	253	0.119
6/21/2017	EV_TC1	E298593												
6/28/2017	EV_TC1	E298593												
7/5/2017	EV_TC1	E298593												
7/11/2017	EV_TC1	E298593												
8/2/2017	EV_TC1	E298593												
9/12/2017	EV_TC1	E298593												
10/3/2017	EV_TC1	E298593												
11/15/2017	EV_TC1	E298593												
12/6/2017	EV_TC1	E298593												
1/31/2017	FR_3PIT	E217403												
2/28/2017	FR_3PIT	E217403												
3/7/2017	FR_3PIT	E217403												
3/16/2017	FR_3PIT	E217403												
3/23/2017	FR_3PIT	E217403												
3/31/2017	FR_3PIT	E217403												
4/3/2017	FR_3PIT	E217403												
4/10/2017	FR_3PIT	E217403												
4/18/2017	FR_3PIT	E217403												
4/24/2017	FR_3PIT	E217403												
5/1/2017	FR_3PIT	E217403												
5/8/2017	FR_3PIT	E217403												
5/15/2017	FR_3PIT	E217403												
5/23/2017	FR_3PIT	E217403												
5/29/2017	FR_3PIT	E217403												
6/6/2017	FR_3PIT	E217403												
6/16/2017	FR_3PIT	E217403												
6/22/2017	FR_3PIT	E217403												
6/29/2017	FR_3PIT	E217403												
7/3/2017	FR_3PIT	E217403												
7/10/2017	FR_3PIT	E217403												
8/7/2017	FR_3PIT	E217403												
9/4/2017	FR_3PIT	E217403												
10/2/2017	FR_3PIT	E217403												
11/6/2017	FR_3PIT	E217403												
12/4/2017	FR_3PIT	E217403												
1/23/2017	FR_CC1	E102481	0.298	0.369	336	0.6	0.027	0.034	< 0.00010	< 0.00010	< 10	< 10	1200	< 0.050
2/2/2017	FR_CC1	E102481	0.296	0.289	420	0.5	0.028	0.026	< 0.00010	< 0.00010	< 10	< 10	1230	< 0.050
3/9/2017	FR_CC1	E102481	0.356	0.361	441	0.08	0.034	0.032	< 0.00010	< 0.00010	< 10	< 10	1290	0.229
3/14/2017	FR_CC1	E102481	0.305	0.309	464	0.06	0.03	0.033	< 0.00010	< 0.00010	< 10	< 10	1260	< 0.050
3/23/2017	FR_CC1	E102481				1.2								
3/28/2017	FR_CC1	E102481				1.6								
4/3/2017	FR_CC1	E102481	0.34	0.33	518	2.1	0.032	0.036	< 0.00010	< 0.00010	< 10	< 10	1620	< 0.50
4/11/2017	FR_CC1	E102481				2.5								

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
4/20/2017	FR_CC1	E102481				5.6								
4/26/2017	FR_CC1	E102481				5.6								
5/1/2017	FR_CC1	E102481	0.317	0.317	612	6.7	0.033	0.038	< 0.00010	< 0.00010	< 10	< 10	1710	0.53
5/3/2017	FR_CC1	E102481												
5/6/2017	FR_CC1	E102481												
5/10/2017	FR_CC1	E102481				7.7								
5/15/2017	FR_CC1	E102481				7.1								
5/23/2017	FR_CC1	E102481				10.1								
5/29/2017	FR_CC1	E102481				11.4								
6/5/2017	FR_CC1	E102481	0.244	0.245	408	11.4	0.031	0.033	< 0.00010	< 0.00010	< 10	< 10	1250	0.43
6/15/2017	FR_CC1	E102481				11								
6/20/2017	FR_CC1	E102481				13.7								
6/27/2017	FR_CC1	E102481				14.9								
7/3/2017	FR_CC1	E102481	0.25	0.259	424	16.2	0.029	0.031	< 0.00010	< 0.00010	< 10	< 10	1130	0.56
7/10/2017	FR_CC1	E102481				17.3								
8/8/2017	FR_CC1	E102481	0.261	0.256	433	15	0.033	0.029	< 0.00010	< 0.00010	< 10	< 10	1300	0.272
9/5/2017	FR_CC1	E102481	0.208	0.22	365	14.6	0.024	0.022	< 0.00010	< 0.00010	< 10	< 10	939	< 0.050
10/11/2017	FR_CC1	E102481	0.205	0.211	341	3.3	0.016	0.018	< 0.00010	< 0.00010	< 10	< 10	861	0.743
11/20/2017	FR_CC1	E102481	0.272	0.255	426	1.4	0.024	0.025	< 0.00010	< 0.00010	< 10	< 10	1210	< 0.050
12/6/2017	FR_CC1	E102481	0.265	0.257	434	1.5	0.028	0.024	< 0.00010	< 0.00010	< 10	< 10	1120	0.132
1/30/2017	FR_EC1	E102480												
2/28/2017	FR_EC1	E102480												
3/8/2017	FR_EC1	E102480												
3/16/2017	FR_EC1	E102480												
3/22/2017	FR_EC1	E102480	0.564	0.591	488	0.09	0.022	0.031	< 0.00010	< 0.00010	< 10	< 10	921	0.601
3/23/2017	FR_EC1	E102480												
3/27/2017	FR_EC1	E102480				1								
4/3/2017	FR_EC1	E102480	0.494	0.521	379	1.6	0.018	0.023	< 0.00010	< 0.00010	< 10	< 10	780	0.526
4/10/2017	FR_EC1	E102480				3.8								
4/19/2017	FR_EC1	E102480				5.5								
4/26/2017	FR_EC1	E102480				6.3								
5/1/2017	FR_EC1	E102480	0.47	0.49	1040	7.9	0.025	0.03	< 0.00010	< 0.00010	< 10	< 10	1970	0.69
5/3/2017	FR_EC1	E102480												
5/6/2017	FR_EC1	E102480												
5/10/2017	FR_EC1	E102480				10.6								
5/15/2017	FR_EC1	E102480				10.1								
5/23/2017	FR_EC1	E102480				13.4								
5/29/2017	FR_EC1	E102480				14.4								
6/5/2017	FR_EC1	E102480	0.487	0.487	1140	15.3	0.033	0.03	< 0.00010	< 0.00010	< 10	< 10	2340	0.503
6/13/2017	FR_EC1	E102480				16.1								
6/19/2017	FR_EC1	E102480				14								
6/26/2017	FR_EC1	E102480				17.1								
7/3/2017	FR_EC1	E102480	0.427	0.44	1400	18.7	0.036	0.038	< 0.00010	< 0.00010	< 10	< 10	2850	0.73
7/10/2017	FR_EC1	E102480				20.3								
8/7/2017	FR_EC1	E102480												
9/25/2017	FR_EC1	E102480												
10/31/2017	FR_EC1	E102480												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
11/28/2017	FR_EC1	E102480	0.274	0.28	1700	0	0.03	0.036	< 0.00020	< 0.00010	< 10	< 10	3020	0.478
12/31/2017	FR_EC1	E102480												
8/31/2017	FR_EC1H	E310047	0.253	0.27	1820	16.2	0.044	0.044	< 0.00020	< 0.00020	< 10	< 10	3070	0.689
9/25/2017	FR_EC1H	E310047	0.215	0.224	1930	7.5	0.036	0.036	< 0.00010	< 0.00010	< 10	< 10	3130	0.541
10/30/2017	FR_EC1H	E310047	0.238	0.237	1800	1.7	0.024	0.024	< 0.00020	< 0.00020	< 10	< 10	2840	< 0.050
11/23/2017	FR_EC1H	E310047	0.258	0.295	1730	0.6	0.032	0.04	< 0.00010	< 0.00020	< 10	< 10	3060	0.65
12/11/2017	FR_EC1H	E310047	0.325	0.318	1750	1.6	0.04	0.036	< 0.00020	< 0.00010	< 10	< 10	3090	< 0.050
1/17/2017	FR_FR1	200251												
2/28/2017	FR_FR1	200251												
3/8/2017	FR_FR1	200251												
3/14/2017	FR_FR1	200251												
3/22/2017	FR_FR1	200251												
3/27/2017	FR_FR1	200251	0.11	0.126	161	0.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	411	0.286
4/4/2017	FR_FR1	200251	0.145	0.138	189	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	446	0.385
4/11/2017	FR_FR1	200251				1.5								
4/18/2017	FR_FR1	200251				2.5								
4/26/2017	FR_FR1	200251				2.3								
5/1/2017	FR_FR1	200251	0.112	0.116	124	3.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	340	0.437
5/5/2017	FR_FR1	200251												
5/6/2017	FR_FR1	200251												
5/7/2017	FR_FR1	200251												
5/10/2017	FR_FR1	200251				2.1								
5/15/2017	FR_FR1	200251				2.8								
5/23/2017	FR_FR1	200251				3.5								
5/29/2017	FR_FR1	200251				3.9								
6/5/2017	FR_FR1	200251	0.0655	0.0682	27.1	5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	158	0.17
6/14/2017	FR_FR1	200251				4.7								
6/20/2017	FR_FR1	200251				7.7								
6/28/2017	FR_FR1	200251				6.1								
7/3/2017	FR_FR1	200251	0.077	0.0772	40.3	8.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	181	0.14
7/11/2017	FR_FR1	200251				9								
8/9/2017	FR_FR1	200251	0.108	0.112	95.4	11.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	291	0.198
8/28/2017	FR_FR1	200251	0.125	0.128	114	10.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	327	0.388
9/11/2017	FR_FR1	200251	0.137	0.126	131	10.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	361	0.336
10/11/2017	FR_FR1	200251	0.12	0.125	129	3.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	358	0.45
11/29/2017	FR_FR1	200251	0.135	0.125	144	1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	371	0.261
12/4/2017	FR_FR1	200251												
1/16/2017	FR_FR2	200201	0.173	0.178	213	0.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	591	0.226
2/1/2017	FR_FR2	200201	0.185	0.2	239	0.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	651	0.128
3/9/2017	FR_FR2	200201	0.178	0.187	262	0.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	721	0.082
3/15/2017	FR_FR2	200201	0.192	0.196	252	2.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	666	< 0.050
3/22/2017	FR_FR2	200201	0.184	0.212	247	3.5	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	623	0.591
3/29/2017	FR_FR2	200201	0.176	0.172	209	1.5	< 0.010	0.017	< 0.00010	< 0.00010	< 10	< 10	628	< 0.050
4/5/2017	FR_FR2	200201	0.201	0.171	237	2.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	643	0.515
4/5/2017	FR_FR2	200201	0.19	0.178	240		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	654	< 0.050
4/12/2017	FR_FR2	200201	0.168	0.163	239	2.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	668	0.364
4/20/2017	FR_FR2	200201	0.137	0.153	181	2.1	< 0.010	0.111	< 0.00010	< 0.00010	< 10	16	475	0.828

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
4/25/2017	FR_FR2	200201	0.138	0.129	166	2.2	< 0.010	0.03	< 0.00010	< 0.00010	< 10	< 10	462	0.942
5/2/2017	FR_FR2	200201	0.156	0.16	216	5.2	< 0.010	0.016	< 0.00010	< 0.00010	< 10	< 10	604	0.217
5/8/2017	FR_FR2	200201	0.109	0.111	108	2.5	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	317	0.438
5/16/2017	FR_FR2	200201	0.0996	0.0944	97.2	3.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	320	1.24
5/23/2017	FR_FR2	200201	0.0838	0.0868	60.2	5.1	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	255	0.597
5/30/2017	FR_FR2	200201	0.0719	0.0788	46.1	4.6	< 0.010	0.024	< 0.00010	< 0.00010	< 10	< 10	214	0.265
6/6/2017	FR_FR2	200201	0.0747	0.0776	51.5	4.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	239	0.098
6/6/2017	FR_FR2	200201	0.0778	0.0751	51.8		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	218	0.163
6/13/2017	FR_FR2	200201	0.0821	0.0837	62.3	6.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	241	0.18
6/20/2017	FR_FR2	200201	0.0897	0.0894	73.5	7.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	288	0.48
6/26/2017	FR_FR2	200201	0.0917	0.0949	79.1	7.6	< 0.010	< 0.010	0.00014	< 0.00010	< 10	< 10	283	0.147
7/5/2017	FR_FR2	200201	0.103	0.105	96	9.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	318	0.474
7/5/2017	FR_FR2	200201	0.102	0.104	95.8		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	316	0.472
7/11/2017	FR_FR2	200201	0.107	0.107	108	11.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	328	0.13
7/17/2017	FR_FR2	200201												
8/10/2017	FR_FR2	200201	0.148	0.148	186	13.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	516	0.344
8/28/2017	FR_FR2	200201	0.165	0.176	202	13.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	552	0.53
9/6/2017	FR_FR2	200201	0.177	0.173	220	12.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	628	0.42
9/20/2017	FR_FR2	200201												
10/4/2017	FR_FR2	200201	0.177	0.186	238	8.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	600	0.631
10/19/2017	FR_FR2	200201	0.161	0.167	225	6.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	613	0.54
10/31/2017	FR_FR2	200201	0.186	0.179	227		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	647	0.1
11/1/2017	FR_FR2	200201	0.162	0.172	226	3.6	< 0.050	< 0.010	< 0.00050	< 0.00010	< 10	< 10	643	0.052
11/2/2017	FR_FR2	200201	0.175	0.167	231	1.9	< 0.010	< 0.050	< 0.00010	< 0.00050	< 10	< 10	631	< 0.050
11/16/2017	FR_FR2	200201												
12/5/2017	FR_FR2	200201	0.179	0.173	241	1.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	629	0.301
1/19/2017	FR_FRCP1	E300071												
2/21/2017	FR_FRCP1	E300071	0.191	0.197	531	0.3	0.013	0.012	< 0.00010	< 0.00010	< 10	< 10	1140	< 0.050
2/28/2017	FR_FRCP1	E300071	0.185	0.199	565	-0.1	0.012	0.013	< 0.00010	< 0.00010	< 10	< 10	1140	0.088
3/7/2017	FR_FRCP1	E300071	0.229	0.227	1030	-0.1	0.02	0.026	< 0.00010	< 0.00010	< 10	< 10	1840	0.695
3/14/2017	FR_FRCP1	E300071	0.192	0.17	593	0.2	0.013	0.012	< 0.00010	< 0.00010	< 10	< 10	1200	< 0.050
3/21/2017	FR_FRCP1	E300071	0.185	0.205	381	0.3	0.01	0.014	< 0.00010	< 0.00010	< 10	< 10	837	0.561
3/28/2017	FR_FRCP1	E300071	0.163	0.162	368	1.9	< 0.010	0.013	< 0.00010	< 0.00010	< 10	< 10	793	0.14
4/5/2017	FR_FRCP1	E300071	0.183	0.17	360	2.6	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	791	0.481
4/10/2017	FR_FRCP1	E300071	0.184	0.172	320	4.1	< 0.010	0.019	< 0.00010	< 0.00010	< 10	< 10	763	0.354
4/20/2017	FR_FRCP1	E300071	0.138	0.133	225	3.5	< 0.010	0.057	0.0002	< 0.00010	< 10	11	569	0.816
4/24/2017	FR_FRCP1	E300071	0.132	0.13	205	4.3	0.011	0.03	< 0.00010	< 0.00010	< 10	< 10	496	0.67
5/2/2017	FR_FRCP1	E300071	0.157	0.158	276	4.7	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	693	0.481
5/9/2017	FR_FRCP1	E300071	0.11	0.11	132	3.9	< 0.010	0.016	< 0.00010	< 0.00010	< 10	< 10	355	0.322
5/16/2017	FR_FRCP1	E300071	0.11	0.103	147	4.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	437	0.531
5/23/2017	FR_FRCP1	E300071	0.0906	0.0995	98	4.4	< 0.010	0.019	< 0.00010	< 0.00010	< 10	< 10	330	1
5/30/2017	FR_FRCP1	E300071	0.0843	0.0892	87.3	6.2	0.01	0.029	< 0.00010	< 0.00010	< 10	< 10	338	0.594
6/6/2017	FR_FRCP1	E300071	0.0829	0.0833	89.7	5.7	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	349	0.368
6/13/2017	FR_FRCP1	E300071	0.0887	0.0888	99.3	6.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	345	0.568
6/20/2017	FR_FRCP1	E300071	0.0961	0.0957	112	7.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	408	0.611
6/26/2017	FR_FRCP1	E300071	0.0978	0.0979	122	6.8	< 0.010	< 0.010	0.00013	< 0.00010	< 10	< 10	393	0.146
7/5/2017	FR_FRCP1	E300071	0.113	0.108	157	12.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	469	0.458

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
7/11/2017	FR_FRCP1	E300071	0.114	0.114	172	10.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	451	0.136
7/25/2017	FR_FRCP1	E300071	0.129	0.13	260	9.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	587	0.85
8/1/2017	FR_FRCP1	E300071	0.163	0.153	346	13.6	0.011	0.012	< 0.00010	< 0.00010	< 10	< 10	824	0.326
8/8/2017	FR_FRCP1	E300071	0.158	0.158	380	13.3	0.013	0.011	< 0.00010	< 0.00010	< 10	< 10	887	0.237
8/15/2017	FR_FRCP1	E300071	0.149	0.156	376	7.7	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	870	0.253
8/22/2017	FR_FRCP1	E300071	0.159	0.16	432	10.9	< 0.020	0.012	< 0.00020	< 0.00010	< 10	< 10	918	0.75
9/11/2017	FR_FRCP1	E300071	0.198	0.184	526	7.7	0.013	0.017	< 0.00010	< 0.00010	< 10	< 10	1040	0.414
10/2/2017	FR_FRCP1	E300071	0.171	0.172	510	3.4	0.012	0.012	< 0.00010	< 0.00010	< 10	< 10	980	0.573
10/10/2017	FR_FRCP1	E300071	0.176	0.171	496	3.4	0.011	0.015	< 0.00010	< 0.00010	< 10	< 10	1060	0.595
10/17/2017	FR_FRCP1	E300071	0.169	0.176	559	6.7	0.012	0.013	< 0.00010	< 0.00010	< 10	< 10	1140	0.35
10/24/2017	FR_FRCP1	E300071	0.175	0.173	486	2.9	0.011	0.011	< 0.00010	< 0.00010	< 10	< 10	1030	0.281
10/31/2017	FR_FRCP1	E300071	0.192	0.191	523	0.6	0.011	0.011	< 0.00010	< 0.00010	< 10	< 10	1080	0.083
11/15/2017	FR_FRCP1	E300071	0.186	0.202	574	0	0.012	0.012	< 0.00010	< 0.00010	< 10	< 10	1090	0.42
12/5/2017	FR_FRCP1	E300071	0.194	0.186	646	0	0.015	0.014	< 0.00010	< 0.00010	< 10	< 10	1230	0.37
12/6/2017	FR_FRCP1	E300071	0.187	0.193	670	0	0.015	0.014	< 0.00010	< 0.00010	< 10	< 10	1230	0.187
12/12/2017	FR_FRCP1	E300071	0.198	0.195	865	0	0.02	0.019	< 0.00010	< 0.00010	< 10	< 10	1670	< 0.10
12/28/2017	FR_FRCP1	E300071	0.226	0.225	731	0	0.02	0.017	< 0.00010	< 0.00010	< 10	< 10	1540	< 0.050
1/19/2017	FR_FRRD	E300097	0.168	0.173	290	5.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	793	< 0.050
2/22/2017	FR_FRRD	E300097	0.168	0.174	301	3.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	852	< 0.050
3/15/2017	FR_FRRD	E300097	0.174	0.183	306	5.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	839	< 0.050
4/25/2017	FR_FRRD	E300097	0.141	0.139	231	3.8	< 0.010	0.045	< 0.00010	< 0.00010	< 10	< 10	597	0.637
5/3/2017	FR_FRRD	E300097	0.154	0.164	278	4.8	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	765	0.397
5/3/2017	FR_FRRD	E300097	0.156	0.156	286		0.015	< 0.010	< 0.00010	< 0.00010	< 10	< 10	757	< 0.050
5/18/2017	FR_FRRD	E300097	0.115	0.12	181	3.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	504	0.326
6/13/2017	FR_FRRD	E300097	0.0951	0.0968	125	6.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	411	0.676
7/13/2017	FR_FRRD	E300097	0.119	0.121	190	8.6	0.016	< 0.010	< 0.00010	< 0.00010	< 10	< 10	567	0.295
7/13/2017	FR_FRRD	E300097	0.113	0.115	198	8.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	539	0.209
8/10/2017	FR_FRRD	E300097	0.149	0.149	304	8.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	817	0.053
9/13/2017	FR_FRRD	E300097	0.16	0.165	274	7.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	820	0.466
10/18/2017	FR_FRRD	E300097	0.207	0.197	483	2.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1050	0.49
11/6/2017	FR_FRRD	E300097	0.162	0.185	394	2.1	< 0.050	< 0.010	< 0.00050	< 0.00010	< 10	< 10	976	< 0.050
12/5/2017	FR_FRRD	E300097	0.183	0.186	315	3.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	838	0.28
1/9/2017	FR_HC1	E216778	0.146	0.149	155	0.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	408	0.417
2/14/2017	FR_HC1	E216778	0.144	0.152	183	0.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	436	< 0.050
3/7/2017	FR_HC1	E216778	0.161	0.168	193	0.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	440	0.459
3/14/2017	FR_HC1	E216778	0.15	0.142	197	0.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	457	1.06
3/22/2017	FR_HC1	E216778	0.153	0.167	224	1.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	480	0.357
3/28/2017	FR_HC1	E216778	0.143	0.138	223	1.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	483	0.327
4/4/2017	FR_HC1	E216778	0.155	0.138	222	1.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	504	0.44
4/11/2017	FR_HC1	E216778	0.153	0.135	234	1.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	572	0.548
4/18/2017	FR_HC1	E216778	0.163	0.165	242	2.8	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	581	0.585
4/26/2017	FR_HC1	E216778	0.151	0.153	204	2.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	550	0.208
5/1/2017	FR_HC1	E216778	0.15	0.145	237	3.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	570	0.544
5/5/2017	FR_HC1	E216778												
5/6/2017	FR_HC1	E216778												
5/7/2017	FR_HC1	E216778												
5/9/2017	FR_HC1	E216778	0.115	0.116	101	2.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	286	0.22

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
5/15/2017	FR_HC1	E216778	0.092	0.0932	71.4	2.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	241	0.135
5/23/2017	FR_HC1	E216778	0.0791	0.0663	38.4	3.4	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	186	0.145
5/29/2017	FR_HC1	E216778	0.0688	0.0726	31.4	3.5	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	155	0.178
6/5/2017	FR_HC1	E216778	0.069	0.071	36.3	4.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	186	0.22
6/14/2017	FR_HC1	E216778	0.0638	0.0677	28.6	4.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	147	0.256
6/20/2017	FR_HC1	E216778	0.0766	0.0775	46.2	6.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	192	0.084
6/27/2017	FR_HC1	E216778	0.0741	0.0762	42.1	6.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	187	0.061
7/3/2017	FR_HC1	E216778	0.0767	0.0787	45.7	6.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	179	0.114
7/11/2017	FR_HC1	E216778	0.0846	0.0871	57.8	7.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	196	0.055
8/8/2017	FR_HC1	E216778	0.115	0.112	110	8.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	323	0.145
9/5/2017	FR_HC1	E216778	0.124	0.13	152	9.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	388	0.255
10/11/2017	FR_HC1	E216778	0.132	0.13	155	4.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	412	0.651
10/30/2017	FR_HC1	E216778												
11/7/2017	FR_HC1	E216778	0.146	0.14	165	1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	413	0.433
11/14/2017	FR_HC1	E216778												
12/6/2017	FR_HC1	E216778	0.148	0.139	181	0.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	438	0.225
1/17/2017	FR_HC3	E300096	0.162	0.159	80.1	0.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	217	< 0.050
2/14/2017	FR_HC3	E300096	0.161	0.168	82.9	0.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	232	< 0.050
3/1/2017	FR_HC3	E300096	0.172	0.173	86.6	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	213	0.085
3/16/2017	FR_HC3	E300096				0.8								
3/23/2017	FR_HC3	E300096				1.1								
3/27/2017	FR_HC3	E300096				1								
4/4/2017	FR_HC3	E300096	0.166	0.15	85	0.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	226	< 0.050
4/4/2017	FR_HC3	E300096	0.182	0.18	85.8		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	247	0.058
4/11/2017	FR_HC3	E300096				1.1								
4/18/2017	FR_HC3	E300096				2.5								
4/26/2017	FR_HC3	E300096				1.7								
5/1/2017	FR_HC3	E300096	0.153	0.145	71.6	2.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	217	< 0.050
5/1/2017	FR_HC3	E300096	0.153	0.162	69.5		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	220	< 0.050
5/10/2017	FR_HC3	E300096				4.1								
5/15/2017	FR_HC3	E300096				2.5								
5/24/2017	FR_HC3	E300096				2.3								
5/29/2017	FR_HC3	E300096				3.2								
6/5/2017	FR_HC3	E300096	0.0603	0.0614	11.9	3.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	110	0.071
6/5/2017	FR_HC3	E300096	0.0628	0.0609	12.6		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	116	0.057
6/14/2017	FR_HC3	E300096				3.5								
6/21/2017	FR_HC3	E300096				4.4								
6/27/2017	FR_HC3	E300096				6								
7/3/2017	FR_HC3	E300096	0.0689	0.0716	17.5		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	116	0.064
7/3/2017	FR_HC3	E300096	0.0681	0.0707	17.5	6.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	128	0.097
7/11/2017	FR_HC3	E300096				5.9								
8/9/2017	FR_HC3	E300096	0.123	0.126	48.2	8.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	179	< 0.050
9/5/2017	FR_HC3	E300096	0.143	0.145	64.4	8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	201	< 0.050
10/11/2017	FR_HC3	E300096	0.152	0.154	71.7	2.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	220	0.064
11/14/2017	FR_HC3	E300096	0.175	0.168	78.5	1.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	219	< 0.050
12/21/2017	FR_HC3	E300096	0.162	0.164	81.5	0.1	< 0.010	< 0.010	0.00016	< 0.00010	< 10	< 10	237	< 0.050
1/31/2017	FR_HP1	E216781												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
2/28/2017	FR_HP1	E216781												
3/8/2017	FR_HP1	E216781												
3/15/2017	FR_HP1	E216781												
3/22/2017	FR_HP1	E216781												
3/31/2017	FR_HP1	E216781												
4/3/2017	FR_HP1	E216781												
4/10/2017	FR_HP1	E216781												
4/17/2017	FR_HP1	E216781												
4/24/2017	FR_HP1	E216781												
5/1/2017	FR_HP1	E216781												
5/8/2017	FR_HP1	E216781												
5/15/2017	FR_HP1	E216781												
5/22/2017	FR_HP1	E216781												
5/29/2017	FR_HP1	E216781												
6/5/2017	FR_HP1	E216781												
6/15/2017	FR_HP1	E216781												
6/22/2017	FR_HP1	E216781												
6/29/2017	FR_HP1	E216781												
7/3/2017	FR_HP1	E216781												
7/10/2017	FR_HP1	E216781												
8/7/2017	FR_HP1	E216781												
9/4/2017	FR_HP1	E216781												
10/2/2017	FR_HP1	E216781												
11/6/2017	FR_HP1	E216781												
12/4/2017	FR_HP1	E216781												
1/19/2017	FR_KC1	200252	0.239	0.238	525	3.2	0.027	0.027	< 0.00010	< 0.00010	< 10	< 10	1430	< 0.050
2/1/2017	FR_KC1	200252	0.262	0.253	549	1.4	0.025	0.025	< 0.00010	< 0.00010	< 10	< 10	1580	< 0.050
3/6/2017	FR_KC1	200252	0.272	0.289	601	3.3	0.032	0.032	< 0.00010	< 0.00010	< 10	< 10	1550	< 0.050
3/15/2017	FR_KC1	200252				3.6								
3/22/2017	FR_KC1	200252				6.2								
3/29/2017	FR_KC1	200252				3								
4/5/2017	FR_KC1	200252	0.28	0.258	637	4.3	0.027	0.024	< 0.00010	< 0.00010	< 10	< 10	1630	< 0.050
4/12/2017	FR_KC1	200252				3.3								
4/20/2017	FR_KC1	200252				4.6								
4/25/2017	FR_KC1	200252				5.5								
5/2/2017	FR_KC1	200252	0.264	0.262	613	3.6	0.027	0.026	< 0.00010	< 0.00010	< 10	< 10	1760	0.263
5/7/2017	FR_KC1	200252												
5/8/2017	FR_KC1	200252				4								
5/16/2017	FR_KC1	200252				2.8								
5/23/2017	FR_KC1	200252				2.7								
5/30/2017	FR_KC1	200252				3.2								
6/6/2017	FR_KC1	200252	0.0878	0.091	138	3.3	0.021	0.022	< 0.00010	< 0.00010	< 10	< 10	607	0.478
6/13/2017	FR_KC1	200252				3.9								
6/19/2017	FR_KC1	200252				3.8								
6/26/2017	FR_KC1	200252				3.9								
7/5/2017	FR_KC1	200252	0.14	0.138	208	5.1	0.023	0.023	< 0.00010	< 0.00010	< 10	< 10	723	0.431
7/10/2017	FR_KC1	200252				4.7								

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
8/8/2017	FR_KC1	200252	0.176	0.187	305	7.3	0.029	0.029	< 0.00010	< 0.00010	< 10	< 10	1070	< 0.050
9/6/2017	FR_KC1	200252	0.218	0.22	394	7.7	0.029	0.033	< 0.00010	< 0.00010	< 10	< 10	1330	0.429
9/20/2017	FR_KC1	200252												
10/4/2017	FR_KC1	200252	0.238	0.242	507	7.2	0.035	0.035	< 0.00010	< 0.00010	< 10	< 10	1580	0.763
10/19/2017	FR_KC1	200252	0.248	0.248	535	5.6	0.032	0.035	< 0.00010	< 0.00010	< 10	< 10	1580	0.37
11/1/2017	FR_KC1	200252	0.259	0.255	540	4.5	0.025	0.034	< 0.00010	< 0.00010	< 10	< 10	1680	< 0.050
11/16/2017	FR_KC1	200252												
12/12/2017	FR_KC1	200252	0.3	0.259	623	2.8	0.034	0.03	< 0.00010	< 0.00010	< 10	< 10	1750	< 0.050
1/10/2017	FR_LMP1	E306924	0.118	0.118	65	0.6	0.022	0.022	< 0.00010	< 0.00010	< 10	< 10	283	0.076
1/10/2017	FR_LMP1	E306924		0.116	70	0.6		0.021		< 0.00010		< 10	281	0.161
1/11/2017	FR_LMP1	E306924	0.11	0.115	72.4	0.6	0.019	0.02	< 0.00010	< 0.00010	< 10	< 10	281	0.183
1/12/2017	FR_LMP1	E306924	0.112	0.115	71.5	0.4	0.018	0.02	< 0.00010	< 0.00010	< 10	< 10	290	0.22
1/13/2017	FR_LMP1	E306924	0.111	0.119	66.7	0.3	0.021	0.02	0.00015	< 0.00010	< 10	< 10	280	0.128
1/14/2017	FR_LMP1	E306924	0.113	0.117	61.6	0.6	0.023	0.022	< 0.00010	< 0.00010	< 10	< 10	278	0.163
1/15/2017	FR_LMP1	E306924	0.123	0.125	64.8	0.9	0.023	0.026	< 0.00010	< 0.00010	< 10	< 10	289	0.176
1/16/2017	FR_LMP1	E306924	0.142	0.145	75.9	1.1	0.029	0.03	< 0.00010	< 0.00010	< 10	< 10	300	0.231
1/17/2017	FR_LMP1	E306924	0.16	0.163	81	1.2	0.042	0.039	< 0.00010	< 0.00010	< 10	< 10	321	0.196
1/24/2017	FR_LMP1	E306924	0.178	0.176	127	1.9	0.038	0.039	< 0.00010	< 0.00010	< 10	< 10	378	0.093
2/15/2017	FR_LMP1	E306924	0.129	0.133	116	0.6	0.021	0.021	< 0.00010	< 0.00010	< 10	< 10	381	0.091
3/2/2017	FR_LMP1	E306924	0.117	0.13	106	0.3	0.016	0.02	< 0.00010	< 0.00010	< 10	< 10	353	0.17
3/14/2017	FR_LMP1	E306924				0.7								
3/18/2017	FR_LMP1	E306924												
3/19/2017	FR_LMP1	E306924												
3/22/2017	FR_LMP1	E306924				1.1								
3/27/2017	FR_LMP1	E306924				1.6								
4/3/2017	FR_LMP1	E306924	0.0828	0.0788	70.6	1.7	0.014	0.038	< 0.00010	< 0.00010	< 10	< 10	280	0.224
4/3/2017	FR_LMP1	E306924	0.0898	0.088	69.9		0.015	0.044	< 0.00010	< 0.00010	< 10	< 10	314	0.318
4/8/2017	FR_LMP1	E306924												
4/8/2017	FR_LMP1	E306924												
4/9/2017	FR_LMP1	E306924												
4/10/2017	FR_LMP1	E306924				1.6								
4/11/2017	FR_LMP1	E306924												
4/14/2017	FR_LMP1	E306924												
4/17/2017	FR_LMP1	E306924												
4/18/2017	FR_LMP1	E306924				2.8								
4/19/2017	FR_LMP1	E306924	0.0607	0.0723	54.6	2.6	0.016	0.213	< 0.00010	0.00015	< 10	118	314	0.658
4/19/2017	FR_LMP1	E306924												
4/20/2017	FR_LMP1	E306924												
4/20/2017	FR_LMP1	E306924	0.0545	0.0819	47.4		0.014	0.314	< 0.00010	0.00017	< 10	69	372	1.23
4/20/2017	FR_LMP1	E306924												
4/21/2017	FR_LMP1	E306924												
4/21/2017	FR_LMP1	E306924	0.0555	0.0593	48.5	2.2	0.014	0.204	< 0.00010	< 0.00010	< 10	38	243	0.776
4/21/2017	FR_LMP1	E306924												
4/22/2017	FR_LMP1	E306924												
4/22/2017	FR_LMP1	E306924												
4/23/2017	FR_LMP1	E306924	0.065	0.0684	57.2	3.4	0.019	0.109	< 0.00010	< 0.00010	< 10	21	229	0.429
4/25/2017	FR_LMP1	E306924				2.1								

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
4/27/2017	FR_LMP1	E306924	0.0705	0.0788	62.9	3.1	0.018	0.088	< 0.00010	< 0.00010	< 10	22	266	0.32
4/27/2017	FR_LMP1	E306924												
5/1/2017	FR_LMP1	E306924	0.0697	0.0685	69.9	4.2	0.015	0.059	< 0.00010	< 0.00010	< 10	10	281	0.306
5/1/2017	FR_LMP1	E306924	0.0736	0.0761	66.4		0.018	0.069	< 0.00010	< 0.00010	< 10	< 12	314	0.209
5/2/2017	FR_LMP1	E306924												
5/3/2017	FR_LMP1	E306924												
5/4/2017	FR_LMP1	E306924												
5/5/2017	FR_LMP1	E306924												
5/5/2017	FR_LMP1	E306924	0.0431	0.0472	35.5	3.2	0.015	0.187	< 0.00010	< 0.00010	< 10	26	210	0.685
5/5/2017	FR_LMP1	E306924												
5/5/2017	FR_LMP1	E306924												
5/6/2017	FR_LMP1	E306924												
5/6/2017	FR_LMP1	E306924	0.064	0.064	52.3		0.02	0.051	< 0.00010	< 0.00010	< 10	< 10	201	0.418
5/6/2017	FR_LMP1	E306924												
5/7/2017	FR_LMP1	E306924												
5/7/2017	FR_LMP1	E306924												
5/8/2017	FR_LMP1	E306924												
5/9/2017	FR_LMP1	E306924												
5/10/2017	FR_LMP1	E306924	0.0773	0.0796	53.4	4.3	0.027	0.049	< 0.00010	< 0.00010	< 10	< 10	206	0.361
5/15/2017	FR_LMP1	E306924				3.9								
5/23/2017	FR_LMP1	E306924				4.8								
5/29/2017	FR_LMP1	E306924				4.7								
6/5/2017	FR_LMP1	E306924	0.0542	0.0556	28.2	4.8	0.015	0.029	< 0.00010	< 0.00010	< 10	< 10	185	0.17
6/5/2017	FR_LMP1	E306924	0.0549	0.0548	29		0.017	0.034	< 0.00010	< 0.00010	< 10	< 10	186	0.181
6/15/2017	FR_LMP1	E306924				5.5								
6/20/2017	FR_LMP1	E306924				8.6								
6/26/2017	FR_LMP1	E306924				9.7								
7/3/2017	FR_LMP1	E306924	0.07	0.0721	47.4	12.6	0.014	0.018	< 0.00010	< 0.00010	< 10	< 10	247	0.15
7/3/2017	FR_LMP1	E306924	0.0706	0.0706	47.3		0.015	0.018	< 0.00010	< 0.00010	< 10	< 10	233	0.194
7/10/2017	FR_LMP1	E306924				13.6								
8/8/2017	FR_LMP1	E306924	0.0916	0.0879	78.4	14.2	0.02	0.018	< 0.00010	< 0.00010	< 10	< 10	336	0.233
9/4/2017	FR_LMP1	E306924												
10/2/2017	FR_LMP1	E306924												
11/20/2017	FR_LMP1	E306924	0.102	0.0981	99.6	0.4	0.012	0.013	< 0.00010	< 0.00010	< 10	< 10	438	0.303
12/11/2017	FR_LMP1	E306924	0.0895	0.0825	101	0.2	0.011	0.014	< 0.00010	< 0.00010	< 10	< 10	374	0.357
12/14/2017	FR_LMP1	E306924												
1/11/2017	FR_LP1	E304835												
1/11/2017	FR_LP1	E304835												
1/12/2017	FR_LP1	E304835												
1/16/2017	FR_LP1	E304835	0.141	0.146	506	-0.1	0.019	0.022	< 0.00010	< 0.00010	< 10	< 10	1040	0.343
2/16/2017	FR_LP1	E304835	0.114	0.111	404	0.5	0.031	0.053	< 0.000050	< 0.00010	< 1.0	< 10	822	0.342
3/2/2017	FR_LP1	E304835	0.134	0.14	501	0.2	0.017	0.021	< 0.00010	< 0.00010	< 10	< 10	1010	0.26
3/9/2017	FR_LP1	E304835												
3/14/2017	FR_LP1	E304835	0.141	0.118	518	0.7	0.018	0.017	< 0.00010	< 0.00010	< 10	< 10	1060	0.606
3/18/2017	FR_LP1	E304835												
3/19/2017	FR_LP1	E304835												
3/20/2017	FR_LP1	E304835				0.5								

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
3/29/2017	FR_LP1	E304835				2.2								
4/3/2017	FR_LP1	E304835	0.12	0.111	412	3.4	0.022	0.051	< 0.00010	< 0.00010	< 10	< 10	930	0.629
4/3/2017	FR_LP1	E304835	0.124	0.125	417		0.026	0.026	< 0.00010	< 0.00010	< 10	< 10	895	0.402
4/10/2017	FR_LP1	E304835				6								
4/19/2017	FR_LP1	E304835				8.4								
4/26/2017	FR_LP1	E304835				7.7								
5/1/2017	FR_LP1	E304835	0.121	0.12	484	8.9	0.017	0.019	< 0.00010	< 0.00010	< 10	< 10	975	0.443
5/1/2017	FR_LP1	E304835	0.126	0.134	490		0.02	0.021	< 0.00010	< 0.00010	< 10	< 10	982	0.235
5/7/2017	FR_LP1	E304835												
5/10/2017	FR_LP1	E304835				11.5								
5/15/2017	FR_LP1	E304835				10.9								
5/23/2017	FR_LP1	E304835				13.2								
5/29/2017	FR_LP1	E304835				14.1								
6/5/2017	FR_LP1	E304835	0.0862	0.0867	257	12.6	0.016	0.017	< 0.00010	< 0.00010	< 10	< 10	657	0.326
6/5/2017	FR_LP1	E304835	0.0875	0.0859	278		0.016	0.017	< 0.00010	< 0.00010	< 10	< 10	661	0.243
6/13/2017	FR_LP1	E304835				13.8								
6/19/2017	FR_LP1	E304835				11.4								
6/26/2017	FR_LP1	E304835												
7/3/2017	FR_LP1	E304835												
7/10/2017	FR_LP1	E304835												
8/7/2017	FR_LP1	E304835												
9/25/2017	FR_LP1	E304835	0.172	0.172	745	6.9	0.03	0.032	< 0.00010	< 0.00010	< 10	< 10	1330	0.389
10/2/2017	FR_LP1	E304835												
11/20/2017	FR_LP1	E304835	0.201	0.193	674	1.3	0.027	0.027	< 0.00010	< 0.00010	< 10	< 10	1360	0.498
12/11/2017	FR_LP1	E304835	0.187	0.181	740	0.2	0.028	0.029	< 0.00010	< 0.00010	< 10	< 10	1380	0.693
12/14/2017	FR_LP1	E304835												
12/18/2017	FR_LP1	E304835	0.184	0.189	751	2.5	0.03	0.044	< 0.00010	< 0.00010	< 10	< 10	1390	0.902
12/19/2017	FR_LP1	E304835	0.217	0.228	594	3	0.032	0.034	< 0.00010	< 0.00010	< 10	< 10	1260	0.376
12/20/2017	FR_LP1	E304835	0.283	0.272	521	3	0.042	0.041	< 0.00010	< 0.00010	< 10	< 10	1220	0.539
12/21/2017	FR_LP1	E304835	0.282	0.29	455		0.042	0.045	< 0.00010	< 0.00010	< 10	< 10	1110	0.388
7/26/2017	FR_LP1H	E310052	0.149	0.141	608	19	0.02	0.023	< 0.00010	< 0.00010	< 10	< 10	1190	0.307
8/28/2017	FR_LP1H	E310052	0.168	0.174	713	15.7	0.036	0.037	< 0.00010	< 0.00010	< 10	< 10	1250	0.594
10/30/2017	FR_LP1H	E310052	0.17	0.167	748	2.6	0.025	0.029	< 0.00010	< 0.00010	< 10	< 10	1360	0.233
1/31/2017	FR_MS1	E102478												
2/28/2017	FR_MS1	E102478												
3/7/2017	FR_MS1	E102478												
3/16/2017	FR_MS1	E102478												
3/23/2017	FR_MS1	E102478												
3/31/2017	FR_MS1	E102478												
4/4/2017	FR_MS1	E102478												
4/10/2017	FR_MS1	E102478												
4/17/2017	FR_MS1	E102478												
4/24/2017	FR_MS1	E102478												
5/1/2017	FR_MS1	E102478												
5/8/2017	FR_MS1	E102478												
5/15/2017	FR_MS1	E102478												
5/25/2017	FR_MS1	E102478												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
5/29/2017	FR_MS1	E102478												
6/5/2017	FR_MS1	E102478												
6/16/2017	FR_MS1	E102478												
6/22/2017	FR_MS1	E102478												
6/27/2017	FR_MS1	E102478												
7/3/2017	FR_MS1	E102478												
7/10/2017	FR_MS1	E102478												
8/7/2017	FR_MS1	E102478												
9/4/2017	FR_MS1	E102478												
10/2/2017	FR_MS1	E102478												
11/6/2017	FR_MS1	E102478												
12/4/2017	FR_MS1	E102478												
1/31/2017	FR_NL1	E102476												
2/28/2017	FR_NL1	E102476												
3/7/2017	FR_NL1	E102476												
3/11/2017	FR_NL1	E102476												
3/21/2017	FR_NL1	E102476												
3/28/2017	FR_NL1	E102476	0.127	0.128	70.9	0.9	< 0.010	0.021	< 0.00010	< 0.00010	< 10	< 10	368	0.258
4/4/2017	FR_NL1	E102476	0.143	0.132	71.7	3.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	430	0.226
4/11/2017	FR_NL1	E102476				4.4								
4/18/2017	FR_NL1	E102476												
4/25/2017	FR_NL1	E102476												
5/1/2017	FR_NL1	E102476												
5/8/2017	FR_NL1	E102476												
5/17/2017	FR_NL1	E102476												
5/25/2017	FR_NL1	E102476												
5/29/2017	FR_NL1	E102476												
6/5/2017	FR_NL1	E102476												
6/16/2017	FR_NL1	E102476												
6/22/2017	FR_NL1	E102476												
6/26/2017	FR_NL1	E102476												
7/3/2017	FR_NL1	E102476												
7/10/2017	FR_NL1	E102476												
8/7/2017	FR_NL1	E102476												
9/4/2017	FR_NL1	E102476												
10/2/2017	FR_NL1	E102476												
11/27/2017	FR_NL1	E102476	0.258	0.22	272	3.5	0.023	0.027	< 0.00010	< 0.00010	< 10	< 10	645	0.849
12/4/2017	FR_NL1	E102476	0.231	0.206	220	2.7	0.011	0.01	< 0.00010	< 0.00010	< 10	< 10	567	0.415
7/26/2017	FR_NL1H	E310046	0.232	0.223	167	19.5	0.014	0.015	< 0.00010	< 0.00010	< 10	< 10	434	0.875
8/28/2017	FR_NL1H	E310046	0.202	0.208	141	16	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	370	0.42
9/25/2017	FR_NL1H	E310046	0.184	0.183	137	8.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	412	0.266
10/23/2017	FR_NL1H	E310046	0.237	0.233	142	3.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	381	0.325
9/4/2017	FR_PP1	E304750												
1/31/2017	FR_SKP1	E208394												
2/28/2017	FR_SKP1	E208394												
3/6/2017	FR_SKP1	E208394												
3/15/2017	FR_SKP1	E208394												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
3/21/2017	FR_SKP1	E208394												
3/28/2017	FR_SKP1	E208394												
4/3/2017	FR_SKP1	E208394												
4/10/2017	FR_SKP1	E208394												
4/17/2017	FR_SKP1	E208394												
4/24/2017	FR_SKP1	E208394												
5/1/2017	FR_SKP1	E208394												
5/9/2017	FR_SKP1	E208394												
5/17/2017	FR_SKP1	E208394												
5/23/2017	FR_SKP1	E208394												
5/31/2017	FR_SKP1	E208394												
6/5/2017	FR_SKP1	E208394												
6/16/2017	FR_SKP1	E208394												
6/19/2017	FR_SKP1	E208394												
6/27/2017	FR_SKP1	E208394												
7/3/2017	FR_SKP1	E208394												
7/10/2017	FR_SKP1	E208394												
8/7/2017	FR_SKP1	E208394												
9/4/2017	FR_SKP1	E208394												
10/2/2017	FR_SKP1	E208394												
11/6/2017	FR_SKP1	E208394												
12/4/2017	FR_SKP1	E208394												
7/26/2017	FR_SKP1H	E310049	0.137	0.132	248	20.6	0.022	0.023	< 0.00010	< 0.00010	< 10	< 10	754	0.127
8/28/2017	FR_SKP1H	E310049	0.158	0.199	322	18.1	0.024	0.029	< 0.00010	< 0.00010	< 10	< 10	956	1.01
9/25/2017	FR_SKP1H	E310049	0.189	0.2	415	8	0.027	0.03	< 0.00010	< 0.00010	< 10	< 10	1210	0.674
10/23/2017	FR_SKP1H	E310049	0.222	0.225	432	2.5	0.027	0.027	< 0.00010	< 0.00010	< 10	< 10	1280	0.511
11/22/2017	FR_SKP1H	E310049	0.241	0.266	520	2.6	0.025	0.031	< 0.00010	< 0.00010	< 10	< 10	1450	0.676
12/12/2017	FR_SKP1H	E310049	0.291	0.254	572	1.4	0.03	0.033	< 0.00010	< 0.00010	< 10	< 10	1620	< 0.050
1/31/2017	FR_SKP2	E208395												
2/28/2017	FR_SKP2	E208395												
3/6/2017	FR_SKP2	E208395												
3/15/2017	FR_SKP2	E208395												
3/21/2017	FR_SKP2	E208395												
3/28/2017	FR_SKP2	E208395												
4/3/2017	FR_SKP2	E208395												
4/10/2017	FR_SKP2	E208395												
4/17/2017	FR_SKP2	E208395												
4/24/2017	FR_SKP2	E208395												
5/2/2017	FR_SKP2	E208395												
5/9/2017	FR_SKP2	E208395												
5/16/2017	FR_SKP2	E208395												
5/23/2017	FR_SKP2	E208395												
5/30/2017	FR_SKP2	E208395	0.113	0.119	224	4.3	0.019	0.02	< 0.00010	< 0.00010	< 10	< 10	798	0.486
6/6/2017	FR_SKP2	E208395	0.0945	0.0973	151	3.6	0.018	0.018	< 0.00010	< 0.00010	< 10	< 10	617	0.465
6/13/2017	FR_SKP2	E208395				5.8								
6/19/2017	FR_SKP2	E208395				5.7								
6/27/2017	FR_SKP2	E208395												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
7/3/2017	FR_SKP2	E208395												
7/10/2017	FR_SKP2	E208395												
8/7/2017	FR_SKP2	E208395												
9/4/2017	FR_SKP2	E208395												
10/2/2017	FR_SKP2	E208395												
11/6/2017	FR_SKP2	E208395												
12/4/2017	FR_SKP2	E208395												
7/26/2017	FR_SKP2H	E310050	0.152	0.146	257	12.7	0.021	0.019	< 0.00010	< 0.00010	< 10	< 10	875	0.662
8/28/2017	FR_SKP2H	E310050	0.196	0.204	361	18.6	0.03	0.029	< 0.00010	< 0.00010	< 10	< 10	1080	0.192
9/25/2017	FR_SKP2H	E310050	0.209	0.216	454	7.4	0.028	0.03	< 0.00010	< 0.00010	< 10	< 10	1290	0.133
10/23/2017	FR_SKP2H	E310050	0.251	0.256	510	6.2	0.031	0.031	< 0.00010	< 0.00010	< 10	< 10	1510	< 0.050
11/22/2017	FR_SKP2H	E310050	0.247	0.279	577	2.5	0.026	0.03	< 0.00010	< 0.00010	< 10	< 10	1570	0.152
12/12/2017	FR_SKP2H	E310050	0.274	0.266	632	0	0.031	0.031	< 0.00010	< 0.00010	< 10	< 10	1660	< 0.050
1/18/2017	FR_SP1	E261897	0.186	0.181	375	4	0.022	0.023	< 0.00010	< 0.00010	< 10	< 10	935	0.116
2/15/2017	FR_SP1	E261897	0.187	0.188	398	4.5	0.025	0.027	< 0.00010	< 0.00010	< 10	< 10	966	< 0.050
3/2/2017	FR_SP1	E261897	0.188	0.196	409	4.1	0.025	0.029	< 0.00010	< 0.00010	< 10	< 10	970	0.102
3/16/2017	FR_SP1	E261897				5.6								
3/22/2017	FR_SP1	E261897	0.189	0.21	438	5.8	0.023	0.032	< 0.00010	< 0.00010	< 10	< 10	1010	0.08
3/27/2017	FR_SP1	E261897				6.9								
4/3/2017	FR_SP1	E261897	0.188	0.178	446	6.4	0.027	0.031	< 0.00010	< 0.00010	< 10	< 10	1040	0.127
4/10/2017	FR_SP1	E261897				5.9								
4/20/2017	FR_SP1	E261897				8								
4/26/2017	FR_SP1	E261897				8								
5/1/2017	FR_SP1	E261897	0.171	0.169	414	7.8	0.025	0.029	< 0.00010	< 0.00010	< 10	< 10	942	0.183
5/2/2017	FR_SP1	E261897												
5/7/2017	FR_SP1	E261897												
5/8/2017	FR_SP1	E261897				8.8								
5/15/2017	FR_SP1	E261897				8.5								
5/24/2017	FR_SP1	E261897				8.7								
5/29/2017	FR_SP1	E261897				9.5								
6/5/2017	FR_SP1	E261897	0.152	0.159	284	9.9	0.034	0.035	< 0.00010	< 0.00010	< 10	< 10	811	0.063
6/13/2017	FR_SP1	E261897				10.2								
6/19/2017	FR_SP1	E261897				9.4								
6/26/2017	FR_SP1	E261897				9.5								
7/3/2017	FR_SP1	E261897	0.156	0.159	298	11.3	0.032	0.031	< 0.00010	< 0.00010	< 10	< 10	826	< 0.050
7/10/2017	FR_SP1	E261897				10								
8/8/2017	FR_SP1	E261897	0.189	0.178	378	10.9	0.033	0.028	< 0.00010	< 0.00010	< 10	< 10	1010	0.067
9/6/2017	FR_SP1	E261897	0.174	0.178	373	10.6	0.026	0.026	< 0.00010	< 0.00010	< 10	< 10	972	0.08
10/11/2017	FR_SP1	E261897	0.171	0.179	380	4.9	0.026	0.024	< 0.00010	< 0.00010	< 10	< 10	910	0.123
11/20/2017	FR_SP1	E261897	0.182	0.177	350	1.9	0.019	0.021	< 0.00010	< 0.00010	< 10	< 10	959	0.143
12/11/2017	FR_SP1	E261897	0.177	0.174	364	3.4	0.023	0.023	< 0.00010	< 0.00010	< 10	< 10	912	0.095
1/31/2017	FR_TP1	E102475												
3/31/2017	FR_TP1	E102475												
10/2/2017	FR_TP1	E102475												
1/31/2017	FR_TP3	E206660												
3/31/2017	FR_TP3	E206660												
1/9/2017	FR_UFR1	E216777	0.0934	0.0973	37	0	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	191	< 0.050

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
2/21/2017	FR_UFR1	E216777	0.0965	0.0974	44.5	0	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	194	< 0.050
2/28/2017	FR_UFR1	E216777	0.0825	0.0894	46	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	185	< 0.050
3/7/2017	FR_UFR1	E216777	0.0991	0.0996	46.5	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	193	0.063
3/14/2017	FR_UFR1	E216777	0.0986	0.0833	46.5	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	209	0.131
3/21/2017	FR_UFR1	E216777	0.0861	0.111	44.1	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	199	< 0.050
3/27/2017	FR_UFR1	E216777				0.2								
4/4/2017	FR_UFR1	E216777	0.0805	0.0724	37.6	0	< 0.010	0.015	< 0.00010	< 0.00010	< 10	< 10	201	0.059
4/11/2017	FR_UFR1	E216777				0.3								
4/18/2017	FR_UFR1	E216777				0.8								
4/24/2017	FR_UFR1	E216777	0.0644	0.0617	21.5	0.7	< 0.010	< 0.010	0.00011	< 0.00010	< 10	< 10	143	0.183
5/2/2017	FR_UFR1	E216777	0.0708	0.0696	24.1	1.1	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	164	0.133
5/5/2017	FR_UFR1	E216777												
5/6/2017	FR_UFR1	E216777												
5/7/2017	FR_UFR1	E216777												
5/9/2017	FR_UFR1	E216777	0.0637	0.0649	13.6	2.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	139	< 0.050
5/16/2017	FR_UFR1	E216777	0.0669	0.0596	11.7	1.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	138	0.108
5/23/2017	FR_UFR1	E216777	0.056	0.0598	8.82	2.7	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	129	0.147
5/30/2017	FR_UFR1	E216777	0.0556	0.0579	7.61	2.8	< 0.010	0.015	< 0.00010	< 0.00010	< 10	< 10	118	0.127
6/6/2017	FR_UFR1	E216777	0.061	0.0601	9.32	3.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	129	< 0.050
6/14/2017	FR_UFR1	E216777				4.6								
6/20/2017	FR_UFR1	E216777				7.2								
6/27/2017	FR_UFR1	E216777				7.8								
7/3/2017	FR_UFR1	E216777	0.0791	0.0799	21.6	7.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	162	0.063
7/11/2017	FR_UFR1	E216777				8.4								
7/25/2017	FR_UFR1	E216777	0.0878	0.09	31.7	9.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	164	0.078
8/1/2017	FR_UFR1	E216777	0.102	0.0966	35.4	8.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	213	0.074
8/8/2017	FR_UFR1	E216777	0.1	0.101	37.1	8.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	218	< 0.050
8/15/2017	FR_UFR1	E216777	0.0946	0.0972	38.7	7.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	208	< 0.050
8/22/2017	FR_UFR1	E216777	0.099	0.0963	40.1	7.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	216	< 0.050
9/5/2017	FR_UFR1	E216777	0.1	0.103	43.4	9.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	210	0.072
10/2/2017	FR_UFR1	E216777	0.1	0.0952	44.2	2.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	221	< 0.050
10/10/2017	FR_UFR1	E216777	0.102	0.102	46.2	2.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	232	0.068
10/17/2017	FR_UFR1	E216777	0.0948	0.0996	46.6	3.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	235	0.114
10/24/2017	FR_UFR1	E216777	0.0933	0.0983	46.9	2.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	252	< 0.050
10/31/2017	FR_UFR1	E216777	0.105	0.0991	45.8	0.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	235	0.095
11/7/2017	FR_UFR1	E216777	0.0993	0.1	47.5	0	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	215	0.104
12/21/2017	FR_UFR1	E216777	0.0916	0.0969	46.7	0	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	226	0.053
1/16/2017	GH_BR_F	E287437												
2/14/2017	GH_BR_F	E287437												
3/6/2017	GH_BR_F	E287437												
3/16/2017	GH_BR_F	E287437												
3/21/2017	GH_BR_F	E287437	0.0889	0.0845	6.58	0	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	152	0.239
3/27/2017	GH_BR_F	E287437				0.8								
4/4/2017	GH_BR_F	E287437				1.2								
4/10/2017	GH_BR_F	E287437				1.2								
4/18/2017	GH_BR_F	E287437	0.0768	0.0729	3.99	2.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	138	0.316
4/25/2017	GH_BR_F	E287437				2.6								

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
5/1/2017	GH_BR_F	E287437	0.0588	0.0665	4.42	1.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	145	0.263
5/8/2017	GH_BR_F	E287437				2								
5/15/2017	GH_BR_F	E287437				2.3								
5/24/2017	GH_BR_F	E287437				5.3								
5/29/2017	GH_BR_F	E287437				508								
6/5/2017	GH_BR_F	E287437	0.0858	0.0823	5.43	7.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	151	0.227
6/12/2017	GH_BR_F	E287437				5.3								
6/20/2017	GH_BR_F	E287437												
6/27/2017	GH_BR_F	E287437												
7/4/2017	GH_BR_F	E287437												
7/10/2017	GH_BR_F	E287437												
8/1/2017	GH_BR_F	E287437												
9/12/2017	GH_BR_F	E287437												
10/3/2017	GH_BR_F	E287437												
11/6/2017	GH_BR_F	E287437												
12/6/2017	GH_BR_F	E287437												
1/10/2017	GH_CC1	E0200384	0.233	0.242	1870	0.7	0.055	0.052	< 0.00020	< 0.00020	< 10	< 10	3410	0.274
2/9/2017	GH_CC1	E0200384	0.249	0.253	1750	0.1	0.05	0.054	< 0.00010	< 0.00010	< 10	< 10	3190	0.191
3/6/2017	GH_CC1	E0200384	0.253	0.263	1850	0.9	0.055	0.061	< 0.00010	< 0.00010	< 10	< 10	2900	0.133
3/15/2017	GH_CC1	E0200384				2.4								
3/21/2017	GH_CC1	E0200384	0.226	0.238	1750	1.9	0.052	0.061	< 0.00010	< 0.00010	< 10	< 10	2820	0.731
3/29/2017	GH_CC1	E0200384				2.6								
4/5/2017	GH_CC1	E0200384	0.221	0.198	1590	2.7	0.048	0.045	< 0.00010	< 0.00010	< 10	< 10	2530	< 0.050
4/5/2017	GH_CC1	E0200384	0.222	0.209	1530		0.049	0.042	< 0.00020	< 0.00020	< 10	< 10	2560	< 0.050
4/12/2017	GH_CC1	E0200384				3.3								
4/20/2017	GH_CC1	E0200384				3.2								
4/25/2017	GH_CC1	E0200384				3.4								
5/2/2017	GH_CC1	E0200384												
5/3/2017	GH_CC1	E0200384	0.206	0.215	1560	4.4	0.045	0.046	< 0.00010	< 0.00010	< 10	< 10	2840	0.409
5/3/2017	GH_CC1	E0200384	0.209	0.208	1560		0.052	0.04	< 0.00020	< 0.00020	< 10	< 10	2730	0.121
5/7/2017	GH_CC1	E0200384												
5/8/2017	GH_CC1	E0200384	0.18	0.183	1260	3	0.045	0.046	< 0.00010	< 0.00010	< 10	< 10	1870	0.629
5/17/2017	GH_CC1	E0200384				3.3								
5/23/2017	GH_CC1	E0200384				6.1								
5/31/2017	GH_CC1	E0200384				7.4								
6/6/2017	GH_CC1	E0200384	0.228	0.233	1650	6.7	0.058	0.055	< 0.00010	< 0.00010	< 10	< 10	3110	0.52
6/6/2017	GH_CC1	E0200384	0.226	0.227	1760		0.055	0.059	< 0.00020	< 0.00020	< 10	< 10	3200	0.196
6/13/2017	GH_CC1	E0200384				6.5								
6/19/2017	GH_CC1	E0200384				6.3								
6/27/2017	GH_CC1	E0200384				6.8								
7/5/2017	GH_CC1	E0200384	0.221	0.244	1780	6.7	0.05	0.054	< 0.00010	< 0.00010	< 10	< 10	3490	0.811
7/5/2017	GH_CC1	E0200384	0.2	0.243	1910		0.058	0.067	< 0.00020	< 0.00020	< 10	< 10	3370	< 0.050
7/10/2017	GH_CC1	E0200384				7.3								
8/8/2017	GH_CC1	E0200384	0.209	0.246	1970	7.1	0.061	0.06	< 0.00020	< 0.00020	< 10	< 10	3700	0.388
9/6/2017	GH_CC1	E0200384	0.222	0.259	1910	5.5	0.066	0.068	< 0.00010	< 0.00020	< 10	< 10	3400	0.391
9/20/2017	GH_CC1	E0200384												
10/4/2017	GH_CC1	E0200384	0.238	0.255	2010	2.9	0.063	0.07	< 0.00010	< 0.00010	< 10	< 10	3470	1.04

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
10/19/2017	GH_CC1	E0200384	0.217	0.244	1970	3.7	0.062	0.066	< 0.00020	< 0.00020	< 10	< 10	3600	0.51
11/1/2017	GH_CC1	E0200384	0.228	0.249	1930	1.9	0.055	0.064	< 0.00020	< 0.00010	< 10	< 10	3540	0.127
11/16/2017	GH_CC1	E0200384												
12/5/2017	GH_CC1	E0200384	0.248	0.263	2010	1	0.068	0.059	< 0.00010	< 0.00020	< 10	< 10	3160	0.324
1/16/2017	GH_COUGAR	E287432												
2/15/2017	GH_COUGAR	E287432												
3/6/2017	GH_COUGAR	E287432												
3/16/2017	GH_COUGAR	E287432	0.153	0.134	13.3	-0.1	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	207	0.254
3/22/2017	GH_COUGAR	E287432				-0.1								
3/27/2017	GH_COUGAR	E287432				0.1								
4/4/2017	GH_COUGAR	E287432				0.7								
4/10/2017	GH_COUGAR	E287432				1								
4/18/2017	GH_COUGAR	E287432	0.133	0.126	7.72	1.7	0.011	0.034	< 0.00010	< 0.00010	< 10	< 10	205	0.498
4/25/2017	GH_COUGAR	E287432				1.6								
5/1/2017	GH_COUGAR	E287432	0.126	0.127	10.6	1.9	< 0.010	0.036	< 0.00010	< 0.00010	< 10	< 10	229	0.432
5/8/2017	GH_COUGAR	E287432				2.7								
5/15/2017	GH_COUGAR	E287432				3.1								
5/24/2017	GH_COUGAR	E287432				5.5								
5/29/2017	GH_COUGAR	E287432				5.8								
6/5/2017	GH_COUGAR	E287432	0.161	0.161	13.1	7.9	< 0.010	0.013	< 0.00010	< 0.00010	< 10	< 10	225	0.224
6/12/2017	GH_COUGAR	E287432				5.6								
6/20/2017	GH_COUGAR	E287432												
6/27/2017	GH_COUGAR	E287432												
7/4/2017	GH_COUGAR	E287432												
7/10/2017	GH_COUGAR	E287432												
8/2/2017	GH_COUGAR	E287432												
9/12/2017	GH_COUGAR	E287432												
10/3/2017	GH_COUGAR	E287432												
11/6/2017	GH_COUGAR	E287432												
12/6/2017	GH_COUGAR	E287432												
1/16/2017	GH_ER1	206661	0.205	0.227	41.7	1.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	226	< 0.050
2/14/2017	GH_ER1	206661	0.176	0.173	39.7	1.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	210	< 0.050
2/21/2017	GH_ER1	206661			38.5									
3/6/2017	GH_ER1	206661	0.197	0.213	36.3	1.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	221	< 0.050
3/16/2017	GH_ER1	206661	0.208	0.22	35.1	3.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	191	0.062
3/21/2017	GH_ER1	206661	0.224	0.214	33.8	2.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	214	< 0.050
3/27/2017	GH_ER1	206661	0.21	0.216	38.1	3.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	224	0.051
4/4/2017	GH_ER1	206661	0.207	0.216	39.6	6.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	225	0.065
4/10/2017	GH_ER1	206661	0.202	0.218	40.1	6.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	220	< 0.050
4/20/2017	GH_ER1	206661	0.212	0.189	44.5	5.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	168	0.065
4/25/2017	GH_ER1	206661	0.218	0.213	35.6	6.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	233	0.067
5/1/2017	GH_ER1	206661	0.225	0.214	41.5	5.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	239	0.057
5/8/2017	GH_ER1	206661	0.204	0.222	27.4	4.7	< 0.010	0.028	< 0.00010	< 0.00010	< 10	< 10	203	0.21
5/15/2017	GH_ER1	206661	0.207	0.213	24.8	5.4	< 0.010	0.041	< 0.00010	< 0.00010	< 10	< 10	230	0.105
5/24/2017	GH_ER1	206661	0.184	0.247	18.7	5.7	< 0.010	0.17	< 0.00010	< 0.00010	< 10	18	196	1.02
5/29/2017	GH_ER1	206661	0.178	0.197	17.9	7.6	< 0.010	0.066	< 0.00010	< 0.00010	< 10	< 10	184	0.311
6/6/2017	GH_ER1	206661	0.186	0.192	17.2	7.4	< 0.010	0.049	< 0.00010	< 0.00010	< 10	< 10	162	0.237

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
6/12/2017	GH_ER1	206661	0.181	0.196	18.2	8.2	< 0.010	0.033	< 0.00010	< 0.00010	< 10	< 10	168	0.241
6/20/2017	GH_ER1	206661	0.188	0.186	19.1	8.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	174	< 0.050
6/27/2017	GH_ER1	206661	0.186	0.19	18.6	11.3	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	172	0.11
7/4/2017	GH_ER1	206661	0.185	0.187	18.4	11.3	< 0.010	0.012	0.00018	< 0.00010	< 10	< 10	174	0.14
7/11/2017	GH_ER1	206661	0.182	0.183	19.4	10.05	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	155	< 0.050
8/2/2017	GH_ER1	206661	0.189	0.193	22	13	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	188	< 0.050
9/5/2017	GH_ER1	206661	0.196	0.212	22.1	12.94	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	181	< 0.050
9/11/2017	GH_ER1	206661	0.188	0.197	21.7	11.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	184	0.061
10/4/2017	GH_ER1	206661	0.199	0.203	24.6	6.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	189	< 0.050
11/6/2017	GH_ER1	206661	0.201	0.207	25.7	3	< 0.010	< 0.050	< 0.00010	< 0.00050	< 10	< 10	215	< 0.050
12/5/2017	GH_ER1	206661	0.2	0.202	27.2	3.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	216	< 0.050
1/16/2017	GH_ER1A	E305876	0.185	0.213	24.6	0	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	190	< 0.050
2/15/2017	GH_ER1A	E305876	0.212	0.211	24.8	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	187	0.051
3/6/2017	GH_ER1A	E305876												
3/16/2017	GH_ER1A	E305876												
3/21/2017	GH_ER1A	E305876												
3/27/2017	GH_ER1A	E305876												
4/4/2017	GH_ER1A	E305876				2.8								
4/10/2017	GH_ER1A	E305876				1.8								
4/18/2017	GH_ER1A	E305876	0.239	0.237	87.1	2.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	352	0.146
4/25/2017	GH_ER1A	E305876				2.6								
5/1/2017	GH_ER1A	E305876	0.213	0.223	57.5	4.32	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	305	0.129
5/8/2017	GH_ER1A	E305876				3.4								
5/15/2017	GH_ER1A	E305876				3.9								
5/24/2017	GH_ER1A	E305876				5.1								
5/29/2017	GH_ER1A	E305876				5.6								
6/6/2017	GH_ER1A	E305876	0.19	0.181	21	5.6	< 0.010	0.037	< 0.00010	< 0.00010	< 10	< 10	196	0.198
6/12/2017	GH_ER1A	E305876				6.4								
6/19/2017	GH_ER1A	E305876	0.186	0.194	20.3	7	< 0.010	0.013	< 0.00010	< 0.00010	< 10	< 10	183	0.11
6/27/2017	GH_ER1A	E305876												
7/11/2017	GH_ER1A	E305876	0.183	0.186	18.1	9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	159	< 0.050
8/2/2017	GH_ER1A	E305876	0.19	0.193	17.1	11	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	170	< 0.050
9/8/2017	GH_ER1A	E305876	0.191	0.206	15.9	8.46	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	161	< 0.050
9/12/2017	GH_ER1A	E305876	0.202	0.207	17	10.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	156	< 0.050
10/3/2017	GH_ER1A	E305876	0.212	0.216	18.8	2.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	169	< 0.050
11/28/2017	GH_ER1A	E305876	0.215	0.213	22.1	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	214	< 0.050
12/12/2017	GH_ER1A	E305876												
1/16/2017	GH_ER2	200389	0.205	0.214	24	0.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	181	< 0.050
2/14/2017	GH_ER2	200389	0.206	0.208	24.3	1.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	196	0.069
2/21/2017	GH_ER2	200389			24.3									
3/6/2017	GH_ER2	200389	0.199	0.227	24.6	2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	186	< 0.050
3/16/2017	GH_ER2	200389	0.212	0.19	24.7	4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	174	< 0.050
3/21/2017	GH_ER2	200389				2.5								
3/27/2017	GH_ER2	200389				3.5								
4/4/2017	GH_ER2	200389				2								
4/10/2017	GH_ER2	200389				1.8								
4/18/2017	GH_ER2	200389	0.232	0.227	22.4	3.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	198	< 0.050

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
4/24/2017	GH_ER2	200389				5								
4/25/2017	GH_ER2	200389	0.212	0.208	20.7	5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	180	0.068
5/2/2017	GH_ER2	200389	0.207	0.205	21.2	5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	201	0.063
5/9/2017	GH_ER2	200389	0.2	0.221	16.6	5.2	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	175	0.168
5/16/2017	GH_ER2	200389	0.201	0.211	15.4	3.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	173	0.107
5/23/2017	GH_ER2	200389	0.2	0.214	13.6	5.3	< 0.010	0.037	< 0.00010	< 0.00010	< 10	< 10	171	0.252
5/30/2017	GH_ER2	200389	0.174	0.208	12.3	5.9	< 0.010	0.08	< 0.00010	< 0.00010	< 10	11	163	0.383
6/11/2017	GH_ER2	200389	0.175	0.194	12.2	6.3	< 0.010	0.035	< 0.00010	< 0.00010	< 10	< 10	147	0.244
6/13/2017	GH_ER2	200389	0.183	0.192	13	6.3	< 0.010	0.013	< 0.00010	< 0.00010	< 10	< 10	159	0.174
6/20/2017	GH_ER2	200389				6.7								
6/27/2017	GH_ER2	200389				7.7								
7/4/2017	GH_ER2	200389				8.4								
7/10/2017	GH_ER2	200389	0.192	0.193	13.6	9.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	134	0.07
7/25/2017	GH_ER2	200389	0.192	0.194	15.1	9.7	< 0.010	< 0.010	0.00011	< 0.00010	< 10	< 10	148	0.116
8/1/2017	GH_ER2	200389	0.217	0.205	16.3	11.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	170	< 0.050
8/8/2017	GH_ER2	200389	0.213	0.214	16.8	11.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	168	< 0.050
8/15/2017	GH_ER2	200389	0.218	0.209	16.5	9.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	160	< 0.050
8/22/2017	GH_ER2	200389	0.206	0.211	17.2	8.96	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	174	< 0.050
9/10/2017	GH_ER2	200389	0.189	0.205	14.4	6.68	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	187	< 0.050
9/12/2017	GH_ER2	200389	0.2	0.205	16.4	9.86	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	144	< 0.050
10/2/2017	GH_ER2	200389	0.214	0.211	18.3	5.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	174	< 0.050
10/10/2017	GH_ER2	200389	0.202	0.185	18.6	4.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	181	< 0.050
10/16/2017	GH_ER2	200389	0.222	0.223	19.4	4.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	156	< 0.050
10/17/2017	GH_ER2	200389	0.204	0.205	18.8	5.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	198	0.55
10/24/2017	GH_ER2	200389	0.196	0.2	19.5		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	222	0.114
10/31/2017	GH_ER2	200389	0.24	0.207	19.9	2.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	186	< 0.050
11/6/2017	GH_ER2	200389	0.227	0.215	19.9	0.8	< 0.010	< 0.050	< 0.00010	< 0.00050	< 10	< 10	184	< 0.050
12/6/2017	GH_ER2	200389	0.218	0.209	21.6	1.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	201	< 0.050
1/16/2017	GH_ERC	E300090	0.215	0.228	44.2	4.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	229	< 0.050
2/1/2017	GH_ERC	E300090	0.222	0.229	41.9		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	225	0.092
2/14/2017	GH_ERC	E300090	0.215	0.21	39.9	4.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	216	< 0.050
2/21/2017	GH_ERC	E300090	0.21	0.219	38		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	223	< 0.050
3/6/2017	GH_ERC	E300090	0.197	0.215	34.5	2.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	209	< 0.050
3/16/2017	GH_ERC	E300090	0.203	0.199	32.4	2.9	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	194	0.064
3/21/2017	GH_ERC	E300090	0.22	0.209	31.2	2.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	209	< 0.050
3/28/2017	GH_ERC	E300090	0.207	0.217	38.2	2.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	218	0.054
4/4/2017	GH_ERC	E300090	0.219	0.216	38.8	4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	212	0.08
4/10/2017	GH_ERC	E300090	0.212	0.221	39.9	4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	217	0.051
4/20/2017	GH_ERC	E300090	0.219	0.224	44.8	4.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	186	0.069
4/24/2017	GH_ERC	E300090	0.215	0.233	35.9	4.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	210	0.074
5/2/2017	GH_ERC	E300090	0.231	0.22	42.1	4.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	233	0.073
5/9/2017	GH_ERC	E300090	0.21	0.226	29.5	4.5	< 0.010	0.025	< 0.00010	< 0.00010	< 10	< 10	209	0.208
5/16/2017	GH_ERC	E300090	0.209	0.214	25.7	4	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	192	0.133
5/23/2017	GH_ERC	E300090	0.176	0.22	20.5	6.7	< 0.010	0.047	< 0.00010	< 0.00010	< 10	< 10	179	0.274
5/30/2017	GH_ERC	E300090	0.177	0.204	18.4	6.8	< 0.010	0.086	< 0.00010	< 0.00010	< 10	14	170	0.529
6/11/2017	GH_ERC	E300090	0.175	0.192	19.2	6.9	< 0.010	0.046	< 0.00010	< 0.00010	< 10	< 10	172	0.304
6/13/2017	GH_ERC	E300090	0.182	0.192	18.5	6.9	< 0.010	0.03	< 0.00010	< 0.00010	< 10	< 10	166	0.355

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
6/19/2017	GH_ERC	E300090	0.187	0.189	19.9	8.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	172	0.095
6/27/2017	GH_ERC	E300090	0.185	0.192	18.9	9.9	< 0.010	0.017	< 0.00010	< 0.00010	< 10	< 10	162	0.093
7/4/2017	GH_ERC	E300090	0.185	0.188	18.5	8	< 0.010	0.011	0.0002	< 0.00010	< 10	< 10	172	0.137
7/11/2017	GH_ERC	E300090	0.181	0.181	19.3	9.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	162	< 0.050
7/25/2017	GH_ERC	E300090	0.188	0.188	21.3	9.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	160	0.076
8/1/2017	GH_ERC	E300090	0.207	0.203	21.1	11.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	177	0.062
9/5/2017	GH_ERC	E300090	0.196	0.213	21.1	9.89	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	173	< 0.050
9/11/2017	GH_ERC	E300090	0.196	0.197	20.4	9.15	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	172	< 0.050
10/2/2017	GH_ERC	E300090	0.212	0.205	23.3	6.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	193	< 0.050
10/10/2017	GH_ERC	E300090	0.2	0.209	23.1	6.5	< 0.010	< 0.010	< 0.00010	0.00015	< 10	< 10	183	0.068
10/17/2017	GH_ERC	E300090	0.189	0.206	23.4	4.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	204	< 0.050
10/24/2017	GH_ERC	E300090	0.199	0.202	24.1		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	234	0.104
10/31/2017	GH_ERC	E300090	0.252	0.207	24.4	4.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	196	0.06
11/14/2017	GH_ERC	E300090	0.206	0.214	26.2	4.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	196	0.142
12/5/2017	GH_ERC	E300090	0.205	0.2	27.7	4.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	198	< 0.050
1/16/2017	GH_ERSC2	E305877												
2/15/2017	GH_ERSC2	E305877												
3/6/2017	GH_ERSC2	E305877												
3/16/2017	GH_ERSC2	E305877												
3/22/2017	GH_ERSC2	E305877												
3/29/2017	GH_ERSC2	E305877												
4/5/2017	GH_ERSC2	E305877												
4/10/2017	GH_ERSC2	E305877												
4/20/2017	GH_ERSC2	E305877												
4/25/2017	GH_ERSC2	E305877	0.275	0.27	183	4.1	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	513	0.416
5/3/2017	GH_ERSC2	E305877	0.304	0.278	180	3.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	449	0.392
5/10/2017	GH_ERSC2	E305877				4.3								
5/15/2017	GH_ERSC2	E305877				4.3								
5/24/2017	GH_ERSC2	E305877				5.7								
5/29/2017	GH_ERSC2	E305877				6.3								
6/7/2017	GH_ERSC2	E305877	0.207	0.192	46.1	6.3	< 0.010	0.025	< 0.00010	< 0.00010	< 10	< 10	231	0.181
6/12/2017	GH_ERSC2	E305877				7.6								
6/19/2017	GH_ERSC2	E305877	0.198	0.204	38	7.7	< 0.010	0.017	< 0.00010	< 0.00010	< 10	< 10	192	0.141
6/27/2017	GH_ERSC2	E305877												
7/4/2017	GH_ERSC2	E305877												
7/11/2017	GH_ERSC2	E305877	0.193	0.196	34.6	9.5	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	186	0.164
8/2/2017	GH_ERSC2	E305877	0.204	0.21	37.6	12.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	216	0.103
9/13/2017	GH_ERSC2	E305877												
10/3/2017	GH_ERSC2	E305877												
11/14/2017	GH_ERSC2	E305877												
12/18/2017	GH_ERSC2	E305877												
1/16/2017	GH_ERSC4	E305878	0.347	0.385	41.2	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	303	0.133
2/15/2017	GH_ERSC4	E305878	0.215	0.217	24.7	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	188	0.063
3/6/2017	GH_ERSC4	E305878												
3/16/2017	GH_ERSC4	E305878												
3/21/2017	GH_ERSC4	E305878												
3/29/2017	GH_ERSC4	E305878												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
4/4/2017	GH_ERSC4	E305878												
4/10/2017	GH_ERSC4	E305878												
4/20/2017	GH_ERSC4	E305878	0.197	0.2	24.1	2.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	229	< 0.050
4/25/2017	GH_ERSC4	E305878				2.7								
5/1/2017	GH_ERSC4	E305878	0.204	0.206	27.4	4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	215	0.058
5/10/2017	GH_ERSC4	E305878				3.6								
5/15/2017	GH_ERSC4	E305878				3.6								
5/24/2017	GH_ERSC4	E305878				5								
5/29/2017	GH_ERSC4	E305878				5.5								
6/5/2017	GH_ERSC4	E305878	0.173	0.191	14.3	15	< 0.010	0.052	< 0.00010	< 0.00010	< 10	< 10	174	0.268
6/12/2017	GH_ERSC4	E305878				6.1								
6/19/2017	GH_ERSC4	E305878												
6/27/2017	GH_ERSC4	E305878												
7/10/2017	GH_ERSC4	E305878	0.19	0.196	15.3	11.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	144	0.071
8/2/2017	GH_ERSC4	E305878	0.193	0.195	17.2	10.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	172	< 0.050
9/8/2017	GH_ERSC4	E305878	0.24	0.205	16.1	8.21	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	166	< 0.050
9/12/2017	GH_ERSC4	E305878	0.203	0.205	38.6	10.76	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	137	< 0.050
10/3/2017	GH_ERSC4	E305878	0.21	0.218	18.4	4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	172	< 0.050
11/14/2017	GH_ERSC4	E305878	0.202	0.21	21.5	1.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	179	< 0.050
12/12/2017	GH_ERSC4	E305878	0.224	0.221	22.9	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	198	< 0.050
1/9/2017	GH_FR1	200378	0.153	0.159	242	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	562	0.152
2/1/2017	GH_FR1	200378	0.164	0.169	247		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	636	0.144
2/14/2017	GH_FR1	200378	0.166	0.158	232	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	609	< 0.050
2/21/2017	GH_FR1	200378	0.157	0.163	232		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	618	0.102
2/28/2017	GH_FR1	200378	0.163	0.169	250		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	637	< 0.050
3/7/2017	GH_FR1	200378	0.183	0.176	255	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	627	0.115
3/14/2017	GH_FR1	200378	0.166	0.165	218	0	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	609	0.1
3/16/2017	GH_FR1	200378	0.175	0.172	305	0.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	788	0.811
3/21/2017	GH_FR1	200378	0.168	0.163	234	0.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	624	0.109
3/27/2017	GH_FR1	200378	0.161	0.165	256	1.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	640	0.053
4/4/2017	GH_FR1	200378	0.157	0.159	263	3.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	656	0.184
4/11/2017	GH_FR1	200378	0.167	0.164	236	1.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	635	0.179
4/18/2017	GH_FR1	200378	0.168	0.16	229	4.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	654	0.207
4/24/2017	GH_FR1	200378	0.134	0.139	170	3.4	< 0.010	0.025	< 0.00010	< 0.00010	< 10	< 15	497	0.385
5/2/2017	GH_FR1	200378	0.136	0.134	183	3.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	487	0.211
5/9/2017	GH_FR1	200378	0.117	0.111	109	3.7	< 0.010	0.02	< 0.00010	< 0.00010	< 10	< 10	362	0.363
5/16/2017	GH_FR1	200378	0.105	0.106	109	4.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	347	0.273
5/23/2017	GH_FR1	200378	0.102	0.106	95.1	4.5	< 0.010	0.024	< 0.00010	< 0.00010	< 10	< 10	327	0.341
5/30/2017	GH_FR1	200378	0.0808	0.0876	76.9	4.4	< 0.010	0.028	< 0.00010	< 0.00010	< 10	< 10	277	0.398
6/11/2017	GH_FR1	200378	0.0947	0.097	105	5.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	344	0.518
6/13/2017	GH_FR1	200378	0.0976	0.0969	108	5.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	363	0.62
6/19/2017	GH_FR1	200378	0.102	0.103	116	5.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	378	0.506
6/27/2017	GH_FR1	200378	0.11	0.109	131	7.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	404	0.49
7/4/2017	GH_FR1	200378	0.113	0.114	144	8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	450	0.42
7/11/2017	GH_FR1	200378	0.118	0.12	166	11.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	437	0.164
7/25/2017	GH_FR1	200378	0.13	0.127	186	8.2	< 0.010	< 0.010	0.00011	< 0.00010	< 10	< 10	502	0.62
8/1/2017	GH_FR1	200378	0.14	0.144	207	10.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	599	0.295

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
8/8/2017	GH_FR1	200378	0.144	0.145	216	9.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	592	0.265
8/15/2017	GH_FR1	200378	0.153	0.146	215	7.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	580	0.28
8/22/2017	GH_FR1	200378	0.146	0.145	216	8.76	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	581	0.318
9/5/2017	GH_FR1	200378	0.147	0.156	222	9.23	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	589	0.291
9/11/2017	GH_FR1	200378	0.143	0.143	207	9.17	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	567	< 0.050
10/2/2017	GH_FR1	200378	0.16	0.154	232	4.29	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	586	0.525
10/10/2017	GH_FR1	200378	0.164	0.164	313	4.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	736	0.543
10/17/2017	GH_FR1	200378	0.152	0.158	271	6.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	721	0.352
10/24/2017	GH_FR1	200378	0.152	0.157	280	2.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	697	0.312
10/31/2017	GH_FR1	200378	0.189	0.159	239	1.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	621	0.078
11/7/2017	GH_FR1	200378	0.171	0.179	278	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	676	0.12
11/14/2017	GH_FR1	200378	0.159	0.163	258	1.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	655	0.179
11/21/2017	GH_FR1	200378	0.16	0.177	259	1.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	618	0.178
12/5/2017	GH_FR1	200378	0.169	0.163	239	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	585	0.231
1/9/2017	GH_GH1	E102709	0.211	0.222	701	0.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1340	0.24
2/15/2017	GH_GH1	E102709	0.232	0.233	766	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1430	0.226
3/7/2017	GH_GH1	E102709	0.245	0.224	728	-0.1	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	1380	0.183
3/14/2017	GH_GH1	E102709	0.224	0.226	733	0.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1400	0.168
3/16/2017	GH_GH1	E102709				0.2								
3/21/2017	GH_GH1	E102709				0.1								
3/27/2017	GH_GH1	E102709				0.4								
4/4/2017	GH_GH1	E102709				2.1								
4/11/2017	GH_GH1	E102709				2.6								
4/18/2017	GH_GH1	E102709	0.165	0.173	348	4.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	778	0.28
4/24/2017	GH_GH1	E102709				3.7								
4/27/2017	GH_GH1	E102709												
5/2/2017	GH_GH1	E102709	0.124	0.12	166	3.4	< 0.010	0.015	< 0.00010	< 0.00010	< 10	< 10	450	0.247
5/3/2017	GH_GH1	E102709												
5/9/2017	GH_GH1	E102709	0.0906	0.0972	98.7	3.8	< 0.010	0.045	< 0.00010	< 0.00010	< 10	< 10	305	0.562
5/10/2017	GH_GH1	E102709												
5/15/2017	GH_GH1	E102709				4.5								
5/24/2017	GH_GH1	E102709				8.3								
5/29/2017	GH_GH1	E102709				10.5								
6/7/2017	GH_GH1	E102709	0.152	0.151	399		< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	917	0.364
6/8/2017	GH_GH1	E102709	0.154	0.157	396	13.3	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	861	0.457
6/12/2017	GH_GH1	E102709				13.1								
6/19/2017	GH_GH1	E102709				11.7								
6/27/2017	GH_GH1	E102709				14.3								
7/4/2017	GH_GH1	E102709				15.4								
7/11/2017	GH_GH1	E102709	0.172	0.171	704	18.1	0.011	0.011	< 0.00010	< 0.00010	< 10	< 10	1220	0.271
8/3/2017	GH_GH1	E102709	0.196	0.196	825	17.6	0.014	0.017	< 0.00010	< 0.00010	< 10	< 10	1520	0.524
9/11/2017	GH_GH1	E102709	0.179	0.185	906	14.29	0.016	0.015	< 0.00010	< 0.00010	< 10	< 10	1490	< 0.050
10/4/2017	GH_GH1	E102709	0.187	0.191	898	8.2	0.014	0.013	< 0.00010	< 0.00010	< 10	< 10	1590	0.33
11/7/2017	GH_GH1	E102709	0.211	0.212	881	2.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1520	0.161
12/11/2017	GH_GH1	E102709	0.239	0.226	799	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1510	0.402
5/9/2017	GH_GH2	E309911	0.0899	0.0943	103	4.1	< 0.010	0.045	< 0.00010	< 0.00010	< 10	< 10	324	0.559
6/7/2017	GH_GH2	E309911	0.155	0.145	395	12.8	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	718	0.352

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
6/19/2017	GH_GH2	E309911	0.172	0.173	518	10.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1120	0.742
7/11/2017	GH_GH2	E309911	0.178	0.176	692	18.2	0.01	0.013	< 0.00010	< 0.00010	< 10	< 10	1240	0.25
8/3/2017	GH_GH2	E309911				18								
8/7/2017	GH_GH2	E309911	0.194	0.204	815		0.013	0.013	< 0.00010	< 0.00010	< 10	< 10	1430	0.474
9/12/2017	GH_GH2	E309911	0.2	0.205	943	12.22	0.01	0.012	< 0.00010	< 0.00010	< 10	< 10	1520	0.082
10/25/2017	GH_GH2	E309911	0.2	0.185	883	4.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1550	0.407
11/7/2017	GH_GH2	E309911	0.224	0.22	874	1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1450	0.166
12/11/2017	GH_GH2	E309911	0.254	0.232	849	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1540	0.26
1/16/2017	GH_LC1	E257796												
2/14/2017	GH_LC1	E257796	0.369	0.342	594	1.1	0.037	0.033	< 0.00010	< 0.00010	< 10	< 10	1270	0.253
2/21/2017	GH_LC1	E257796	0.386	0.423	583		0.04	0.041	< 0.00010	< 0.00010	< 10	< 10	1240	0.057
3/6/2017	GH_LC1	E257796	0.399	0.453	694	2.5	0.047	0.05	< 0.00010	< 0.00010	< 10	< 10	1420	0.182
3/16/2017	GH_LC1	E257796				3.3								
3/21/2017	GH_LC1	E257796				2.5								
3/27/2017	GH_LC1	E257796				4.4								
4/4/2017	GH_LC1	E257796				4.8								
4/10/2017	GH_LC1	E257796				5.1								
4/18/2017	GH_LC1	E257796	0.37	0.408	831	6.5	0.044	0.047	< 0.00010	< 0.00010	< 10	< 10	1640	< 0.050
4/25/2017	GH_LC1	E257796				6.8								
5/1/2017	GH_LC1	E257796	0.324	0.351	626	6.2	0.049	0.052	< 0.00010	< 0.00010	< 10	< 10	1320	0.205
5/8/2017	GH_LC1	E257796				7.5								
5/15/2017	GH_LC1	E257796				4.38								
5/24/2017	GH_LC1	E257796				11								
5/29/2017	GH_LC1	E257796				12.2								
6/5/2017	GH_LC1	E257796	0.491	0.487	796	11.1	0.055	0.057	< 0.00010	< 0.00010	< 10	< 10	1580	0.291
6/12/2017	GH_LC1	E257796				11.1								
6/19/2017	GH_LC1	E257796				12								
6/20/2017	GH_LC1	E257796												
6/27/2017	GH_LC1	E257796				13.7								
7/4/2017	GH_LC1	E257796				12.9								
7/10/2017	GH_LC1	E257796	0.445	0.451	719	17	0.048	0.045	< 0.00010	< 0.00010	< 10	< 10	1550	< 0.050
8/2/2017	GH_LC1	E257796	0.455	0.463	740	15.7	0.054	0.058	< 0.00020	< 0.00020	< 10	< 10	1800	0.412
9/11/2017	GH_LC1	E257796	0.56	0.631	888	14.5	0.057	0.055	< 0.00010	< 0.00010	< 10	< 10	1780	< 0.050
10/3/2017	GH_LC1	E257796	0.601	0.625	772	7.2	0.053	0.052	< 0.00010	< 0.00010	< 10	< 10	1750	0.723
11/6/2017	GH_LC1	E257796												
12/12/2017	GH_LC1	E257796												
1/16/2017	GH_MC1	200388												
2/15/2017	GH_MC1	200388												
3/6/2017	GH_MC1	200388												
3/16/2017	GH_MC1	200388	0.179	0.167	127	0	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	397	0.203
3/22/2017	GH_MC1	200388	0.206	0.194	139	0.4	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	447	0.134
3/27/2017	GH_MC1	200388				0								
4/4/2017	GH_MC1	200388				2.1								
4/10/2017	GH_MC1	200388				2								
4/18/2017	GH_MC1	200388	0.183	0.184	85.2	2.3	0.011	0.014	< 0.00010	< 0.00010	< 10	< 10	349	0.192
4/25/2017	GH_MC1	200388				0.9								
5/1/2017	GH_MC1	200388	0.168	0.167	70.4	2.3	0.012	0.015	< 0.00010	< 0.00010	< 10	< 10	311	0.186

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
5/8/2017	GH_MC1	200388				2.9								
5/15/2017	GH_MC1	200388				3.3								
5/24/2017	GH_MC1	200388				5								
5/29/2017	GH_MC1	200388				6.8								
6/5/2017	GH_MC1	200388	0.191	0.192	82.8	9.3	0.011	0.011	< 0.00010	< 0.00010	< 10	< 10	336	0.196
6/12/2017	GH_MC1	200388				8								
6/20/2017	GH_MC1	200388				10.8								
6/27/2017	GH_MC1	200388				11.6								
7/4/2017	GH_MC1	200388				13.2								
7/10/2017	GH_MC1	200388	0.181	0.185	97.5	15.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	367	0.187
8/2/2017	GH_MC1	200388												
9/12/2017	GH_MC1	200388												
10/3/2017	GH_MC1	200388												
11/28/2017	GH_MC1	200388	0.209	0.206	104	2.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	417	0.134
12/6/2017	GH_MC1	200388	0.187	0.186	109	1.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	396	0.118
1/16/2017	GH_NNC	E305875	0.214	0.228	18.4	0.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	288	< 0.050
2/15/2017	GH_NNC	E305875												
3/6/2017	GH_NNC	E305875	0.236	0.269	15	0.7	< 0.010	0.015	< 0.00010	< 0.00010	< 10	< 10	301	0.192
3/16/2017	GH_NNC	E305875				0.4								
3/22/2017	GH_NNC	E305875				0.5								
3/28/2017	GH_NNC	E305875												
4/4/2017	GH_NNC	E305875												
4/10/2017	GH_NNC	E305875												
4/20/2017	GH_NNC	E305875	0.219	0.234	9.43	1.7	< 0.010	0.013	< 0.00010	< 0.00010	< 10	< 10	243	0.324
4/25/2017	GH_NNC	E305875				2.1								
5/1/2017	GH_NNC	E305875	0.181	0.216	8.75	2.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	239	0.255
5/8/2017	GH_NNC	E305875				3.9								
5/15/2017	GH_NNC	E305875				3.9								
5/24/2017	GH_NNC	E305875				5.4								
5/29/2017	GH_NNC	E305875				5.8								
6/5/2017	GH_NNC	E305875	0.275	0.259	9.87	7.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	249	0.35
6/12/2017	GH_NNC	E305875				6.3								
6/19/2017	GH_NNC	E305875												
6/26/2017	GH_NNC	E305875												
7/4/2017	GH_NNC	E305875												
7/10/2017	GH_NNC	E305875	0.302	0.305	9.77	9.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	319	0.191
8/2/2017	GH_NNC	E305875	0.216	0.205	16.4	14.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	301	0.167
9/12/2017	GH_NNC	E305875												
10/3/2017	GH_NNC	E305875												
11/28/2017	GH_NNC	E305875	0.283	0.291	13.4	3.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	299	0.159
12/6/2017	GH_NNC	E305875	0.292	0.278	13.4	2.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	288	0.267
1/9/2017	GH_PC1	200385	0.147	0.15	449	0.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	826	0.087
2/9/2017	GH_PC1	200385	0.151	0.156	405	0.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	799	< 0.050
2/9/2017	GH_PC1	200385												
3/6/2017	GH_PC1	200385	0.137	0.154	446	0.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	831	0.083
3/15/2017	GH_PC1	200385				1.9								
3/21/2017	GH_PC1	200385	0.143	0.164	400	1.3	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	751	0.1

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
3/29/2017	GH_PC1	200385				2								
4/5/2017	GH_PC1	200385	0.145	0.133	361	2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	711	0.133
4/12/2017	GH_PC1	200385				2.4								
4/20/2017	GH_PC1	200385				3								
4/25/2017	GH_PC1	200385				2.9								
5/3/2017	GH_PC1	200385	0.133	0.138	357	3.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	683	0.138
5/8/2017	GH_PC1	200385	0.114	0.116	274	2.8	0.011	0.029	< 0.00010	< 0.00010	< 10	< 10	593	0.238
5/17/2017	GH_PC1	200385				3.6								
5/23/2017	GH_PC1	200385				4.7								
5/31/2017	GH_PC1	200385				5.6								
6/6/2017	GH_PC1	200385	0.146	0.148	471	6.7	0.011	0.011	< 0.00010	< 0.00010	< 10	< 10	998	0.221
6/13/2017	GH_PC1	200385				6.2								
6/19/2017	GH_PC1	200385				6								
6/27/2017	GH_PC1	200385				7.2								
7/5/2017	GH_PC1	200385	0.139	0.134	422	7.1	0.013	0.012	< 0.00010	< 0.00010	< 10	< 10	924	0.091
7/10/2017	GH_PC1	200385				9.2								
7/27/2017	GH_PC1	200385	0.136	0.133	445	8.9	0.013	0.011	< 0.00010	< 0.00010	< 10	< 10	839	0.154
8/8/2017	GH_PC1	200385												
8/8/2017	GH_PC1	200385	0.138	0.137	430	7.8	0.012	0.017	< 0.00010	< 0.00010	< 10	< 10	872	0.171
12/5/2017	GH_PC1	200385												
1/9/2017	GH_RLP	E207437												
2/7/2017	GH_RLP	E207437												
3/16/2017	GH_RLP	E207437	0.104	0.105	20.4	0	< 0.010	0.113	< 0.00010	0.00013	< 10	15	162	4.1
3/21/2017	GH_RLP	E207437				0								
3/27/2017	GH_RLP	E207437				0.1								
4/4/2017	GH_RLP	E207437												
4/11/2017	GH_RLP	E207437				3								
4/18/2017	GH_RLP	E207437	0.17	0.165	50.7	7.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	240	0.255
4/25/2017	GH_RLP	E207437				9.2								
5/3/2017	GH_RLP	E207437	0.259	0.244	109	11.2	0.01	0.013	< 0.00010	< 0.00010	< 10	< 10	377	0.325
5/10/2017	GH_RLP	E207437				9								
5/15/2017	GH_RLP	E207437				10.9								
5/24/2017	GH_RLP	E207437				12.3								
5/29/2017	GH_RLP	E207437												
6/7/2017	GH_RLP	E207437												
6/12/2017	GH_RLP	E207437												
6/22/2017	GH_RLP	E207437												
6/27/2017	GH_RLP	E207437												
7/4/2017	GH_RLP	E207437				17.1								
7/11/2017	GH_RLP	E207437												
7/27/2017	GH_RLP	E207437	0.411	0.403	231	19.1	0.017	0.017	< 0.00010	< 0.00010	< 10	< 10	484	0.381
8/3/2017	GH_RLP	E207437												
9/27/2017	GH_RLP	E207437												
10/25/2017	GH_RLP	E207437												
11/14/2017	GH_RLP	E207437												
12/7/2017	GH_RLP	E207437	0.653	0.684	230	0.2	0.015	0.023	< 0.00010	< 0.00010	< 10	< 10	622	0.644
1/10/2017	GH_SC1	E221329	0.194	0.201	1370	0.6	0.043	0.041	< 0.00010	< 0.00010	< 10	< 10	2340	0.289

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
2/9/2017	GH_SC1	E221329	0.198	0.214	1520	0.3	0.042	0.047	< 0.00010	< 0.00010	< 10	< 10	2550	0.133
3/6/2017	GH_SC1	E221329	0.226	0.22	1570	0.7	0.053	0.053	< 0.00010	< 0.00010	< 10	< 10	2540	0.532
3/15/2017	GH_SC1	E221329				0.7								
3/21/2017	GH_SC1	E221329	0.163	0.186	1250	0.5	0.034	0.047	< 0.00010	< 0.00010	< 10	< 10	1960	0.785
3/29/2017	GH_SC1	E221329				0.08								
4/5/2017	GH_SC1	E221329	0.17	0.154	1150	1.2	0.029	0.036	< 0.00010	< 0.00010	< 10	< 10	1830	0.582
4/12/2017	GH_SC1	E221329				2								
4/20/2017	GH_SC1	E221329				3.8								
4/25/2017	GH_SC1	E221329				3.6								
5/2/2017	GH_SC1	E221329												
5/3/2017	GH_SC1	E221329	0.159	0.16	1140	4.8	0.03	0.035	< 0.00010	< 0.00010	< 10	< 10	2100	0.403
5/8/2017	GH_SC1	E221329	0.141	0.145	945	3.8	0.031	0.038	< 0.00010	< 0.00010	< 10	< 10	1530	0.75
5/17/2017	GH_SC1	E221329				3.8								
5/17/2017	GH_SC1	E221329												
5/17/2017	GH_SC1	E221329												
5/18/2017	GH_SC1	E221329												
5/23/2017	GH_SC1	E221329				5.5								
5/31/2017	GH_SC1	E221329				7.6								
6/6/2017	GH_SC1	E221329	0.126	0.127	872	8.1	0.035	0.04	< 0.00010	< 0.00010	< 10	< 10	1680	0.384
6/13/2017	GH_SC1	E221329				10.6								
6/19/2017	GH_SC1	E221329				7.9								
6/27/2017	GH_SC1	E221329				10.7								
7/5/2017	GH_SC1	E221329	0.154	0.155	1150	11.5	0.036	0.037	< 0.00010	< 0.00010	< 10	< 10	2030	0.487
7/10/2017	GH_SC1	E221329				13.2								
8/8/2017	GH_SC1	E221329	0.171	0.176	1390	11.4	0.045	0.043	< 0.00020	< 0.00020	< 10	< 10	2710	0.346
9/6/2017	GH_SC1	E221329	0.194	0.202	1520	11.1	0.047	0.054	< 0.00010	< 0.00010	< 10	< 10	2680	0.467
9/20/2017	GH_SC1	E221329												
10/4/2017	GH_SC1	E221329	0.211	0.216	1710	5.2	0.057	0.057	< 0.00010	< 0.00010	< 10	< 10	2570	1.67
10/19/2017	GH_SC1	E221329	0.2	0.207	1690	3.5	0.048	0.048	< 0.00020	< 0.00020	< 10	< 10	2830	0.13
11/1/2017	GH_SC1	E221329	0.208	0.218	1630	3.2	0.041	0.049	< 0.00020	< 0.00010	< 10	< 10	2880	< 0.050
11/16/2017	GH_SC1	E221329												
12/5/2017	GH_SC1	E221329	0.243	0.222	1750	1.2	0.049	0.048	< 0.00010	< 0.00020	< 10	< 10	2810	0.494
1/1/2017	GH_SC2	E105061												
2/1/2017	GH_SC2	E105061												
3/1/2017	GH_SC2	E105061												
4/1/2017	GH_SC2	E105061												
5/1/2017	GH_SC2	E105061												
6/1/2017	GH_SC2	E105061												
7/1/2017	GH_SC2	E105061												
8/1/2017	GH_SC2	E105061												
9/4/2017	GH_SC2	E105061												
10/2/2017	GH_SC2	E105061												
11/6/2017	GH_SC2	E105061												
12/4/2017	GH_SC2	E105061												
1/10/2017	GH_TC1	E102714	0.55	0.53	652	-0.1	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	1270	0.347
2/15/2017	GH_TC1	E102714	0.586	0.593	626	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1220	0.425
3/6/2017	GH_TC1	E102714	0.521	0.582	635	0	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1270	0.282

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Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
3/16/2017	GH_TC1	E102714				-0.1								
3/21/2017	GH_TC1	E102714				0.2								
3/27/2017	GH_TC1	E102714				0.8								
4/4/2017	GH_TC1	E102714				1.3								
4/10/2017	GH_TC1	E102714				1.7								
4/20/2017	GH_TC1	E102714	0.288	0.278	237	3	< 0.010	0.013	< 0.00010	< 0.00010	< 10	< 10	577	0.535
4/25/2017	GH_TC1	E102714				3.6								
5/3/2017	GH_TC1	E102714	0.31	0.285	218	3.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	515	0.407
5/10/2017	GH_TC1	E102714				5.4								
5/15/2017	GH_TC1	E102714				5.7								
5/24/2017	GH_TC1	E102714				9								
5/29/2017	GH_TC1	E102714				12.1								
6/7/2017	GH_TC1	E102714	0.501	0.46	502	12.7	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	957	0.443
6/12/2017	GH_TC1	E102714				13								
6/19/2017	GH_TC1	E102714	0.518	0.525	553	14.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1100	0.762
6/27/2017	GH_TC1	E102714				16.3								
7/4/2017	GH_TC1	E102714				16.8								
7/10/2017	GH_TC1	E102714	0.661	0.673	807	20.1	0.011	0.013	< 0.00010	< 0.00010	< 10	< 10	1420	0.828
8/2/2017	GH_TC1	E102714	0.677	0.697	917	18.4	0.012	0.014	< 0.00010	< 0.00010	< 10	< 10	1750	0.797
9/13/2017	GH_TC1	E102714	0.761	0.74	1030	12.74	0.01	0.012	< 0.00010	< 0.00010	< 10	< 10	1600	0.557
10/4/2017	GH_TC1	E102714	0.701	0.69	921	4.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1650	0.59
11/6/2017	GH_TC1	E102714	0.732	0.669	876	-0.1	< 0.010	< 0.050	< 0.00010	< 0.00050	< 10	< 10	1580	0.381
12/12/2017	GH_TC1	E102714	0.606	0.61	776	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1480	0.419
1/10/2017	GH_TC2	E207436	0.562	0.538	634	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1290	0.314
2/9/2017	GH_TC2	E207436	0.562	0.513	630	0	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1300	0.384
2/15/2017	GH_TC2	E207436	0.587	0.593	590	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1230	0.518
3/6/2017	GH_TC2	E207436	0.542	0.606	635	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1270	0.304
3/16/2017	GH_TC2	E207436				0.1								
3/21/2017	GH_TC2	E207436				0.1								
3/28/2017	GH_TC2	E207436				0.8								
4/4/2017	GH_TC2	E207436				1.1								
4/10/2017	GH_TC2	E207436				1.6								
4/20/2017	GH_TC2	E207436	0.303	0.274	228	3.2	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	538	0.451
4/25/2017	GH_TC2	E207436				4.6								
5/3/2017	GH_TC2	E207436	0.315	0.288	218	4.4	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	531	0.403
5/10/2017	GH_TC2	E207436				6.5								
5/15/2017	GH_TC2	E207436				6.5								
5/24/2017	GH_TC2	E207436				9								
5/29/2017	GH_TC2	E207436				13.7								
6/7/2017	GH_TC2	E207436	0.505	0.464	501	15	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1030	0.398
6/12/2017	GH_TC2	E207436				14.6								
6/19/2017	GH_TC2	E207436	0.52	0.524	558	13.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1080	0.7
6/27/2017	GH_TC2	E207436				17.6								
7/4/2017	GH_TC2	E207436				19.6								
7/10/2017	GH_TC2	E207436	0.66	0.68	799	21	0.01	0.01	< 0.00010	< 0.00010	< 10	< 10	1420	0.448
8/2/2017	GH_TC2	E207436	0.707	0.692	945	19.2	0.011	0.012	< 0.00010	< 0.00010	< 10	< 10	1820	0.749
9/12/2017	GH_TC2	E207436	0.751	0.777	1020	14.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1630	< 0.050

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Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
10/3/2017	GH_TC2	E207436	0.708	0.723	946	7.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1360	0.718
11/14/2017	GH_TC2	E207436	0.625	0.661	874	0.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1510	0.323
12/6/2017	GH_TC2	E207436	0.632	0.612	780	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1460	0.35
6/7/2017	GH_TPS	E287438	0.306	0.286	142	21	0.035	0.041	< 0.00010	< 0.00010	< 10	< 10	384	0.42
6/19/2017	GH_TPS	E287438	0.32	0.321	151	16.3	0.035	< 0.050	< 0.00010	< 0.00050	< 10	< 10	411	1.46
11/21/2017	GH_TPS	E287438	0.603	0.741	265		0.047	0.054	< 0.00010	< 0.00010	< 10	< 10	727	2.54
1/10/2017	GH_WADE	E287433												
2/14/2017	GH_WADE	E287433												
3/6/2017	GH_WADE	E287433												
3/16/2017	GH_WADE	E287433	0.206	0.218	25.5	-0.1	< 0.010	0.035	< 0.00010	< 0.00010	< 10	< 10	248	0.453
3/22/2017	GH_WADE	E287433	0.223	0.218	27.6	-0.1	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	264	0.231
3/27/2017	GH_WADE	E287433				0.5								
3/28/2017	GH_WADE	E287433												
3/30/2017	GH_WADE	E287433												
4/4/2017	GH_WADE	E287433				1.2								
4/4/2017	GH_WADE	E287433												
4/10/2017	GH_WADE	E287433				1.4								
4/18/2017	GH_WADE	E287433	0.26	0.273	29	2.1	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	260	0.239
4/25/2017	GH_WADE	E287433				1.6								
5/1/2017	GH_WADE	E287433	0.223	0.229	24.6	1.7	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	269	0.23
5/8/2017	GH_WADE	E287433				2.1								
5/15/2017	GH_WADE	E287433				2.4								
5/24/2017	GH_WADE	E287433				6.2								
5/29/2017	GH_WADE	E287433				6.7								
6/5/2017	GH_WADE	E287433	0.288	0.284	30.5	9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	264	0.24
6/12/2017	GH_WADE	E287433				6.9								
6/20/2017	GH_WADE	E287433				10								
6/27/2017	GH_WADE	E287433				11.2								
7/4/2017	GH_WADE	E287433				11.1								
7/10/2017	GH_WADE	E287433	0.33	0.331	33.7	13.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	324	0.216
8/2/2017	GH_WADE	E287433												
9/12/2017	GH_WADE	E287433												
10/3/2017	GH_WADE	E287433												
11/28/2017	GH_WADE	E287433	0.359	0.355	39.5	0.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	351	0.084
12/6/2017	GH_WADE	E287433												
1/10/2017	GH_WC1	E257795												
2/15/2017	GH_WC1	E257795												
3/6/2017	GH_WC1	E257795												
3/16/2017	GH_WC1	E257795												
3/21/2017	GH_WC1	E257795												
3/27/2017	GH_WC1	E257795	0.293	0.258	176	1.2	0.011	0.016	< 0.00010	< 0.00010	< 10	< 10	501	0.687
4/4/2017	GH_WC1	E257795				1.9								
4/10/2017	GH_WC1	E257795				1.9								
4/20/2017	GH_WC1	E257795	0.425	0.389	523	5.6	0.022	0.024	< 0.00010	< 0.00010	< 10	< 10	1130	0.566
4/25/2017	GH_WC1	E257795				5.8								
5/1/2017	GH_WC1	E257795	0.379	0.395	207	7	0.033	0.036	< 0.00010	< 0.00010	< 10	< 10	765	0.397
5/3/2017	GH_WC1	E257795												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
5/8/2017	GH_WC1	E257795				6								
5/15/2017	GH_WC1	E257795				7.6								
5/24/2017	GH_WC1	E257795				11.8								
5/29/2017	GH_WC1	E257795				13.7								
6/5/2017	GH_WC1	E257795	0.605	0.632	511	15	0.026	0.031	< 0.00010	< 0.00010	< 10	< 10	1250	0.438
6/12/2017	GH_WC1	E257795				13.5								
6/19/2017	GH_WC1	E257795												
6/27/2017	GH_WC1	E257795												
7/4/2017	GH_WC1	E257795												
7/10/2017	GH_WC1	E257795												
8/2/2017	GH_WC1	E257795												
9/11/2017	GH_WC1	E257795												
10/3/2017	GH_WC1	E257795												
11/6/2017	GH_WC1	E257795												
12/12/2017	GH_WC1	E257795	0.673	0.695	674	1.6	0.046	0.045	< 0.00010	< 0.00010	< 10	< 10	1490	0.211
1/16/2017	GH_WILLOW_SP1	E305854												
2/14/2017	GH_WILLOW_SP1	E305854												
3/6/2017	GH_WILLOW_SP1	E305854												
3/16/2017	GH_WILLOW_SP1	E305854												
3/22/2017	GH_WILLOW_SP1	E305854												
3/27/2017	GH_WILLOW_SP1	E305854												
4/4/2017	GH_WILLOW_SP1	E305854				1.6								
4/10/2017	GH_WILLOW_SP1	E305854				1.5								
4/18/2017	GH_WILLOW_SP1	E305854	0.157	0.144	7.45	3.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	195	0.207
4/25/2017	GH_WILLOW_SP1	E305854				3.2								
5/3/2017	GH_WILLOW_SP1	E305854	0.14	0.121	7.35	4.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	203	0.195
5/8/2017	GH_WILLOW_SP1	E305854				3.2								
5/15/2017	GH_WILLOW_SP1	E305854				4.8								
5/24/2017	GH_WILLOW_SP1	E305854				9.3								
5/29/2017	GH_WILLOW_SP1	E305854				10.3								
6/5/2017	GH_WILLOW_SP1	E305854	0.126	0.121	26.8	12.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	220	0.195
6/12/2017	GH_WILLOW_SP1	E305854				12.5								
6/20/2017	GH_WILLOW_SP1	E305854												
6/27/2017	GH_WILLOW_SP1	E305854												
7/4/2017	GH_WILLOW_SP1	E305854												
7/10/2017	GH_WILLOW_SP1	E305854												
8/2/2017	GH_WILLOW_SP1	E305854												
9/12/2017	GH_WILLOW_SP1	E305854												
10/3/2017	GH_WILLOW_SP1	E305854												
11/6/2017	GH_WILLOW_SP1	E305854												
12/6/2017	GH_WILLOW_SP1	E305854												
1/10/2017	GH_WOLF_SP1	E305855												
2/14/2017	GH_WOLF_SP1	E305855												
3/6/2017	GH_WOLF_SP1	E305855												
3/16/2017	GH_WOLF_SP1	E305855												
3/22/2017	GH_WOLF_SP1	E305855												
3/27/2017	GH_WOLF_SP1	E305855												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
4/4/2017	GH_WOLF_SP1	E305855												
4/10/2017	GH_WOLF_SP1	E305855												
4/20/2017	GH_WOLF_SP1	E305855												
4/24/2017	GH_WOLF_SP1	E305855												
5/1/2017	GH_WOLF_SP1	E305855												
5/8/2017	GH_WOLF_SP1	E305855												
5/15/2017	GH_WOLF_SP1	E305855												
5/22/2017	GH_WOLF_SP1	E305855												
5/29/2017	GH_WOLF_SP1	E305855												
6/5/2017	GH_WOLF_SP1	E305855												
6/12/2017	GH_WOLF_SP1	E305855												
6/20/2017	GH_WOLF_SP1	E305855												
6/27/2017	GH_WOLF_SP1	E305855												
7/4/2017	GH_WOLF_SP1	E305855												
7/10/2017	GH_WOLF_SP1	E305855												
8/1/2017	GH_WOLF_SP1	E305855												
9/12/2017	GH_WOLF_SP1	E305855												
10/3/2017	GH_WOLF_SP1	E305855												
11/6/2017	GH_WOLF_SP1	E305855												
12/6/2017	GH_WOLF_SP1	E305855												
1/12/2017	LC_LC1	E216142												
2/14/2017	LC_LC1	E216142												
3/9/2017	LC_LC1	E216142												
3/14/2017	LC_LC1	E216142												
3/21/2017	LC_LC1	E216142												
3/29/2017	LC_LC1	E216142												
4/5/2017	LC_LC1	E216142												
4/11/2017	LC_LC1	E216142												
4/20/2017	LC_LC1	E216142												
4/25/2017	LC_LC1	E216142	0.181	0.194	48.2	1.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	183	0.1
5/1/2017	LC_LC1	E216142	0.192	0.191	58.1	1.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	191	0.396
5/5/2017	LC_LC1	E216142												
5/6/2017	LC_LC1	E216142												
5/9/2017	LC_LC1	E216142				3.6								
5/9/2017	LC_LC1	E216142												
5/16/2017	LC_LC1	E216142				2.7								
5/24/2017	LC_LC1	E216142				2.2								
5/30/2017	LC_LC1	E216142				3.6								
6/6/2017	LC_LC1	E216142												
6/7/2017	LC_LC1	E216142	0.0755	0.0766	20.2	3.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	138	< 0.050
6/13/2017	LC_LC1	E216142				4.1								
6/20/2017	LC_LC1	E216142				4.2								
6/20/2017	LC_LC1	E216142												
6/26/2017	LC_LC1	E216142				6								
7/6/2017	LC_LC1	E216142	0.0984	0.0951	33.5	4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	156	0.25
7/10/2017	LC_LC1	E216142												
7/11/2017	LC_LC1	E216142				4.7								

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
8/2/2017	LC_LC1	E216142	0.148	0.148	52.5	6.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	195	< 0.050
8/2/2017	LC_LC1	E216142												
8/8/2017	LC_LC1	E216142				8.4								
8/15/2017	LC_LC1	E216142				7.4								
8/18/2017	LC_LC1	E216142				7.5								
8/18/2017	LC_LC1	E216142												
8/21/2017	LC_LC1	E216142				7.6								
8/24/2017	LC_LC1	E216142												
8/24/2017	LC_LC1	E216142				8.8								
8/27/2017	LC_LC1	E216142				6.2								
8/30/2017	LC_LC1	E216142				8.7								
9/2/2017	LC_LC1	E216142				6.3								
9/5/2017	LC_LC1	E216142	0.179	0.179	67.4	7.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	210	< 0.050
9/5/2017	LC_LC1	E216142												
9/8/2017	LC_LC1	E216142												
10/3/2017	LC_LC1	E216142	0.189	0.194	76.3	3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	234	0.117
11/8/2017	LC_LC1	E216142	0.197	0.195	80.1	0	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	232	0.068
11/8/2017	LC_LC1	E216142												
11/30/2017	LC_LC1	E216142												
12/4/2017	LC_LC1	E216142	0.203	0.215	74.4	0	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	245	0.069
12/4/2017	LC_LC1	E216142												
1/9/2017	LC_LC12	E223240												
2/15/2017	LC_LC12	E223240												
3/6/2017	LC_LC12	E223240												
3/14/2017	LC_LC12	E223240												
3/20/2017	LC_LC12	E223240												
3/27/2017	LC_LC12	E223240												
4/3/2017	LC_LC12	E223240												
4/10/2017	LC_LC12	E223240												
4/17/2017	LC_LC12	E223240												
4/24/2017	LC_LC12	E223240												
5/1/2017	LC_LC12	E223240												
5/9/2017	LC_LC12	E223240	0.169	0.157	185	3	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	508	0.43
5/16/2017	LC_LC12	E223240				2.6								
5/23/2017	LC_LC12	E223240				2.4								
5/30/2017	LC_LC12	E223240				3.9								
6/6/2017	LC_LC12	E223240	0.103	0.1	103	4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	308	0.056
6/13/2017	LC_LC12	E223240				4.7								
6/20/2017	LC_LC12	E223240				5.5								
6/26/2017	LC_LC12	E223240				5.6								
7/5/2017	LC_LC12	E223240	0.137	0.133	176	6.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	422	0.479
7/11/2017	LC_LC12	E223240				6.9								
1/9/2017	LC_LC2	200335	0.132	0.138	66.2	1.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	232	0.066
2/14/2017	LC_LC2	200335	0.139	0.142	72.3	2.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	231	< 0.050
3/6/2017	LC_LC2	200335	0.147	0.138	73.8	1.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	275	0.052
3/13/2017	LC_LC2	200335				2.5								
3/16/2017	LC_LC2	200335												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
3/17/2017	LC_LC2	200335	0.14	0.142	76.5	2.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	239	< 0.050
3/18/2017	LC_LC2	200335												
3/19/2017	LC_LC2	200335												
3/20/2017	LC_LC2	200335				2.8								
3/21/2017	LC_LC2	200335												
3/22/2017	LC_LC2	200335												
3/23/2017	LC_LC2	200335												
3/24/2017	LC_LC2	200335												
3/25/2017	LC_LC2	200335												
3/26/2017	LC_LC2	200335												
3/27/2017	LC_LC2	200335				3.4								
4/4/2017	LC_LC2	200335	0.147	0.138	74.9	4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	250	< 0.050
4/4/2017	LC_LC2	200335												
4/10/2017	LC_LC2	200335				4.2								
4/18/2017	LC_LC2	200335				4.4								
4/25/2017	LC_LC2	200335				2.3								
5/1/2017	LC_LC2	200335	0.148	0.145	66.7	3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	217	0.085
5/5/2017	LC_LC2	200335												
5/6/2017	LC_LC2	200335												
5/7/2017	LC_LC2	200335												
5/9/2017	LC_LC2	200335				3.3								
5/11/2017	LC_LC2	200335												
5/13/2017	LC_LC2	200335												
5/16/2017	LC_LC2	200335				2.7								
5/18/2017	LC_LC2	200335												
5/23/2017	LC_LC2	200335				2.5								
5/24/2017	LC_LC2	200335												
5/25/2017	LC_LC2	200335												
5/30/2017	LC_LC2	200335				3.3								
6/1/2017	LC_LC2	200335												
6/5/2017	LC_LC2	200335												
6/6/2017	LC_LC2	200335	0.0877	0.0856	23.1	4.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	141	< 0.050
6/13/2017	LC_LC2	200335				4.9								
6/20/2017	LC_LC2	200335				5.8								
6/26/2017	LC_LC2	200335				7								
7/5/2017	LC_LC2	200335	0.104	0.104	37	5.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	157	0.361
7/6/2017	LC_LC2	200335												
7/10/2017	LC_LC2	200335												
7/11/2017	LC_LC2	200335				4.8								
8/2/2017	LC_LC2	200335	0.133	0.131	54.9	6.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	224	< 0.050
8/2/2017	LC_LC2	200335												
9/6/2017	LC_LC2	200335	0.134	0.134	63.7	6.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	235	< 0.050
10/3/2017	LC_LC2	200335	0.134	0.136	71.5	4.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	258	0.076
11/8/2017	LC_LC2	200335	0.157	0.141	78.4	2.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	258	0.076
11/8/2017	LC_LC2	200335												
12/4/2017	LC_LC2	200335	0.148	0.141	80.5	0.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	268	0.086
1/2/2017	LC_LC3	200337	0.198	0.243	346	2.3	0.013	0.015	< 0.00010	< 0.00010	< 10	< 10	804	< 0.25

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
1/2/2017	LC_LC3	200337												
1/9/2017	LC_LC3	200337	0.221	0.235	406	3	0.01	0.017	< 0.00010	< 0.00010	< 10	< 10	895	0.172
1/16/2017	LC_LC3	200337	0.219	0.241	404	2.6	0.011	0.012	< 0.00010	< 0.00010	< 10	< 10	875	0.1
1/23/2017	LC_LC3	200337	0.232	0.238	443	3.3	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	968	0.102
1/31/2017	LC_LC3	200337	0.226	0.236	419	2.6	< 0.010	0.013	< 0.00010	< 0.00010	< 10	< 10	928	0.088
2/7/2017	LC_LC3	200337	0.24	0.241	384	2.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	907	0.105
2/14/2017	LC_LC3	200337	0.232	0.23	440	3.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	936	< 0.050
2/20/2017	LC_LC3	200337	0.245	0.252	427	4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	922	< 0.050
2/24/2017	LC_LC3	200337	0.249	0.26	413	3.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	914	< 0.050
2/27/2017	LC_LC3	200337	0.231	0.243	433	3.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	938	< 0.050
3/1/2017	LC_LC3	200337												
3/6/2017	LC_LC3	200337	0.25	0.246	444	3.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	999	0.13
3/13/2017	LC_LC3	200337	0.24	0.245	443	4.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	983	0.863
3/16/2017	LC_LC3	200337												
3/16/2017	LC_LC3	200337												
3/17/2017	LC_LC3	200337	0.237	0.248	372	2.7	0.011	0.022	< 0.00010	< 0.00010	< 10	< 10	796	0.89
3/18/2017	LC_LC3	200337												
3/19/2017	LC_LC3	200337												
3/20/2017	LC_LC3	200337	0.221	0.24	343	3.9	0.012	0.026	< 0.00010	< 0.00010	< 10	< 10	780	0.664
3/21/2017	LC_LC3	200337												
3/22/2017	LC_LC3	200337												
3/23/2017	LC_LC3	200337												
3/24/2017	LC_LC3	200337												
3/25/2017	LC_LC3	200337												
3/26/2017	LC_LC3	200337												
3/27/2017	LC_LC3	200337	0.256	0.268	419	4.5	0.011	0.014	< 0.00010	< 0.00010	< 10	< 10	876	0.602
3/28/2017	LC_LC3	200337												
3/29/2017	LC_LC3	200337												
3/30/2017	LC_LC3	200337												
4/3/2017	LC_LC3	200337	0.255	0.234	382	4.8	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	915	0.411
4/4/2017	LC_LC3	200337												
4/10/2017	LC_LC3	200337	0.255	0.241	428	4.1	0.013	0.014	< 0.00010	< 0.00010	< 10	< 10	972	< 0.050
4/18/2017	LC_LC3	200337	0.259	0.258	410	6.1	0.012	0.013	< 0.00010	< 0.00010	< 10	< 10	967	0.783
4/25/2017	LC_LC3	200337	0.256	0.249	368	4.8	0.031	0.014	< 0.00010	< 0.00010	< 10	< 10	869	0.728
5/1/2017	LC_LC3	200337	0.241	0.231	348	5.3	0.013	0.014	< 0.00010	< 0.00010	< 10	< 10	823	0.456
5/4/2017	LC_LC3	200337												
5/7/2017	LC_LC3	200337												
5/9/2017	LC_LC3	200337	0.159	0.155	175	4.2	0.015	0.016	< 0.00010	< 0.00010	< 10	< 10	476	0.372
5/16/2017	LC_LC3	200337	0.136	0.123	145	3.9	0.014	0.015	< 0.00010	< 0.00010	< 10	< 10	391	< 0.050
5/18/2017	LC_LC3	200337												
5/23/2017	LC_LC3	200337	0.156	0.155	175	4.4	0.016	0.016	< 0.00010	< 0.00010	< 10	< 10	520	0.632
5/30/2017	LC_LC3	200337	0.145	0.146	145	3.9	0.011	0.027	< 0.00010	< 0.00010	< 10	< 10	424	0.644
6/6/2017	LC_LC3	200337												
6/7/2017	LC_LC3	200337	0.145	0.145	148	4.7	0.015	0.015	< 0.00010	< 0.00010	< 10	< 10	464	0.368
6/13/2017	LC_LC3	200337	0.169	0.171	180	4.8	0.016	0.017	< 0.00010	< 0.00010	< 10	< 10	490	0.354
6/19/2017	LC_LC3	200337	0.176	0.172	188	6.3	0.015	0.016	< 0.00010	< 0.00010	< 10	< 10	508	0.84
6/26/2017	LC_LC3	200337	0.183	0.175	211	5.8	0.015	0.014	< 0.00010	< 0.00010	< 10	< 10	604	0.27

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
7/6/2017	LC_LC3	200337												
7/6/2017	LC_LC3	200337	0.185	0.181	235	6.8	0.015	0.014	< 0.00010	< 0.00010	< 10	< 10	603	0.17
7/11/2017	LC_LC3	200337												
7/11/2017	LC_LC3	200337	0.195	0.191	253	6.6	0.016	0.016	< 0.00010	< 0.00010	< 10	< 10	628	< 0.050
7/13/2017	LC_LC3	200337												
7/14/2017	LC_LC3	200337	0.202	0.204	278		0.016	0.02	< 0.00010	< 0.00010	< 10	< 10	715	< 0.050
7/14/2017	LC_LC3	200337				6								
7/18/2017	LC_LC3	200337	0.204	0.199	273	7.6	0.023	0.021	< 0.00010	< 0.00010	< 10	< 10	679	0.548
7/25/2017	LC_LC3	200337												
7/25/2017	LC_LC3	200337	0.218	0.212	301	7.9	0.015	0.014	< 0.00010	< 0.00010	< 10	< 10	729	0.952
7/26/2017	LC_LC3	200337	0.22	0.207			0.017	0.018	< 0.00010	< 0.00010	< 10	< 10		0.589
8/2/2017	LC_LC3	200337												
8/2/2017	LC_LC3	200337	0.233	0.227	330	7	0.018	0.017	< 0.00010	< 0.00010	< 10	< 10	798	0.12
8/8/2017	LC_LC3	200337												
8/8/2017	LC_LC3	200337	0.223	0.23	295	7.4	0.017	0.019	< 0.00010	< 0.00010	< 10	< 10	743	< 0.050
8/12/2017	LC_LC3	200337	0.221	0.22	308		0.016	0.017	< 0.00010	< 0.00010	< 10	< 10	711	0.448
8/12/2017	LC_LC3	200337				8.2								
8/15/2017	LC_LC3	200337												
8/15/2017	LC_LC3	200337	0.189	0.221	304	8.5	0.014	0.018	< 0.00010	< 0.00010	< 10	< 10	733	< 0.050
8/18/2017	LC_LC3	200337				8.4								
8/21/2017	LC_LC3	200337	0.204	0.216	333	8	0.017	0.017	< 0.00010	< 0.00010	< 10	< 10	784	0.59
8/24/2017	LC_LC3	200337												
8/24/2017	LC_LC3	200337				8.3								
8/25/2017	LC_LC3	200337				6.8								
8/27/2017	LC_LC3	200337												
8/27/2017	LC_LC3	200337				9.3								
8/30/2017	LC_LC3	200337												
8/30/2017	LC_LC3	200337	0.208	0.205	329	8.8	0.017	0.016	< 0.00010	< 0.00010	< 10	< 10	735	0.375
9/2/2017	LC_LC3	200337												
9/2/2017	LC_LC3	200337				9.3								
9/5/2017	LC_LC3	200337												
9/5/2017	LC_LC3	200337	0.21	0.216	332	9.1	0.013	0.016	< 0.00010	< 0.00010	< 10	< 10	807	0.476
9/5/2017	LC_LC3	200337				9.1								
9/8/2017	LC_LC3	200337				8.4								
9/12/2017	LC_LC3	200337	0.202	0.22	390	8.5	0.015	0.02	< 0.00010	< 0.00010	< 10	< 10	849	0.435
9/20/2017	LC_LC3	200337												
9/20/2017	LC_LC3	200337	0.208	0.213	363	7.3	0.013	0.013	< 0.00010	< 0.00010	< 10	< 10	807	0.075
9/21/2017	LC_LC3	200337	0.207	0.211	342		0.018	0.02	< 0.00010	< 0.00010	< 10	< 10	773	0.36
9/25/2017	LC_LC3	200337												
9/25/2017	LC_LC3	200337	0.191	0.19	337		0.013	0.012	< 0.00010	< 0.00010	< 10	< 10	801	< 0.050
9/25/2017	LC_LC3	200337	0.201	0.212	349	7.4	0.013	0.014	< 0.00010	< 0.00010	< 10	< 10	782	< 0.50
10/2/2017	LC_LC3	200337	0.209	0.206	336	6.2	0.013	0.012	< 0.00010	< 0.00010	< 10	< 10	774	0.42
10/10/2017	LC_LC3	200337	0.207	0.23	382	6.1	0.011	0.014	< 0.00010	< 0.00010	< 10	< 10	844	0.6
10/10/2017	LC_LC3	200337												
10/17/2017	LC_LC3	200337	0.222	0.228	404	5.4	0.014	0.015	< 0.00010	< 0.00010	< 10	< 10	950	0.593
10/24/2017	LC_LC3	200337	0.237	0.234	352	5.7	0.016	0.017	< 0.00010	< 0.00010	< 10	< 10	882	0.269
10/24/2017	LC_LC3	200337												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
10/31/2017	LC_LC3	200337	0.223	0.226	358	4.5	0.018	0.017	< 0.00010	< 0.00010	< 10	< 10	870	0.098
10/31/2017	LC_LC3	200337												
11/6/2017	LC_LC3	200337	0.262	0.235	360	4.1	0.013	0.014	< 0.00010	< 0.00010	< 10	< 10	896	0.26
11/8/2017	LC_LC3	200337												
11/9/2017	LC_LC3	200337	0.239	0.221	374	4.3	0.012	0.017	< 0.00010	< 0.00010	< 10	< 10	788	< 0.050
11/14/2017	LC_LC3	200337	0.238	0.251	368	5.2	0.014	0.017	< 0.00010	< 0.00010	< 10	< 10	813	0.07
11/21/2017	LC_LC3	200337	0.224	0.241	371	4	0.014	0.016	< 0.00010	< 0.00010	< 10	< 10	825	< 0.050
11/28/2017	LC_LC3	200337	0.233	0.249	352	4.1	0.015	0.014	< 0.00010	< 0.00010	< 10	< 10	845	0.394
12/4/2017	LC_LC3	200337	0.244	0.242	350	3.7	0.016	0.017	< 0.00010	< 0.00010	< 10	< 10	868	< 0.050
12/12/2017	LC_LC3	200337	0.247	0.246	354	3.5	0.016	0.015	< 0.00010	< 0.00010	< 10	< 10	876	0.283
12/18/2017	LC_LC3	200337	0.241	0.24	373	3.6	0.013	0.013	< 0.00010	< 0.00010	< 10	< 10	880	0.199
12/27/2017	LC_LC3	200337	0.254	0.257	375	2.4	0.015	0.015	< 0.00010	< 0.00010	< 10	< 10	874	0.513
12/27/2017	LC_LC3	200337												
1/9/2017	LC_LC4	200044	0.198	0.211	221	0	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	566	0.106
2/14/2017	LC_LC4	200044	0.219	0.199	224	0.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	566	< 0.050
2/24/2017	LC_LC4	200044	0.238	0.226	221	0.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	530	< 0.050
2/27/2017	LC_LC4	200044	0.202	0.22	225	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	564	< 0.050
3/6/2017	LC_LC4	200044	0.229	0.222	229	0.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	590	0.08
3/13/2017	LC_LC4	200044	0.222	0.224	226	2.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	543	1.06
3/15/2017	LC_LC4	200044												
3/16/2017	LC_LC4	200044												
3/17/2017	LC_LC4	200044	0.214	0.205	218	1	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	522	0.707
3/18/2017	LC_LC4	200044												
3/19/2017	LC_LC4	200044												
3/20/2017	LC_LC4	200044	0.199	0.206	196	0.1	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	486	0.607
3/21/2017	LC_LC4	200044												
3/22/2017	LC_LC4	200044												
3/23/2017	LC_LC4	200044												
3/24/2017	LC_LC4	200044												
3/25/2017	LC_LC4	200044												
3/26/2017	LC_LC4	200044												
3/27/2017	LC_LC4	200044	0.226	0.226	231	2.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	530	0.358
4/3/2017	LC_LC4	200044	0.233	0.207	224	2.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	565	0.445
4/10/2017	LC_LC4	200044	0.222	0.211	222	4.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	589	< 0.050
4/18/2017	LC_LC4	200044	0.221	0.207	225	4.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	584	0.68
4/24/2017	LC_LC4	200044	0.209	0.215	180	2.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	512	0.7
4/27/2017	LC_LC4	200044												
5/1/2017	LC_LC4	200044	0.206	0.208	204	6.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	559	0.445
5/5/2017	LC_LC4	200044												
5/6/2017	LC_LC4	200044												
5/7/2017	LC_LC4	200044												
5/8/2017	LC_LC4	200044												
5/8/2017	LC_LC4	200044	0.133	0.136	114	2.9	< 0.010	0.026	< 0.00010	< 0.00010	< 10	< 10	338	0.44
5/10/2017	LC_LC4	200044												
5/11/2017	LC_LC4	200044												
5/13/2017	LC_LC4	200044												
5/14/2017	LC_LC4	200044												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
5/15/2017	LC_LC4	200044	0.117	0.113	91.2	3.1	< 0.010	0.017	< 0.00010	< 0.00010	< 10	< 10	310	1.01
5/16/2017	LC_LC4	200044												
5/17/2017	LC_LC4	200044												
5/18/2017	LC_LC4	200044												
5/19/2017	LC_LC4	200044												
5/23/2017	LC_LC4	200044	0.103	0.109	73.4	3.6	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	277	0.55
5/24/2017	LC_LC4	200044												
5/25/2017	LC_LC4	200044												
5/30/2017	LC_LC4	200044	0.097	0.105	63.4	4	< 0.010	0.016	< 0.00010	< 0.00010	< 10	< 10	255	0.24
5/31/2017	LC_LC4	200044												
6/1/2017	LC_LC4	200044												
6/2/2017	LC_LC4	200044												
6/7/2017	LC_LC4	200044	0.103	0.107	78.3	4.7	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	283	0.292
6/13/2017	LC_LC4	200044	0.122	0.118	95.7	5.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	301	0.324
6/19/2017	LC_LC4	200044	0.13	0.133	104	8.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	316	0.54
6/26/2017	LC_LC4	200044	0.135	0.133	113	5.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	347	0.36
7/5/2017	LC_LC4	200044	0.148	0.143	137	5.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	387	0.533
7/11/2017	LC_LC4	200044	0.157	0.152	146	8.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	409	< 0.050
7/18/2017	LC_LC4	200044	0.17	0.168	167	8.1	0.012	< 0.010	< 0.00010	< 0.00010	< 10	< 10	457	0.088
7/25/2017	LC_LC4	200044	0.185	0.179	172	6.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	466	0.792
8/2/2017	LC_LC4	200044	0.198	0.193	182	8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	482	0.452
8/8/2017	LC_LC4	200044	0.197	0.192	185	7.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	469	< 0.050
8/15/2017	LC_LC4	200044	0.181	0.199	179	6.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	509	< 0.050
8/18/2017	LC_LC4	200044				7.2								
8/21/2017	LC_LC4	200044	0.189	0.195	192	6.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	524	0.39
8/24/2017	LC_LC4	200044				8.3								
8/27/2017	LC_LC4	200044				10.9								
8/30/2017	LC_LC4	200044	0.195	0.192	202	7.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	486	0.317
9/2/2017	LC_LC4	200044				7.5								
9/5/2017	LC_LC4	200044				7.8								
9/5/2017	LC_LC4	200044	0.196	0.201	195	7.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	525	0.35
9/8/2017	LC_LC4	200044				7.7								
9/12/2017	LC_LC4	200044	0.197	0.21	201	7.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	518	0.595
9/20/2017	LC_LC4	200044	0.2	0.205	210	5.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	549	0.252
9/25/2017	LC_LC4	200044	0.19	0.213	209	5.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	522	< 0.50
10/2/2017	LC_LC4	200044	0.196	0.201	205	4.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	550	0.482
10/10/2017	LC_LC4	200044	0.192	0.212	206	4.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	570	0.455
10/17/2017	LC_LC4	200044	0.201	0.207	215	5.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	569	0.55
10/24/2017	LC_LC4	200044	0.211	0.206	212	3.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	551	0.266
10/31/2017	LC_LC4	200044	0.215	0.211	218	2.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	567	0.113
11/6/2017	LC_LC4	200044	0.238	0.216	216	1.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	591	0.342
11/10/2017	LC_LC4	200044	0.22	0.197	220	3.1	< 0.010	< 0.050	< 0.00010	< 0.00050	< 10	< 10	598	< 0.25
11/14/2017	LC_LC4	200044	0.225	0.222	225	3.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	557	< 0.050
11/21/2017	LC_LC4	200044	0.215	0.231	220	3.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	582	0.311
11/23/2017	LC_LC4	200044												
11/28/2017	LC_LC4	200044	0.198	0.2	206	2.1	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	553	0.347
12/4/2017	LC_LC4	200044	0.224	0.232	226	0.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	601	< 0.050

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
12/12/2017	LC_LC4	200044	0.21	0.215	227	0.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	601	0.333
12/18/2017	LC_LC4	200044	0.221	0.217	232	1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	586	0.087
12/27/2017	LC_LC4	200044	0.245	0.234	226	0	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	585	0.419
1/2/2017	LC_LC5	200028	0.176	0.189	202	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	465	< 0.25
1/9/2017	LC_LC5	200028	0.17	0.179	191	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	520	0.118
1/16/2017	LC_LC5	200028	0.172	0.184	186	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	526	0.188
2/14/2017	LC_LC5	200028	0.178	0.183	196	0.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	528	< 0.050
3/6/2017	LC_LC5	200028	0.188	0.183	202	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	557	< 0.050
3/13/2017	LC_LC5	200028	0.175	0.188	203	1.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	532	< 0.050
3/16/2017	LC_LC5	200028												
3/20/2017	LC_LC5	200028	0.182	0.172	201	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	511	0.672
3/27/2017	LC_LC5	200028	0.19	0.182	212	1.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	516	0.416
4/3/2017	LC_LC5	200028	0.188	0.174	206	1.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	575	0.39
4/10/2017	LC_LC5	200028	0.176	0.167	202	3.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	516	0.058
4/18/2017	LC_LC5	200028	0.174	0.162	135	4.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	553	0.696
4/25/2017	LC_LC5	200028	0.161	0.148	172	5.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	495	0.68
5/1/2017	LC_LC5	200028	0.161	0.164	182	6.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	509	0.392
5/8/2017	LC_LC5	200028	0.116	0.115	102	2.6	< 0.010	0.015	< 0.00010	< 0.00010	< 10	< 10	306	0.426
5/15/2017	LC_LC5	200028	0.111	0.105	95.5	3	< 0.010	0.018	< 0.00010	0.0001	< 10	< 10	335	0.827
5/24/2017	LC_LC5	200028	0.092	0.125	73.3	3.4	< 0.010	0.084	< 0.00010	< 0.00010	< 10	11	302	1.56
5/31/2017	LC_LC5	200028	0.0874	0.101	72.3	5.2	< 0.010	0.044	< 0.00010	< 0.00010	< 10	< 10	281	0.655
6/6/2017	LC_LC5	200028	0.1	0.101	80.1	5.3	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	304	0.393
6/13/2017	LC_LC5	200028	0.123	0.123	94.4	5.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	310	0.48
6/19/2017	LC_LC5	200028	0.119	0.118	94.8	8.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	323	0.51
6/26/2017	LC_LC5	200028	0.121	0.12	112	10.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	380	0.323
7/6/2017	LC_LC5	200028	0.128	0.124	126	9.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	384	0.454
7/10/2017	LC_LC5	200028	0.134	0.132	134		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	361	0.207
7/18/2017	LC_LC5	200028	0.141	0.137	145	8.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	431	0.097
7/25/2017	LC_LC5	200028	0.155	0.15	153	10.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	443	0.713
8/2/2017	LC_LC5	200028	0.163	0.163	162		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	474	0.47
8/8/2017	LC_LC5	200028				14.7								
8/15/2017	LC_LC5	200028	0.158	0.171	163	7.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	473	< 0.050
8/18/2017	LC_LC5	200028				9.3								
8/21/2017	LC_LC5	200028				9								
8/24/2017	LC_LC5	200028				10.1								
8/27/2017	LC_LC5	200028				8.4								
8/30/2017	LC_LC5	200028				9.8								
9/2/2017	LC_LC5	200028				9.3								
9/5/2017	LC_LC5	200028				8.7								
9/5/2017	LC_LC5	200028	0.171	0.174	173	8.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	491	0.363
9/8/2017	LC_LC5	200028				9.2								
9/12/2017	LC_LC5	200028	0.175	0.207	179	9.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	489	0.36
10/2/2017	LC_LC5	200028	0.17	0.173	185	5.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	525	0.583
11/7/2017	LC_LC5	200028	0.204	0.191	207	0.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	560	0.435
11/28/2017	LC_LC5	200028	0.177	0.24	208	2.9	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	562	0.365
11/30/2017	LC_LC5	200028												
12/4/2017	LC_LC5	200028	0.207	0.198	216	0.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	569	< 0.050

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
1/9/2017	LC_LC7	E216144												
2/14/2017	LC_LC7	E216144												
3/6/2017	LC_LC7	E216144												
3/13/2017	LC_LC7	E216144												
3/17/2017	LC_LC7	E216144												
3/18/2017	LC_LC7	E216144												
3/19/2017	LC_LC7	E216144												
3/20/2017	LC_LC7	E216144												
3/21/2017	LC_LC7	E216144	0.0752	0.0799	52.4	0.1	0.013	0.038	< 0.00010	< 0.00010	< 10	< 10	289	0.341
3/21/2017	LC_LC7	E216144												
3/22/2017	LC_LC7	E216144												
3/23/2017	LC_LC7	E216144												
3/25/2017	LC_LC7	E216144												
3/26/2017	LC_LC7	E216144												
3/27/2017	LC_LC7	E216144	0.0952	0.0968	62.5	0.6	0.015	0.02	< 0.00010	< 0.00010	< 10	< 10	284	0.253
3/28/2017	LC_LC7	E216144												
3/29/2017	LC_LC7	E216144												
3/30/2017	LC_LC7	E216144												
3/31/2017	LC_LC7	E216144												
4/4/2017	LC_LC7	E216144	0.0939	0.0868	58.5	1.9	0.011	0.012	< 0.00010	< 0.00010	< 10	< 10	335	0.181
4/11/2017	LC_LC7	E216144												
4/18/2017	LC_LC7	E216144												
4/25/2017	LC_LC7	E216144												
5/1/2017	LC_LC7	E216144	0.0825	0.0816	59.1	6.1	0.013	0.013	< 0.00010	< 0.00010	< 10	< 10	283	0.203
5/1/2017	LC_LC7	E216144												
5/5/2017	LC_LC7	E216144												
5/6/2017	LC_LC7	E216144	0.0816	0.0826	39.6		< 0.010	0.042	< 0.00010	< 0.00010	< 10	< 10	200	0.283
5/7/2017	LC_LC7	E216144												
5/8/2017	LC_LC7	E216144												
5/11/2017	LC_LC7	E216144												
5/16/2017	LC_LC7	E216144												
5/23/2017	LC_LC7	E216144												
5/30/2017	LC_LC7	E216144												
5/31/2017	LC_LC7	E216144												
6/6/2017	LC_LC7	E216144	0.0891	0.0902	17.1	6.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	157	< 0.050
6/13/2017	LC_LC7	E216144												
6/20/2017	LC_LC7	E216144												
6/26/2017	LC_LC7	E216144												
7/5/2017	LC_LC7	E216144	0.106	0.104	25.1	8.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	161	0.284
7/7/2017	LC_LC7	E216144												
7/11/2017	LC_LC7	E216144												
7/11/2017	LC_LC7	E216144				8.4								
7/13/2017	LC_LC7	E216144												
8/2/2017	LC_LC7	E216144	0.128	0.126	36.4	9.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	187	< 0.050
8/2/2017	LC_LC7	E216144												
8/8/2017	LC_LC7	E216144			39.1	10.6							184	< 0.050
8/8/2017	LC_LC7	E216144	0.128	0.128			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
9/6/2017	LC_LC7	E216144	0.138	0.138	46.4	9.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	193	< 0.050
9/6/2017	LC_LC7	E216144												
10/3/2017	LC_LC7	E216144	0.138	0.142	55.5	3.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	213	0.172
10/3/2017	LC_LC7	E216144												
11/8/2017	LC_LC7	E216144	0.165	0.149	62.4	0.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	230	0.08
12/4/2017	LC_LC7	E216144	0.151	0.153	71.3	0.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	270	0.119
12/21/2017	LC_LC7	E216144												
5/23/2017	LC_LC7DSTF	E304613												
6/6/2017	LC_LC7DSTF	E304613	0.0883	0.0927	< 0.30		< 0.010	< 0.010	0.0001	< 0.00010	< 10	< 10	168	< 0.050
7/6/2017	LC_LC7DSTF	E304613	0.107	0.107	25.1	14	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	169	0.26
8/2/2017	LC_LC7DSTF	E304613			36.5								182	0.072
8/8/2017	LC_LC7DSTF	E304613			39.2	10.9							176	< 0.050
8/8/2017	LC_LC7DSTF	E304613	0.127	0.129			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
1/9/2017	LC_LC8	E219411												
2/14/2017	LC_LC8	E219411												
3/6/2017	LC_LC8	E219411												
3/13/2017	LC_LC8	E219411												
3/21/2017	LC_LC8	E219411												
3/27/2017	LC_LC8	E219411												
4/3/2017	LC_LC8	E219411												
4/11/2017	LC_LC8	E219411												
4/18/2017	LC_LC8	E219411												
4/25/2017	LC_LC8	E219411												
5/1/2017	LC_LC8	E219411												
5/9/2017	LC_LC8	E219411												
5/16/2017	LC_LC8	E219411												
5/23/2017	LC_LC8	E219411												
5/30/2017	LC_LC8	E219411												
6/6/2017	LC_LC8	E219411												
6/13/2017	LC_LC8	E219411												
6/19/2017	LC_LC8	E219411												
6/26/2017	LC_LC8	E219411												
10/3/2017	LC_LC8	E219411												
11/8/2017	LC_LC8	E219411												
12/4/2017	LC_LC8	E219411												
1/9/2017	LC_LC9	E221268												
2/14/2017	LC_LC9	E221268												
3/13/2017	LC_LC9	E221268												
3/16/2017	LC_LC9	E221268												
3/17/2017	LC_LC9	E221268												
3/18/2017	LC_LC9	E221268												
3/19/2017	LC_LC9	E221268												
3/21/2017	LC_LC9	E221268	0.103	0.111	108	0.6	0.018	0.034	< 0.00010	< 0.00010	< 10	< 10	336	1.32
3/21/2017	LC_LC9	E221268												
3/22/2017	LC_LC9	E221268												
3/23/2017	LC_LC9	E221268												
3/24/2017	LC_LC9	E221268												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
3/25/2017	LC_LC9	E221268												
3/26/2017	LC_LC9	E221268												
3/27/2017	LC_LC9	E221268												
3/28/2017	LC_LC9	E221268												
3/29/2017	LC_LC9	E221268												
3/30/2017	LC_LC9	E221268												
3/31/2017	LC_LC9	E221268												
4/4/2017	LC_LC9	E221268	0.136	0.13	150	2.1	0.016	0.018	< 0.00010	< 0.00010	< 10	< 10	495	0.712
4/5/2017	LC_LC9	E221268												
4/11/2017	LC_LC9	E221268												
4/18/2017	LC_LC9	E221268												
4/25/2017	LC_LC9	E221268												
5/1/2017	LC_LC9	E221268												
5/9/2017	LC_LC9	E221268												
5/16/2017	LC_LC9	E221268												
5/23/2017	LC_LC9	E221268												
5/30/2017	LC_LC9	E221268												
6/6/2017	LC_LC9	E221268												
6/13/2017	LC_LC9	E221268												
6/19/2017	LC_LC9	E221268												
6/26/2017	LC_LC9	E221268												
10/3/2017	LC_LC9	E221268												
11/8/2017	LC_LC9	E221268												
12/4/2017	LC_LC9	E221268												
1/2/2017	LC_LCDSSLCC	E297110	0.217	0.221	250	1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	614	< 0.25
1/5/2017	LC_LCDSSLCC	E297110												
1/9/2017	LC_LCDSSLCC	E297110	0.205	0.214	271	1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	646	0.124
1/13/2017	LC_LCDSSLCC	E297110												
1/16/2017	LC_LCDSSLCC	E297110	0.206	0.223	273	1.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	668	0.094
1/18/2017	LC_LCDSSLCC	E297110												
1/23/2017	LC_LCDSSLCC	E297110	0.212	0.222	295	1.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	745	< 0.050
1/31/2017	LC_LCDSSLCC	E297110	0.212	0.224	284	0.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	678	< 0.050
2/7/2017	LC_LCDSSLCC	E297110	0.222	0.221	265	0.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	676	< 0.050
2/14/2017	LC_LCDSSLCC	E297110	0.222	0.226	296	0.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	686	< 0.050
2/21/2017	LC_LCDSSLCC	E297110	0.225	0.224	295		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	707	0.118
2/21/2017	LC_LCDSSLCC	E297110				1.8								
2/22/2017	LC_LCDSSLCC	E297110												
2/27/2017	LC_LCDSSLCC	E297110	0.213	0.229	295	1.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	719	< 0.050
3/6/2017	LC_LCDSSLCC	E297110	0.236	0.225	299	2.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	729	0.118
3/9/2017	LC_LCDSSLCC	E297110												
3/13/2017	LC_LCDSSLCC	E297110	0.234	0.248	292	3.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	675	< 0.050
3/15/2017	LC_LCDSSLCC	E297110												
3/20/2017	LC_LCDSSLCC	E297110	0.211	0.21	246	3.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	597	0.739
3/21/2017	LC_LCDSSLCC	E297110												
3/27/2017	LC_LCDSSLCC	E297110	0.235	0.246	293	3.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	677	0.489
4/3/2017	LC_LCDSSLCC	E297110	0.236	0.221	284	4.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	735	0.537
4/10/2017	LC_LCDSSLCC	E297110	0.236	0.217	292	2.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	674	< 0.050

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
4/18/2017	LC_LCDSSLCC	E297110	0.235	0.21	263	6.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	745	0.67
4/24/2017	LC_LCDSSLCC	E297110				5.3								
4/25/2017	LC_LCDSSLCC	E297110	0.232	0.22	254		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	676	0.689
4/27/2017	LC_LCDSSLCC	E297110												
5/2/2017	LC_LCDSSLCC	E297110	0.221	0.221	254	3.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	679	0.114
5/5/2017	LC_LCDSSLCC	E297110												
5/9/2017	LC_LCDSSLCC	E297110	0.142	0.14	125	4.5	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	380	0.337
5/16/2017	LC_LCDSSLCC	E297110	0.127	0.114	105	3.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	340	0.92
5/17/2017	LC_LCDSSLCC	E297110												
5/23/2017	LC_LCDSSLCC	E297110	0.112	0.113	90.3	4.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	328	0.554
5/30/2017	LC_LCDSSLCC	E297110	0.104	0.104	76.1	3.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	269	0.395
6/7/2017	LC_LCDSSLCC	E297110	0.112	0.115	95.3	5.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	318	0.615
6/12/2017	LC_LCDSSLCC	E297110	0.128	0.127	110	5.4	0.01	0.011	< 0.00010	< 0.00010	< 10	< 10	330	0.536
6/13/2017	LC_LCDSSLCC	E297110				4.8								
6/19/2017	LC_LCDSSLCC	E297110	0.141	0.142	121	6.6	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	355	0.483
6/20/2017	LC_LCDSSLCC	E297110												
6/20/2017	LC_LCDSSLCC	E297110	0.142	0.142	122		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	349	0.499
6/26/2017	LC_LCDSSLCC	E297110	0.147	0.142	136	6.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	391	0.322
7/6/2017	LC_LCDSSLCC	E297110	0.156	0.148	162	8.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	467	0.666
7/11/2017	LC_LCDSSLCC	E297110												
7/11/2017	LC_LCDSSLCC	E297110	0.167	0.161	173	8.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	461	0.212
7/13/2017	LC_LCDSSLCC	E297110												
7/18/2017	LC_LCDSSLCC	E297110	0.178	0.173	195	8.6	0.011	0.013	< 0.00010	< 0.00010	< 10	< 10	503	0.504
7/21/2017	LC_LCDSSLCC	E297110				8.6								
7/25/2017	LC_LCDSSLCC	E297110												
7/25/2017	LC_LCDSSLCC	E297110	0.194	0.187	206	7.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	531	0.657
8/2/2017	LC_LCDSSLCC	E297110												
8/2/2017	LC_LCDSSLCC	E297110	0.204	0.202	219	7.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	587	0.403
8/8/2017	LC_LCDSSLCC	E297110												
8/8/2017	LC_LCDSSLCC	E297110	0.201	0.205	223	7.5	0.01	0.011	< 0.00010	< 0.00010	< 10	< 10	557	< 0.050
8/15/2017	LC_LCDSSLCC	E297110												
8/15/2017	LC_LCDSSLCC	E297110	0.191	0.209	215	7.9	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	577	< 0.050
8/18/2017	LC_LCDSSLCC	E297110				8.2								
8/21/2017	LC_LCDSSLCC	E297110	0.193	0.202	227	7.9	0.013	0.01	< 0.00010	< 0.00010	< 10	< 10	565	0.483
8/24/2017	LC_LCDSSLCC	E297110												
8/24/2017	LC_LCDSSLCC	E297110				8.6								
8/27/2017	LC_LCDSSLCC	E297110												
8/27/2017	LC_LCDSSLCC	E297110				10.8								
8/30/2017	LC_LCDSSLCC	E297110												
8/30/2017	LC_LCDSSLCC	E297110	0.201	0.202	241	8.9	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	575	0.49
9/2/2017	LC_LCDSSLCC	E297110				10.7								
9/5/2017	LC_LCDSSLCC	E297110												
9/5/2017	LC_LCDSSLCC	E297110	0.208	0.212	233	9.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	575	0.435
9/8/2017	LC_LCDSSLCC	E297110				8.4								
9/12/2017	LC_LCDSSLCC	E297110												
9/12/2017	LC_LCDSSLCC	E297110	0.201	0.212	242	7.9	< 0.010	0.01	< 0.00010	0.00012	< 10	< 10	617	0.407
9/13/2017	LC_LCDSSLCC	E297110				9.2								

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
9/20/2017	LC_LCDSSLCC	E297110												
9/20/2017	LC_LCDSSLCC	E297110	0.197	0.202	253	6.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	646	0.366
9/25/2017	LC_LCDSSLCC	E297110	0.201	0.204	250	7.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	596	< 0.50
9/25/2017	LC_LCDSSLCC	E297110												
9/26/2017	LC_LCDSSLCC	E297110												
10/2/2017	LC_LCDSSLCC	E297110	0.205	0.205	245	6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	651	0.51
10/3/2017	LC_LCDSSLCC	E297110												
10/10/2017	LC_LCDSSLCC	E297110	0.198	0.21	255	4.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	670	0.603
10/10/2017	LC_LCDSSLCC	E297110												
10/17/2017	LC_LCDSSLCC	E297110	0.209	0.215	264	5.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	699	0.591
10/18/2017	LC_LCDSSLCC	E297110												
10/24/2017	LC_LCDSSLCC	E297110	0.215	0.216	258	4.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	668	0.241
10/24/2017	LC_LCDSSLCC	E297110												
10/31/2017	LC_LCDSSLCC	E297110	0.224	0.213	262	3.9	0.011	< 0.010	< 0.00010	< 0.00010	< 10	< 10	699	0.111
11/6/2017	LC_LCDSSLCC	E297110	0.228	0.226	259	3.3	0.011	< 0.010	< 0.00010	< 0.00010	< 10	< 10	660	0.408
11/10/2017	LC_LCDSSLCC	E297110	0.224	0.21	265	3.4	< 0.010	< 0.050	< 0.00010	< 0.00050	< 10	< 10	653	< 0.25
11/14/2017	LC_LCDSSLCC	E297110	0.232	0.229	273	4.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	659	< 0.050
11/16/2017	LC_LCDSSLCC	E297110												
11/21/2017	LC_LCDSSLCC	E297110	0.217	0.237	266	5.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	685	0.256
11/28/2017	LC_LCDSSLCC	E297110												
11/28/2017	LC_LCDSSLCC	E297110	0.211	0.225	251	3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	625	0.357
11/30/2017	LC_LCDSSLCC	E297110												
12/4/2017	LC_LCDSSLCC	E297110	0.228	0.241	275	2.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	665	< 0.25
12/12/2017	LC_LCDSSLCC	E297110	0.222	0.23	273	2.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	696	0.228
12/12/2017	LC_LCDSSLCC	E297110												
12/14/2017	LC_LCDSSLCC	E297110												
12/18/2017	LC_LCDSSLCC	E297110	0.228	0.224	280	2.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	681	< 0.050
12/18/2017	LC_LCDSSLCC	E297110												
12/27/2017	LC_LCDSSLCC	E297110												
12/27/2017	LC_LCDSSLCC	E297110	0.248	0.246	280	1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	689	0.463
1/2/2017	LC_LCUSWLC	E293369	0.224	0.251	281	2.8	0.015	0.018	< 0.00010	< 0.00010	< 10	< 10	696	< 0.25
1/9/2017	LC_LCUSWLC	E293369	0.247	0.236	294	2.6	0.016	0.016	< 0.00010	< 0.00010	< 10	< 10	710	0.103
1/16/2017	LC_LCUSWLC	E293369	0.223	0.241	301	2.5	0.014	0.018	< 0.00010	< 0.00010	< 10	< 10	730	0.069
2/14/2017	LC_LCUSWLC	E293369	0.245	0.24	303	2.5	0.013	0.012	< 0.00010	< 0.00010	< 10	< 10	730	< 0.050
2/24/2017	LC_LCUSWLC	E293369	0.257	0.269	301	2.6	0.012	0.015	< 0.00010	< 0.00010	< 10	< 10	741	< 0.050
2/27/2017	LC_LCUSWLC	E293369	0.232	0.249	306	2.5	0.014	0.014	< 0.00010	< 0.00010	< 10	< 10	783	< 0.050
3/6/2017	LC_LCUSWLC	E293369	0.261	0.248	310	2.4	0.018	0.014	< 0.00010	< 0.00010	< 10	< 10	800	0.082
3/13/2017	LC_LCUSWLC	E293369	0.262	0.271	313	2.7	0.013	0.014	< 0.00010	< 0.00010	< 10	< 10	756	0.159
3/16/2017	LC_LCUSWLC	E293369												
3/18/2017	LC_LCUSWLC	E293369												
3/19/2017	LC_LCUSWLC	E293369												
3/20/2017	LC_LCUSWLC	E293369	0.233	0.222	277	3	0.016	0.027	< 0.00010	< 0.00010	< 10	< 10	664	0.715
3/22/2017	LC_LCUSWLC	E293369												
3/23/2017	LC_LCUSWLC	E293369												
3/24/2017	LC_LCUSWLC	E293369												
3/25/2017	LC_LCUSWLC	E293369												
3/26/2017	LC_LCUSWLC	E293369												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
3/27/2017	LC_LCUSWLC	E293369	0.254	0.264	300	3.2	0.016	0.021	< 0.00010	< 0.00010	< 10	< 10	722	0.223
3/28/2017	LC_LCUSWLC	E293369												
3/29/2017	LC_LCUSWLC	E293369												
3/30/2017	LC_LCUSWLC	E293369												
4/3/2017	LC_LCUSWLC	E293369	0.253	0.237	316	3.5	0.015	0.015	< 0.00010	< 0.00010	< 10	< 10	750	0.107
4/10/2017	LC_LCUSWLC	E293369	0.252	0.214	302	3.8	0.016	0.016	< 0.00010	< 0.00010	< 10	< 10	799	< 0.050
4/18/2017	LC_LCUSWLC	E293369	0.251	0.228	326	3.8	0.015	0.016	< 0.00010	< 0.00010	< 10	< 10	797	0.782
4/25/2017	LC_LCUSWLC	E293369	0.241	0.236	277	3.8	0.014	0.021	< 0.00010	< 0.00010	< 10	< 10	745	0.172
5/1/2017	LC_LCUSWLC	E293369	0.23	0.228	265	4	0.015	0.016	< 0.00010	< 0.00010	< 10	< 10	714	0.503
5/9/2017	LC_LCUSWLC	E293369	0.149	0.142	145	3.8	0.014	0.016	< 0.00010	< 0.00010	< 10	< 10	420	0.378
5/16/2017	LC_LCUSWLC	E293369	0.125	0.114	107	3.7	0.015	0.014	< 0.00010	< 0.00010	< 10	< 10	341	0.579
5/23/2017	LC_LCUSWLC	E293369	0.139	0.141	128	3.8	0.013	0.014	< 0.00010	< 0.00010	< 10	< 10	417	0.666
5/30/2017	LC_LCUSWLC	E293369	0.129	0.119	97	3.7	< 0.010	0.015	< 0.00010	< 0.00010	< 10	< 10	334	0.45
6/7/2017	LC_LCUSWLC	E293369	0.131	0.132	102	4.3	0.014	0.014	< 0.00010	< 0.00010	< 10	< 10	360	0.37
6/13/2017	LC_LCUSWLC	E293369	0.156	0.154	130	4.3	0.015	0.014	< 0.00010	< 0.00010	< 10	< 10	377	0.467
6/19/2017	LC_LCUSWLC	E293369	0.164	0.162	141	6.1	0.014	0.014	< 0.00010	< 0.00010	< 10	< 10	422	0.553
6/26/2017	LC_LCUSWLC	E293369	0.174	0.163	160	5.1	0.015	0.014	< 0.00010	< 0.00010	< 10	< 10	466	0.065
7/6/2017	LC_LCUSWLC	E293369	0.175	0.17	174	5.7	0.015	0.015	< 0.00010	< 0.00010	< 10	< 10	506	0.829
7/11/2017	LC_LCUSWLC	E293369	0.19	0.185	189	5.9	0.017	0.018	< 0.00010	< 0.00010	< 10	< 10	528	0.142
7/18/2017	LC_LCUSWLC	E293369	0.198	0.191	203	6.6	0.019	0.019	< 0.00010	< 0.00010	< 10	< 10	550	0.406
7/25/2017	LC_LCUSWLC	E293369	0.216	0.212	220	6.3	0.015	0.016	< 0.00010	< 0.00010	< 10	< 10	594	0.739
8/2/2017	LC_LCUSWLC	E293369	0.232	0.227	235	6.3	0.021	0.021	< 0.00010	< 0.00010	< 10	< 10	675	0.41
8/8/2017	LC_LCUSWLC	E293369	0.224	0.221	243	7	0.02	0.021	< 0.00010	< 0.00010	< 10	< 10	596	< 0.050
8/15/2017	LC_LCUSWLC	E293369	0.177	0.195	207	8	0.032	0.029	< 0.00010	< 0.00010	< 10	< 10	572	< 0.050
8/18/2017	LC_LCUSWLC	E293369				7.8								
8/21/2017	LC_LCUSWLC	E293369	0.198	0.207	217	8	0.019	0.02	< 0.00010	< 0.00010	< 10	< 10	594	0.42
8/24/2017	LC_LCUSWLC	E293369				8.1								
8/27/2017	LC_LCUSWLC	E293369				9.1								
8/30/2017	LC_LCUSWLC	E293369	0.203	0.211	225	8.4	0.02	0.021	< 0.00010	< 0.00010	< 10	< 10	572	0.497
9/2/2017	LC_LCUSWLC	E293369				8.3								
9/5/2017	LC_LCUSWLC	E293369				8.6								
9/5/2017	LC_LCUSWLC	E293369	0.207	0.206	216	8.6	0.02	0.02	< 0.00010	< 0.00010	< 10	< 10	558	0.388
9/8/2017	LC_LCUSWLC	E293369				8.3								
9/12/2017	LC_LCUSWLC	E293369	0.199	0.202	232	8.1	0.017	0.021	< 0.00010	< 0.00010	< 10	< 10	598	0.35
9/20/2017	LC_LCUSWLC	E293369	0.193	0.202	235	7.3	0.018	0.016	< 0.00010	< 0.00010	< 10	< 10	603	0.173
9/25/2017	LC_LCUSWLC	E293369	0.193	0.205	231	6.7	0.018	0.017	< 0.00010	< 0.00010	< 10	< 10	596	< 0.50
10/2/2017	LC_LCUSWLC	E293369	0.2	0.2	228	6.3	0.016	0.018	< 0.00010	< 0.00010	< 10	< 10	627	0.42
10/10/2017	LC_LCUSWLC	E293369	0.213	0.223	254	5.8	0.017	0.019	< 0.00010	< 0.00010	< 10	< 10	721	0.6
10/17/2017	LC_LCUSWLC	E293369	0.231	0.227	277	5.5	0.014	0.017	< 0.00010	< 0.00010	< 10	< 10	755	0.57
10/24/2017	LC_LCUSWLC	E293369	0.232	0.229	265	5.3	0.017	0.016	< 0.00010	< 0.00010	< 10	< 10	695	0.238
10/31/2017	LC_LCUSWLC	E293369	0.227	0.215	266	4.9	0.019	0.018	< 0.00010	< 0.00010	< 10	< 10	721	0.085
11/6/2017	LC_LCUSWLC	E293369	0.26	0.236	276	4.4	0.016	0.016	< 0.00010	< 0.00010	< 10	< 10	759	0.508
11/9/2017	LC_LCUSWLC	E293369	0.234	0.218	258	4.3	0.013	0.021	< 0.00010	< 0.00010	< 10	< 10	679	< 0.050
11/14/2017	LC_LCUSWLC	E293369	0.235	0.23	262	4.3	0.017	0.017	< 0.00010	< 0.00010	< 10	< 10	650	0.158
11/21/2017	LC_LCUSWLC	E293369	0.225	0.246	266	4.3	0.015	0.017	< 0.00010	< 0.00010	< 10	< 10	688	0.245
11/28/2017	LC_LCUSWLC	E293369	0.234	0.22	276	4.2	0.018	< 0.010	< 0.00010	< 0.00010	< 10	< 10	685	0.351
12/4/2017	LC_LCUSWLC	E293369	0.233	0.234	271	4	0.017	0.017	< 0.00010	< 0.00010	< 10	< 10	706	< 0.050

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
12/12/2017	LC_LCUSWLC	E293369	0.241	0.239	281	3.8	0.017	0.024	< 0.00010	< 0.00010	< 10	< 10	783	0.066
12/18/2017	LC_LCUSWLC	E293369	0.242	0.246	289	3.8	0.015	0.017	< 0.00010	< 0.00010	< 10	< 10	745	0.375
12/27/2017	LC_LCUSWLC	E293369	0.257	0.255	288	0.9	0.016	0.016	< 0.00010	< 0.00010	< 10	< 10	724	0.459
1/9/2017	LC_SLC	E282149												
1/9/2017	LC_SLC	E282149	0.164	0.156	61.5	0.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	234	0.058
2/14/2017	LC_SLC	E282149	0.173	0.172	69.1	0.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	246	< 0.050
2/14/2017	LC_SLC	E282149												
3/6/2017	LC_SLC	E282149	0.176	0.175	72.4	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	262	< 0.050
3/9/2017	LC_SLC	E282149												
4/3/2017	LC_SLC	E282149	0.18	0.167	64.6	1.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	215	< 0.050
4/3/2017	LC_SLC	E282149												
5/1/2017	LC_SLC	E282149	0.158	0.155	42	2.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	207	0.084
5/6/2017	LC_SLC	E282149												
5/7/2017	LC_SLC	E282149												
5/17/2017	LC_SLC	E282149												
5/24/2017	LC_SLC	E282149												
6/7/2017	LC_SLC	E282149	0.0568	0.0532	9.15	4.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	125	< 0.050
6/22/2017	LC_SLC	E282149												
7/6/2017	LC_SLC	E282149	0.087	0.0852	24.1	8.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	157	0.344
7/13/2017	LC_SLC	E282149												
8/2/2017	LC_SLC	E282149	0.134	0.13	41.7	6.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	203	< 0.050
8/8/2017	LC_SLC	E282149				9								
8/15/2017	LC_SLC	E282149				9.3								
8/18/2017	LC_SLC	E282149				7.1								
8/21/2017	LC_SLC	E282149				6.6								
8/24/2017	LC_SLC	E282149				7.6								
8/24/2017	LC_SLC	E282149												
8/27/2017	LC_SLC	E282149				7.1								
8/30/2017	LC_SLC	E282149				7.7								
9/2/2017	LC_SLC	E282149				8.3								
9/5/2017	LC_SLC	E282149												
9/5/2017	LC_SLC	E282149	0.151	0.157	54	7.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	214	< 0.050
9/5/2017	LC_SLC	E282149				7.1								
9/8/2017	LC_SLC	E282149				6.9								
9/29/2017	LC_SLC	E282149												
10/2/2017	LC_SLC	E282149	0.156	0.157	60.7	3.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	235	0.116
10/18/2017	LC_SLC	E282149												
11/8/2017	LC_SLC	E282149	0.184	0.161	63.9	0.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	240	0.095
11/8/2017	LC_SLC	E282149												
11/16/2017	LC_SLC	E282149												
12/4/2017	LC_SLC	E282149	0.166	0.165	55.9	0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	225	0.052
12/14/2017	LC_SLC	E282149												
1/9/2017	LC_WLC	E261958	0.184	0.187	1120	3.2	0.025	0.025	< 0.00010	< 0.00010	< 10	< 10	2040	0.168
2/14/2017	LC_WLC	E261958	0.198	0.199	1130	3.5	0.025	0.026	< 0.00010	< 0.00010	< 10	< 10	1910	< 0.050
3/6/2017	LC_WLC	E261958	0.201	0.2	1220	3.2	0.028	0.029	< 0.00010	< 0.00010	< 10	< 10	2210	0.113
3/13/2017	LC_WLC	E261958	0.205	0.203	1180	3.6	0.024	0.027	< 0.00010	< 0.00010	< 10	< 10	2160	< 0.050
3/18/2017	LC_WLC	E261958												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
3/19/2017	LC_WLC	E261958												
3/20/2017	LC_WLC	E261958	0.211	0.219	1160	3.4	0.026	0.032	< 0.00010	< 0.00010	< 10	< 10	1870	0.792
3/21/2017	LC_WLC	E261958												
3/25/2017	LC_WLC	E261958												
3/26/2017	LC_WLC	E261958												
3/27/2017	LC_WLC	E261958	0.214	0.221	1200	3.9	0.026	0.028	< 0.00010	< 0.00010	< 10	< 10	2120	< 0.050
4/3/2017	LC_WLC	E261958	0.214	0.208	1200	4	0.027	0.027	< 0.00010	< 0.00010	< 10	< 10	2050	0.578
4/10/2017	LC_WLC	E261958	0.208	0.19	1200	3.7	0.027	0.025	< 0.00010	< 0.00010	< 10	< 10	2250	< 0.050
4/18/2017	LC_WLC	E261958	0.209	0.193	1230	4.1	0.023	0.028	< 0.00010	< 0.00010	< 10	< 10	2250	0.782
4/25/2017	LC_WLC	E261958	0.213	0.201	1170	4.2	0.024	0.027	< 0.00010	< 0.00010	< 10	< 10	2080	0.213
4/26/2017	LC_WLC	E261958												
5/1/2017	LC_WLC	E261958	0.201	0.198	1150	4.5	0.023	0.024	< 0.00010	< 0.00010	< 10	< 10	2130	0.47
5/1/2017	LC_WLC	E261958												
5/9/2017	LC_WLC	E261958	0.182	0.183	1010	3.9	0.024	0.024	< 0.00010	< 0.00010	< 10	< 10	1680	0.474
5/16/2017	LC_WLC	E261958	0.149	0.136	787	3.7	0.025	0.025	< 0.00010	< 0.00010	< 10	< 10	1450	0.542
5/23/2017	LC_WLC	E261958	0.139	0.142	657	3.9	0.024	0.022	< 0.00010	< 0.00010	< 10	< 10	1490	0.726
5/30/2017	LC_WLC	E261958	0.111	0.101	428	3.7	0.021	0.024	< 0.00010	< 0.00010	< 10	< 10	1020	0.81
6/6/2017	LC_WLC	E261958	0.094	0.0948	389	3.7	0.025	0.025	< 0.00010	< 0.00010	< 10	< 10	939	0.42
6/13/2017	LC_WLC	E261958	0.113	0.11	457	3.8	0.029	0.027	< 0.00010	< 0.00010	< 10	< 10	1020	0.403
6/19/2017	LC_WLC	E261958	0.122	0.123	524	5.2	0.027	0.026	< 0.00010	< 0.00010	< 10	< 10	1150	0.511
6/26/2017	LC_WLC	E261958	0.133	0.127	603	4.1	0.025	0.025	< 0.00010	< 0.00010	< 10	< 10	1270	0.15
7/6/2017	LC_WLC	E261958												
7/6/2017	LC_WLC	E261958	0.143	0.14	710	4	0.025	0.024	< 0.00010	< 0.00010	< 10	< 10	1450	0.618
7/11/2017	LC_WLC	E261958												
7/11/2017	LC_WLC	E261958	0.146	0.145	729	4	0.026	0.027	< 0.00010	< 0.00010	< 10	< 10	1350	0.16
7/18/2017	LC_WLC	E261958	0.154	0.15	780	4.1	0.03	0.03	< 0.00010	< 0.00010	< 10	< 10	1530	0.442
7/25/2017	LC_WLC	E261958												
7/25/2017	LC_WLC	E261958	0.165	0.162	813	4.2	0.027	0.026	< 0.00010	< 0.00010	< 10	< 10	1610	0.725
8/2/2017	LC_WLC	E261958	0.184	0.176	880	4	0.032	0.032	< 0.00010	< 0.00010	< 10	< 10	1710	0.167
8/3/2017	LC_WLC	E261958												
8/8/2017	LC_WLC	E261958												
8/8/2017	LC_WLC	E261958	0.178	0.172	918	4.2	0.032	0.032	< 0.00010	< 0.00010	< 10	< 10	1750	< 0.050
8/15/2017	LC_WLC	E261958												
8/15/2017	LC_WLC	E261958	0.197	0.214	937	4.6	0.021	0.021	< 0.00010	< 0.00010	< 10	< 10	1880	0.106
8/21/2017	LC_WLC	E261958	0.183	0.191	993	4.2	0.032	0.033	< 0.00010	< 0.00010	< 10	< 10	1870	0.562
8/30/2017	LC_WLC	E261958												
8/30/2017	LC_WLC	E261958	0.189	0.183	1020	4.4	0.033	0.034	< 0.00010	< 0.00010	< 10	< 10	1820	0.448
9/5/2017	LC_WLC	E261958												
9/5/2017	LC_WLC	E261958	0.196	0.201	1020	5	0.031	0.038	< 0.00010	< 0.00020	< 10	< 10	2000	0.514
9/5/2017	LC_WLC	E261958				5								
9/12/2017	LC_WLC	E261958	0.183	0.191	1060	4.2	0.029	0.036	< 0.00010	< 0.00010	< 10	< 10	2010	0.533
9/20/2017	LC_WLC	E261958												
9/20/2017	LC_WLC	E261958	0.182	0.192	1130	4.2	0.028	0.031	< 0.00010	< 0.00010	< 10	< 10	2220	0.193
9/25/2017	LC_WLC	E261958												
9/25/2017	LC_WLC	E261958	0.196	0.19	1120	4	0.032	0.033	< 0.00010	< 0.00010	< 10	< 10	2030	< 0.50
10/3/2017	LC_WLC	E261958	0.183	0.193	1140	4.3	0.03	0.03	< 0.00010	< 0.00010	< 10	< 10	2140	0.92
10/10/2017	LC_WLC	E261958	0.181	0.198	1140	4	0.03	0.032	< 0.00010	< 0.00010	< 10	< 10	2110	0.44

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
10/10/2017	LC_WLC	E261958												
10/17/2017	LC_WLC	E261958	0.188	0.193	1180	4	0.03	0.029	< 0.00010	< 0.00010	< 10	< 10	2300	0.64
10/24/2017	LC_WLC	E261958	0.183	0.202	1060	3.9	0.029	0.032	< 0.00020	< 0.00020	< 10	< 10	2050	0.261
10/31/2017	LC_WLC	E261958												
10/31/2017	LC_WLC	E261958	0.184	0.191	1140	3.8	0.027	0.034	< 0.00020	< 0.00020	< 10	< 10	2210	0.2
11/8/2017	LC_WLC	E261958	0.222	0.195	1140	3.7	0.026	0.026	< 0.00010	< 0.00020	< 10	< 10	2230	0.5
11/8/2017	LC_WLC	E261958												
11/14/2017	LC_WLC	E261958	0.213	0.213	1210	3.8	0.031	0.034	< 0.00010	< 0.00010	< 10	< 10	2080	< 0.050
11/21/2017	LC_WLC	E261958	0.205	0.216	1180	3.9	0.028	0.03	< 0.00020	< 0.00010	< 10	< 10	2100	0.341
11/28/2017	LC_WLC	E261958	0.227	0.195	1230	3.8	0.025	0.031	< 0.00020	< 0.00010	< 10	< 10	2140	0.383
11/28/2017	LC_WLC	E261958												
12/4/2017	LC_WLC	E261958	0.207	0.201	1190	3.7	0.026	0.027	< 0.00010	< 0.00020	< 10	< 10	2130	< 0.050
12/12/2017	LC_WLC	E261958	0.207	0.207	1210	3.6	0.028	0.03	< 0.00020	< 0.00020	< 10	< 10	2210	0.254
12/18/2017	LC_WLC	E261958	0.206	0.211	1240	3.7	0.026	0.027	< 0.00010	< 0.00010	< 10	< 10	2150	0.447
12/18/2017	LC_WLC	E261958												
12/27/2017	LC_WLC	E261958	0.215	0.209	1220	3.3	0.028	0.03	< 0.00010	< 0.00020	< 10	< 10	2150	0.524
4/11/2017	RG_BORDER	E300094	0.14	0.155	33.2	7.9	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	190	0.22
4/11/2017	RG_BORDER	E300094	0.145	0.155	33.1	6.1	< 0.010	0.013	< 0.00010	< 0.00010	< 10	< 10	210	0.21
4/11/2017	RG_BORDER	E300094	0.145	0.155	33.2	6.1	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	179	0.203
4/17/2017	RG_BORDER	E300094	0.135	0.15	31.1	6.5	< 0.010	0.016	< 0.00010	< 0.00010	< 10	< 10	226	0.211
4/17/2017	RG_BORDER	E300094	0.132	0.146	30.9	6.5	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	221	0.194
4/17/2017	RG_BORDER	E300094	0.135	0.161	31.2	6.5	< 0.010	0.026	< 0.00010	< 0.00010	< 10	< 10	198	0.203
4/24/2017	RG_BORDER	E300094	0.147	0.163	30	8.7	< 0.010	0.037	< 0.00010	< 0.00010	< 10	84	195	0.181
4/24/2017	RG_BORDER	E300094	0.139	0.161	31.4	9.1	< 0.010	0.027	< 0.00010	< 0.00010	< 10	< 50	193	0.188
4/24/2017	RG_BORDER	E300094	0.141	0.164	31.5	9.2	< 0.010	0.024	< 0.00010	< 0.00010	< 10	< 30	197	0.174
5/2/2017	RG_BORDER	E300094	0.127	0.145	26.2	7.9	< 0.010	0.025	< 0.00010	< 0.00010	< 10	< 30	196	0.24
5/2/2017	RG_BORDER	E300094	0.14	0.148	28	8.3	< 0.010	0.02	< 0.00010	< 0.00010	< 10	< 15	214	0.195
5/9/2017	RG_BORDER	E300094	0.105	0.134	15.9	7.5	< 0.010	0.036	< 0.00010	< 0.00010	< 10	18	150	0.304
5/9/2017	RG_BORDER	E300094	0.113	0.137	15.9	7.5	< 0.010	0.036	< 0.00010	< 0.00010	< 10	20	153	0.239
5/9/2017	RG_BORDER	E300094	0.105	0.136	16	7.5	< 0.010	0.038	< 0.00010	< 0.00010	< 10	20	154	0.24
5/16/2017	RG_BORDER	E300094	0.101	0.116	15.6	7.4	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	145	0.14
5/16/2017	RG_BORDER	E300094	0.096	0.11	14.6	7.4	< 0.010	0.015	< 0.00010	< 0.00010	< 10	11	145	0.136
5/16/2017	RG_BORDER	E300094	0.119	0.109	15	7.5	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	141	0.142
5/23/2017	RG_BORDER	E300094	0.109	0.123	19.8		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	143	0.104
5/23/2017	RG_BORDER	E300094	0.107	0.12	19.1	10.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	147	0.116
5/23/2017	RG_BORDER	E300094	0.111	0.12	19.7	10.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	150	0.128
5/30/2017	RG_BORDER	E300094	0.102	0.11	16.5	13	< 0.010	0.02	< 0.00010	< 0.00010	< 10	25	138	0.136
5/30/2017	RG_BORDER	E300094	0.102	0.106	15.6	12.5	< 0.010	0.015	< 0.00010	< 0.00010	< 10	< 10	126	0.139
5/30/2017	RG_BORDER	E300094	0.0983	0.0993	14.4	11.9	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	128	0.125
6/6/2017	RG_BORDER	E300094	0.0876	0.111	12.5	12.3	< 0.010	0.019	< 0.00010	< 0.00010	< 10	25	135	0.154
6/6/2017	RG_BORDER	E300094	0.0878	0.111	12.2	11.9	< 0.010	0.019	< 0.00010	< 0.00010	< 10	25	123	0.136
6/6/2017	RG_BORDER	E300094	0.0922	0.0955	15.1	15.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	133	0.151
6/13/2017	RG_BORDER	E300094	0.0901	0.101	12.6	12	< 0.010	0.014	< 0.00010	< 0.00010	< 10	14	126	0.134
6/13/2017	RG_BORDER	E300094	0.0979	0.0969	14.2	14.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	134	0.118
6/13/2017	RG_BORDER	E300094	0.0912	0.109	12.4	12.5	< 0.010	0.019	< 0.00010	< 0.00010	< 10	19	124	0.204
6/20/2017	RG_BORDER	E300094	0.0952	0.111	15.5	11.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	131	0.102
6/20/2017	RG_BORDER	E300094	0.0951	0.103	14.3	12.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	131	0.081

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
6/20/2017	RG_BORDER	E300094	0.0888	0.0944	14.2	15.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	124	0.113
6/27/2017	RG_BORDER	E300094	0.108	0.105	15.4	10.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	152	0.113
6/27/2017	RG_BORDER	E300094	0.112	0.108	17.2	12.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	129	0.107
6/27/2017	RG_BORDER	E300094	0.102	0.095	14.3	17.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	113	0.116
7/4/2017	RG_BORDER	E300094	0.102	0.109	15.8	10.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	147	0.08
7/4/2017	RG_BORDER	E300094	0.103	0.108	16.6	14.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	120	< 0.050
7/4/2017	RG_BORDER	E300094	0.1	0.099	14.5	18.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	135	0.337
7/11/2017	RG_BORDER	E300094	0.104	0.107	15.7	11.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	128	0.099
7/11/2017	RG_BORDER	E300094	0.108	0.11	17.9	15	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	129	0.076
7/11/2017	RG_BORDER	E300094	0.104	0.0996	14.7	21	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	116	0.126
8/8/2017	RG_BORDER	E300094	0.107	0.111	18.9	15.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	130	< 0.050
8/8/2017	RG_BORDER	E300094	0.103	0.108	16.9	11.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	132	0.073
8/8/2017	RG_BORDER	E300094	0.109	0.113	19.3	21.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	131	0.074
9/18/2017	RG_BORDER	E300094	0.102	0.102	16.5	11.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	143	0.08
9/18/2017	RG_BORDER	E300094	0.127	0.125	24.3	16.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	152	0.066
9/18/2017	RG_BORDER	E300094	0.124	0.121	23.6	17.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	152	0.072
10/3/2017	RG_BORDER	E300094	0.153	0.148	31.2	13.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	170	0.056
10/3/2017	RG_BORDER	E300094	0.125	0.122	23.3	14.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	153	0.066
10/3/2017	RG_BORDER	E300094	0.122	0.122	23.1	15.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	144	0.074
11/8/2017	RG_BORDER	E300094	0.135	0.152	25.8	8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	169	0.073
11/8/2017	RG_BORDER	E300094	0.132	0.15	24.9	8.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	159	0.08
11/8/2017	RG_BORDER	E300094	0.133	0.143	24.9	8.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	160	0.09
12/5/2017	RG_BORDER	E300094	0.161	0.144	30.9	5.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	161	0.102
12/5/2017	RG_BORDER	E300094	0.145	0.133	26.2	6.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	152	0.107
12/5/2017	RG_BORDER	E300094	0.124	0.134	25.2	6.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	149	0.082
4/4/2017	RG_DSELK	E300230	0.16	0.198	36.6	5.4	< 0.010	0.043	0.0002	< 0.00010	< 10	15	213	0.357
4/11/2017	RG_DSELK	E300230	0.15	0.208	34.1	6	< 0.010	0.058	< 0.00010	< 0.00010	< 10	27	188	0.637
4/17/2017	RG_DSELK	E300230	0.143	0.237	35.1	6.9	< 0.010	0.033	< 0.00010	< 0.00010	< 10	< 10	226	0.561
4/24/2017	RG_DSELK	E300230	0.133	0.274	29.9	8	< 0.010	0.149	< 0.00010	0.00012	< 10	70	200	1.66
5/2/2017	RG_DSELK	E300230	0.144	0.2	29.8	8.2	< 0.010	0.052	< 0.00010	< 0.00010	< 10	30	205	0.403
5/9/2017	RG_DSELK	E300230	0.123	0.226	17.3	7.7	< 0.010	0.085	< 0.00010	< 0.00010	< 10	47	154	0.54
5/16/2017	RG_DSELK	E300230	0.115	0.143	17.2	7.2	< 0.010	0.017	< 0.00010	< 0.00010	< 10	12	153	0.179
5/23/2017	RG_DSELK	E300230	0.105	0.134	14.9	12.2	< 0.010	0.022	< 0.00010	< 0.00010	< 10	12	131	0.241
5/30/2017	RG_DSELK	E300230	0.0957	0.129	14.5	10	< 0.010	0.057	< 0.00010	< 0.00010	< 10	25	136	0.358
6/6/2017	RG_DSELK	E300230	0.0868	0.107	15.6	11	< 0.010	0.025	< 0.00010	< 0.00010	< 10	22	138	0.17
6/6/2017	RG_DSELK	E300230	0.0899	0.119	12.5	10.2	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 15	136	0.162
6/6/2017	RG_DSELK	E300230	0.0894	0.117	12.4	11.4	< 0.010	0.019	< 0.00010	< 0.00010	< 10	21	124	0.157
6/13/2017	RG_DSELK	E300230	0.102	0.124	12.7	12	< 0.010	0.015	< 0.00010	< 0.00010	< 10	< 10	128	0.139
6/13/2017	RG_DSELK	E300230	0.1	0.12	13.6	10.8	< 0.010	0.013	< 0.00010	< 0.00010	< 10	< 10	137	0.138
6/13/2017	RG_DSELK	E300230	0.106	0.113	19.7	10.6	< 0.010	0.018	< 0.00010	< 0.00010	< 10	< 10	149	0.147
6/20/2017	RG_DSELK	E300230	0.0988	0.115	16	12.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	126	0.065
6/20/2017	RG_DSELK	E300230	0.0974	0.114	16.3	12.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	132	0.06
6/20/2017	RG_DSELK	E300230	0.0962	0.104	14.7	14.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	126	0.059
6/27/2017	RG_DSELK	E300230	0.103	0.1	14.6	17.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	122	0.123
6/27/2017	RG_DSELK	E300230	0.109	0.115	16.5	13.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	104	0.081
6/27/2017	RG_DSELK	E300230	0.11	0.11	17.5	14.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	100	0.097
7/4/2017	RG_DSELK	E300230	0.106	0.115	17.2	15.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	124	< 0.050

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
7/4/2017	RG_DSELK	E300230	0.105	0.111	18.8	18.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	143	0.056
7/4/2017	RG_DSELK	E300230	0.0961	0.0994	14.4	20.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	123	0.08
7/11/2017	RG_DSELK	E300230	0.114	0.112	18.2	15.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	114	0.076
7/11/2017	RG_DSELK	E300230	0.128	0.124	21.2	18.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	132	0.107
7/11/2017	RG_DSELK	E300230	0.11	0.0977	15.5	21	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	119	0.148
8/8/2017	RG_DSELK	E300230	0.131	0.132	26.3	19.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	151	0.078
8/8/2017	RG_DSELK	E300230	0.112	0.116	19	13.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	138	0.086
9/18/2017	RG_DSELK	E300230	0.154	0.153	31.4	16.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	183	0.092
9/18/2017	RG_DSELK	E300230	0.135	0.137	27	16.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	164	0.119
9/18/2017	RG_DSELK	E300230	0.132	0.135	26.8	16.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	165	0.114
10/3/2017	RG_DSELK	E300230	0.155	0.157	35.8	13.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	184	0.206
10/3/2017	RG_DSELK	E300230	0.128	0.13	25	15.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	140	0.09
10/3/2017	RG_DSELK	E300230	0.134	0.131	25	15.3	< 0.010	0.508	< 0.00010	0.00025	< 10	< 10	154	0.127
11/8/2017	RG_DSELK	E300230	0.165	0.175	33.8	6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	178	0.132
11/8/2017	RG_DSELK	E300230	0.155	0.173	33	6.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	162	0.117
11/8/2017	RG_DSELK	E300230	0.137	0.153	28	7.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	159	0.087
12/5/2017	RG_DSELK	E300230	0.169	0.158	39.9	3.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	192	0.13
12/5/2017	RG_DSELK	E300230	0.176	0.159	38.2	3.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	189	< 0.050
12/5/2017	RG_DSELK	E300230	0.164	0.142	30.7	4.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	160	0.147
1/3/2017	RG_ELKORES	E294312	0.237	0.237	75	-0.1	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	300	0.225
2/8/2017	RG_ELKORES	E294312	0.244	0.261	76.6	0	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	317	0.776
3/7/2017	RG_ELKORES	E294312	0.203	0.231	65.8	0.6	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	270	0.316
3/14/2017	RG_ELKORES	E294312	0.148	0.102	52.8	0.2	< 0.010	< 0.010	< 0.00010	0.00019	< 10	< 10	227	0.299
3/21/2017	RG_ELKORES	E294312	0.156	0.163	39.6	-0.1	< 0.010	0.021	< 0.00010	< 0.00010	< 10	< 10	194	0.263
3/28/2017	RG_ELKORES	E294312	0.181	0.187	47.7	3.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	245	0.141
4/4/2017	RG_ELKORES	E294312	0.187	0.189	47.5	3.05	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	236	0.22
4/11/2017	RG_ELKORES	E294312	0.171	0.179	46.9	3.69	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	245	0.145
4/18/2017	RG_ELKORES	E294312	0.192	0.192	49.5	5.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	250	0.149
4/25/2017	RG_ELKORES	E294312	0.166	0.165	44.4	5.7	< 0.010	0.017	< 0.00010	< 0.00010	< 10	< 10	218	0.259
5/1/2017	RG_ELKORES	E294312	0.167	0.171	44.8	5.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	242	0.16
5/9/2017	RG_ELKORES	E294312	0.133	0.146	36.8	5.8	< 0.010	0.033	< 0.00010	< 0.00010	< 10	< 10	193	0.347
5/16/2017	RG_ELKORES	E294312	0.143	0.148	37.7	5.9	< 0.010	0.025	< 0.00010	< 0.00010	< 10	< 10	219	0.256
5/23/2017	RG_ELKORES	E294312	0.12	0.118	29.1	6.9	0.01	0.043	< 0.00010	< 0.00010	< 10	< 10	173	0.303
5/30/2017	RG_ELKORES	E294312	0.101	0.126	25.4	7.3	< 0.010	0.087	< 0.00010	< 0.00010	< 10	17	180	0.392
6/6/2017	RG_ELKORES	E294312	0.113	0.129	27.1	7.4	< 0.010	0.053	< 0.00010	< 0.00010	< 10	< 10	169	0.255
6/13/2017	RG_ELKORES	E294312	0.135	0.135	33.2	9.1	< 0.010	0.025	< 0.00010	< 0.00010	< 10	< 10	196	0.252
6/20/2017	RG_ELKORES	E294312	0.141	0.138	34	9.4	< 0.010	0.015	< 0.00010	< 0.00010	< 10	< 10	216	0.153
6/27/2017	RG_ELKORES	E294312	0.142	0.146	37	11.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	186	0.066
7/4/2017	RG_ELKORES	E294312	0.169	0.157	39.5	12.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	198	0.078
7/11/2017	RG_ELKORES	E294312	0.178	0.164	43.4	13.3	< 0.010	0.032	< 0.00010	< 0.00010	< 10	< 10	210	0.171
8/1/2017	RG_ELKORES	E294312	0.206	0.207	58.4	14.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	258	0.125
9/19/2017	RG_ELKORES	E294312	0.24	0.237	69.8	8.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	286	0.142
10/3/2017	RG_ELKORES	E294312	0.228	0.235	70.4	6.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	286	0.178
11/8/2017	RG_ELKORES	E294312	0.278	0.284	75.8	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	288	0.151
12/5/2017	RG_ELKORES	E294312	0.2	0.222	66.6	-0.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	276	0.249
4/4/2017	RG_GRASMERE	E300092	0.159	0.169	36.2	6	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	215	0.213
4/4/2017	RG_GRASMERE	E300092	0.153	0.171	36.2	6	< 0.010	0.015	< 0.00010	< 0.00010	< 10	< 10	212	0.231

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
4/11/2017	RG_GRASMERE	E300092	0.149	0.174	34.1	5.5	< 0.010	0.026	< 0.00010	< 0.00010	< 10	13	200	0.276
4/17/2017	RG_GRASMERE	E300092	0.148	0.172	35.2	7.2	< 0.010	0.025	< 0.00010	< 0.00010	< 10	18	230	0.227
4/24/2017	RG_GRASMERE	E300092	0.154	0.175	31.7	11.2	< 0.010	0.028	< 0.00010	< 0.00010	< 10	12	221	0.381
5/2/2017	RG_GRASMERE	E300092	0.148	0.305	29.7	8.5	< 0.010	0.141	< 0.00010	0.00015	< 10	75	203	0.316
5/9/2017	RG_GRASMERE	E300092	0.121	0.2	17.6	7.9	< 0.010	0.072	< 0.00010	< 0.00010	< 10	42	154	0.464
5/16/2017	RG_GRASMERE	E300092	0.113	0.124	17.4	7.2	< 0.010	0.013	< 0.00010	< 0.00010	< 10	11	151	0.134
5/23/2017	RG_GRASMERE	E300092	0.107	0.123	18.3	11.5	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10	139	0.159
5/30/2017	RG_GRASMERE	E300092	0.0959	0.12	11.6	10.6	< 0.010	0.023	< 0.00010	< 0.00010	< 10	16	117	0.21
6/6/2017	RG_GRASMERE	E300092	0.0885	0.112	14.1	12.9	< 0.010	0.015	< 0.00010	< 0.00010	< 10	12	130	0.121
6/6/2017	RG_GRASMERE	E300092	0.0914	0.12	12.5	13.2	< 0.010	0.018	< 0.00010	< 0.00010	< 10	39	124	0.113
6/6/2017	RG_GRASMERE	E300092	0.0914	0.115	11.7	12.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	16	134	0.102
6/13/2017	RG_GRASMERE	E300092	0.098	0.119	12.9	12.8	< 0.010	0.017	< 0.00010	< 0.00010	< 10	< 10	125	0.139
6/13/2017	RG_GRASMERE	E300092	0.0994	0.115	13.8	11.9	< 0.010	0.015	< 0.00010	< 0.00010	< 10	< 10	127	0.137
6/13/2017	RG_GRASMERE	E300092	0.1	0.104	15.3	14.1	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	135	0.156
6/20/2017	RG_GRASMERE	E300092	0.102	0.116	17	11.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	132	0.059
6/20/2017	RG_GRASMERE	E300092	0.0957	0.109	14.9	13.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	123	0.146
6/20/2017	RG_GRASMERE	E300092	0.0921	0.096	14.6	14.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	128	0.164
6/27/2017	RG_GRASMERE	E300092	0.112	0.116	18.9	12.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	135	0.132
6/27/2017	RG_GRASMERE	E300092	0.108	0.109	17.4	14.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	130	0.108
6/27/2017	RG_GRASMERE	E300092	0.105	0.0996	14.3	16.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	133	0.084
7/4/2017	RG_GRASMERE	E300092	0.106	0.113	17.9	15.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	139	< 0.050
7/4/2017	RG_GRASMERE	E300092	0.101	0.104	15.8	17.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	125	0.071
7/4/2017	RG_GRASMERE	E300092	0.0967	0.0973	14.1	19.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	124	0.095
7/11/2017	RG_GRASMERE	E300092	0.116	0.111	18	14.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	122	0.081
7/11/2017	RG_GRASMERE	E300092	0.112	0.112	17.3	15.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	114	0.062
7/11/2017	RG_GRASMERE	E300092	0.105	0.1	15.4	21.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	119	0.191
8/8/2017	RG_GRASMERE	E300092	0.124	0.129	23.8	16.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	142	0.065
8/8/2017	RG_GRASMERE	E300092	0.119	0.118	21.5	21.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	136	0.113
9/18/2017	RG_GRASMERE	E300092	0.146	0.147	29.9	16.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	180	0.069
9/18/2017	RG_GRASMERE	E300092	0.131	0.134	26.2	17.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	161	0.067
9/18/2017	RG_GRASMERE	E300092	0.133	0.134	25.9	17.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	163	0.081
10/3/2017	RG_GRASMERE	E300092	0.139	0.141	28.7	14.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	164	0.058
10/3/2017	RG_GRASMERE	E300092	0.127	0.124	24.6	15.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	148	0.059
10/3/2017	RG_GRASMERE	E300092	0.127	0.128	24.6	15.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	155	0.066
11/8/2017	RG_GRASMERE	E300092	0.159	0.162	31.5	6.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	163	< 0.050
11/8/2017	RG_GRASMERE	E300092	0.141	0.189	28.7	7.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	163	0.085
11/8/2017	RG_GRASMERE	E300092	0.142	0.155	27.4	7.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	167	0.076
12/5/2017	RG_GRASMERE	E300092	0.174	0.166	37.9	3.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	189	0.101
12/5/2017	RG_GRASMERE	E300092	0.162	0.15	32.4	4.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	178	0.106
12/5/2017	RG_GRASMERE	E300092	0.145	0.139	27.6	5.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	164	0.082
4/24/2017	RG_KERRRD	E300095	0.14	0.168	28.2	8.7	< 0.010	0.014	< 0.00010	< 0.00010	< 10	14	186	0.21
5/2/2017	RG_KERRRD	E300095	0.152	0.162	27.3	9.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	204	0.102
5/9/2017	RG_KERRRD	E300095	0.12	0.164	15	8.2	< 0.010	0.025	< 0.00010	< 0.00010	< 10	19	141	0.305
5/16/2017	RG_KERRRD	E300095	0.116	0.137	15.9	6.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	12	146	0.131
5/23/2017	RG_KERRRD	E300095	0.102	0.157	13.8	10.4	< 0.010	0.026	< 0.00010	< 0.00010	< 10	23	126	0.282
5/30/2017	RG_KERRRD	E300095	0.0913	0.156	10.6	10.1	< 0.010	0.033	< 0.00010	< 0.00010	< 10	31	114	0.266
6/6/2017	RG_KERRRD	E300095	0.0914	0.134	11.5	12.2	< 0.010	0.02	< 0.00010	< 0.00010	< 10	30	113	0.161

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
6/6/2017	RG_KERRRD	E300095	0.0987	0.128	11.5	12.9	< 0.010	0.018	< 0.00010	< 0.00010	< 10	20	109	0.149
6/13/2017	RG_KERRRD	E300095	0.105	0.125	13.3	11.9	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10	125	0.117
6/13/2017	RG_KERRRD	E300095	0.111	0.127	13.4	11.5	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	124	0.114
6/20/2017	RG_KERRRD	E300095	0.0991	0.111	14.5	13.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	124	0.063
6/20/2017	RG_KERRRD	E300095	0.104	0.114	14.5	12.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	124	0.062
6/20/2017	RG_KERRRD	E300095	0.103	0.11	14.5	11.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	121	0.073
6/27/2017	RG_KERRRD	E300095	0.114	0.113	16.5	13	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	117	0.112
6/27/2017	RG_KERRRD	E300095	0.112	0.114	16.5	13.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	111	0.101
6/27/2017	RG_KERRRD	E300095	0.11	0.112	16.3	13.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	123	0.104
7/4/2017	RG_KERRRD	E300095	0.0985	0.111	16.3	16.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	111	< 0.050
7/4/2017	RG_KERRRD	E300095	0.104	0.112	16.4	16.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	115	< 0.050
7/4/2017	RG_KERRRD	E300095	0.0948	0.106	15.6	18.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	127	0.077
7/11/2017	RG_KERRRD	E300095	0.113	0.113	17.1	16.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	113	0.072
7/11/2017	RG_KERRRD	E300095	0.119	0.112	17.1	17.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	114	0.07
7/11/2017	RG_KERRRD	E300095	0.1	0.106	15.6	21.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	166	0.105
8/8/2017	RG_KERRRD	E300095	0.134	0.136	23.8	17.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	146	0.078
8/8/2017	RG_KERRRD	E300095	0.141	0.145	25.4	19.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	147	0.065
8/8/2017	RG_KERRRD	E300095	0.122	0.125	22	21.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	143	0.07
9/18/2017	RG_KERRRD	E300095	0.16	0.159	31.2	15.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	184	0.076
9/18/2017	RG_KERRRD	E300095	0.14	0.14	27.4	16.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	172	0.07
9/18/2017	RG_KERRRD	E300095	0.141	0.141	27.1	16.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	171	0.064
10/3/2017	RG_KERRRD	E300095	0.17	0.172	35.5	12.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	187	0.087
10/3/2017	RG_KERRRD	E300095	0.137	0.138	26.5	14.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	155	0.075
10/3/2017	RG_KERRRD	E300095	0.135	0.132	26.5	14.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	158	< 0.050
11/8/2017	RG_KERRRD	E300095	0.174	0.188	38.2	5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	190	0.061
11/8/2017	RG_KERRRD	E300095	0.168	0.175	38.1	5.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	187	< 0.050
11/8/2017	RG_KERRRD	E300095	0.176	0.171	38	5.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	184	< 0.050
12/5/2017	RG_KERRRD	E300095	0.175	0.165	37.1	2.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	198	0.076
12/5/2017	RG_KERRRD	E300095	0.16	0.15	34.9	2.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	170	0.075
12/5/2017	RG_KERRRD	E300095	0.168	0.157	34.9	2.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	178	< 0.050
4/4/2017	RG_USGOLD	E300093	0.155	0.167	35.5	5.6	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	211	0.196
4/4/2017	RG_USGOLD	E300093	0.155	0.168	35.2	5.9	< 0.010	0.011	< 0.00010	< 0.00010	< 10	< 10	206	0.16
4/11/2017	RG_USGOLD	E300093	0.146	0.164	33.9	6.1	< 0.010	0.015	< 0.00010	< 0.00010	< 10	< 10	207	0.244
4/17/2017	RG_USGOLD	E300093	0.147	0.165	35.2	7.8	< 0.010	0.016	< 0.00010	< 0.00010	< 10	11	258	0.223
4/24/2017	RG_USGOLD	E300093	0.143	0.189	30.3	7.8	< 0.010	0.061	< 0.00010	< 0.00010	< 10	34	197	0.451
5/2/2017	RG_USGOLD	E300093	0.146	0.198	25.8	10.5	< 0.010	0.047	< 0.00010	< 0.00010	< 10	32	215	0.258
5/9/2017	RG_USGOLD	E300093	0.121	0.152	17.5	8.6	< 0.010	0.033	< 0.00010	< 0.00010	< 10	16	152	0.281
5/16/2017	RG_USGOLD	E300093	0.112	0.129	17.5	7.3	< 0.010	0.013	< 0.00010	< 0.00010	< 10	< 10	147	0.141
5/23/2017	RG_USGOLD	E300093	0.102	0.12	16.4	10.3	< 0.010	0.013	< 0.00010	< 0.00010	< 10	< 10	139	0.172
5/30/2017	RG_USGOLD	E300093	0.0971	0.112	14.3	13.8	< 0.010	0.028	< 0.00010	< 0.00010	< 10	14	127	0.213
5/30/2017	RG_USGOLD	E300093	0.0955	0.108	15.6	12.8	< 0.010	0.029	< 0.00010	< 0.00010	< 10	12	134	0.167
5/30/2017	RG_USGOLD	E300093	0.0934	0.101	16.1	10.3	< 0.010	0.026	< 0.00010	< 0.00010	< 10	10	134	0.151
6/6/2017	RG_USGOLD	E300093	0.0865	0.109	15.3	12.3	< 0.010	0.02	< 0.00010	< 0.00010	< 10	21	141	0.147
6/6/2017	RG_USGOLD	E300093	0.0901	0.117	11.7	12.9	< 0.010	0.014	< 0.00010	< 0.00010	< 10	26	117	0.12
6/6/2017	RG_USGOLD	E300093	0.0909	0.0994	14.4	14.4	< 0.010	0.011	< 0.00010	< 0.00010	< 10	13	139	0.351
6/13/2017	RG_USGOLD	E300093	0.0969	0.119	12.3	11.8	< 0.010	0.02	< 0.00010	< 0.00010	< 10	< 10	123	0.138
6/13/2017	RG_USGOLD	E300093	0.103	0.109	14.5	13.4	< 0.010	0.014	< 0.00010	< 0.00010	< 10	< 10	131	0.176

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
6/13/2017	RG_USGOLD	E300093	0.0944	0.0953	14.1	15.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	137	0.124
6/20/2017	RG_USGOLD	E300093	0.101	0.114	16.9	11.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	135	0.087
6/20/2017	RG_USGOLD	E300093	0.0957	0.0977	14.6	12.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	120	0.084
6/20/2017	RG_USGOLD	E300093	0.0894	0.0959	14.4	15.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	127	0.108
6/27/2017	RG_USGOLD	E300093	0.114	0.116	19.7	12.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	130	0.087
6/27/2017	RG_USGOLD	E300093	0.112	0.112	16.6	13.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	123	0.098
6/27/2017	RG_USGOLD	E300093	0.102	0.0958	14.1	17.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	118	0.164
7/4/2017	RG_USGOLD	E300093	0.105	0.111	17.2	14.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	139	< 0.050
7/4/2017	RG_USGOLD	E300093	0.102	0.106	17	16.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	126	< 0.050
7/4/2017	RG_USGOLD	E300093	0.0958	0.1	14.2	19.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	131	0.098
7/11/2017	RG_USGOLD	E300093	0.11	0.109	17.6	13.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	123	0.107
7/11/2017	RG_USGOLD	E300093	0.115	0.111	17.9	15.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	118	0.075
7/11/2017	RG_USGOLD	E300093	0.107	0.1	14.8	21.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	124	0.123
8/8/2017	RG_USGOLD	E300093	0.105	0.109	17.4	13.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	126	0.07
8/8/2017	RG_USGOLD	E300093	0.141	0.147	31.1	17.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	172	0.054
8/8/2017	RG_USGOLD	E300093	0.114	0.114	20.9	21.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	138	0.095
9/18/2017	RG_USGOLD	E300093	0.132	0.123	25.4	13.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	167	0.065
9/18/2017	RG_USGOLD	E300093	0.133	0.124	25.8	16.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	166	0.065
9/18/2017	RG_USGOLD	E300093	0.128	0.129	24.7	17.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	162	0.056
10/3/2017	RG_USGOLD	E300093	0.153	0.155	33.6	13.2	< 0.010	0.026	< 0.00010	< 0.00010	< 10	< 10	175	0.057
10/3/2017	RG_USGOLD	E300093	0.127	0.127	24.5	15.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	158	0.056
10/3/2017	RG_USGOLD	E300093	0.127	0.128	24.5	15.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	150	0.052
11/8/2017	RG_USGOLD	E300093	0.149	0.161	28.9	7.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	174	0.08
11/8/2017	RG_USGOLD	E300093	0.137	0.154	27	8.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	165	0.071
11/8/2017	RG_USGOLD	E300093	0.138	0.151	26.7	8.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	164	0.085
12/5/2017	RG_USGOLD	E300093	0.16	0.152	35.5	4.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	182	0.059
12/5/2017	RG_USGOLD	E300093	0.14	0.136	27.6	5.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	162	0.051
12/5/2017	RG_USGOLD	E300093	0.148	0.139	27	6.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	156	0.099
1/1/2017	WL_BFWB_OUT_SP21	E291569	0.203	0.199			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
1/2/2017	WL_BFWB_OUT_SP21	E291569	0.203	0.202			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
1/3/2017	WL_BFWB_OUT_SP21	E291569	0.205	0.215			< 0.010	< 0.010	0.00017	< 0.00010	< 10	< 10		0.16
1/4/2017	WL_BFWB_OUT_SP21	E291569												
1/5/2017	WL_BFWB_OUT_SP21	E291569	0.209	0.228			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
1/6/2017	WL_BFWB_OUT_SP21	E291569												
1/7/2017	WL_BFWB_OUT_SP21	E291569												
1/8/2017	WL_BFWB_OUT_SP21	E291569	0.213	0.227			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
1/9/2017	WL_BFWB_OUT_SP21	E291569	0.212	0.221	715		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1390	0.15
1/10/2017	WL_BFWB_OUT_SP21	E291569	0.213	0.221			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
1/11/2017	WL_BFWB_OUT_SP21	E291569												
1/12/2017	WL_BFWB_OUT_SP21	E291569	0.212	0.229			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
1/12/2017	WL_BFWB_OUT_SP21	E291569												
1/13/2017	WL_BFWB_OUT_SP21	E291569												
1/14/2017	WL_BFWB_OUT_SP21	E291569												
1/15/2017	WL_BFWB_OUT_SP21	E291569	0.209	0.221			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
1/16/2017	WL_BFWB_OUT_SP21	E291569	0.217	0.233			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.219
1/17/2017	WL_BFWB_OUT_SP21	E291569	0.2	0.228			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
1/18/2017	WL_BFWB_OUT_SP21	E291569												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
1/19/2017	WL_BFWB_OUT_SP21	E291569	0.212	0.215			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
1/20/2017	WL_BFWB_OUT_SP21	E291569												
1/21/2017	WL_BFWB_OUT_SP21	E291569												
1/22/2017	WL_BFWB_OUT_SP21	E291569	0.226	0.232			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
1/23/2017	WL_BFWB_OUT_SP21	E291569	0.224	0.232			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.13
1/24/2017	WL_BFWB_OUT_SP21	E291569	0.239	0.247			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
1/25/2017	WL_BFWB_OUT_SP21	E291569												
1/26/2017	WL_BFWB_OUT_SP21	E291569	0.22	0.208			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
1/27/2017	WL_BFWB_OUT_SP21	E291569												
1/28/2017	WL_BFWB_OUT_SP21	E291569												
1/29/2017	WL_BFWB_OUT_SP21	E291569	0.22	0.224			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
1/30/2017	WL_BFWB_OUT_SP21	E291569	0.202	0.214			< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10		
1/31/2017	WL_BFWB_OUT_SP21	E291569	0.206	0.214		4.5	< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10		0.205
1/31/2017	WL_BFWB_OUT_SP21	E291569				4.8								
2/1/2017	WL_BFWB_OUT_SP21	E291569				3.9								
2/1/2017	WL_BFWB_OUT_SP21	E291569				4.2								
2/2/2017	WL_BFWB_OUT_SP21	E291569	0.224	0.222		3.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
2/2/2017	WL_BFWB_OUT_SP21	E291569				3.8								
2/3/2017	WL_BFWB_OUT_SP21	E291569				2.8								
2/3/2017	WL_BFWB_OUT_SP21	E291569				3								
2/4/2017	WL_BFWB_OUT_SP21	E291569				3								
2/4/2017	WL_BFWB_OUT_SP21	E291569				3.3								
2/5/2017	WL_BFWB_OUT_SP21	E291569	0.221	0.214		2.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
2/6/2017	WL_BFWB_OUT_SP21	E291569	0.211	0.224		1.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
2/6/2017	WL_BFWB_OUT_SP21	E291569				2.1								
2/7/2017	WL_BFWB_OUT_SP21	E291569	0.211	0.238	742	2.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1440	0.192
2/8/2017	WL_BFWB_OUT_SP21	E291569				2.8								
2/8/2017	WL_BFWB_OUT_SP21	E291569												
2/9/2017	WL_BFWB_OUT_SP21	E291569	0.217	0.229		3.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
2/10/2017	WL_BFWB_OUT_SP21	E291569				2.9								
2/10/2017	WL_BFWB_OUT_SP21	E291569				3.9								
2/11/2017	WL_BFWB_OUT_SP21	E291569				4.3								
2/11/2017	WL_BFWB_OUT_SP21	E291569				5.2								
2/12/2017	WL_BFWB_OUT_SP21	E291569	0.218	0.223		4.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
2/12/2017	WL_BFWB_OUT_SP21	E291569				5.1								
2/13/2017	WL_BFWB_OUT_SP21	E291569	0.212	0.227		4.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
2/13/2017	WL_BFWB_OUT_SP21	E291569				5.2								
2/14/2017	WL_BFWB_OUT_SP21	E291569	0.224	0.228		4.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.057
2/14/2017	WL_BFWB_OUT_SP21	E291569				5.5								
2/15/2017	WL_BFWB_OUT_SP21	E291569				5.1								
2/16/2017	WL_BFWB_OUT_SP21	E291569	0.227	0.226		5.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
2/16/2017	WL_BFWB_OUT_SP21	E291569				6.4								
2/17/2017	WL_BFWB_OUT_SP21	E291569				5.9								
2/17/2017	WL_BFWB_OUT_SP21	E291569				6.8								
2/18/2017	WL_BFWB_OUT_SP21	E291569				5.5								
2/18/2017	WL_BFWB_OUT_SP21	E291569				6								
2/19/2017	WL_BFWB_OUT_SP21	E291569				5.5								

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
2/19/2017	WL_BFWB_OUT_SP21	E291569	0.221	0.231			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
2/19/2017	WL_BFWB_OUT_SP21	E291569				6.2								
2/20/2017	WL_BFWB_OUT_SP21	E291569	0.229	0.23		5.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
2/20/2017	WL_BFWB_OUT_SP21	E291569				6.5								
2/21/2017	WL_BFWB_OUT_SP21	E291569												
2/21/2017	WL_BFWB_OUT_SP21	E291569	0.217	0.232		5.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		< 0.050
2/21/2017	WL_BFWB_OUT_SP21	E291569				6.3								
2/22/2017	WL_BFWB_OUT_SP21	E291569				5.3								
2/22/2017	WL_BFWB_OUT_SP21	E291569				6.2								
2/23/2017	WL_BFWB_OUT_SP21	E291569	0.22	0.232		5.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
2/23/2017	WL_BFWB_OUT_SP21	E291569				5.6								
2/24/2017	WL_BFWB_OUT_SP21	E291569				4.2								
2/24/2017	WL_BFWB_OUT_SP21	E291569				4.7								
2/25/2017	WL_BFWB_OUT_SP21	E291569				4.1								
2/25/2017	WL_BFWB_OUT_SP21	E291569				4.4								
2/26/2017	WL_BFWB_OUT_SP21	E291569	0.212	0.234		4.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
2/26/2017	WL_BFWB_OUT_SP21	E291569				4.9								
2/27/2017	WL_BFWB_OUT_SP21	E291569	0.228	0.233		3.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.069
2/27/2017	WL_BFWB_OUT_SP21	E291569				4.3								
2/28/2017	WL_BFWB_OUT_SP21	E291569	0.206	0.217		4.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
2/28/2017	WL_BFWB_OUT_SP21	E291569				5								
3/1/2017	WL_BFWB_OUT_SP21	E291569				4.2								
3/2/2017	WL_BFWB_OUT_SP21	E291569	0.213	0.243		4.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/2/2017	WL_BFWB_OUT_SP21	E291569				5.5								
3/3/2017	WL_BFWB_OUT_SP21	E291569				5.5								
3/3/2017	WL_BFWB_OUT_SP21	E291569				5.6								
3/4/2017	WL_BFWB_OUT_SP21	E291569				5.2								
3/4/2017	WL_BFWB_OUT_SP21	E291569				5.8								
3/5/2017	WL_BFWB_OUT_SP21	E291569				5.3								
3/5/2017	WL_BFWB_OUT_SP21	E291569	0.245	0.26			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/5/2017	WL_BFWB_OUT_SP21	E291569				5.5								
3/6/2017	WL_BFWB_OUT_SP21	E291569	0.233	0.255	738	4.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1380	< 0.050
3/6/2017	WL_BFWB_OUT_SP21	E291569				5.3								
3/7/2017	WL_BFWB_OUT_SP21	E291569	0.229	0.231		4.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/7/2017	WL_BFWB_OUT_SP21	E291569				5.8								
3/8/2017	WL_BFWB_OUT_SP21	E291569												
3/8/2017	WL_BFWB_OUT_SP21	E291569												
3/8/2017	WL_BFWB_OUT_SP21	E291569				5.9								
3/9/2017	WL_BFWB_OUT_SP21	E291569				4.4								
3/9/2017	WL_BFWB_OUT_SP21	E291569	0.223	0.235			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/9/2017	WL_BFWB_OUT_SP21	E291569				5.1								
3/10/2017	WL_BFWB_OUT_SP21	E291569	0.219	0.237		3.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/10/2017	WL_BFWB_OUT_SP21	E291569				4								
3/11/2017	WL_BFWB_OUT_SP21	E291569	0.207	0.217		4.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/11/2017	WL_BFWB_OUT_SP21	E291569				5.9								
3/12/2017	WL_BFWB_OUT_SP21	E291569	0.212	0.215		5.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/12/2017	WL_BFWB_OUT_SP21	E291569												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
3/12/2017	WL_BFWB_OUT_SP21	E291569				6.8								
3/13/2017	WL_BFWB_OUT_SP21	E291569	0.227	0.222		6.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.294
3/13/2017	WL_BFWB_OUT_SP21	E291569				6.9								
3/14/2017	WL_BFWB_OUT_SP21	E291569	0.222	0.23		6.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/14/2017	WL_BFWB_OUT_SP21	E291569				6.9								
3/15/2017	WL_BFWB_OUT_SP21	E291569	0.222	0.225		6.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/15/2017	WL_BFWB_OUT_SP21	E291569				7.4								
3/16/2017	WL_BFWB_OUT_SP21	E291569	0.207	0.229		6.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/16/2017	WL_BFWB_OUT_SP21	E291569				8.1								
3/20/2017	WL_BFWB_OUT_SP21	E291569	0.197	0.207		4.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/20/2017	WL_BFWB_OUT_SP21	E291569												
3/21/2017	WL_BFWB_OUT_SP21	E291569												
3/21/2017	WL_BFWB_OUT_SP21	E291569	0.203	0.262		5.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.222
3/21/2017	WL_BFWB_OUT_SP21	E291569				5.6								
3/22/2017	WL_BFWB_OUT_SP21	E291569	0.212	0.222		5.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/22/2017	WL_BFWB_OUT_SP21	E291569				6.9								
3/23/2017	WL_BFWB_OUT_SP21	E291569	0.218	0.216		6.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/23/2017	WL_BFWB_OUT_SP21	E291569				7.3								
3/24/2017	WL_BFWB_OUT_SP21	E291569	0.217	0.219		6.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/24/2017	WL_BFWB_OUT_SP21	E291569				7.1								
3/25/2017	WL_BFWB_OUT_SP21	E291569	0.209	0.223		6.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/25/2017	WL_BFWB_OUT_SP21	E291569				7.7								
3/26/2017	WL_BFWB_OUT_SP21	E291569												
3/26/2017	WL_BFWB_OUT_SP21	E291569				8								
3/27/2017	WL_BFWB_OUT_SP21	E291569	0.209	0.225		7.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.221
3/27/2017	WL_BFWB_OUT_SP21	E291569				8.6								
3/28/2017	WL_BFWB_OUT_SP21	E291569	0.206	0.211		7.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/28/2017	WL_BFWB_OUT_SP21	E291569				7.9								
3/29/2017	WL_BFWB_OUT_SP21	E291569	0.203	0.216		7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
3/29/2017	WL_BFWB_OUT_SP21	E291569				7.6								
3/30/2017	WL_BFWB_OUT_SP21	E291569	0.22	0.243		7	< 0.010	< 0.010	< 0.00010	0.00541	< 10	< 10		
3/31/2017	WL_BFWB_OUT_SP21	E291569	0.22	0.253		7.7	< 0.010	< 0.010	< 0.00010	0.00075	< 10	< 10		
3/31/2017	WL_BFWB_OUT_SP21	E291569				8.9								
4/1/2017	WL_BFWB_OUT_SP21	E291569	0.213	0.222		7.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/1/2017	WL_BFWB_OUT_SP21	E291569				7.7								
4/2/2017	WL_BFWB_OUT_SP21	E291569	0.209	0.219		6.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/2/2017	WL_BFWB_OUT_SP21	E291569												
4/2/2017	WL_BFWB_OUT_SP21	E291569				7.6								
4/3/2017	WL_BFWB_OUT_SP21	E291569	0.214	0.224	759	6.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1550	0.263
4/3/2017	WL_BFWB_OUT_SP21	E291569				8.2								
4/4/2017	WL_BFWB_OUT_SP21	E291569	0.208	0.22		6.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/4/2017	WL_BFWB_OUT_SP21	E291569				8.2								
4/5/2017	WL_BFWB_OUT_SP21	E291569	0.224	0.232		7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/5/2017	WL_BFWB_OUT_SP21	E291569				8.2								
4/6/2017	WL_BFWB_OUT_SP21	E291569	0.227	0.246		7.8	< 0.010	< 0.010	0.00013	< 0.00010	< 10	< 10		
4/6/2017	WL_BFWB_OUT_SP21	E291569				8.3								
4/7/2017	WL_BFWB_OUT_SP21	E291569	0.224	0.245		7.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
4/7/2017	WL_BFWB_OUT_SP21	E291569				7.7								
4/8/2017	WL_BFWB_OUT_SP21	E291569	0.218	0.232		6.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/8/2017	WL_BFWB_OUT_SP21	E291569				8								
4/9/2017	WL_BFWB_OUT_SP21	E291569	0.221	0.239		7.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/9/2017	WL_BFWB_OUT_SP21	E291569				7.4								
4/10/2017	WL_BFWB_OUT_SP21	E291569	0.221	0.243		6.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.268
4/10/2017	WL_BFWB_OUT_SP21	E291569				8								
4/11/2017	WL_BFWB_OUT_SP21	E291569	0.234	0.242		7.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/11/2017	WL_BFWB_OUT_SP21	E291569				8.6								
4/12/2017	WL_BFWB_OUT_SP21	E291569	0.237	0.246		7.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/12/2017	WL_BFWB_OUT_SP21	E291569				7.6								
4/13/2017	WL_BFWB_OUT_SP21	E291569	0.22	0.217		7.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/13/2017	WL_BFWB_OUT_SP21	E291569				8.1								
4/14/2017	WL_BFWB_OUT_SP21	E291569	0.229	0.22		7.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/14/2017	WL_BFWB_OUT_SP21	E291569				8.7								
4/15/2017	WL_BFWB_OUT_SP21	E291569	0.222	0.24		7.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/15/2017	WL_BFWB_OUT_SP21	E291569				8.5								
4/16/2017	WL_BFWB_OUT_SP21	E291569	0.229	0.237		7.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/16/2017	WL_BFWB_OUT_SP21	E291569				9.2								
4/17/2017	WL_BFWB_OUT_SP21	E291569	0.223	0.23		8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.234
4/17/2017	WL_BFWB_OUT_SP21	E291569				8.7								
4/18/2017	WL_BFWB_OUT_SP21	E291569	0.231	0.238		7.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/18/2017	WL_BFWB_OUT_SP21	E291569				9.7								
4/19/2017	WL_BFWB_OUT_SP21	E291569	0.23	0.231		8.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/19/2017	WL_BFWB_OUT_SP21	E291569				9.8								
4/20/2017	WL_BFWB_OUT_SP21	E291569	0.242	0.238		8.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/20/2017	WL_BFWB_OUT_SP21	E291569				9								
4/21/2017	WL_BFWB_OUT_SP21	E291569	0.238	0.251		8.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/21/2017	WL_BFWB_OUT_SP21	E291569				8.7								
4/22/2017	WL_BFWB_OUT_SP21	E291569	0.232	0.237		7.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/22/2017	WL_BFWB_OUT_SP21	E291569				9.2								
4/23/2017	WL_BFWB_OUT_SP21	E291569	0.227	0.234		9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/23/2017	WL_BFWB_OUT_SP21	E291569				9								
4/24/2017	WL_BFWB_OUT_SP21	E291569	0.225	0.235		8.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.231
4/24/2017	WL_BFWB_OUT_SP21	E291569				9.4								
4/25/2017	WL_BFWB_OUT_SP21	E291569	0.229	0.24		8.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/25/2017	WL_BFWB_OUT_SP21	E291569				8.7								
4/26/2017	WL_BFWB_OUT_SP21	E291569	0.232	0.236		7.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/27/2017	WL_BFWB_OUT_SP21	E291569	0.219	0.215		8.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/27/2017	WL_BFWB_OUT_SP21	E291569				8.5								
4/28/2017	WL_BFWB_OUT_SP21	E291569	0.212	0.212		7.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/28/2017	WL_BFWB_OUT_SP21	E291569				9.3								
4/29/2017	WL_BFWB_OUT_SP21	E291569	0.217	0.22		8.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/29/2017	WL_BFWB_OUT_SP21	E291569				9.8								
4/30/2017	WL_BFWB_OUT_SP21	E291569	0.219	0.219		8.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
4/30/2017	WL_BFWB_OUT_SP21	E291569				9.1								
5/1/2017	WL_BFWB_OUT_SP21	E291569	0.22	0.213	805	7.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1520	0.196

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
5/1/2017	WL_BFWB_OUT_SP21	E291569				9.3								
5/2/2017	WL_BFWB_OUT_SP21	E291569	0.226	0.217			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/2/2017	WL_BFWB_OUT_SP21	E291569				8.2								
5/2/2017	WL_BFWB_OUT_SP21	E291569				9.4								
5/3/2017	WL_BFWB_OUT_SP21	E291569	0.224	0.224		7.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/3/2017	WL_BFWB_OUT_SP21	E291569				9.8								
5/4/2017	WL_BFWB_OUT_SP21	E291569	0.251	0.218		8.7	0.017	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/4/2017	WL_BFWB_OUT_SP21	E291569				10.7								
5/5/2017	WL_BFWB_OUT_SP21	E291569	0.183	0.22			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/5/2017	WL_BFWB_OUT_SP21	E291569				9.3								
5/5/2017	WL_BFWB_OUT_SP21	E291569				10.6								
5/6/2017	WL_BFWB_OUT_SP21	E291569	0.205	0.218		9.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/6/2017	WL_BFWB_OUT_SP21	E291569				9.9								
5/7/2017	WL_BFWB_OUT_SP21	E291569	0.205	0.212		8.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/7/2017	WL_BFWB_OUT_SP21	E291569				8.9								
5/8/2017	WL_BFWB_OUT_SP21	E291569	0.205	0.199		7.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.125
5/8/2017	WL_BFWB_OUT_SP21	E291569				9.8								
5/9/2017	WL_BFWB_OUT_SP21	E291569	0.186	0.166		9.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/9/2017	WL_BFWB_OUT_SP21	E291569				10.6								
5/10/2017	WL_BFWB_OUT_SP21	E291569	0.178	0.179		9.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/10/2017	WL_BFWB_OUT_SP21	E291569				10.7								
5/11/2017	WL_BFWB_OUT_SP21	E291569	0.183	0.171		9.3	< 0.010	0.01	< 0.00010	< 0.00010	< 10	< 10		
5/11/2017	WL_BFWB_OUT_SP21	E291569				10.4								
5/12/2017	WL_BFWB_OUT_SP21	E291569	0.181	0.171		9.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/12/2017	WL_BFWB_OUT_SP21	E291569				9.3								
5/13/2017	WL_BFWB_OUT_SP21	E291569	0.173	0.169		8.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/13/2017	WL_BFWB_OUT_SP21	E291569				9.9								
5/14/2017	WL_BFWB_OUT_SP21	E291569	0.171	0.172		8.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/14/2017	WL_BFWB_OUT_SP21	E291569				9.3								
5/15/2017	WL_BFWB_OUT_SP21	E291569		0.167				0.023		< 0.00010		< 10		
5/15/2017	WL_BFWB_OUT_SP21	E291569				7.9								0.196
5/15/2017	WL_BFWB_OUT_SP21	E291569				9.5								
5/16/2017	WL_BFWB_OUT_SP21	E291569	0.178	0.145		8.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/16/2017	WL_BFWB_OUT_SP21	E291569				8.5								
5/17/2017	WL_BFWB_OUT_SP21	E291569	0.153	0.137		8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/17/2017	WL_BFWB_OUT_SP21	E291569				8.6								
5/18/2017	WL_BFWB_OUT_SP21	E291569	0.158	0.164		8.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/18/2017	WL_BFWB_OUT_SP21	E291569				9.4								
5/19/2017	WL_BFWB_OUT_SP21	E291569	0.154	0.167		8.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/19/2017	WL_BFWB_OUT_SP21	E291569				10.2								
5/20/2017	WL_BFWB_OUT_SP21	E291569		0.156		9.2		< 0.010		< 0.00010		< 10		
5/20/2017	WL_BFWB_OUT_SP21	E291569				10.5								
5/21/2017	WL_BFWB_OUT_SP21	E291569	0.159	0.157		9.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/21/2017	WL_BFWB_OUT_SP21	E291569				11.1								
5/22/2017	WL_BFWB_OUT_SP21	E291569	0.156	0.154		9.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.197
5/22/2017	WL_BFWB_OUT_SP21	E291569				11								
5/23/2017	WL_BFWB_OUT_SP21	E291569	0.154	0.152		9.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
5/23/2017	WL_BFWB_OUT_SP21	E291569				11.2								
5/24/2017	WL_BFWB_OUT_SP21	E291569	0.152	0.149		9.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/24/2017	WL_BFWB_OUT_SP21	E291569				9.7								
5/25/2017	WL_BFWB_OUT_SP21	E291569	0.141				< 0.010		< 0.00010		< 10			
5/25/2017	WL_BFWB_OUT_SP21	E291569				9.6								
5/25/2017	WL_BFWB_OUT_SP21	E291569				10								
5/26/2017	WL_BFWB_OUT_SP21	E291569				8.9								
5/26/2017	WL_BFWB_OUT_SP21	E291569	0.125	0.124			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/26/2017	WL_BFWB_OUT_SP21	E291569				10.6								
5/27/2017	WL_BFWB_OUT_SP21	E291569	0.123	0.123		9.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/27/2017	WL_BFWB_OUT_SP21	E291569				12								
5/28/2017	WL_BFWB_OUT_SP21	E291569	0.122	0.122		10.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/28/2017	WL_BFWB_OUT_SP21	E291569				12.2								
5/29/2017	WL_BFWB_OUT_SP21	E291569	0.127	0.127		10.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.093
5/29/2017	WL_BFWB_OUT_SP21	E291569				12.2								
5/30/2017	WL_BFWB_OUT_SP21	E291569	0.121	0.121		10.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/30/2017	WL_BFWB_OUT_SP21	E291569				12.7								
5/31/2017	WL_BFWB_OUT_SP21	E291569	0.113	0.112			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
5/31/2017	WL_BFWB_OUT_SP21	E291569				10.9								
5/31/2017	WL_BFWB_OUT_SP21	E291569				12.1								
6/1/2017	WL_BFWB_OUT_SP21	E291569	0.107	0.108		11.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/1/2017	WL_BFWB_OUT_SP21	E291569				12.5								
6/2/2017	WL_BFWB_OUT_SP21	E291569	0.109	0.104		10.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/2/2017	WL_BFWB_OUT_SP21	E291569				11.7								
6/3/2017	WL_BFWB_OUT_SP21	E291569				9.9								
6/3/2017	WL_BFWB_OUT_SP21	E291569	0.097	0.0981		11.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/4/2017	WL_BFWB_OUT_SP21	E291569	0.0949	0.096		10.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/4/2017	WL_BFWB_OUT_SP21	E291569				10.8								
6/5/2017	WL_BFWB_OUT_SP21	E291569	0.0927	0.0934	373	9.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1000	0.137
6/5/2017	WL_BFWB_OUT_SP21	E291569				11.1								
6/6/2017	WL_BFWB_OUT_SP21	E291569	0.0994	0.0928		9.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/6/2017	WL_BFWB_OUT_SP21	E291569				11.4								
6/7/2017	WL_BFWB_OUT_SP21	E291569	0.0937	0.0947		9.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/7/2017	WL_BFWB_OUT_SP21	E291569				11.7								
6/8/2017	WL_BFWB_OUT_SP21	E291569	0.102	0.096		10.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/8/2017	WL_BFWB_OUT_SP21	E291569				11.5								
6/9/2017	WL_BFWB_OUT_SP21	E291569	0.101	0.0908		10.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/9/2017	WL_BFWB_OUT_SP21	E291569				11.3								
6/10/2017	WL_BFWB_OUT_SP21	E291569	0.0941	0.0951		10.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/10/2017	WL_BFWB_OUT_SP21	E291569				10.5								
6/11/2017	WL_BFWB_OUT_SP21	E291569	0.0989	0.0958		9.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/11/2017	WL_BFWB_OUT_SP21	E291569				11.1								
6/12/2017	WL_BFWB_OUT_SP21	E291569	0.0966	0.0978	415	10.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	960	0.142
6/12/2017	WL_BFWB_OUT_SP21	E291569												
6/12/2017	WL_BFWB_OUT_SP21	E291569				11.8								
6/13/2017	WL_BFWB_OUT_SP21	E291569	0.0957	0.0926		10.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/13/2017	WL_BFWB_OUT_SP21	E291569				11.2								

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
6/14/2017	WL_BFWB_OUT_SP21	E291569	0.105	0.0968		10.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/14/2017	WL_BFWB_OUT_SP21	E291569				10.4								
6/15/2017	WL_BFWB_OUT_SP21	E291569	0.102	0.101		9.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/15/2017	WL_BFWB_OUT_SP21	E291569				10.8								
6/16/2017	WL_BFWB_OUT_SP21	E291569	0.105	0.111		10.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/16/2017	WL_BFWB_OUT_SP21	E291569				12								
6/17/2017	WL_BFWB_OUT_SP21	E291569	0.103	0.104		10.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/17/2017	WL_BFWB_OUT_SP21	E291569				11.5								
6/18/2017	WL_BFWB_OUT_SP21	E291569	0.105			10.4	< 0.010		< 0.00010		< 10			
6/18/2017	WL_BFWB_OUT_SP21	E291569				12.1								
6/19/2017	WL_BFWB_OUT_SP21	E291569	0.108	0.106		10.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.097
6/19/2017	WL_BFWB_OUT_SP21	E291569				11.9								
6/20/2017	WL_BFWB_OUT_SP21	E291569	0.11	0.113		11.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/22/2017	WL_BFWB_OUT_SP21	E291569	0.119	0.119		11.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/22/2017	WL_BFWB_OUT_SP21	E291569				12.6								
6/23/2017	WL_BFWB_OUT_SP21	E291569	0.123	0.124		11	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/23/2017	WL_BFWB_OUT_SP21	E291569				12.2								
6/24/2017	WL_BFWB_OUT_SP21	E291569	0.124	0.12		11	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/24/2017	WL_BFWB_OUT_SP21	E291569				12.3								
6/25/2017	WL_BFWB_OUT_SP21	E291569	0.13	0.121		11	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/25/2017	WL_BFWB_OUT_SP21	E291569				12.7								
6/26/2017	WL_BFWB_OUT_SP21	E291569	0.13	0.122		11.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.224
6/27/2017	WL_BFWB_OUT_SP21	E291569	0.12	0.117		11.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/28/2017	WL_BFWB_OUT_SP21	E291569	0.125	0.125		11.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/29/2017	WL_BFWB_OUT_SP21	E291569	0.14	0.138			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/29/2017	WL_BFWB_OUT_SP21	E291569				10.9								
6/30/2017	WL_BFWB_OUT_SP21	E291569	0.143	0.145		11	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/1/2017	WL_BFWB_OUT_SP21	E291569	0.146	0.134		11.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/2/2017	WL_BFWB_OUT_SP21	E291569	0.134	0.135		11.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/3/2017	WL_BFWB_OUT_SP21	E291569	0.14	0.134			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.153
7/3/2017	WL_BFWB_OUT_SP21	E291569				12.1								
7/4/2017	WL_BFWB_OUT_SP21	E291569	0.145	0.143		11.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/5/2017	WL_BFWB_OUT_SP21	E291569	0.14	0.141		11.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/6/2017	WL_BFWB_OUT_SP21	E291569	0.143	0.139		11.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/7/2017	WL_BFWB_OUT_SP21	E291569	0.151	0.142		11.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/8/2017	WL_BFWB_OUT_SP21	E291569	0.145	0.15		11.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/9/2017	WL_BFWB_OUT_SP21	E291569	0.146	0.146		11.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/10/2017	WL_BFWB_OUT_SP21	E291569												
7/10/2017	WL_BFWB_OUT_SP21	E291569	0.142	0.152	713	11.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1490	0.155
7/11/2017	WL_BFWB_OUT_SP21	E291569	0.142	0.141		11.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/12/2017	WL_BFWB_OUT_SP21	E291569	0.148	0.152			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/12/2017	WL_BFWB_OUT_SP21	E291569				10.9								
7/13/2017	WL_BFWB_OUT_SP21	E291569	0.15	0.148		10.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/14/2017	WL_BFWB_OUT_SP21	E291569	0.148	0.147	723		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1520	0.191
7/14/2017	WL_BFWB_OUT_SP21	E291569				10.6								
7/14/2017	WL_BFWB_OUT_SP21	E291569												
7/15/2017	WL_BFWB_OUT_SP21	E291569				11.7								

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
7/16/2017	WL_BFWB_OUT_SP21	E291569				14.8								
7/16/2017	WL_BFWB_OUT_SP21	E291569				8.5								
7/17/2017	WL_BFWB_OUT_SP21	E291569	0.16	0.154		13.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 0.30	< 10		0.162
7/18/2017	WL_BFWB_OUT_SP21	E291569	0.16	0.156		11.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 0.30	< 10		
7/19/2017	WL_BFWB_OUT_SP21	E291569	0.167	0.16		11.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 0.30	< 10		
7/20/2017	WL_BFWB_OUT_SP21	E291569		0.156			< 0.010	< 0.010	< 0.00010	< 0.00010	< 0.30	< 10		
7/20/2017	WL_BFWB_OUT_SP21	E291569				11.7								
7/21/2017	WL_BFWB_OUT_SP21	E291569	0.16	0.153		1260	< 0.010	< 0.010	< 0.00010	< 0.00010	< 0.30	< 10		
7/22/2017	WL_BFWB_OUT_SP21	E291569	0.156	0.155		11.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/22/2017	WL_BFWB_OUT_SP21	E291569				11.3								
7/23/2017	WL_BFWB_OUT_SP21	E291569	0.161	0.155		12	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/24/2017	WL_BFWB_OUT_SP21	E291569	0.157	0.161		11.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.142
7/25/2017	WL_BFWB_OUT_SP21	E291569	0.166	0.168		11.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/26/2017	WL_BFWB_OUT_SP21	E291569	0.164	0.17		11.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/27/2017	WL_BFWB_OUT_SP21	E291569	0.165	0.165		11.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/28/2017	WL_BFWB_OUT_SP21	E291569	0.156	0.166		11.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/29/2017	WL_BFWB_OUT_SP21	E291569	0.172	0.158		11.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
7/30/2017	WL_BFWB_OUT_SP21	E291569	0.174	0.164		11.4	< 0.010	< 0.010	0.00124	< 0.00010	< 10	< 10		
7/31/2017	WL_BFWB_OUT_SP21	E291569	0.171	0.168	867	11.3	< 0.010	0.021	< 0.00010	< 0.00010	< 10	< 10		0.058
8/1/2017	WL_BFWB_OUT_SP21	E291569	0.16	0.164		11.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/2/2017	WL_BFWB_OUT_SP21	E291569	0.162	0.165		11.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/3/2017	WL_BFWB_OUT_SP21	E291569	0.177	0.169		10.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/4/2017	WL_BFWB_OUT_SP21	E291569	0.177	0.173		10.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/5/2017	WL_BFWB_OUT_SP21	E291569	0.176	0.166		10.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/6/2017	WL_BFWB_OUT_SP21	E291569	0.175			10.4	< 0.010		< 0.00010		< 10			
8/7/2017	WL_BFWB_OUT_SP21	E291569	0.171	0.177		11	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/8/2017	WL_BFWB_OUT_SP21	E291569	0.172	0.17	856	12.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.106
8/9/2017	WL_BFWB_OUT_SP21	E291569	0.171	0.166			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/9/2017	WL_BFWB_OUT_SP21	E291569				13								
8/10/2017	WL_BFWB_OUT_SP21	E291569	0.171	0.167		12.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/11/2017	WL_BFWB_OUT_SP21	E291569	0.165	0.176			< 0.010	< 0.010	0.00012	< 0.00010	< 10	< 10		
8/11/2017	WL_BFWB_OUT_SP21	E291569				11								
8/12/2017	WL_BFWB_OUT_SP21	E291569	0.177	0.183	845	11.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1740	0.106
8/13/2017	WL_BFWB_OUT_SP21	E291569	0.18	0.181			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/13/2017	WL_BFWB_OUT_SP21	E291569				11.4								
8/14/2017	WL_BFWB_OUT_SP21	E291569	0.18	0.18	883		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1770	0.105
8/15/2017	WL_BFWB_OUT_SP21	E291569	0.182	0.181		9.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/16/2017	WL_BFWB_OUT_SP21	E291569	0.186	0.17		10.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/17/2017	WL_BFWB_OUT_SP21	E291569	0.18	0.177		10.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/18/2017	WL_BFWB_OUT_SP21	E291569		0.181		10.7		< 0.010		< 0.00010		< 10		
8/19/2017	WL_BFWB_OUT_SP21	E291569	0.18	0.182		10.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/20/2017	WL_BFWB_OUT_SP21	E291569	0.185	0.184		10.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/21/2017	WL_BFWB_OUT_SP21	E291569	0.187	0.187	920	9.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		< 0.050
8/22/2017	WL_BFWB_OUT_SP21	E291569	0.183	0.193		10.2	< 0.010	< 0.010	0.00016	< 0.00010	< 10	< 10		
8/23/2017	WL_BFWB_OUT_SP21	E291569	0.185	0.19		10.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/24/2017	WL_BFWB_OUT_SP21	E291569	0.183	0.188		11.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/25/2017	WL_BFWB_OUT_SP21	E291569	0.186	0.189			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
8/25/2017	WL_BFWB_OUT_SP21	E291569				10.3								
8/26/2017	WL_BFWB_OUT_SP21	E291569	0.189	0.185			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/26/2017	WL_BFWB_OUT_SP21	E291569				10								
8/27/2017	WL_BFWB_OUT_SP21	E291569	0.185	0.189		10.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/28/2017	WL_BFWB_OUT_SP21	E291569	0.184	0.186	879	10.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.089
8/29/2017	WL_BFWB_OUT_SP21	E291569	0.186	0.186		10.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/30/2017	WL_BFWB_OUT_SP21	E291569	0.19	0.186		10.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
8/31/2017	WL_BFWB_OUT_SP21	E291569	0.189	0.212		10.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/1/2017	WL_BFWB_OUT_SP21	E291569	0.195	0.192		9.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/2/2017	WL_BFWB_OUT_SP21	E291569	0.191	0.192		10.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/3/2017	WL_BFWB_OUT_SP21	E291569	0.189	0.186		10.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/4/2017	WL_BFWB_OUT_SP21	E291569	0.188	0.19		10.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/5/2017	WL_BFWB_OUT_SP21	E291569	0.192	0.192	853	10.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.113
9/6/2017	WL_BFWB_OUT_SP21	E291569	0.196	0.197		9.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/7/2017	WL_BFWB_OUT_SP21	E291569	0.192	0.194		9.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/8/2017	WL_BFWB_OUT_SP21	E291569	0.192	0.201		10	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/9/2017	WL_BFWB_OUT_SP21	E291569	0.195	0.186		9.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/10/2017	WL_BFWB_OUT_SP21	E291569	0.199	0.188		10.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/11/2017	WL_BFWB_OUT_SP21	E291569	0.193	0.192		9.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/12/2017	WL_BFWB_OUT_SP21	E291569	0.197	0.192	883	10	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1680	0.081
9/13/2017	WL_BFWB_OUT_SP21	E291569	0.196	0.203		11	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/14/2017	WL_BFWB_OUT_SP21	E291569	0.199	0.203		10.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/15/2017	WL_BFWB_OUT_SP21	E291569	0.208	0.197		9.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/16/2017	WL_BFWB_OUT_SP21	E291569	0.199	0.2		8.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/17/2017	WL_BFWB_OUT_SP21	E291569	0.197	0.198		8.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/18/2017	WL_BFWB_OUT_SP21	E291569	0.195	0.193	898	9.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.064
9/19/2017	WL_BFWB_OUT_SP21	E291569	0.192	0.189		9.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/20/2017	WL_BFWB_OUT_SP21	E291569	0.195	0.19		8.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/21/2017	WL_BFWB_OUT_SP21	E291569	0.188	0.183	913		< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1630	0.081
9/21/2017	WL_BFWB_OUT_SP21	E291569				8.6								
9/22/2017	WL_BFWB_OUT_SP21	E291569	0.191	0.186		8.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/23/2017	WL_BFWB_OUT_SP21	E291569	0.189	0.189		9.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/24/2017	WL_BFWB_OUT_SP21	E291569	0.192	0.194			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/24/2017	WL_BFWB_OUT_SP21	E291569				8.5								
9/25/2017	WL_BFWB_OUT_SP21	E291569	0.192	0.194	885	9.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.074
9/26/2017	WL_BFWB_OUT_SP21	E291569	0.199	0.193			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/26/2017	WL_BFWB_OUT_SP21	E291569				8.8								
9/27/2017	WL_BFWB_OUT_SP21	E291569	0.196	0.197		8.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/28/2017	WL_BFWB_OUT_SP21	E291569	0.2	0.197			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/28/2017	WL_BFWB_OUT_SP21	E291569				9.3								
9/29/2017	WL_BFWB_OUT_SP21	E291569		0.199				< 0.010		< 0.00010		< 10		
9/29/2017	WL_BFWB_OUT_SP21	E291569	0.204			9.4	< 0.010		< 0.00010		< 10			
9/30/2017	WL_BFWB_OUT_SP21	E291569	0.198	0.206			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
9/30/2017	WL_BFWB_OUT_SP21	E291569				9.8								
10/1/2017	WL_BFWB_OUT_SP21	E291569	0.202	0.205		9.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/2/2017	WL_BFWB_OUT_SP21	E291569												
10/2/2017	WL_BFWB_OUT_SP21	E291569	0.205	0.204	855	8.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	1690	0.096

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
10/3/2017	WL_BFWB_OUT_SP21	E291569	0.197	0.208		7.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/4/2017	WL_BFWB_OUT_SP21	E291569	0.205	0.201		7.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/5/2017	WL_BFWB_OUT_SP21	E291569		0.198				< 0.010		< 0.00010		< 10		
10/5/2017	WL_BFWB_OUT_SP21	E291569	0.193			7.9	< 0.010		< 0.00010		< 10			
10/6/2017	WL_BFWB_OUT_SP21	E291569	0.19	0.193			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/6/2017	WL_BFWB_OUT_SP21	E291569				8.4								
10/7/2017	WL_BFWB_OUT_SP21	E291569	0.195	0.201			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/7/2017	WL_BFWB_OUT_SP21	E291569				8.1								
10/8/2017	WL_BFWB_OUT_SP21	E291569	0.195	0.202		7.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/9/2017	WL_BFWB_OUT_SP21	E291569	0.189	0.204			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/9/2017	WL_BFWB_OUT_SP21	E291569				7.1								
10/10/2017	WL_BFWB_OUT_SP21	E291569	0.213	0.2	881	7.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.154
10/11/2017	WL_BFWB_OUT_SP21	E291569	0.201	0.205		7.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/12/2017	WL_BFWB_OUT_SP21	E291569	0.202	0.201		7.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/13/2017	WL_BFWB_OUT_SP21	E291569	0.207	0.201		7.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/14/2017	WL_BFWB_OUT_SP21	E291569	0.214	0.21		6.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/15/2017	WL_BFWB_OUT_SP21	E291569	0.211	0.212		7.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/16/2017	WL_BFWB_OUT_SP21	E291569	0.218	0.214	948	8.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.114
10/17/2017	WL_BFWB_OUT_SP21	E291569				8.4								
10/18/2017	WL_BFWB_OUT_SP21	E291569	0.211	0.213		5.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/19/2017	WL_BFWB_OUT_SP21	E291569	0.226	0.216		7.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/20/2017	WL_BFWB_OUT_SP21	E291569	0.211	0.204		7.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/21/2017	WL_BFWB_OUT_SP21	E291569	0.21	0.205			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/21/2017	WL_BFWB_OUT_SP21	E291569				6.7								
10/22/2017	WL_BFWB_OUT_SP21	E291569	0.207	0.203		6.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/23/2017	WL_BFWB_OUT_SP21	E291569	0.214	0.22	225	6.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.086
10/24/2017	WL_BFWB_OUT_SP21	E291569	0.22	0.201		6.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/25/2017	WL_BFWB_OUT_SP21	E291569	0.214	0.217		7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/26/2017	WL_BFWB_OUT_SP21	E291569	0.227	0.231		6.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/27/2017	WL_BFWB_OUT_SP21	E291569	0.228	0.23		6.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/28/2017	WL_BFWB_OUT_SP21	E291569	0.212	0.218			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/28/2017	WL_BFWB_OUT_SP21	E291569				6.1								
10/29/2017	WL_BFWB_OUT_SP21	E291569	0.211	0.22		6.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
10/30/2017	WL_BFWB_OUT_SP21	E291569	0.224	0.23	398	5.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.101
10/31/2017	WL_BFWB_OUT_SP21	E291569	0.23	0.223		5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/1/2017	WL_BFWB_OUT_SP21	E291569	0.236	0.223		5.5	< 0.010	< 0.050	< 0.00010	< 0.00050	< 10	< 10		
11/2/2017	WL_BFWB_OUT_SP21	E291569	0.218	0.21		6.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/3/2017	WL_BFWB_OUT_SP21	E291569		0.212				< 0.010		< 0.00010		< 10		
11/3/2017	WL_BFWB_OUT_SP21	E291569	0.217			5.3	< 0.010		< 0.00010		< 10			
11/4/2017	WL_BFWB_OUT_SP21	E291569	0.224	0.238		4.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/5/2017	WL_BFWB_OUT_SP21	E291569	0.243	0.238			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/5/2017	WL_BFWB_OUT_SP21	E291569				5.4								
11/6/2017	WL_BFWB_OUT_SP21	E291569	0.23	0.237	381	5.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	857	0.146
11/7/2017	WL_BFWB_OUT_SP21	E291569	0.231	0.231		4.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/8/2017	WL_BFWB_OUT_SP21	E291569				5.2								
11/8/2017	WL_BFWB_OUT_SP21	E291569	0.224	0.233			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/9/2017	WL_BFWB_OUT_SP21	E291569	0.226	0.222			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
11/9/2017	WL_BFWB_OUT_SP21	E291569				5.4								
11/10/2017	WL_BFWB_OUT_SP21	E291569	0.232	0.233			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/10/2017	WL_BFWB_OUT_SP21	E291569	0.234	0.243			< 0.010	< 0.010	0.00017	0.0002	< 10	< 10		
11/10/2017	WL_BFWB_OUT_SP21	E291569				7.9								
11/11/2017	WL_BFWB_OUT_SP21	E291569	0.233	0.241			< 0.010	< 0.010	0.00011	< 0.00010	< 10	< 10		
11/11/2017	WL_BFWB_OUT_SP21	E291569				8.5								
11/12/2017	WL_BFWB_OUT_SP21	E291569	0.24	0.239			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/12/2017	WL_BFWB_OUT_SP21	E291569				9.3								
11/13/2017	WL_BFWB_OUT_SP21	E291569	0.228	0.23			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/13/2017	WL_BFWB_OUT_SP21	E291569				9.5								
11/14/2017	WL_BFWB_OUT_SP21	E291569	0.221	0.219	397	9.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.175
11/15/2017	WL_BFWB_OUT_SP21	E291569	0.231	0.224		9.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/16/2017	WL_BFWB_OUT_SP21	E291569	0.225	0.22			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/16/2017	WL_BFWB_OUT_SP21	E291569	0.228	0.23		8.7	< 0.010	< 0.010	0.00019	0.00017	< 10	< 10		
11/17/2017	WL_BFWB_OUT_SP21	E291569	0.231	0.219			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/17/2017	WL_BFWB_OUT_SP21	E291569	0.226	0.224		7.2	< 0.010	< 0.010	0.00011	0.00018	< 10	< 10		
11/18/2017	WL_BFWB_OUT_SP21	E291569	0.216	0.207			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/18/2017	WL_BFWB_OUT_SP21	E291569				6								
11/19/2017	WL_BFWB_OUT_SP21	E291569	0.217	0.211		5.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/20/2017	WL_BFWB_OUT_SP21	E291569	0.223	0.212	399	5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.238
11/21/2017	WL_BFWB_OUT_SP21	E291569	0.22	0.236		5.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/22/2017	WL_BFWB_OUT_SP21	E291569	0.218	0.228		6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/23/2017	WL_BFWB_OUT_SP21	E291569	0.246	0.269			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/23/2017	WL_BFWB_OUT_SP21	E291569				6.7								
11/24/2017	WL_BFWB_OUT_SP21	E291569	0.259	0.271			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/24/2017	WL_BFWB_OUT_SP21	E291569	0.22	0.221		5.9	< 0.010	< 0.010	0.00017	< 0.00030	< 10	< 10		
11/25/2017	WL_BFWB_OUT_SP21	E291569	0.233	0.239		5.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/26/2017	WL_BFWB_OUT_SP21	E291569	0.234	0.234		5.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/27/2017	WL_BFWB_OUT_SP21	E291569	0.238	0.229		5.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/28/2017	WL_BFWB_OUT_SP21	E291569	0.223	0.225			< 0.010	< 0.010	0.00026	0.00027	< 10	< 10		
11/28/2017	WL_BFWB_OUT_SP21	E291569	0.243	0.246	423	5.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.328
11/29/2017	WL_BFWB_OUT_SP21	E291569	0.239	0.235		5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/30/2017	WL_BFWB_OUT_SP21	E291569	0.234	0.233			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
11/30/2017	WL_BFWB_OUT_SP21	E291569	0.228	0.24		4.6	< 0.010	< 0.020	0.00045	0.0004	< 10	< 10		
12/1/2017	WL_BFWB_OUT_SP21	E291569	0.231	0.24		4.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/2/2017	WL_BFWB_OUT_SP21	E291569	0.246	0.235		4.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/3/2017	WL_BFWB_OUT_SP21	E291569	0.241	0.24		3.9	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/4/2017	WL_BFWB_OUT_SP21	E291569	0.247	0.245	406	3.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10	911	0.088
12/5/2017	WL_BFWB_OUT_SP21	E291569	0.244	0.244		2.6	< 0.010	< 0.010	< 0.00010	0.00028	< 10	< 10		
12/6/2017	WL_BFWB_OUT_SP21	E291569	0.242	0.245			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/6/2017	WL_BFWB_OUT_SP21	E291569	0.252	0.236			< 0.010	< 0.010	0.00039	0.00024	< 10	< 10		
12/6/2017	WL_BFWB_OUT_SP21	E291569				2.9								
12/7/2017	WL_BFWB_OUT_SP21	E291569	0.245	0.252			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/7/2017	WL_BFWB_OUT_SP21	E291569				2.6								
12/8/2017	WL_BFWB_OUT_SP21	E291569	0.259	0.243		3.3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/9/2017	WL_BFWB_OUT_SP21	E291569	0.239			2.6	< 0.010		< 0.00010		< 10			
12/10/2017	WL_BFWB_OUT_SP21	E291569	0.235	0.241		2.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
12/11/2017	WL_BFWB_OUT_SP21	E291569	0.23	0.247	378	2.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.154
12/12/2017	WL_BFWB_OUT_SP21	E291569	0.229	0.23		2.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/13/2017	WL_BFWB_OUT_SP21	E291569	0.233	0.228		2.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/14/2017	WL_BFWB_OUT_SP21	E291569	0.237	0.233		2.8	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/15/2017	WL_BFWB_OUT_SP21	E291569	0.235	0.226		3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/16/2017	WL_BFWB_OUT_SP21	E291569	0.23	0.233		3.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/17/2017	WL_BFWB_OUT_SP21	E291569	0.236	0.236		3.1	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/18/2017	WL_BFWB_OUT_SP21	E291569	0.232	0.239	376	3.6	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.148
12/19/2017	WL_BFWB_OUT_SP21	E291569	0.239	0.243		3.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/20/2017	WL_BFWB_OUT_SP21	E291569	0.242	0.243			< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/20/2017	WL_BFWB_OUT_SP21	E291569	0.235	0.256		3	< 0.010	0.013	0.00027	0.00043	< 10	< 10		
12/21/2017	WL_BFWB_OUT_SP21	E291569	0.279	0.232		2.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/22/2017	WL_BFWB_OUT_SP21	E291569	0.254	0.233		2.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/23/2017	WL_BFWB_OUT_SP21	E291569	0.247	0.208		683	< 0.010	0.028	< 0.00010	< 0.00010	< 10	< 10		
12/23/2017	WL_BFWB_OUT_SP21	E291569				2.5								
12/24/2017	WL_BFWB_OUT_SP21	E291569	0.242	0.242		3	< 0.010	0.035	< 0.00010	< 0.00010	< 10	< 10		
12/25/2017	WL_BFWB_OUT_SP21	E291569	0.24	0.241		3	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/26/2017	WL_BFWB_OUT_SP21	E291569	0.243	0.24		3.7	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/27/2017	WL_BFWB_OUT_SP21	E291569	0.232	0.252	410	3.4	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		0.128
12/28/2017	WL_BFWB_OUT_SP21	E291569	0.239	0.241		4.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/29/2017	WL_BFWB_OUT_SP21	E291569	0.226	0.232		3.5	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/30/2017	WL_BFWB_OUT_SP21	E291569	0.238	0.232		3.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
12/31/2017	WL_BFWB_OUT_SP21	E291569	0.239	0.242		3.2	< 0.010	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
1/1/2017	WL_LCI_SP02	E293370	0.242	0.25			0.016	0.019	< 0.00010	< 0.00010	< 10	< 10		
1/2/2017	WL_LCI_SP02	E293370	0.245	0.245			0.017	0.018	< 0.00010	< 0.00010	< 10	< 10		
1/3/2017	WL_LCI_SP02	E293370	0.234	0.248			0.015	0.019	0.00095	< 0.00010	< 10	< 10		
1/4/2017	WL_LCI_SP02	E293370												
1/5/2017	WL_LCI_SP02	E293370	0.251	0.274			0.016	0.018	< 0.00010	< 0.00010	< 10	< 10		
1/6/2017	WL_LCI_SP02	E293370												
1/7/2017	WL_LCI_SP02	E293370												
1/8/2017	WL_LCI_SP02	E293370	0.242	0.256			0.014	0.02	< 0.00010	< 0.00010	< 10	< 10		
1/9/2017	WL_LCI_SP02	E293370	0.241	0.26	264		0.014	0.016	< 0.00010	< 0.00010	< 10	< 10	699	< 0.050
1/10/2017	WL_LCI_SP02	E293370	0.248	0.254			0.014	0.016	< 0.00010	< 0.00010	< 10	< 10		
1/11/2017	WL_LCI_SP02	E293370												
1/12/2017	WL_LCI_SP02	E293370	0.239	0.265			0.014	0.017	< 0.00010	< 0.00010	< 10	< 10		
1/13/2017	WL_LCI_SP02	E293370												
1/14/2017	WL_LCI_SP02	E293370												
1/15/2017	WL_LCI_SP02	E293370	0.239	0.258			0.015	0.015	< 0.00010	< 0.00010	< 10	< 10		
1/16/2017	WL_LCI_SP02	E293370	0.247	0.248			0.014	0.015	< 0.00010	< 0.00010	< 10	< 10		
1/17/2017	WL_LCI_SP02	E293370	0.245	0.249			0.017	0.016	< 0.00010	< 0.00010	< 10	< 10		
1/18/2017	WL_LCI_SP02	E293370	0.253	0.255	310		0.016	0.015	< 0.00010	< 0.00010	< 10	< 10		0.734
1/19/2017	WL_LCI_SP02	E293370	0.24	0.256			0.014	0.017	< 0.00010	< 0.00010	< 10	< 10		
1/20/2017	WL_LCI_SP02	E293370												
1/21/2017	WL_LCI_SP02	E293370												
1/22/2017	WL_LCI_SP02	E293370	0.257	0.27			0.012	0.013	< 0.00010	< 0.00010	< 10	< 10		
1/23/2017	WL_LCI_SP02	E293370	0.26	0.269			0.013	0.013	< 0.00010	< 0.00010	< 10	< 10		
1/24/2017	WL_LCI_SP02	E293370	0.269	0.284			0.011	0.014	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
1/25/2017	WL_LCI_SP02	E293370												
1/26/2017	WL_LCI_SP02	E293370	0.253	0.241			0.012	0.013	< 0.00010	< 0.00010	< 10	< 10		
1/27/2017	WL_LCI_SP02	E293370												
1/28/2017	WL_LCI_SP02	E293370												
1/29/2017	WL_LCI_SP02	E293370	0.251	0.263		3.3	0.014	0.014	< 0.00010	< 0.00010	< 10	< 10		
1/30/2017	WL_LCI_SP02	E293370	0.242	0.255			0.012	0.014	< 0.00010	< 0.00010	< 10	< 10		
1/31/2017	WL_LCI_SP02	E293370	0.251	0.259		2.8	0.013	0.013	< 0.00010	< 0.00010	< 10	< 10		
2/1/2017	WL_LCI_SP02	E293370				3.1								
2/1/2017	WL_LCI_SP02	E293370	0.259	0.274	300		0.015	0.014	< 0.00010	< 0.00010	< 10	< 10		< 0.050
2/2/2017	WL_LCI_SP02	E293370	0.245	0.261		2.8	0.014	0.015	< 0.00010	< 0.00010	< 10	< 10		
2/3/2017	WL_LCI_SP02	E293370				3								
2/4/2017	WL_LCI_SP02	E293370				3.2								
2/5/2017	WL_LCI_SP02	E293370	0.247	0.252		2.8	0.014	0.016	< 0.00010	< 0.00010	< 10	< 10		
2/6/2017	WL_LCI_SP02	E293370	0.244	0.259		2.6	0.013	0.014	< 0.00010	< 0.00010	< 10	< 10		
2/7/2017	WL_LCI_SP02	E293370	0.246	0.25	293	2.7	0.013	0.013	< 0.00010	< 0.00010	< 10	< 10	744	< 0.050
2/8/2017	WL_LCI_SP02	E293370				2.6								
2/8/2017	WL_LCI_SP02	E293370	0.248	0.257	275		0.012	0.013	< 0.00010	< 0.00010	< 10	< 10		< 0.050
2/9/2017	WL_LCI_SP02	E293370				5.2								
2/10/2017	WL_LCI_SP02	E293370	0.259	0.26		3.4	0.015	0.013	< 0.00010	< 0.00010	< 10	< 10		
2/11/2017	WL_LCI_SP02	E293370				4.1								
2/12/2017	WL_LCI_SP02	E293370	0.234	0.263		3	0.01	0.013	< 0.00010	< 0.00010	< 10	< 10		
2/13/2017	WL_LCI_SP02	E293370	0.247	0.264		3.2	0.012	0.011	< 0.00010	< 0.00010	< 10	< 10		
2/14/2017	WL_LCI_SP02	E293370	0.243	0.258		2.9	0.011	0.012	< 0.00010	< 0.00010	< 10	< 10		
2/15/2017	WL_LCI_SP02	E293370				2.9								
2/16/2017	WL_LCI_SP02	E293370	0.263	0.257		3.6	0.014	0.011	< 0.00010	< 0.00010	< 10	< 10		
2/17/2017	WL_LCI_SP02	E293370				3.3								
2/18/2017	WL_LCI_SP02	E293370				2.7								
2/19/2017	WL_LCI_SP02	E293370	0.255	0.273		3.4	0.011	0.013	< 0.00010	< 0.00010	< 10	< 10		
2/20/2017	WL_LCI_SP02	E293370	0.291	0.29		3.9	0.014	0.013	< 0.00010	< 0.00010	< 10	< 10		
2/21/2017	WL_LCI_SP02	E293370	0.258	0.275		3.4	0.014	0.016	< 0.00010	< 0.00010	< 10	< 10		
2/22/2017	WL_LCI_SP02	E293370				3.1								
2/22/2017	WL_LCI_SP02	E293370												
2/23/2017	WL_LCI_SP02	E293370	0.254	0.266		3.4	0.01	0.011	< 0.00010	< 0.00010	< 10	< 10		
2/24/2017	WL_LCI_SP02	E293370				3.1								
2/25/2017	WL_LCI_SP02	E293370				3.4								
2/26/2017	WL_LCI_SP02	E293370	0.237	0.256		3.3	0.012	0.013	< 0.00010	< 0.00010	< 10	< 10		
2/27/2017	WL_LCI_SP02	E293370	0.265	0.273		3	0.01	0.01	< 0.00010	< 0.00010	< 10	< 10		
2/28/2017	WL_LCI_SP02	E293370	0.233	0.253		3.2	0.012	0.013	< 0.00010	< 0.00010	< 10	< 10		
3/1/2017	WL_LCI_SP02	E293370												
3/2/2017	WL_LCI_SP02	E293370	0.251	0.274			0.013	0.014	< 0.00010	< 0.00010	< 10	< 10		
3/3/2017	WL_LCI_SP02	E293370				4.1								
3/4/2017	WL_LCI_SP02	E293370				4.6								
3/5/2017	WL_LCI_SP02	E293370	0.276	0.298		4.1	0.012	0.014	< 0.00010	< 0.00010	< 10	< 10		
3/6/2017	WL_LCI_SP02	E293370	0.272	0.286	307	3.2	0.013	0.015	< 0.00010	< 0.00010	< 10	< 10	734	0.202
3/7/2017	WL_LCI_SP02	E293370	0.259	0.269		3	0.014	0.014	< 0.00010	< 0.00010	< 10	< 10		
3/8/2017	WL_LCI_SP02	E293370				3.5								
3/9/2017	WL_LCI_SP02	E293370	0.27	0.259		3.3	0.012	0.011	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
3/10/2017	WL_LCI_SP02	E293370	0.255	0.262		3.1	0.011	0.012	< 0.00010	< 0.00010	< 10	< 10		
3/11/2017	WL_LCI_SP02	E293370	0.238	0.246		3.3	< 0.010	0.012	< 0.00010	< 0.00010	< 10	< 10		
3/12/2017	WL_LCI_SP02	E293370	0.241	0.248		3.6	0.013	0.013	< 0.00010	< 0.00010	< 10	< 10		
3/13/2017	WL_LCI_SP02	E293370	0.248	0.259		3.8	0.012	0.012	< 0.00010	< 0.00010	< 10	< 10		
3/14/2017	WL_LCI_SP02	E293370	0.251	0.251		3.5	0.012	0.014	< 0.00010	< 0.00010	< 10	< 10		
3/15/2017	WL_LCI_SP02	E293370	0.255	0.256		4.1	0.013	0.016	< 0.00010	< 0.00010	< 10	< 10		
3/16/2017	WL_LCI_SP02	E293370	0.22	0.233		3.4	0.011	0.026	< 0.00010	< 0.00010	< 10	< 10		
3/20/2017	WL_LCI_SP02	E293370	0.227	0.231			0.03	0.045	< 0.00010	< 0.00010	< 10	< 10		
3/21/2017	WL_LCI_SP02	E293370	0.243	0.255			0.012	0.028	< 0.00010	< 0.00010	< 10	< 10		
3/22/2017	WL_LCI_SP02	E293370	0.249	0.26		3.8	0.012	0.018	< 0.00010	< 0.00010	< 10	< 10		
3/23/2017	WL_LCI_SP02	E293370	0.252	0.258		3.1	0.012	0.02	< 0.00010	< 0.00010	< 10	< 10		
3/24/2017	WL_LCI_SP02	E293370	0.248	0.255		3.6	0.013	0.024	< 0.00010	< 0.00010	< 10	< 10		
3/25/2017	WL_LCI_SP02	E293370	0.243	0.26		3.8	0.015	0.023	< 0.00010	< 0.00010	< 10	< 10		
3/26/2017	WL_LCI_SP02	E293370	0.247	0.259		3.4	0.014	0.022	< 0.00010	< 0.00010	< 10	< 10		
3/27/2017	WL_LCI_SP02	E293370	0.246	0.264		3.8	0.014	0.019	< 0.00010	< 0.00010	< 10	< 10		
3/28/2017	WL_LCI_SP02	E293370	0.258	0.27		3.8	0.016	0.021	< 0.00010	< 0.00010	< 10	< 10		
3/29/2017	WL_LCI_SP02	E293370	0.247	0.261		3.9	0.015	0.02	< 0.00010	< 0.00010	< 10	< 10		
3/30/2017	WL_LCI_SP02	E293370	0.233	0.265		3.4	0.014	0.018	< 0.00010	< 0.00010	< 10	< 10		
3/31/2017	WL_LCI_SP02	E293370	0.247	0.257		3.6	0.013	0.025	< 0.00010	< 0.00010	< 10	< 10		
4/1/2017	WL_LCI_SP02	E293370	0.249	0.244		3.6	0.015	0.017	< 0.00010	< 0.00010	< 10	< 10		
4/2/2017	WL_LCI_SP02	E293370	0.243	0.25		3.6	0.015	0.02	< 0.00010	< 0.00010	< 10	< 10		
4/3/2017	WL_LCI_SP02	E293370	0.243	0.256	342	3.6	0.015	0.018	< 0.00010	< 0.00010	< 10	< 10	890	0.595
4/4/2017	WL_LCI_SP02	E293370	0.233	0.25		3.6	0.015	0.016	< 0.00010	< 0.00010	< 10	< 10		
4/5/2017	WL_LCI_SP02	E293370	0.261	0.261		3.4	0.015	0.016	< 0.00010	< 0.00010	< 10	< 10		
4/6/2017	WL_LCI_SP02	E293370	0.258	0.269		4.2	0.013	0.019	< 0.00010	< 0.00010	< 10	< 10		
4/7/2017	WL_LCI_SP02	E293370				4								
4/7/2017	WL_LCI_SP02	E293370	0.25	0.273			0.015	0.026	< 0.00010	< 0.00010	< 10	< 10		
4/8/2017	WL_LCI_SP02	E293370	0.239	0.27		3.5	0.013	0.019	< 0.00010	< 0.00010	< 10	< 10		
4/9/2017	WL_LCI_SP02	E293370	0.261	0.272		3.9	0.015	0.019	< 0.00010	< 0.00010	< 10	< 10		
4/10/2017	WL_LCI_SP02	E293370	0.246	0.268		3.7	0.016	0.017	< 0.00010	< 0.00010	< 10	< 10		
4/12/2017	WL_LCI_SP02	E293370	0.28	0.286		4.3	0.015	0.018	< 0.00010	< 0.00010	< 10	< 10		
4/13/2017	WL_LCI_SP02	E293370	0.256	0.256		4.5	0.016	0.018	< 0.00010	< 0.00010	< 10	< 10		
4/14/2017	WL_LCI_SP02	E293370	0.259	0.245		4	0.015	0.018	< 0.00010	< 0.00010	< 10	< 10		
4/15/2017	WL_LCI_SP02	E293370	0.276	0.262		4.3	0.015	0.016	< 0.00010	< 0.00010	< 10	< 10		
4/16/2017	WL_LCI_SP02	E293370	0.265	0.265		3.8	0.016	0.036	< 0.00010	< 0.00010	< 10	< 10		
4/17/2017	WL_LCI_SP02	E293370	0.253	0.267		4.2	0.015	0.022	< 0.00010	< 0.00010	< 10	< 10		
4/18/2017	WL_LCI_SP02	E293370	0.253	0.265		3.9	0.012	0.017	< 0.00010	< 0.00010	< 10	< 10		
4/19/2017	WL_LCI_SP02	E293370	0.263	0.271		5.2	0.016	0.017	< 0.00010	< 0.00010	< 10	< 10		
4/20/2017	WL_LCI_SP02	E293370	0.254	0.258		3.9	0.015	0.017	< 0.00010	< 0.00010	< 10	< 10		
4/21/2017	WL_LCI_SP02	E293370	0.255	0.255		4.8	0.018	0.026	< 0.00010	< 0.00010	< 10	< 10		
4/22/2017	WL_LCI_SP02	E293370	0.275	0.274		3.7	0.018	0.025	< 0.00010	< 0.00010	< 10	< 10		
4/23/2017	WL_LCI_SP02	E293370	0.254	0.26		4.4	0.016	0.018	< 0.00010	< 0.00010	< 10	< 10		
4/24/2017	WL_LCI_SP02	E293370	0.247	0.263		4.6	0.015	0.018	< 0.00010	< 0.00010	< 10	< 10		
4/25/2017	WL_LCI_SP02	E293370	0.261	0.263		4.6	0.017	0.019	< 0.00010	< 0.00010	< 10	< 10		
4/26/2017	WL_LCI_SP02	E293370	0.251	0.264		4.6	0.016	0.019	< 0.00010	< 0.00010	< 10	< 10		
4/27/2017	WL_LCI_SP02	E293370	0.248	0.257		4.7	0.017	0.021	< 0.00010	< 0.00010	< 10	< 10		
4/28/2017	WL_LCI_SP02	E293370	0.241	0.249		4.8	0.015	0.017	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
4/29/2017	WL_LCI_SP02	E293370	0.248	0.258		4.7	0.018	0.017	< 0.00010	< 0.00010	< 10	< 10		
4/30/2017	WL_LCI_SP02	E293370	0.247	0.256		4.7	0.017	0.018	< 0.00010	< 0.00010	< 10	< 10		
5/1/2017	WL_LCI_SP02	E293370	0.249	0.252	293	4.6	0.014	0.019	< 0.00010	< 0.00010	< 10	< 10	858	0.318
5/2/2017	WL_LCI_SP02	E293370	0.25	0.256		5	0.018	0.022	< 0.00010	< 0.00010	< 10	< 10		
5/3/2017	WL_LCI_SP02	E293370	0.252	0.252		4.3	0.015	0.018	< 0.00010	< 0.00010	< 10	< 10		
5/4/2017	WL_LCI_SP02	E293370	0.252	0.252		4.9	0.018	0.018	< 0.00010	< 0.00010	< 10	< 10		
5/5/2017	WL_LCI_SP02	E293370	0.25	0.237		4.8	0.016	0.015	< 0.00010	< 0.00010	< 10	< 10		
5/6/2017	WL_LCI_SP02	E293370	0.223	0.236		4.8	0.019	0.02	< 0.00010	< 0.00010	< 10	< 10		
5/7/2017	WL_LCI_SP02	E293370	0.188	0.194		5.1	0.018	0.023	< 0.00010	< 0.00010	< 10	< 10		
5/8/2017	WL_LCI_SP02	E293370	0.166	0.164		4.8	0.018	0.018	< 0.00010	< 0.00010	< 10	< 10		
5/9/2017	WL_LCI_SP02	E293370	0.157	0.163		5.2	0.017	0.017	< 0.00010	< 0.00010	< 10	< 10		
5/10/2017	WL_LCI_SP02	E293370	0.169	0.175		4.6	0.017	0.018	< 0.00010	< 0.00010	< 10	< 10		
5/11/2017	WL_LCI_SP02	E293370	0.185	0.188		5.1	0.017	0.017	< 0.00010	< 0.00010	< 10	< 10		
5/12/2017	WL_LCI_SP02	E293370	0.183	0.169		9	0.016	0.015	< 0.00010	< 0.00010	< 10	< 10		
5/13/2017	WL_LCI_SP02	E293370	0.183	0.188		4.7	0.023	0.025	< 0.00010	< 0.00010	< 10	< 10		
5/14/2017	WL_LCI_SP02	E293370	0.179	0.186		4.9	0.027	0.027	< 0.00010	< 0.00010	< 10	< 10		
5/15/2017	WL_LCI_SP02	E293370				14.9								
5/16/2017	WL_LCI_SP02	E293370	0.137	0.151		15.1	0.019	0.018	< 0.00010	< 0.00010	< 10	< 10		
5/17/2017	WL_LCI_SP02	E293370	0.156	0.164		3.8	0.018	0.017	< 0.00010	< 0.00010	< 10	< 10		
5/18/2017	WL_LCI_SP02	E293370	0.181	0.175		3.7	0.013	0.014	< 0.00010	0.00058	< 10	< 10		
5/19/2017	WL_LCI_SP02	E293370	0.177	0.185		3.9	0.015	0.017	< 0.00010	< 0.00010	< 10	< 10		
5/20/2017	WL_LCI_SP02	E293370				3.8								
5/21/2017	WL_LCI_SP02	E293370	0.197	0.206		3.9	0.014	0.013	< 0.00010	< 0.00010	< 10	< 10		
5/22/2017	WL_LCI_SP02	E293370	0.189	0.201		4.1	0.017	0.019	< 0.00010	< 0.00010	< 10	< 10		
5/23/2017	WL_LCI_SP02	E293370	0.175	0.177		3.9	0.017	0.021	< 0.00010	< 0.00010	< 10	< 10		
5/24/2017	WL_LCI_SP02	E293370	0.155	0.155		4	0.022	0.021	< 0.00010	< 0.00010	< 10	< 10		
5/25/2017	WL_LCI_SP02	E293370	0.14	0.143		4	0.017	0.018	< 0.00010	< 0.00010	< 10	< 10		
5/26/2017	WL_LCI_SP02	E293370	0.133	0.138		4.4	0.015	0.019	< 0.00010	< 0.00010	< 10	< 10		
5/27/2017	WL_LCI_SP02	E293370	0.141	0.135		4.3	0.018	0.017	< 0.00010	< 0.00010	< 10	< 10		
5/28/2017	WL_LCI_SP02	E293370	0.15	0.145		4	0.022	0.018	< 0.00010	< 0.00010	< 10	< 10		
5/29/2017	WL_LCI_SP02	E293370	0.148	0.152		3.9	0.018	0.018	< 0.00010	< 0.00010	< 10	< 10		
5/30/2017	WL_LCI_SP02	E293370	0.145	0.135		4	0.017	0.016	< 0.00010	< 0.00010	< 10	< 10		
5/31/2017	WL_LCI_SP02	E293370	0.133	0.145		4.2	0.019	0.02	< 0.00010	< 0.00010	< 10	< 10		
6/1/2017	WL_LCI_SP02	E293370	0.14	0.146		4.4	0.016	0.019	< 0.00010	< 0.00010	< 10	< 10		
6/2/2017	WL_LCI_SP02	E293370	0.14	0.14		4.3	0.021	0.022	< 0.00010	< 0.00010	< 10	< 10		
6/3/2017	WL_LCI_SP02	E293370	0.141	0.099		4.4	0.019	< 0.010	< 0.00010	< 0.00010	< 10	< 10		
6/4/2017	WL_LCI_SP02	E293370	0.147	0.148		4.5	0.021	0.02	< 0.00010	< 0.00010	< 10	< 10		
6/5/2017	WL_LCI_SP02	E293370			163								502	0.481
6/5/2017	WL_LCI_SP02	E293370	0.147	0.15		4.5	0.018	0.021	< 0.00010	< 0.00010	< 10	< 10		
6/6/2017	WL_LCI_SP02	E293370	0.149	0.155		4.5	0.018	0.018	< 0.00010	< 0.00010	< 10	< 10		
6/7/2017	WL_LCI_SP02	E293370	0.159	0.152		4.5	0.02	0.02	< 0.00010	< 0.00010	< 10	< 10		
6/8/2017	WL_LCI_SP02	E293370	0.162	0.171		4.5	0.018	0.022	< 0.00010	< 0.00010	< 10	< 10		
6/9/2017	WL_LCI_SP02	E293370	0.167	0.153		4.5	0.019	0.02	< 0.00010	< 0.00010	< 10	< 10		
6/10/2017	WL_LCI_SP02	E293370	0.148	0.147		4.6	0.02	0.021	< 0.00010	< 0.00010	< 10	< 10		
6/11/2017	WL_LCI_SP02	E293370	0.154	0.154		4.8	0.02	0.018	< 0.00010	< 0.00010	< 10	< 10		
6/12/2017	WL_LCI_SP02	E293370	0.164	0.156	169	4.8	0.02	0.019	< 0.00010	< 0.00010	< 10	< 10	487	0.511
6/13/2017	WL_LCI_SP02	E293370	0.179	0.181		4.8	0.019	0.019	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
6/13/2017	WL_LCI_SP02	E293370												
6/14/2017	WL_LCI_SP02	E293370	0.184	0.19		4.5	0.021	0.025	< 0.00010	< 0.00010	< 10	< 10		
6/14/2017	WL_LCI_SP02	E293370												
6/15/2017	WL_LCI_SP02	E293370	0.174	0.169		4.6	0.02	0.02	< 0.00010	< 0.00010	< 10	< 10		
6/15/2017	WL_LCI_SP02	E293370												
6/16/2017	WL_LCI_SP02	E293370	0.158	0.153		4.8	0.02	0.019	< 0.00010	< 0.00010	< 10	< 10		
6/16/2017	WL_LCI_SP02	E293370												
6/17/2017	WL_LCI_SP02	E293370	0.156	0.154		4.8	0.019	0.02	< 0.00010	< 0.00010	< 10	< 10		
6/17/2017	WL_LCI_SP02	E293370												
6/18/2017	WL_LCI_SP02	E293370	0.162	0.161		4.6	0.019	0.02	< 0.00010	< 0.00010	< 10	< 10		
6/18/2017	WL_LCI_SP02	E293370												
6/19/2017	WL_LCI_SP02	E293370	0.175	0.172		4.7	0.022	0.021	< 0.00010	< 0.00010	< 10	< 10		
6/19/2017	WL_LCI_SP02	E293370												
6/20/2017	WL_LCI_SP02	E293370												
6/21/2017	WL_LCI_SP02	E293370												
6/22/2017	WL_LCI_SP02	E293370	0.191	0.201		4.8	0.027	0.021	< 0.00010	< 0.00010	< 10	< 10		
6/22/2017	WL_LCI_SP02	E293370												
6/23/2017	WL_LCI_SP02	E293370	0.201	0.189		5	0.02	0.021	< 0.00010	< 0.00010	< 10	< 10		
6/23/2017	WL_LCI_SP02	E293370												
6/24/2017	WL_LCI_SP02	E293370	0.202	0.203		5.3	0.023	0.023	< 0.00010	< 0.00010	< 10	< 10		
6/24/2017	WL_LCI_SP02	E293370												
6/25/2017	WL_LCI_SP02	E293370	0.209	0.21		5	0.021	0.022	< 0.00010	< 0.00010	< 10	< 10		
6/25/2017	WL_LCI_SP02	E293370												
6/26/2017	WL_LCI_SP02	E293370	0.212	0.213		5	0.022	0.024	< 0.00010	< 0.00010	< 10	< 10		
6/27/2017	WL_LCI_SP02	E293370	0.187	0.195		4.8	0.021	0.017	< 0.00010	< 0.00010	< 10	< 10		
6/28/2017	WL_LCI_SP02	E293370	0.191	0.191		4.8	0.02	0.017	< 0.00010	< 0.00010	< 10	< 10		
6/29/2017	WL_LCI_SP02	E293370	0.202	0.195		5	0.02	0.019	< 0.00010	< 0.00010	< 10	< 10		
6/30/2017	WL_LCI_SP02	E293370	0.212	0.217		5.1	0.02	0.02	< 0.00010	< 0.00010	< 10	< 10		
7/1/2017	WL_LCI_SP02	E293370	0.21	0.214		5.2	0.02	0.022	< 0.00010	< 0.00010	< 10	< 10		
7/2/2017	WL_LCI_SP02	E293370	0.196	0.206		5.3	0.017	0.02	< 0.00010	< 0.00010	< 10	< 10		
7/3/2017	WL_LCI_SP02	E293370	0.206	0.192		5.4	0.02	0.018	< 0.00010	< 0.00010	< 10	< 10		
7/4/2017	WL_LCI_SP02	E293370	0.203	0.202		5.4	0.021	0.021	< 0.00010	< 0.00010	< 10	< 10		
7/5/2017	WL_LCI_SP02	E293370	0.2	0.199		5.5	0.022	0.02	< 0.00010	< 0.00010	< 10	< 10		
7/6/2017	WL_LCI_SP02	E293370	0.212	0.218		5.5	0.023	0.023	< 0.00010	< 0.00010	< 10	< 10		
7/7/2017	WL_LCI_SP02	E293370	0.213	0.211		5.7	0.021	0.023	< 0.00010	< 0.00010	< 10	< 10		
7/8/2017	WL_LCI_SP02	E293370	0.21	0.213		5.7	0.022	0.021	< 0.00010	< 0.00010	< 10	< 10		
7/9/2017	WL_LCI_SP02	E293370	0.205	0.213		5.9	0.018	0.019	< 0.00010	< 0.00010	< 10	< 10		
7/10/2017	WL_LCI_SP02	E293370	0.201	0.223	253	5.9	0.018	0.023	0.00016	< 0.00010	< 10	< 10	680	0.638
7/11/2017	WL_LCI_SP02	E293370	0.219	0.219		5.9	0.019	0.021	< 0.00010	< 0.00010	< 10	< 10		
7/12/2017	WL_LCI_SP02	E293370	0.212	0.209		5.8	0.021	0.024	< 0.00010	< 0.00010	< 10	< 10		
7/13/2017	WL_LCI_SP02	E293370	0.22	0.216		6.1	0.023	0.023	< 0.00010	< 0.00010	< 10	< 10		
7/14/2017	WL_LCI_SP02	E293370	0.223	0.219	311	5.9	0.021	0.02	< 0.00010	< 0.00010	< 10	< 10	836	< 0.050
7/14/2017	WL_LCI_SP02	E293370												
7/15/2017	WL_LCI_SP02	E293370				5.7								
7/16/2017	WL_LCI_SP02	E293370				6								
7/17/2017	WL_LCI_SP02	E293370	0.235	0.232		6	0.022	0.022	< 0.00010	< 0.00010	< 0.30	< 10		
7/18/2017	WL_LCI_SP02	E293370	0.234	0.232		6	0.02	0.022	< 0.00010	< 0.00010	< 0.30	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
7/19/2017	WL_LCI_SP02	E293370	0.229	0.223		6	0.021	0.02	< 0.00010	< 0.00010	< 0.30	< 10		
7/20/2017	WL_LCI_SP02	E293370		0.232		6	0.019	0.022	< 0.00010	< 0.00010	< 0.30	< 10		
7/21/2017	WL_LCI_SP02	E293370	0.221	0.227		6.1	0.018	0.02	< 0.00010	< 0.00010	< 0.30	< 10		
7/22/2017	WL_LCI_SP02	E293370	0.222	0.229		6.1	0.018	0.021	< 0.00010	< 0.00010	< 10	< 10		
7/23/2017	WL_LCI_SP02	E293370	0.223	0.236		7	0.019	0.02	< 0.00010	< 0.00010	< 10	< 10		
7/24/2017	WL_LCI_SP02	E293370	0.228	0.23		6.1	0.02	0.02	< 0.00010	< 0.00010	< 10	< 10		
7/25/2017	WL_LCI_SP02	E293370	0.233	0.242		6	0.019	0.022	< 0.00010	< 0.00010	< 10	< 10		
7/26/2017	WL_LCI_SP02	E293370	0.238	0.239		6	0.022	0.02	< 0.00010	< 0.00010	< 10	< 10		
7/27/2017	WL_LCI_SP02	E293370	0.236	0.239		6	0.019	0.022	< 0.00010	< 0.00010	< 10	< 10		
7/28/2017	WL_LCI_SP02	E293370	0.237	0.231		6.2	0.021	0.024	< 0.00010	< 0.00010	< 10	< 10		
7/29/2017	WL_LCI_SP02	E293370	0.247	0.247		6.5	0.02	0.019	< 0.00010	< 0.00010	< 10	< 10		
7/30/2017	WL_LCI_SP02	E293370	0.242	0.247		6.7	0.018	0.019	< 0.00010	< 0.00010	< 10	< 10		
7/31/2017	WL_LCI_SP02	E293370	0.243	0.246		6.2	0.019	0.023	< 0.00010	< 0.00010	< 10	< 10		
8/1/2017	WL_LCI_SP02	E293370	0.23	0.228		6.4	0.022	0.022	< 0.00010	< 0.00010	< 10	< 10		
8/2/2017	WL_LCI_SP02	E293370	0.23	0.231		6.4	0.023	0.025	< 0.00010	< 0.00010	< 10	< 10		
8/3/2017	WL_LCI_SP02	E293370	0.251	0.244		6.2	0.02	0.02	< 0.00010	< 0.00010	< 10	< 10		
8/4/2017	WL_LCI_SP02	E293370	0.252	0.249		6.3	0.02	0.022	< 0.00010	< 0.00010	< 10	< 10		
8/5/2017	WL_LCI_SP02	E293370	0.233	0.231		6.2	0.018	0.02	< 0.00010	< 0.00010	< 10	< 10		
8/6/2017	WL_LCI_SP02	E293370	0.223	0.225		6.1	0.02	0.019	< 0.00010	< 0.00010	< 10	< 10		
8/7/2017	WL_LCI_SP02	E293370	0.229	0.235		6.6	0.019	0.021	< 0.00010	< 0.00010	< 10	< 10		
8/8/2017	WL_LCI_SP02	E293370	0.239	0.248		7.6	0.021	0.023	< 0.00010	< 0.00010	< 10	< 10		
8/9/2017	WL_LCI_SP02	E293370	0.211	0.222		6.3	0.02	0.022	< 0.00010	< 0.00010	< 10	< 10		
8/11/2017	WL_LCI_SP02	E293370	0.222	0.226		7.1	0.021	0.021	< 0.00010	< 0.00010	< 10	< 10		
8/12/2017	WL_LCI_SP02	E293370	0.224	0.232		7	0.022	0.023	< 0.00010	< 0.00010	< 10	< 10		
8/13/2017	WL_LCI_SP02	E293370	0.224	0.23			0.021	0.018	< 0.00010	< 0.00010	< 10	< 10		
8/13/2017	WL_LCI_SP02	E293370				8.5								
8/14/2017	WL_LCI_SP02	E293370	0.222	0.231	246		0.019	0.021	< 0.00010	< 0.00010	< 10	< 10	656	0.103
8/15/2017	WL_LCI_SP02	E293370	0.225	0.225		8.3	0.02	0.02	< 0.00010	< 0.00010	< 10	< 10		
8/16/2017	WL_LCI_SP02	E293370	0.225	0.223		8.1	0.022	0.019	< 0.00010	< 0.00010	< 10	< 10		
8/17/2017	WL_LCI_SP02	E293370	0.216	0.217		8.3	0.022	0.022	< 0.00010	< 0.00010	< 10	< 10		
8/18/2017	WL_LCI_SP02	E293370				8.6								
8/19/2017	WL_LCI_SP02	E293370	0.22	0.225		8.5	0.02	0.021	< 0.00010	< 0.00010	< 10	< 10		
8/20/2017	WL_LCI_SP02	E293370	0.224	0.223		8.1	0.021	0.021	< 0.00010	< 0.00010	< 10	< 10		
8/21/2017	WL_LCI_SP02	E293370	0.222	0.22		9.4	0.019	0.021	< 0.00010	< 0.00010	< 10	< 10		
8/22/2017	WL_LCI_SP02	E293370	0.217	0.23		8.4	0.022	0.023	< 0.00010	< 0.00010	< 10	< 10		
8/23/2017	WL_LCI_SP02	E293370	0.219	0.219		9	0.021	0.022	< 0.00010	< 0.00010	< 10	< 10		
8/24/2017	WL_LCI_SP02	E293370	0.222	0.228		8.5	0.022	0.021	< 0.00010	< 0.00010	< 10	< 10		
8/25/2017	WL_LCI_SP02	E293370	0.223	0.221		8	0.02	0.02	< 0.00010	< 0.00010	< 10	< 10		
8/26/2017	WL_LCI_SP02	E293370	0.223	0.221		8.1	0.021	0.022	< 0.00010	0.00011	< 10	< 10		
8/27/2017	WL_LCI_SP02	E293370	0.218	0.216		8	0.024	0.022	< 0.00010	< 0.00010	< 10	< 10		
8/28/2017	WL_LCI_SP02	E293370	0.217	0.208		8	0.023	0.023	< 0.00010	< 0.00010	< 10	< 10		
8/29/2017	WL_LCI_SP02	E293370	0.218	0.217		8.1	0.02	0.021	< 0.00010	< 0.00010	< 10	< 10		
8/30/2017	WL_LCI_SP02	E293370	0.218	0.221		8.1	0.021	0.022	< 0.00010	< 0.00010	< 10	< 10		
8/31/2017	WL_LCI_SP02	E293370	0.224	0.221		8.1	0.021	0.02	< 0.00010	< 0.00010	< 10	< 10		
9/1/2017	WL_LCI_SP02	E293370	0.226	0.226		8	0.02	0.019	< 0.00010	< 0.00010	< 10	< 10		
9/2/2017	WL_LCI_SP02	E293370												
9/2/2017	WL_LCI_SP02	E293370	0.22	0.22		8.2	0.021	0.02	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
9/3/2017	WL_LCI_SP02	E293370												
9/3/2017	WL_LCI_SP02	E293370	0.219	0.22		8.4	0.021	0.022	< 0.00010	< 0.00010	< 10	< 10		
9/4/2017	WL_LCI_SP02	E293370												
9/4/2017	WL_LCI_SP02	E293370	0.215	0.219		8.4	0.02	0.021	< 0.00010	< 0.00010	< 10	< 10		
9/5/2017	WL_LCI_SP02	E293370												
9/5/2017	WL_LCI_SP02	E293370	0.214	0.218		8.3	0.021	0.021	< 0.00010	< 0.00010	< 10	< 10		
9/6/2017	WL_LCI_SP02	E293370												
9/6/2017	WL_LCI_SP02	E293370	0.219	0.218			0.021	0.022	< 0.00010	< 0.00010	< 10	< 10		
9/7/2017	WL_LCI_SP02	E293370												
9/7/2017	WL_LCI_SP02	E293370	0.214	0.215		8.6	0.021	0.021	< 0.00010	< 0.00010	< 10	< 10		
9/7/2017	WL_LCI_SP02	E293370	0.223	0.228		6.8	0.019	0.021	< 0.00010	< 0.00010	< 10	< 10		
9/8/2017	WL_LCI_SP02	E293370												
9/8/2017	WL_LCI_SP02	E293370	0.222	0.221		8.5	0.021	0.021	< 0.00010	< 0.00010	< 10	< 10		
9/9/2017	WL_LCI_SP02	E293370												
9/9/2017	WL_LCI_SP02	E293370	0.219	0.216		8.5	0.019	0.019	< 0.00010	< 0.00010	< 10	< 10		
9/10/2017	WL_LCI_SP02	E293370												
9/10/2017	WL_LCI_SP02	E293370	0.22	0.221		8.5	0.022	0.022	< 0.00010	< 0.00010	< 10	< 10		
9/11/2017	WL_LCI_SP02	E293370												
9/11/2017	WL_LCI_SP02	E293370	0.229	0.219		8.5	0.02	0.021	< 0.00010	< 0.00010	< 10	< 10		
9/12/2017	WL_LCI_SP02	E293370												
9/12/2017	WL_LCI_SP02	E293370	0.22	0.235	276	8.4	0.02	0.021	< 0.00010	< 0.00010	< 10	< 10	714	0.38
9/13/2017	WL_LCI_SP02	E293370												
9/13/2017	WL_LCI_SP02	E293370	0.224	0.227		9.2	0.018	0.02	< 0.00010	< 0.00010	< 10	< 10		
9/14/2017	WL_LCI_SP02	E293370												
9/14/2017	WL_LCI_SP02	E293370	0.243	0.246		8.2	0.02	0.024	< 0.00010	< 0.00010	< 10	< 10		
9/15/2017	WL_LCI_SP02	E293370												
9/15/2017	WL_LCI_SP02	E293370	0.229	0.228		7.9	0.021	0.021	< 0.00010	< 0.00010	< 10	< 10		
9/16/2017	WL_LCI_SP02	E293370												
9/16/2017	WL_LCI_SP02	E293370	0.222	0.218		7.4	0.019	0.02	< 0.00010	< 0.00010	< 10	< 10		
9/17/2017	WL_LCI_SP02	E293370												
9/17/2017	WL_LCI_SP02	E293370	0.22	0.218		7.8	0.02	0.018	< 0.00010	< 0.00010	< 10	< 10		
9/18/2017	WL_LCI_SP02	E293370												
9/18/2017	WL_LCI_SP02	E293370	0.222	0.218		8.1	0.02	0.021	< 0.00010	< 0.00010	< 10	< 10		
9/18/2017	WL_LCI_SP02	E293370												
9/19/2017	WL_LCI_SP02	E293370												
9/19/2017	WL_LCI_SP02	E293370	0.203	0.207		7.8	0.019	0.019	< 0.00010	< 0.00010	< 10	< 10		
9/20/2017	WL_LCI_SP02	E293370												
9/20/2017	WL_LCI_SP02	E293370	0.219	0.218		7.5	0.023	0.019	< 0.00010	< 0.00010	< 10	< 10		
9/20/2017	WL_LCI_SP02	E293370												
9/21/2017	WL_LCI_SP02	E293370												
9/21/2017	WL_LCI_SP02	E293370	0.209	0.217		7.4	0.018	0.023	< 0.00010	< 0.00010	< 10	< 10		
9/21/2017	WL_LCI_SP02	E293370	0.213	0.223	262		0.019	0.021	< 0.00010	< 0.00010	< 10	< 10	692	0.081
9/22/2017	WL_LCI_SP02	E293370												
9/22/2017	WL_LCI_SP02	E293370	0.211	0.216		7.5	0.019	0.019	< 0.00010	< 0.00010	< 10	< 10		
9/23/2017	WL_LCI_SP02	E293370												
9/23/2017	WL_LCI_SP02	E293370	0.182	0.199		7	0.015	0.017	< 0.00010	< 0.00010	< 10	< 10		
9/24/2017	WL_LCI_SP02	E293370												

Analyte		STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN	
Fraction Result Unit		D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l	
Sample Date	Location	EMS Number												
9/24/2017	WL_LCI_SP02	E293370	0.218	0.226		6.9	0.018	0.021	< 0.00010	< 0.00010	< 10	< 10		
9/25/2017	WL_LCI_SP02	E293370												
9/25/2017	WL_LCI_SP02	E293370	0.234	0.219		7	0.023	0.018	< 0.00010	< 0.00010	< 10	< 10		
9/26/2017	WL_LCI_SP02	E293370												
9/26/2017	WL_LCI_SP02	E293370	0.227	0.222		7.2	0.02	0.022	< 0.00010	< 0.00010	< 10	< 10		
9/27/2017	WL_LCI_SP02	E293370												
9/27/2017	WL_LCI_SP02	E293370	0.218	0.221		7	0.021	0.019	< 0.00010	< 0.00010	< 10	< 10		
9/28/2017	WL_LCI_SP02	E293370												
9/28/2017	WL_LCI_SP02	E293370	0.222	0.224		16.2	0.019	0.019	< 0.00010	< 0.00010	< 10	< 10		
9/29/2017	WL_LCI_SP02	E293370												
9/29/2017	WL_LCI_SP02	E293370	0.224	0.224		7	0.019	0.019	< 0.00010	< 0.00010	< 10	< 10		
9/30/2017	WL_LCI_SP02	E293370												
9/30/2017	WL_LCI_SP02	E293370	0.214	0.226		7.2	0.016	0.018	< 0.00010	< 0.00010	< 10	< 10		
10/1/2017	WL_LCI_SP02	E293370												
10/1/2017	WL_LCI_SP02	E293370	0.221	0.22		6.8	0.016	0.02	< 0.00010	< 0.00010	< 10	< 10		
10/2/2017	WL_LCI_SP02	E293370												
10/2/2017	WL_LCI_SP02	E293370	0.221	0.223	244	6.9	0.019	0.018	< 0.00010	< 0.00010	< 10	< 10	670	0.47
10/2/2017	WL_LCI_SP02	E293370												
10/3/2017	WL_LCI_SP02	E293370												
10/3/2017	WL_LCI_SP02	E293370	0.219	0.217		6.7	0.018	0.017	< 0.00010	< 0.00010	< 10	< 10		
10/4/2017	WL_LCI_SP02	E293370												
10/4/2017	WL_LCI_SP02	E293370	0.223	0.221		6.9	0.019	0.018	< 0.00010	< 0.00010	< 10	< 10		
10/5/2017	WL_LCI_SP02	E293370												
10/5/2017	WL_LCI_SP02	E293370	0.21	0.22		6.9	0.02	0.016	< 0.00010	< 0.00010	< 10	< 10		
10/6/2017	WL_LCI_SP02	E293370												
10/6/2017	WL_LCI_SP02	E293370	0.207	0.212		6.2	0.019	0.019	< 0.00010	< 0.00010	< 10	< 10		
10/7/2017	WL_LCI_SP02	E293370												
10/7/2017	WL_LCI_SP02	E293370	0.213	0.222		6.2	0.019	0.018	< 0.00010	< 0.00010	< 10	< 10		
10/8/2017	WL_LCI_SP02	E293370												
10/8/2017	WL_LCI_SP02	E293370	0.215	0.219		6.3	0.019	0.018	< 0.00010	< 0.00010	< 10	< 10		
10/9/2017	WL_LCI_SP02	E293370												
10/9/2017	WL_LCI_SP02	E293370	0.222	0.234		5.8	0.02	0.019	< 0.00010	< 0.00010	< 10	< 10		
10/10/2017	WL_LCI_SP02	E293370												
10/10/2017	WL_LCI_SP02	E293370	0.24	0.238		6.2	0.022	0.02	< 0.00010	< 0.00010	< 10	< 10		
10/11/2017	WL_LCI_SP02	E293370												
10/11/2017	WL_LCI_SP02	E293370	0.236	0.234		6.9	0.018	0.017	< 0.00010	< 0.00010	< 10	< 10		
10/12/2017	WL_LCI_SP02	E293370												
10/12/2017	WL_LCI_SP02	E293370	0.231	0.233		6.2	0.017	0.019	< 0.00010	< 0.00010	< 10	< 10		
10/13/2017	WL_LCI_SP02	E293370												
10/13/2017	WL_LCI_SP02	E293370	0.237	0.235		6	0.021	0.02	< 0.00010	< 0.00010	< 10	< 10		
10/14/2017	WL_LCI_SP02	E293370												
10/14/2017	WL_LCI_SP02	E293370	0.253	0.243		5.7	0.017	0.019	< 0.00010	< 0.00010	< 10	< 10		
10/15/2017	WL_LCI_SP02	E293370												
10/15/2017	WL_LCI_SP02	E293370	0.25	0.249		6	0.017	0.02	< 0.00010	< 0.00010	< 10	< 10		
10/16/2017	WL_LCI_SP02	E293370												
10/16/2017	WL_LCI_SP02	E293370	0.251	0.242		5.7	0.018	0.019	< 0.00010	< 0.00010	< 10	< 10		
10/17/2017	WL_LCI_SP02	E293370												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
10/17/2017	WL_LCI_SP02	E293370	0.226	0.229		4.9	0.017	0.02	< 0.00010	< 0.00010	< 10	< 10		
10/18/2017	WL_LCI_SP02	E293370												
10/18/2017	WL_LCI_SP02	E293370	0.252	0.254		6	0.016	0.017	< 0.00010	< 0.00010	< 10	< 10		
10/19/2017	WL_LCI_SP02	E293370												
10/19/2017	WL_LCI_SP02	E293370	0.247	0.247		7.6	0.018	0.019	< 0.00010	< 0.00010	< 10	< 10		
10/20/2017	WL_LCI_SP02	E293370												
10/20/2017	WL_LCI_SP02	E293370	0.264	0.256		7	0.02	0.02	< 0.00010	< 0.00010	< 10	< 10		
10/21/2017	WL_LCI_SP02	E293370												
10/21/2017	WL_LCI_SP02	E293370	0.244	0.252		6.1	0.021	0.034	< 0.00010	< 0.00010	< 10	< 10		
10/22/2017	WL_LCI_SP02	E293370												
10/22/2017	WL_LCI_SP02	E293370	0.24	0.25		5.8	0.028	0.031	< 0.00010	< 0.00010	< 10	< 10		
10/23/2017	WL_LCI_SP02	E293370												
10/23/2017	WL_LCI_SP02	E293370	0.237	0.253		6.3	0.02	0.022	< 0.00010	< 0.00010	< 10	< 10		
10/24/2017	WL_LCI_SP02	E293370	0.238	0.26		6.4	0.019	0.019	< 0.00010	< 0.00010	< 10	< 10		
10/25/2017	WL_LCI_SP02	E293370	0.238	0.258		6.5	0.017	0.019	< 0.00010	< 0.00010	< 10	< 10		
10/26/2017	WL_LCI_SP02	E293370	0.253	0.249		5.9	0.021	0.021	< 0.00010	< 0.00010	< 10	< 10		
10/27/2017	WL_LCI_SP02	E293370	0.256	0.254		5.9	0.021	0.022	< 0.00010	< 0.00010	< 10	< 10		
10/28/2017	WL_LCI_SP02	E293370				6.1								
10/29/2017	WL_LCI_SP02	E293370	0.225	0.226		6.4	0.018	0.025	< 0.00010	< 0.00010	< 10	< 10		
10/30/2017	WL_LCI_SP02	E293370	0.216	0.229		5.8	0.019	0.017	< 0.00010	< 0.00010	< 10	< 10		
10/31/2017	WL_LCI_SP02	E293370	0.232	0.237		5.7	0.018	0.019	< 0.00010	< 0.00010	< 10	< 10		
11/1/2017	WL_LCI_SP02	E293370	0.242	0.237		5.7	0.02	0.019	< 0.00010	< 0.00010	< 10	< 10		
11/2/2017	WL_LCI_SP02	E293370	0.225	0.223		5.7	0.02	0.021	< 0.00010	< 0.00010	< 10	< 10		
11/3/2017	WL_LCI_SP02	E293370	0.222	0.22		5.3	0.021	0.02	< 0.00010	< 0.00010	< 10	< 10		
11/4/2017	WL_LCI_SP02	E293370	0.239	0.246		5.1	0.018	0.019	< 0.00010	< 0.00010	< 10	< 10		
11/5/2017	WL_LCI_SP02	E293370	0.234	0.248		5.3	0.017	0.018	< 0.00010	< 0.00010	< 10	< 10		
11/6/2017	WL_LCI_SP02	E293370	0.252	0.233	389	5.3	0.017	0.016	< 0.00010	< 0.00010	< 10	< 10	893	0.141
11/7/2017	WL_LCI_SP02	E293370	0.238	0.246		4.5	0.024	0.018	< 0.00010	< 0.00010	< 10	< 10		
11/8/2017	WL_LCI_SP02	E293370	0.242	0.249		3.9	0.014	0.016	< 0.00010	< 0.00010	< 10	< 10		
11/9/2017	WL_LCI_SP02	E293370	0.247	0.23		5.2	0.017	0.016	< 0.00010	< 0.00010	< 10	< 10		
11/10/2017	WL_LCI_SP02	E293370	0.231	0.237		3.4	0.015	0.016	< 0.00010	< 0.00010	< 10	< 10		
11/11/2017	WL_LCI_SP02	E293370	0.232	0.23		5.4	0.017	0.019	< 0.00010	< 0.00010	< 10	< 10		
11/12/2017	WL_LCI_SP02	E293370	0.232	0.242		4.1	0.016	0.017	< 0.00010	< 0.00010	< 10	< 10		
11/13/2017	WL_LCI_SP02	E293370	0.233	0.226		5.4	0.018	0.016	< 0.00010	< 0.00010	< 10	< 10		
11/14/2017	WL_LCI_SP02	E293370	0.227	0.235		5.2	0.019	0.017	< 0.00010	< 0.00010	< 10	< 10		
11/15/2017	WL_LCI_SP02	E293370	0.23	0.246		5.1	0.018	0.027	< 0.00010	< 0.00010	< 10	< 10		
11/16/2017	WL_LCI_SP02	E293370	0.237	0.234		4.8	0.017	0.016	< 0.00010	< 0.00010	< 10	< 10		
11/17/2017	WL_LCI_SP02	E293370	0.228	0.226		5.3	0.019	0.017	< 0.00010	< 0.00010	< 10	< 10		
11/18/2017	WL_LCI_SP02	E293370	0.221	0.216		7.1	0.016	0.017	< 0.00010	< 0.00010	< 10	< 10		
11/19/2017	WL_LCI_SP02	E293370	0.224	0.23		5.2	0.016	0.016	< 0.00010	< 0.00010	< 10	< 10		
11/20/2017	WL_LCI_SP02	E293370	0.232	0.23		5	0.017	0.016	< 0.00010	< 0.00010	< 10	< 10		
11/21/2017	WL_LCI_SP02	E293370	0.23	0.245		4.9	0.018	0.02	< 0.00010	< 0.00010	< 10	< 10		
11/22/2017	WL_LCI_SP02	E293370	0.232	0.248		4.9	0.018	0.022	< 0.00010	< 0.00010	< 10	< 10		
11/23/2017	WL_LCI_SP02	E293370	0.274	0.267		5.6	0.017	0.016	< 0.00010	< 0.00010	< 10	< 10		
11/24/2017	WL_LCI_SP02	E293370	0.271	0.255		4.9	0.019	0.018	< 0.00010	< 0.00010	< 10	< 10		
11/25/2017	WL_LCI_SP02	E293370	0.26	0.244		5	0.021	0.019	< 0.00010	< 0.00010	< 10	< 10		
11/26/2017	WL_LCI_SP02	E293370	0.244	0.236		5.2	0.021	0.023	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
11/27/2017	WL_LCI_SP02	E293370	0.255	0.237		5.7	0.023	0.021	< 0.00010	< 0.00010	< 10	< 10		
11/28/2017	WL_LCI_SP02	E293370	0.244	0.248		5.1	0.018	0.019	< 0.00010	< 0.00030	< 10	< 10		
11/29/2017	WL_LCI_SP02	E293370	0.252	0.259		5.2	0.021	0.02	< 0.00010	< 0.00010	< 10	< 10		
11/30/2017	WL_LCI_SP02	E293370	0.239	0.25		5.1	0.018	0.02	< 0.00010	< 0.00010	< 10	< 10		
12/1/2017	WL_LCI_SP02	E293370	0.257	0.247		5.1	0.02	0.019	< 0.00010	< 0.00010	< 10	< 10		
12/2/2017	WL_LCI_SP02	E293370	0.257	0.247		5.3	0.02	0.018	< 0.00010	< 0.00010	< 10	< 10		
12/3/2017	WL_LCI_SP02	E293370	0.243	0.246		5.2	0.019	0.017	< 0.00010	< 0.00010	< 10	< 10		
12/4/2017	WL_LCI_SP02	E293370	0.241	0.235	393	4.5	0.017	0.018	< 0.00010	< 0.00010	< 10	< 10	871	0.272
12/5/2017	WL_LCI_SP02	E293370	0.246	0.261		4.5	0.017	0.018	< 0.00010	< 0.00010	< 10	< 10		
12/6/2017	WL_LCI_SP02	E293370	0.252	0.243		4.6	0.016	0.018	< 0.00010	< 0.00010	< 10	< 10		
12/7/2017	WL_LCI_SP02	E293370	0.249	0.242		4.4	0.018	0.019	< 0.00010	< 0.00010	< 10	< 10		
12/8/2017	WL_LCI_SP02	E293370	0.243	0.25		4.4	0.019	0.019	< 0.00010	< 0.00010	< 10	< 10		
12/9/2017	WL_LCI_SP02	E293370	0.232	0.248		4.5	0.019	0.016	< 0.00010	< 0.00010	< 10	< 10		
12/10/2017	WL_LCI_SP02	E293370	0.237	0.244		4.7	0.02	0.017	< 0.00010	< 0.00010	< 10	< 10		
12/11/2017	WL_LCI_SP02	E293370	0.239	0.252		4.8	0.019	0.017	< 0.00010	< 0.00010	< 10	< 10		
12/12/2017	WL_LCI_SP02	E293370	0.236	0.227		4.3	0.018	0.018	< 0.00010	< 0.00010	< 10	< 10		
12/13/2017	WL_LCI_SP02	E293370	0.23	0.244		4.7	0.019	0.018	< 0.00010	< 0.00010	< 10	< 10		
12/14/2017	WL_LCI_SP02	E293370	0.239	0.244		4.3	0.018	0.018	< 0.00010	< 0.00010	< 10	< 10		
12/15/2017	WL_LCI_SP02	E293370	0.233	0.252		5.2	0.02	0.018	< 0.00010	< 0.00010	< 10	< 10		
12/16/2017	WL_LCI_SP02	E293370	0.24	0.242		7.2	0.016	0.016	< 0.00010	< 0.00010	< 10	< 10		
12/17/2017	WL_LCI_SP02	E293370	0.245	0.242		6.5	0.017	0.018	< 0.00010	< 0.00010	< 10	< 10		
12/18/2017	WL_LCI_SP02	E293370	0.25	0.248		4.8	0.017	0.018	< 0.00010	< 0.00010	< 10	< 10		
12/19/2017	WL_LCI_SP02	E293370	0.247	0.252		4.6	0.019	0.021	< 0.00010	< 0.00010	< 10	< 10		
12/20/2017	WL_LCI_SP02	E293370	0.246	0.256		5.2	0.017	0.021	< 0.00010	< 0.00010	< 10	< 10		
12/21/2017	WL_LCI_SP02	E293370	0.3	0.25		4.1	0.023	0.02	< 0.00010	< 0.00010	< 10	< 10		
12/22/2017	WL_LCI_SP02	E293370	0.263	0.238		7.45	0.019	0.017	< 0.00010	< 0.00010	< 10	< 10		
12/23/2017	WL_LCI_SP02	E293370	0.25	0.247		3.6	0.016	0.017	< 0.00010	< 0.00010	< 10	< 10		
12/24/2017	WL_LCI_SP02	E293370	0.254	0.259		3.6	0.016	0.016	< 0.00010	< 0.00010	< 10	< 10		
12/25/2017	WL_LCI_SP02	E293370	0.255	0.243		4.2	0.018	0.017	< 0.00010	< 0.00010	< 10	< 10		
12/26/2017	WL_LCI_SP02	E293370	0.245	0.244		3.3	0.017	0.018	< 0.00010	< 0.00010	< 10	< 10		
12/27/2017	WL_LCI_SP02	E293370	0.243	0.232		3.5	< 0.030	0.018	< 0.00010	< 0.00010	< 10	< 10		
12/28/2017	WL_LCI_SP02	E293370	0.236	0.249		4	0.019	0.019	< 0.00010	< 0.00010	< 10	< 10		
12/29/2017	WL_LCI_SP02	E293370	0.242	0.236		3.7	0.017	0.017	< 0.00010	< 0.00010	< 10	< 10		
12/30/2017	WL_LCI_SP02	E293370	0.237	0.254		3.9	0.018	0.02	< 0.00010	< 0.00010	< 10	< 10		
12/31/2017	WL_LCI_SP02	E293370												
12/31/2017	WL_LCI_SP02	E293370	0.266	0.25		3.5	0.015	0.014	< 0.00010	< 0.00010	< 10	< 10		
1/1/2017	WL_WLCI_SP01	E293371	0.183	0.176			0.024	0.024	< 0.00010	< 0.00010	< 10	< 10		
1/3/2017	WL_WLCI_SP01	E293371	0.185	0.177			0.024	0.024	< 0.00010	< 0.00010	< 10	< 10		
1/4/2017	WL_WLCI_SP01	E293371												
1/5/2017	WL_WLCI_SP01	E293371	0.194	0.205			0.022	0.025	< 0.00010	< 0.00010	< 10	< 10		
1/6/2017	WL_WLCI_SP01	E293371												
1/7/2017	WL_WLCI_SP01	E293371												
1/8/2017	WL_WLCI_SP01	E293371	0.195	0.2			0.025	0.031	< 0.00010	< 0.00010	< 10	< 10		
1/9/2017	WL_WLCI_SP01	E293371	0.198	0.2	966		0.024	0.027	< 0.00010	< 0.00010	< 10	< 10	1900	< 0.050
1/10/2017	WL_WLCI_SP01	E293371	0.191	0.192			0.023	0.026	< 0.00010	< 0.00010	< 10	< 10		
1/11/2017	WL_WLCI_SP01	E293371												
1/12/2017	WL_WLCI_SP01	E293371	0.192	0.191			0.022	0.025	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
1/13/2017	WL_WLCI_SP01	E293371												
1/14/2017	WL_WLCI_SP01	E293371												
1/15/2017	WL_WLCI_SP01	E293371	0.194	0.196			0.022	0.026	< 0.00010	< 0.00010	< 10	< 10		
1/16/2017	WL_WLCI_SP01	E293371	0.206	0.203			0.033	0.026	< 0.00010	< 0.00010	< 10	< 10		
1/17/2017	WL_WLCI_SP01	E293371	0.187	0.202			0.026	0.028	< 0.00010	< 0.00010	< 10	< 10		
1/18/2017	WL_WLCI_SP01	E293371	0.192	0.195	1030		0.023	0.025	< 0.00010	< 0.00010	< 10	< 10		0.56
1/19/2017	WL_WLCI_SP01	E293371	0.193	0.196			0.023	0.028	< 0.00010	< 0.00010	< 10	< 10		
1/20/2017	WL_WLCI_SP01	E293371												
1/21/2017	WL_WLCI_SP01	E293371												
1/22/2017	WL_WLCI_SP01	E293371	0.202	0.216			0.021	0.024	< 0.00010	< 0.00010	< 10	< 10		
1/23/2017	WL_WLCI_SP01	E293371	0.198	0.233			0.02	0.027	< 0.00010	< 0.00010	< 10	< 10		
1/24/2017	WL_WLCI_SP01	E293371	0.209	0.227			0.021	0.026	< 0.00010	< 0.00010	< 10	< 10		
1/25/2017	WL_WLCI_SP01	E293371												
1/26/2017	WL_WLCI_SP01	E293371	0.199	0.201			0.023	0.028	< 0.00010	< 0.00010	< 10	< 10		
1/27/2017	WL_WLCI_SP01	E293371												
1/28/2017	WL_WLCI_SP01	E293371												
1/29/2017	WL_WLCI_SP01	E293371	0.196	0.211		4.1	0.024	0.028	< 0.00010	< 0.00010	< 10	< 10		
1/30/2017	WL_WLCI_SP01	E293371	0.193	0.199			0.023	0.031	< 0.00010	< 0.00010	< 10	< 10		
1/31/2017	WL_WLCI_SP01	E293371	0.193	0.197		3.8	< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10		
2/1/2017	WL_WLCI_SP01	E293371	0.184	0.192		3.7	0.022	0.027	< 0.00010	< 0.00010	< 10	< 10		
2/1/2017	WL_WLCI_SP01	E293371	0.198	0.207	1130		< 0.050	< 0.050	< 0.00050	< 0.00050	< 10	< 10		< 0.050
2/2/2017	WL_WLCI_SP01	E293371	0.2	0.197		3.5	0.031	0.029	< 0.00010	< 0.00010	< 10	< 10		
2/3/2017	WL_WLCI_SP01	E293371				3.6								
2/4/2017	WL_WLCI_SP01	E293371				3.7								
2/5/2017	WL_WLCI_SP01	E293371	0.2	0.199		3.7	0.03	0.027	< 0.00010	< 0.00010	< 10	< 10		
2/6/2017	WL_WLCI_SP01	E293371	0.196	0.207		3.3	0.026	0.028	< 0.00010	< 0.00010	< 10	< 10		
2/7/2017	WL_WLCI_SP01	E293371	0.147	0.207	1120	3.4	0.021	0.031	< 0.00010	< 0.00010	< 10	< 10	2050	< 0.050
2/8/2017	WL_WLCI_SP01	E293371				3.2								
2/8/2017	WL_WLCI_SP01	E293371	0.199	0.178	1070		0.025	0.022	< 0.00010	< 0.00010	< 10	< 10		< 0.050
2/9/2017	WL_WLCI_SP01	E293371				5.8								
2/10/2017	WL_WLCI_SP01	E293371	0.199	0.208		3.6	0.026	0.027	< 0.00010	< 0.00010	< 10	< 10		
2/11/2017	WL_WLCI_SP01	E293371				4.1								
2/12/2017	WL_WLCI_SP01	E293371	0.205	0.212		3.9	0.026	0.026	< 0.00010	< 0.00010	< 10	< 10		
2/13/2017	WL_WLCI_SP01	E293371	0.196	0.213		3.9	0.024	0.027	< 0.00010	< 0.00010	< 10	< 10		
2/14/2017	WL_WLCI_SP01	E293371	0.199	0.201		3.6	0.026	0.026	< 0.00010	< 0.00010	< 10	< 10		
2/15/2017	WL_WLCI_SP01	E293371				3.6								
2/16/2017	WL_WLCI_SP01	E293371	0.209	0.211		4.3	0.028	0.025	< 0.00010	< 0.00010	< 10	< 10		
2/17/2017	WL_WLCI_SP01	E293371				3.9								
2/18/2017	WL_WLCI_SP01	E293371				3.4								
2/19/2017	WL_WLCI_SP01	E293371	0.196	0.218		4.6	0.024	0.025	< 0.00010	< 0.00010	< 10	< 10		
2/20/2017	WL_WLCI_SP01	E293371	0.216	0.225		4.2	0.025	0.029	< 0.00010	< 0.00010	< 10	< 10		
2/21/2017	WL_WLCI_SP01	E293371	0.194	0.213		3.9	0.023	0.026	< 0.00010	< 0.00010	< 10	< 10		
2/22/2017	WL_WLCI_SP01	E293371				3.7								
2/22/2017	WL_WLCI_SP01	E293371												
2/23/2017	WL_WLCI_SP01	E293371	0.201	0.208		3.9	0.022	0.024	< 0.00010	< 0.00010	< 10	< 10		
2/24/2017	WL_WLCI_SP01	E293371				3.7								
2/25/2017	WL_WLCI_SP01	E293371				4								

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
2/26/2017	WL_WLCI_SP01	E293371	0.195	0.196		3.8	0.026	0.024	< 0.00010	< 0.00010	< 10	< 10		
2/27/2017	WL_WLCI_SP01	E293371	0.211	0.208		3.6	0.021	0.024	< 0.00010	< 0.00010	< 10	< 10		
2/28/2017	WL_WLCI_SP01	E293371	0.185	0.196		3.7	0.023	0.024	< 0.00010	< 0.00010	< 10	< 10		
3/1/2017	WL_WLCI_SP01	E293371												
3/2/2017	WL_WLCI_SP01	E293371	0.199	0.203			0.028	0.028	< 0.00010	< 0.00010	< 10	< 10		
3/3/2017	WL_WLCI_SP01	E293371				5.5								
3/4/2017	WL_WLCI_SP01	E293371				4.3								
3/5/2017	WL_WLCI_SP01	E293371	0.216	0.229		4	0.023	0.028	< 0.00010	< 0.00010	< 10	< 10		
3/6/2017	WL_WLCI_SP01	E293371	0.215	0.218	1160	3.9	0.029	0.031	< 0.00010	< 0.00010	< 10	< 10	2070	0.699
3/7/2017	WL_WLCI_SP01	E293371	0.196	0.215		3.7	0.028	0.033	< 0.00010	< 0.00010	< 10	< 10		
3/8/2017	WL_WLCI_SP01	E293371				4.2								
3/9/2017	WL_WLCI_SP01	E293371	0.195	0.211		3.7	0.022	0.027	< 0.00010	< 0.00010	< 10	< 10		
3/10/2017	WL_WLCI_SP01	E293371	0.198	0.207		3.8	0.023	0.027	< 0.00010	< 0.00010	< 10	< 10		
3/11/2017	WL_WLCI_SP01	E293371	0.197	0.2		4	0.023	0.026	< 0.00010	< 0.00010	< 10	< 10		
3/12/2017	WL_WLCI_SP01	E293371	0.195	0.204		4.2	0.024	0.027	< 0.00010	< 0.00010	< 10	< 10		
3/13/2017	WL_WLCI_SP01	E293371	0.183	0.196		4	0.026	0.027	< 0.00010	< 0.00010	< 10	< 10		
3/14/2017	WL_WLCI_SP01	E293371	0.206	0.206		4.1	0.025	0.027	< 0.00020	< 0.00020	< 10	< 10		
3/15/2017	WL_WLCI_SP01	E293371	0.193	0.194		3.7	0.027	0.029	< 0.00010	< 0.00010	< 10	< 10		
3/16/2017	WL_WLCI_SP01	E293371	0.163	0.171		3.4	0.018	0.045	< 0.00010	< 0.00010	< 10	< 10		
3/20/2017	WL_WLCI_SP01	E293371	0.223	0.235		3.2	0.018	0.03	< 0.00010	< 0.00010	< 10	< 10		
3/21/2017	WL_WLCI_SP01	E293371	0.226	0.236		3.9	0.023	0.025	< 0.00010	< 0.00010	< 10	< 10		
3/22/2017	WL_WLCI_SP01	E293371	0.224	0.224		3.7	0.022	0.032	< 0.00010	< 0.00010	< 10	< 10		
3/23/2017	WL_WLCI_SP01	E293371	0.197	0.221		4	0.022	0.028	< 0.00010	< 0.00010	< 10	< 10		
3/24/2017	WL_WLCI_SP01	E293371	0.213	0.219		3.9	0.024	0.032	< 0.00020	< 0.00020	< 10	< 10		
3/25/2017	WL_WLCI_SP01	E293371	0.209	0.219		4.1	0.023	0.034	< 0.00010	< 0.00010	< 10	< 10		
3/26/2017	WL_WLCI_SP01	E293371	0.206	0.217		4.1	0.024	0.026	< 0.00010	< 0.00010	< 10	< 10		
3/27/2017	WL_WLCI_SP01	E293371	0.206	0.219		4.2	0.026	0.027	< 0.00010	< 0.00010	< 10	< 10		
3/28/2017	WL_WLCI_SP01	E293371	0.206	0.216		4.2	0.027	0.029	< 0.00010	< 0.00010	< 10	< 10		
3/29/2017	WL_WLCI_SP01	E293371	0.203	0.215		4.1	0.027	0.028	< 0.00010	< 0.00010	< 10	< 10		
3/30/2017	WL_WLCI_SP01	E293371	0.221	0.195		3.9	0.028	0.024	< 0.00010	< 0.00010	< 10	< 10		
3/31/2017	WL_WLCI_SP01	E293371	0.204	0.212		4.2	0.024	0.033	< 0.00010	< 0.00010	< 10	< 10		
4/1/2017	WL_WLCI_SP01	E293371	0.201	0.202		4.1	0.026	0.029	< 0.00010	< 0.00010	< 10	< 10		
4/2/2017	WL_WLCI_SP01	E293371	0.209	0.208		3.9	0.026	0.028	< 0.00010	< 0.00010	< 10	< 10		
4/3/2017	WL_WLCI_SP01	E293371	0.204	0.203	1210	3.9	0.029	0.029	< 0.00010	< 0.00010	< 10	< 10	2210	0.566
4/4/2017	WL_WLCI_SP01	E293371	0.197	0.206		3.9	0.027	0.028	< 0.00010	< 0.00010	< 10	< 10		
4/5/2017	WL_WLCI_SP01	E293371	0.217	0.214		3.9	0.025	0.027	< 0.00010	< 0.00010	< 10	< 10		
4/6/2017	WL_WLCI_SP01	E293371	0.216	0.215		4.3	0.027	0.036	< 0.00010	< 0.00010	< 10	< 10		
4/7/2017	WL_WLCI_SP01	E293371	0.2	0.223		4.1	0.028	0.026	< 0.00010	< 0.00010	< 10	< 10		
4/8/2017	WL_WLCI_SP01	E293371	0.194	0.22		3.8	0.022	0.032	< 0.00010	< 0.00010	< 10	< 10		
4/9/2017	WL_WLCI_SP01	E293371	0.202	0.222		4.2	0.022	0.028	< 0.00010	< 0.00010	< 10	< 10		
4/10/2017	WL_WLCI_SP01	E293371	0.199	0.219		4	0.025	0.028	< 0.00010	< 0.00010	< 10	< 10		
4/11/2017	WL_WLCI_SP01	E293371	0.223	0.225		4.2	0.028	0.03	< 0.00010	< 0.00010	< 10	< 10		
4/12/2017	WL_WLCI_SP01	E293371	0.221	0.216		4.2	0.026	0.029	< 0.00010	< 0.00010	< 10	< 10		
4/13/2017	WL_WLCI_SP01	E293371	0.212	0.219		5.3	0.027	0.026	< 0.00010	< 0.00010	< 10	< 10		
4/14/2017	WL_WLCI_SP01	E293371	0.216	0.203		4.3	0.027	0.027	< 0.00010	< 0.00010	< 10	< 10		
4/15/2017	WL_WLCI_SP01	E293371	0.211	0.221		4.2	0.028	0.026	< 0.00010	< 0.00010	< 10	< 10		
4/16/2017	WL_WLCI_SP01	E293371	0.216	0.196		4.3	0.027	0.025	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
4/17/2017	WL_WLCI_SP01	E293371	0.2	0.212		4	0.025	0.027	< 0.00010	< 0.00010	< 10	< 10		
4/18/2017	WL_WLCI_SP01	E293371	0.2	0.209		4.5	0.021	0.026	< 0.00010	< 0.00010	< 10	< 10		
4/19/2017	WL_WLCI_SP01	E293371	0.212	0.215		4.6	0.027	0.029	< 0.00010	< 0.00010	< 10	< 10		
4/20/2017	WL_WLCI_SP01	E293371	0.214	0.209		4.4	0.027	0.026	< 0.00010	< 0.00010	< 10	< 10		
4/21/2017	WL_WLCI_SP01	E293371	0.219	0.223		4.4	0.029	0.028	< 0.00010	< 0.00010	< 10	< 10		
4/22/2017	WL_WLCI_SP01	E293371	0.215	0.212		4.3	0.025	0.029	< 0.00010	< 0.00010	< 10	< 10		
4/23/2017	WL_WLCI_SP01	E293371	0.201	0.213		3.8	0.026	0.028	< 0.00010	< 0.00010	< 10	< 10		
4/24/2017	WL_WLCI_SP01	E293371	0.196	0.206		3.9	0.025	0.029	< 0.00010	< 0.00010	< 10	< 10		
4/25/2017	WL_WLCI_SP01	E293371	0.211	0.213		4.1	0.026	0.029	< 0.00010	< 0.00010	< 10	< 10		
4/26/2017	WL_WLCI_SP01	E293371	0.212	0.216		4.3	0.026	0.027	< 0.00010	< 0.00010	< 10	< 10		
4/27/2017	WL_WLCI_SP01	E293371	0.202	0.201		4.3	0.026	0.028	< 0.00010	< 0.00010	< 10	< 10		
4/28/2017	WL_WLCI_SP01	E293371	0.206	0.205		4.2	0.026	0.029	< 0.00010	< 0.00010	< 10	< 10		
4/29/2017	WL_WLCI_SP01	E293371	0.2	0.206		4.4	0.026	0.026	< 0.00010	< 0.00010	< 10	< 10		
4/30/2017	WL_WLCI_SP01	E293371	0.201	0.205		4.2	0.026	0.027	< 0.00010	< 0.00010	< 10	< 10		
5/1/2017	WL_WLCI_SP01	E293371	0.203	0.21	1170	4	0.024	0.028	< 0.00010	< 0.00010	< 10	< 10	2270	< 0.050
5/2/2017	WL_WLCI_SP01	E293371	0.205	0.208		4.4	0.024	0.027	< 0.00010	< 0.00010	< 10	< 10		
5/3/2017	WL_WLCI_SP01	E293371	0.208	0.201		4.2	0.024	0.028	< 0.00010	< 0.00010	< 10	< 10		
5/4/2017	WL_WLCI_SP01	E293371	0.203	0.202		4.6	0.028	0.029	< 0.00010	< 0.00010	< 10	< 10		
5/5/2017	WL_WLCI_SP01	E293371	0.194	0.187		4.3	0.025	0.025	< 0.00010	< 0.00010	< 10	< 10		
5/6/2017	WL_WLCI_SP01	E293371	0.184	0.158		4.4	0.026	0.024	< 0.00010	< 0.00010	< 10	< 10		
5/7/2017	WL_WLCI_SP01	E293371	0.202	0.189		4.4	0.029	0.027	< 0.00010	< 0.00010	< 10	< 10		
5/8/2017	WL_WLCI_SP01	E293371	0.191	0.192		4.1	0.026	0.027	< 0.00010	< 0.00010	< 10	< 10		
5/9/2017	WL_WLCI_SP01	E293371	0.184	0.188		4.4	0.027	0.025	< 0.00010	< 0.00010	< 10	< 10		
5/10/2017	WL_WLCI_SP01	E293371	0.179	0.186		4.2	0.028	0.024	< 0.00010	< 0.00010	< 10	< 10		
5/11/2017	WL_WLCI_SP01	E293371	0.182	0.148		4.4	0.027	0.021	< 0.00010	< 0.00010	< 10	< 10		
5/12/2017	WL_WLCI_SP01	E293371	0.175	0.176		4	0.025	0.029	< 0.00010	< 0.00010	< 10	< 10		
5/13/2017	WL_WLCI_SP01	E293371	0.171	0.174		3.8	0.027	0.03	< 0.00010	< 0.00010	< 10	< 10		
5/14/2017	WL_WLCI_SP01	E293371	0.172	0.174		3.8	0.025	0.027	< 0.00010	< 0.00010	< 10	< 10		
5/15/2017	WL_WLCI_SP01	E293371		0.151		4.1		0.024		< 0.00010		< 10		
5/16/2017	WL_WLCI_SP01	E293371	0.139	0.156		4.8	0.027	0.025	< 0.00010	< 0.00010	< 10	< 10		
5/17/2017	WL_WLCI_SP01	E293371	0.15	0.161		4.7	0.024	0.027	< 0.00010	< 0.00010	< 10	< 10		
5/18/2017	WL_WLCI_SP01	E293371	0.16	0.159		4.5	0.022	0.022	< 0.00010	< 0.00010	< 10	< 10		
5/19/2017	WL_WLCI_SP01	E293371	0.163	0.163		4.8	0.026	0.031	< 0.00010	< 0.00010	< 10	< 10		
5/20/2017	WL_WLCI_SP01	E293371				4.2								
5/21/2017	WL_WLCI_SP01	E293371	0.163	0.163		4.5	0.021	0.021	< 0.00010	< 0.00010	< 10	< 10		
5/22/2017	WL_WLCI_SP01	E293371	0.159	0.149		4.6	0.026	0.026	< 0.00010	< 0.00010	< 10	< 10		
5/23/2017	WL_WLCI_SP01	E293371	0.153	0.155		4.3	0.027	0.031	< 0.00010	< 0.00010	< 10	< 10		
5/24/2017	WL_WLCI_SP01	E293371	0.134	0.136		4.4	0.027	0.027	< 0.00010	< 0.00010	< 10	< 10		
5/25/2017	WL_WLCI_SP01	E293371	0.12	0.12		4.4	0.025	0.026	< 0.00010	< 0.00010	< 10	< 10		
5/26/2017	WL_WLCI_SP01	E293371	0.119	0.117		4.2	0.025	0.028	< 0.00010	< 0.00010	< 10	< 10		
5/27/2017	WL_WLCI_SP01	E293371	0.128	0.13		4.7	0.026	0.027	< 0.00010	< 0.00010	< 10	< 10		
5/28/2017	WL_WLCI_SP01	E293371	0.125	0.126		4.6	0.027	0.026	< 0.00010	< 0.00010	< 10	< 10		
5/29/2017	WL_WLCI_SP01	E293371	0.111	0.115		4.6	0.025	0.025	< 0.00010	< 0.00010	< 10	< 10		
5/30/2017	WL_WLCI_SP01	E293371	0.106	0.106		4.5	0.028	0.026	< 0.00010	< 0.00010	< 10	< 10		
5/31/2017	WL_WLCI_SP01	E293371	0.0998	0.0982		4.8	0.026	0.031	< 0.00010	< 0.00010	< 10	< 10		
6/1/2017	WL_WLCI_SP01	E293371	0.103	0.105		4.7	0.029	0.034	< 0.00010	< 0.00010	< 10	< 10		
6/2/2017	WL_WLCI_SP01	E293371	0.098	0.0997		5.5	0.032	0.029	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
6/3/2017	WL_WLCI_SP01	E293371	0.0954	0.094		4.3	0.028	0.028	< 0.00010	< 0.00010	< 10	< 10		
6/4/2017	WL_WLCI_SP01	E293371	0.0929	0.0944		4.4	0.026	0.028	< 0.00010	< 0.00010	< 10	< 10		
6/5/2017	WL_WLCI_SP01	E293371	0.0937	0.0937	368	5.9	0.028	0.027	< 0.00010	< 0.00010	< 10	< 10	925	0.539
6/6/2017	WL_WLCI_SP01	E293371	0.0954	0.0944			0.026	0.028	< 0.00010	< 0.00010	< 10	< 10		
6/6/2017	WL_WLCI_SP01	E293371				4.5								
6/7/2017	WL_WLCI_SP01	E293371	0.0974	0.0981		4.2	0.029	0.03	< 0.00010	< 0.00010	< 10	< 10		
6/8/2017	WL_WLCI_SP01	E293371	0.103	0.0993		4.3	0.028	0.028	< 0.00010	< 0.00010	< 10	< 10		
6/9/2017	WL_WLCI_SP01	E293371	0.104	0.0944		4.1	0.026	0.027	< 0.00010	< 0.00010	< 10	< 10		
6/10/2017	WL_WLCI_SP01	E293371	0.0964	0.102		4.2	0.028	0.031	< 0.00010	< 0.00010	< 10	< 10		
6/11/2017	WL_WLCI_SP01	E293371	0.105	0.101		4.2	0.029	0.028	< 0.00010	< 0.00010	< 10	< 10		
6/12/2017	WL_WLCI_SP01	E293371	0.106	0.104	462	4.6	0.029	0.03	< 0.00010	< 0.00010	< 10	< 10	1030	0.49
6/13/2017	WL_WLCI_SP01	E293371	0.106	0.108		4.5	0.028	0.028	< 0.00010	< 0.00010	< 10	< 10		
6/13/2017	WL_WLCI_SP01	E293371												
6/14/2017	WL_WLCI_SP01	E293371	0.112	0.108		5.4	0.028	0.03	< 0.00010	< 0.00010	< 10	< 10		
6/14/2017	WL_WLCI_SP01	E293371												
6/15/2017	WL_WLCI_SP01	E293371	0.108	0.106		4.5	0.028	0.028	< 0.00010	< 0.00010	< 10	< 10		
6/15/2017	WL_WLCI_SP01	E293371												
6/16/2017	WL_WLCI_SP01	E293371	0.106	0.105		4.4	0.027	0.027	< 0.00010	< 0.00010	< 10	< 10		
6/16/2017	WL_WLCI_SP01	E293371												
6/17/2017	WL_WLCI_SP01	E293371	0.108	0.109		4.7	0.027	0.029	< 0.00010	< 0.00010	< 10	< 10		
6/17/2017	WL_WLCI_SP01	E293371												
6/18/2017	WL_WLCI_SP01	E293371	0.112	0.107		4.7	0.027	0.028	< 0.00010	< 0.00010	< 10	< 10		
6/18/2017	WL_WLCI_SP01	E293371												
6/19/2017	WL_WLCI_SP01	E293371	0.118	0.111		4.8	0.027	0.029	< 0.00010	< 0.00010	< 10	< 10		
6/19/2017	WL_WLCI_SP01	E293371												
6/20/2017	WL_WLCI_SP01	E293371												
6/21/2017	WL_WLCI_SP01	E293371												
6/22/2017	WL_WLCI_SP01	E293371	0.128	0.13		4.6	0.029	0.028	< 0.00010	< 0.00010	< 10	< 10		
6/22/2017	WL_WLCI_SP01	E293371												
6/23/2017	WL_WLCI_SP01	E293371	0.131	0.131		4.7	0.03	0.028	< 0.00010	< 0.00010	< 10	< 10		
6/23/2017	WL_WLCI_SP01	E293371												
6/24/2017	WL_WLCI_SP01	E293371	0.131	0.13		4.6	0.03	0.03	< 0.00010	< 0.00010	< 10	< 10		
6/24/2017	WL_WLCI_SP01	E293371												
6/25/2017	WL_WLCI_SP01	E293371	0.133	0.135		4.6	0.028	0.028	< 0.00010	< 0.00010	< 10	< 10		
6/25/2017	WL_WLCI_SP01	E293371												
6/26/2017	WL_WLCI_SP01	E293371	0.139	0.133		4.9	0.031	0.03	< 0.00010	< 0.00010	< 10	< 10		
6/27/2017	WL_WLCI_SP01	E293371	0.127	0.135		5.8	0.035	0.027	< 0.00010	< 0.00010	< 10	< 10		
6/28/2017	WL_WLCI_SP01	E293371	0.13	0.136		4.8	0.029	0.025	< 0.00010	< 0.00010	< 10	< 10		
6/29/2017	WL_WLCI_SP01	E293371	0.144	0.138		5	0.031	0.031	< 0.00010	< 0.00010	< 10	< 10		
6/30/2017	WL_WLCI_SP01	E293371	0.151	0.151		4.7	0.03	0.03	< 0.00010	< 0.00010	< 10	< 10		
7/1/2017	WL_WLCI_SP01	E293371	0.147	0.127		4.5	0.03	0.026	< 0.00010	< 0.00010	< 10	< 10		
7/2/2017	WL_WLCI_SP01	E293371	0.142	0.145		4.8	0.028	0.029	< 0.00010	< 0.00010	< 10	< 10		
7/3/2017	WL_WLCI_SP01	E293371	0.146	0.137		4.8	0.027	0.027	< 0.00010	< 0.00010	< 10	< 10		
7/4/2017	WL_WLCI_SP01	E293371	0.139	0.144		4.8	0.027	0.03	< 0.00010	< 0.00010	< 10	< 10		
7/5/2017	WL_WLCI_SP01	E293371	0.142	0.144		4.9	0.028	0.031	< 0.00010	< 0.00010	< 10	< 10		
7/6/2017	WL_WLCI_SP01	E293371	0.15	0.151		4.8	0.03	0.032	< 0.00010	< 0.00010	< 10	< 10		
7/7/2017	WL_WLCI_SP01	E293371	0.149	0.151		5.2	0.029	0.031	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
7/8/2017	WL_WLCI_SP01	E293371	0.145	0.153		5	0.03	0.029	< 0.00010	< 0.00010	< 10	< 10		
7/9/2017	WL_WLCI_SP01	E293371	0.143	0.148		4.6	0.026	0.03	< 0.00010	< 0.00010	< 10	< 10		
7/10/2017	WL_WLCI_SP01	E293371	0.148	0.15	722	5.2	0.027	0.03	< 0.00010	< 0.00010	< 10	< 10	1480	0.538
7/11/2017	WL_WLCI_SP01	E293371	0.155	0.156		5.4	0.032	0.031	< 0.00010	< 0.00010	< 10	< 10		
7/12/2017	WL_WLCI_SP01	E293371	0.152	0.154		4.7	0.03	0.034	< 0.00010	< 0.00010	< 10	< 10		
7/13/2017	WL_WLCI_SP01	E293371	0.162	0.156		4.9	0.031	0.029	< 0.00010	< 0.00010	< 10	< 10		
7/14/2017	WL_WLCI_SP01	E293371	0.157	0.155	744	4.7	0.03	0.028	< 0.00010	< 0.00010	< 10	< 10	1540	< 0.050
7/14/2017	WL_WLCI_SP01	E293371												
7/15/2017	WL_WLCI_SP01	E293371				3.9								
7/16/2017	WL_WLCI_SP01	E293371				4.2								
7/17/2017	WL_WLCI_SP01	E293371	0.168	0.165		5.4	0.032	0.031	< 0.00010	< 0.00010	< 0.30	< 10		
7/18/2017	WL_WLCI_SP01	E293371	0.167	0.168		5.4	0.031	0.03	< 0.00010	< 0.00010	< 0.30	< 10		
7/19/2017	WL_WLCI_SP01	E293371	0.164	0.162		4.7	0.028	0.03	< 0.00010	< 0.00010	< 0.30	< 10		
7/20/2017	WL_WLCI_SP01	E293371		0.17		4.8	0.03	0.032	< 0.00010	0.00033	< 0.30	< 10		
7/21/2017	WL_WLCI_SP01	E293371	0.157	0.168		4.8	0.027	0.029	< 0.00010	< 0.00010	< 0.30	< 10		
7/22/2017	WL_WLCI_SP01	E293371	0.167	0.161		5.1	0.028	0.03	< 0.00010	< 0.00010	< 10	< 10		
7/23/2017	WL_WLCI_SP01	E293371	0.161	0.163		6.1	0.027	0.03	< 0.00010	< 0.00010	< 10	< 10		
7/24/2017	WL_WLCI_SP01	E293371	0.16	0.171		4.8	0.028	0.031	< 0.00010	< 0.00010	< 10	< 10		
7/25/2017	WL_WLCI_SP01	E293371	0.169	0.177		6	0.032	0.032	< 0.00010	< 0.00010	< 10	< 10		
7/26/2017	WL_WLCI_SP01	E293371	0.17	0.172		5.4	0.031	0.029	< 0.00010	< 0.00010	< 10	< 10		
7/27/2017	WL_WLCI_SP01	E293371	0.173	0.172		4.3	0.032	0.034	< 0.00010	< 0.00010	< 10	< 10		
7/28/2017	WL_WLCI_SP01	E293371	0.171	0.175		5.3	0.03	0.033	< 0.00010	< 0.00010	< 10	< 10		
7/29/2017	WL_WLCI_SP01	E293371	0.178	0.182		5	0.029	0.027	< 0.00010	< 0.00010	< 10	< 10		
7/30/2017	WL_WLCI_SP01	E293371	0.182	0.18		4.5	0.031	0.029	< 0.00010	< 0.00010	< 10	< 10		
7/31/2017	WL_WLCI_SP01	E293371	0.177	0.178		4.8	0.032	0.029	< 0.00010	< 0.00010	< 10	< 10		
8/1/2017	WL_WLCI_SP01	E293371	0.17	0.173		4.6	0.031	0.029	< 0.00010	< 0.00010	< 10	< 10		
8/2/2017	WL_WLCI_SP01	E293371	0.174	0.172		4.9	0.034	0.033	< 0.00010	< 0.00010	< 10	< 10		
8/3/2017	WL_WLCI_SP01	E293371	0.18	0.182		5.3	0.03	0.031	< 0.00010	< 0.00010	< 10	< 10		
8/4/2017	WL_WLCI_SP01	E293371	0.184	0.182		5.1	0.028	0.032	< 0.00010	< 0.00010	< 10	< 10		
8/5/2017	WL_WLCI_SP01	E293371	0.187	0.188		5.3	0.031	0.03	< 0.00010	< 0.00010	< 10	< 10		
8/6/2017	WL_WLCI_SP01	E293371	0.181			5.3	0.032		< 0.00010		< 10			
8/7/2017	WL_WLCI_SP01	E293371	0.174	0.18		5.4	0.03	0.032	< 0.00010	< 0.00010	< 10	< 10		
8/8/2017	WL_WLCI_SP01	E293371	0.181	0.181		5.5	0.031	0.031	< 0.00010	< 0.00010	< 10	< 10		
8/9/2017	WL_WLCI_SP01	E293371	0.175	0.175		4.1	0.031	0.031	< 0.00010	< 0.00010	< 10	< 10		
8/11/2017	WL_WLCI_SP01	E293371	0.176	0.174		4.4	0.033	0.032	< 0.00010	< 0.00010	< 10	< 10		
8/12/2017	WL_WLCI_SP01	E293371	0.185	0.188		4.7	0.033	0.032	< 0.00010	< 0.00010	< 10	< 10		
8/12/2017	WL_WLCI_SP01	E293371	0.181	0.195	920		0.029	0.029	< 0.00010	< 0.00010	< 10	< 10	1810	0.324
8/13/2017	WL_WLCI_SP01	E293371	0.186	0.185			0.035	0.03	< 0.00010	< 0.00010	< 10	< 10		
8/13/2017	WL_WLCI_SP01	E293371				4.6								
8/14/2017	WL_WLCI_SP01	E293371	0.185	0.188	937		0.033	0.032	< 0.00010	< 0.00010	< 10	< 10	1830	< 0.050
8/15/2017	WL_WLCI_SP01	E293371	0.187	0.188		4.5	0.031	0.031	< 0.00010	< 0.00010	< 10	< 10		
8/16/2017	WL_WLCI_SP01	E293371	0.19	0.187		4.6	0.034	0.032	< 0.00010	< 0.00010	< 10	< 10		
8/17/2017	WL_WLCI_SP01	E293371	0.18	0.183		5.1	0.032	0.035	< 0.00010	< 0.00010	< 10	< 10		
8/18/2017	WL_WLCI_SP01	E293371				4.6								
8/19/2017	WL_WLCI_SP01	E293371	0.185	0.186		5.1	0.032	0.03	< 0.00010	< 0.00010	< 10	< 10		
8/20/2017	WL_WLCI_SP01	E293371	0.187	0.188		4.5	0.033	0.035	< 0.00010	< 0.00010	< 10	< 10		
8/21/2017	WL_WLCI_SP01	E293371	0.191	0.191		4.5	0.032	0.032	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
8/22/2017	WL_WLCI_SP01	E293371	0.196	0.189		4.6	0.034	0.034	< 0.00010	< 0.00010	< 10	< 10		
8/23/2017	WL_WLCI_SP01	E293371	0.186	0.182		5.4	0.031	0.031	< 0.00010	< 0.00010	< 10	< 10		
8/24/2017	WL_WLCI_SP01	E293371	0.185	0.186		4.4	0.032	0.032	< 0.00010	< 0.00010	< 10	< 10		
8/25/2017	WL_WLCI_SP01	E293371	0.192	0.192		4.4	0.033	0.033	< 0.00010	< 0.00010	< 10	< 10		
8/26/2017	WL_WLCI_SP01	E293371	0.191	0.192		4.4	0.035	0.033	< 0.00010	< 0.00010	< 10	< 10		
8/27/2017	WL_WLCI_SP01	E293371	0.184	0.185		4.4	0.036	0.036	< 0.00010	< 0.00010	< 10	< 10		
8/28/2017	WL_WLCI_SP01	E293371	0.19	0.177		4.4	0.036	0.036	< 0.00010	< 0.00010	< 10	< 10		
8/29/2017	WL_WLCI_SP01	E293371	0.187	0.187		4.6	0.033	0.034	< 0.00010	< 0.00010	< 10	< 10		
8/30/2017	WL_WLCI_SP01	E293371	0.191	0.191		4.5	0.034	0.036	< 0.00010	< 0.00010	< 10	< 10		
8/31/2017	WL_WLCI_SP01	E293371	0.194	0.192		4.5	0.032	0.031	< 0.00010	< 0.00010	< 10	< 10		
9/1/2017	WL_WLCI_SP01	E293371	0.195	0.193		4.6	0.032	0.032	< 0.00010	< 0.00010	< 10	< 10		
9/2/2017	WL_WLCI_SP01	E293371												
9/2/2017	WL_WLCI_SP01	E293371	0.188	0.191		4.6	0.033	0.033	< 0.00010	< 0.00010	< 10	< 10		
9/3/2017	WL_WLCI_SP01	E293371												
9/3/2017	WL_WLCI_SP01	E293371	0.186	0.19		4.6	0.035	0.034	< 0.00010	< 0.00010	< 10	< 10		
9/4/2017	WL_WLCI_SP01	E293371												
9/4/2017	WL_WLCI_SP01	E293371	0.194	0.192		4.9	0.034	0.033	< 0.00010	< 0.00010	< 10	< 10		
9/5/2017	WL_WLCI_SP01	E293371												
9/5/2017	WL_WLCI_SP01	E293371	0.189	0.195		4.6	0.033	0.034	< 0.00010	< 0.00010	< 10	< 10		
9/6/2017	WL_WLCI_SP01	E293371												
9/6/2017	WL_WLCI_SP01	E293371	0.192	0.193			0.034	0.033	< 0.00010	< 0.00010	< 10	< 10		
9/7/2017	WL_WLCI_SP01	E293371												
9/7/2017	WL_WLCI_SP01	E293371	0.176	0.181		17.9	0.034	0.033	< 0.00010	< 0.00010	< 10	< 10		
9/8/2017	WL_WLCI_SP01	E293371												
9/8/2017	WL_WLCI_SP01	E293371	0.195	0.191		4.9	0.036	0.034	< 0.00010	< 0.00010	< 10	< 10		
9/9/2017	WL_WLCI_SP01	E293371												
9/9/2017	WL_WLCI_SP01	E293371	0.191	0.197		4.9	0.033	0.03	< 0.00010	< 0.00010	< 10	< 10		
9/10/2017	WL_WLCI_SP01	E293371												
9/10/2017	WL_WLCI_SP01	E293371	0.196	0.193		5	0.032	0.04	< 0.00010	< 0.00010	< 10	< 10		
9/11/2017	WL_WLCI_SP01	E293371												
9/11/2017	WL_WLCI_SP01	E293371	0.198	0.198		5.2	0.033	0.032	< 0.00010	< 0.00010	< 10	< 10		
9/12/2017	WL_WLCI_SP01	E293371												
9/12/2017	WL_WLCI_SP01	E293371	0.199	0.195	1080	4.9	0.034	0.037	< 0.00010	< 0.00010	< 10	< 10	2060	0.34
9/13/2017	WL_WLCI_SP01	E293371												
9/13/2017	WL_WLCI_SP01	E293371	0.194	0.2		6.6	0.032	0.033	< 0.00010	< 0.00010	< 10	< 10		
9/14/2017	WL_WLCI_SP01	E293371												
9/14/2017	WL_WLCI_SP01	E293371	0.197	0.203		4.9	0.031	0.03	< 0.00010	< 0.00010	< 10	< 10		
9/15/2017	WL_WLCI_SP01	E293371												
9/15/2017	WL_WLCI_SP01	E293371	0.205	0.204		4.8	0.034	0.036	< 0.00010	< 0.00010	< 10	< 10		
9/16/2017	WL_WLCI_SP01	E293371												
9/16/2017	WL_WLCI_SP01	E293371	0.19	0.193		6.2	0.036	0.034	< 0.00010	< 0.00010	< 10	< 10		
9/17/2017	WL_WLCI_SP01	E293371												
9/17/2017	WL_WLCI_SP01	E293371	0.191	0.189		4.6	0.033	0.031	< 0.00010	< 0.00010	< 10	< 10		
9/18/2017	WL_WLCI_SP01	E293371												
9/18/2017	WL_WLCI_SP01	E293371	0.194	0.19		4.9	0.034	0.033	< 0.00010	< 0.00010	< 10	< 10		
9/19/2017	WL_WLCI_SP01	E293371												
9/19/2017	WL_WLCI_SP01	E293371	0.191	0.188		5.6	0.033	0.033	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
9/20/2017	WL_WLCI_SP01	E293371												
9/20/2017	WL_WLCI_SP01	E293371	0.191	0.182		4.7	0.03	0.031	< 0.00010	< 0.00010	< 10	< 10		
9/21/2017	WL_WLCI_SP01	E293371												
9/21/2017	WL_WLCI_SP01	E293371	0.19	0.192		4.7	0.03	0.035	< 0.00010	< 0.00010	< 10	< 10		
9/22/2017	WL_WLCI_SP01	E293371												
9/22/2017	WL_WLCI_SP01	E293371	0.188	0.19		4.6	0.032	0.037	< 0.00010	< 0.00010	< 10	< 10		
9/23/2017	WL_WLCI_SP01	E293371												
9/23/2017	WL_WLCI_SP01	E293371	0.181	0.187		4.7	0.029	0.028	< 0.00010	< 0.00010	< 10	< 10		
9/24/2017	WL_WLCI_SP01	E293371												
9/24/2017	WL_WLCI_SP01	E293371	0.195	0.192		4.6	0.032	0.031	< 0.00010	< 0.00010	< 10	< 10		
9/25/2017	WL_WLCI_SP01	E293371												
9/25/2017	WL_WLCI_SP01	E293371	0.198	0.192		4.5	0.032	0.033	< 0.00010	< 0.00010	< 10	< 10		
9/26/2017	WL_WLCI_SP01	E293371												
9/26/2017	WL_WLCI_SP01	E293371	0.196	0.195		5.2	0.034	0.036	< 0.00010	< 0.00010	< 10	< 10		
9/27/2017	WL_WLCI_SP01	E293371												
9/27/2017	WL_WLCI_SP01	E293371	0.198	0.198		6.3	0.03	0.032	< 0.00010	< 0.00010	< 10	< 10		
9/28/2017	WL_WLCI_SP01	E293371												
9/28/2017	WL_WLCI_SP01	E293371	0.199	0.2		15.9	0.032	0.032	< 0.00010	< 0.00010	< 10	< 10		
9/29/2017	WL_WLCI_SP01	E293371												
9/29/2017	WL_WLCI_SP01	E293371	0.198	0.2		4.8	0.033	0.031	< 0.00010	< 0.00010	< 10	< 10		
9/30/2017	WL_WLCI_SP01	E293371												
9/30/2017	WL_WLCI_SP01	E293371	0.199	0.202		4.9	0.033	0.032	< 0.00010	< 0.00010	< 10	< 10		
10/1/2017	WL_WLCI_SP01	E293371												
10/1/2017	WL_WLCI_SP01	E293371	0.202	0.199		4.9	0.032	0.035	< 0.00010	< 0.00010	< 10	< 10		
10/2/2017	WL_WLCI_SP01	E293371												
10/2/2017	WL_WLCI_SP01	E293371	0.201	0.202	1100	4.7	0.031	0.031	< 0.00010	0.00041	< 10	< 10	2120	0.599
10/3/2017	WL_WLCI_SP01	E293371												
10/3/2017	WL_WLCI_SP01	E293371	0.197	0.195		4.5	0.031	0.032	< 0.00010	< 0.00010	< 10	< 10		
10/4/2017	WL_WLCI_SP01	E293371												
10/4/2017	WL_WLCI_SP01	E293371	0.198	0.195		4.9	0.032	0.032	< 0.00010	< 0.00010	< 10	< 10		
10/5/2017	WL_WLCI_SP01	E293371												
10/5/2017	WL_WLCI_SP01	E293371	0.188	0.197		4.9	0.034	0.029	< 0.00010	< 0.00010	< 10	< 10		
10/6/2017	WL_WLCI_SP01	E293371												
10/6/2017	WL_WLCI_SP01	E293371	0.195	0.194		4.3	0.033	0.034	< 0.00010	< 0.00010	< 10	< 10		
10/7/2017	WL_WLCI_SP01	E293371												
10/7/2017	WL_WLCI_SP01	E293371	0.193	0.197		4.3	0.031	0.03	< 0.00010	< 0.00010	< 10	< 10		
10/8/2017	WL_WLCI_SP01	E293371												
10/8/2017	WL_WLCI_SP01	E293371	0.187	0.192		4.8	0.032	0.029	< 0.00010	< 0.00010	< 10	< 10		
10/9/2017	WL_WLCI_SP01	E293371												
10/9/2017	WL_WLCI_SP01	E293371	0.189	0.201		4.2	0.034	0.033	< 0.00010	< 0.00010	< 10	< 10		
10/10/2017	WL_WLCI_SP01	E293371												
10/10/2017	WL_WLCI_SP01	E293371	0.206	0.201		4.6	0.031	0.031	< 0.00010	< 0.00010	< 10	< 10		
10/11/2017	WL_WLCI_SP01	E293371												
10/11/2017	WL_WLCI_SP01	E293371	0.202	0.198		4.7	0.033	0.029	< 0.00010	< 0.00010	< 10	< 10		
10/12/2017	WL_WLCI_SP01	E293371												
10/12/2017	WL_WLCI_SP01	E293371	0.195	0.194		4.6	0.029	0.032	< 0.00010	< 0.00010	< 10	< 10		
10/13/2017	WL_WLCI_SP01	E293371												

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
10/13/2017	WL_WLCI_SP01	E293371	0.197	0.196		4.5	0.033	0.031	< 0.00010	< 0.00010	< 10	< 10		
10/14/2017	WL_WLCI_SP01	E293371												
10/14/2017	WL_WLCI_SP01	E293371	0.205	0.199		4.5	0.032	0.031	< 0.00010	< 0.00010	< 10	< 10		
10/15/2017	WL_WLCI_SP01	E293371												
10/15/2017	WL_WLCI_SP01	E293371	0.205	0.2		4.9	0.029	0.033	< 0.00010	< 0.00010	< 10	< 10		
10/16/2017	WL_WLCI_SP01	E293371												
10/16/2017	WL_WLCI_SP01	E293371	0.198	0.195		4.7	0.03	0.034	< 0.00010	< 0.00010	< 10	< 10		
10/17/2017	WL_WLCI_SP01	E293371												
10/17/2017	WL_WLCI_SP01	E293371	0.195	0.196		4	0.068	0.029	< 0.00010	< 0.00010	< 10	< 10		
10/18/2017	WL_WLCI_SP01	E293371												
10/18/2017	WL_WLCI_SP01	E293371	0.21	0.215		3.8	0.03	0.032	< 0.00010	< 0.00010	< 10	< 10		
10/19/2017	WL_WLCI_SP01	E293371												
10/19/2017	WL_WLCI_SP01	E293371	0.22	0.219		3.9	0.032	0.033	< 0.00010	< 0.00010	< 10	< 10		
10/20/2017	WL_WLCI_SP01	E293371												
10/20/2017	WL_WLCI_SP01	E293371	0.222	0.214		3.9	0.031	0.033	< 0.00010	< 0.00010	< 10	< 10		
10/21/2017	WL_WLCI_SP01	E293371												
10/21/2017	WL_WLCI_SP01	E293371	0.206	0.215			0.031	0.036	< 0.00010	< 0.00010	< 10	< 10		
10/21/2017	WL_WLCI_SP01	E293371				3.8								
10/22/2017	WL_WLCI_SP01	E293371												
10/22/2017	WL_WLCI_SP01	E293371	0.22	0.208		3.8	0.034	0.034	< 0.00010	< 0.00010	< 10	< 10		
10/23/2017	WL_WLCI_SP01	E293371												
10/23/2017	WL_WLCI_SP01	E293371	0.204	0.196		3.8	0.031	0.037	< 0.00010	< 0.00010	< 10	< 10		
10/24/2017	WL_WLCI_SP01	E293371	0.192	0.188		3.8	0.03	0.025	< 0.00010	< 0.00010	< 10	< 10		
10/25/2017	WL_WLCI_SP01	E293371	0.214	0.203		3.8	0.029	0.028	< 0.00010	< 0.00010	< 10	< 10		
10/26/2017	WL_WLCI_SP01	E293371	0.216	0.21		3.8	0.035	0.031	< 0.00010	< 0.00010	< 10	< 10		
10/27/2017	WL_WLCI_SP01	E293371	0.218	0.218			0.039	0.034	< 0.00010	< 0.00010	< 10	< 10		
10/27/2017	WL_WLCI_SP01	E293371				3.8								
10/28/2017	WL_WLCI_SP01	E293371	0.193	0.201		3.8	0.03	0.038	< 0.00010	< 0.00010	< 10	< 10		
10/29/2017	WL_WLCI_SP01	E293371	0.193	0.197		4.1	0.029	0.027	< 0.00010	< 0.00010	< 10	< 10		
10/30/2017	WL_WLCI_SP01	E293371	0.193	0.198		3.9	0.028	0.028	< 0.00010	< 0.00010	< 10	< 10		
10/31/2017	WL_WLCI_SP01	E293371	0.205	0.207		3.7	0.029	0.03	< 0.00010	< 0.00010	< 10	< 10		
11/1/2017	WL_WLCI_SP01	E293371	0.205	0.199		3.8	0.029	0.031	< 0.00010	< 0.00010	< 10	< 10		
11/2/2017	WL_WLCI_SP01	E293371	0.193	0.193		3.5	0.032	0.032	< 0.00010	< 0.00010	< 10	< 10		
11/3/2017	WL_WLCI_SP01	E293371	0.193	0.192		3.5	0.028	0.031	< 0.00010	< 0.00010	< 10	< 10		
11/4/2017	WL_WLCI_SP01	E293371	0.202	0.208		3.5	0.027	0.029	< 0.00010	< 0.00010	< 10	< 10		
11/5/2017	WL_WLCI_SP01	E293371	0.209	0.209		3.5	0.025	0.028	< 0.00010	< 0.00010	< 10	< 10		
11/6/2017	WL_WLCI_SP01	E293371	0.212	0.202	1170	3.3	0.027	0.028	< 0.00010	< 0.00010	< 10	< 10	2080	< 0.050
11/7/2017	WL_WLCI_SP01	E293371	0.205	0.216		4	0.027	0.028	< 0.00010	< 0.00010	< 10	< 10		
11/8/2017	WL_WLCI_SP01	E293371	0.201	0.2		3.7	0.025	0.031	< 0.00010	< 0.00010	< 10	< 10		
11/9/2017	WL_WLCI_SP01	E293371	0.203	0.204		3.6	0.027	0.025	< 0.00010	< 0.00010	< 10	< 10		
11/10/2017	WL_WLCI_SP01	E293371	0.205	0.206		3.7	0.025	0.027	< 0.00010	< 0.00010	< 10	< 10		
11/11/2017	WL_WLCI_SP01	E293371	0.199	0.208		3.6	0.025	0.025	< 0.00010	< 0.00010	< 10	< 10		
11/12/2017	WL_WLCI_SP01	E293371	0.205	0.208		3.7	0.027	0.027	< 0.00010	< 0.00010	< 10	< 10		
11/13/2017	WL_WLCI_SP01	E293371	0.21	0.203		3.7	0.03	0.026	< 0.00010	< 0.00010	< 10	< 10		
11/14/2017	WL_WLCI_SP01	E293371	0.202	0.209		3.7	0.031	0.026	< 0.00010	< 0.00010	< 10	< 10		
11/15/2017	WL_WLCI_SP01	E293371	0.194	0.23		3.7	0.029	0.029	< 0.00010	< 0.00010	< 10	< 10		
11/16/2017	WL_WLCI_SP01	E293371	0.211	0.199		3.7	0.028	0.028	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
11/17/2017	WL_WLCI_SP01	E293371	0.2	0.199			0.029	0.029	< 0.00010	< 0.00010	< 10	< 10		
11/17/2017	WL_WLCI_SP01	E293371				3.6								
11/18/2017	WL_WLCI_SP01	E293371	0.19	0.195		3.7	0.028	0.027	< 0.00010	< 0.00010	< 10	< 10		
11/19/2017	WL_WLCI_SP01	E293371	0.2	0.199		3.8	0.028	0.028	< 0.00010	0.00025	< 10	< 10		
11/20/2017	WL_WLCI_SP01	E293371	0.196	0.196		3.5	0.029	0.027	< 0.00010	< 0.00010	< 10	< 10		
11/21/2017	WL_WLCI_SP01	E293371	0.202	0.208		3.7	0.026	0.033	< 0.00010	< 0.00010	< 10	< 10		
11/22/2017	WL_WLCI_SP01	E293371	0.199	0.212		3.8	0.027	0.032	< 0.00010	< 0.00010	< 10	< 10		
11/23/2017	WL_WLCI_SP01	E293371	0.23	0.217		3.9	0.029	0.027	< 0.00010	< 0.00010	< 10	< 10		
11/24/2017	WL_WLCI_SP01	E293371	0.224	0.215		3.8	0.029	0.029	< 0.00010	< 0.00010	< 10	< 10		
11/25/2017	WL_WLCI_SP01	E293371	0.216	0.196		3.8	0.032	0.03	< 0.00010	< 0.00010	< 10	< 10		
11/26/2017	WL_WLCI_SP01	E293371	0.201	0.203		3.8	0.033	0.03	< 0.00010	< 0.00010	< 10	< 10		
11/27/2017	WL_WLCI_SP01	E293371	0.21	0.202		3.6	0.031	0.028	< 0.00010	< 0.00010	< 10	< 10		
11/28/2017	WL_WLCI_SP01	E293371	0.213	0.219		3.6	0.029	0.029	< 0.00010	< 0.00010	< 10	< 10		
11/29/2017	WL_WLCI_SP01	E293371	0.22	0.202		3.5	0.028	0.028	< 0.00010	< 0.00010	< 10	< 10		
11/30/2017	WL_WLCI_SP01	E293371	0.202	0.21		3.6	0.028	0.031	< 0.00010	< 0.00010	< 10	< 10		
12/1/2017	WL_WLCI_SP01	E293371	0.211	0.211		3.6	0.032	0.03	< 0.00010	< 0.00010	< 10	< 10		
12/2/2017	WL_WLCI_SP01	E293371	0.21	0.202		3.7	0.026	0.03	< 0.00010	< 0.00010	< 10	< 10		
12/3/2017	WL_WLCI_SP01	E293371	0.201	0.208		3.6	0.028	0.029	< 0.00010	< 0.00010	< 10	< 10		
12/4/2017	WL_WLCI_SP01	E293371	0.205	0.196	1210	3.4	0.028	0.028	< 0.00010	< 0.00010	< 10	< 10	2160	< 0.050
12/5/2017	WL_WLCI_SP01	E293371	0.204	0.205		3.3	0.028	0.029	< 0.00010	< 0.00010	< 10	< 10		
12/6/2017	WL_WLCI_SP01	E293371	0.208	0.215			0.028	0.027	< 0.00010	< 0.00010	< 10	< 10		
12/6/2017	WL_WLCI_SP01	E293371												
12/6/2017	WL_WLCI_SP01	E293371				3.5								
12/7/2017	WL_WLCI_SP01	E293371	0.214	0.205		3.5	0.031	0.027	< 0.00010	< 0.00010	< 10	< 10		
12/8/2017	WL_WLCI_SP01	E293371	0.206	0.21		3.4	0.029	0.031	< 0.00010	< 0.00010	< 10	< 10		
12/9/2017	WL_WLCI_SP01	E293371	0.201	0.215		3.4	0.028	0.027	< 0.00010	< 0.00010	< 10	< 10		
12/10/2017	WL_WLCI_SP01	E293371	0.204	0.216		3.5	0.033	0.027	< 0.00010	< 0.00010	< 10	< 10		
12/11/2017	WL_WLCI_SP01	E293371	0.219	0.221		3.3	0.028	0.029	< 0.00010	< 0.00010	< 10	< 10		
12/12/2017	WL_WLCI_SP01	E293371	0.197	0.204		3.4	0.03	0.027	< 0.00010	< 0.00010	< 10	< 10		
12/13/2017	WL_WLCI_SP01	E293371	0.196	0.207		3.4	0.025	0.028	< 0.00010	< 0.00010	< 10	< 10		
12/13/2017	WL_WLCI_SP01	E293371	0.21	0.216			0.031	0.033	0.00017	0.00025	< 10	< 10		
12/14/2017	WL_WLCI_SP01	E293371	0.203	0.21		3.5	0.03	0.029	< 0.00010	< 0.00010	< 10	< 10		
12/15/2017	WL_WLCI_SP01	E293371	0.201	0.217		3.6	0.036	0.029	< 0.00010	< 0.00010	< 10	< 10		
12/16/2017	WL_WLCI_SP01	E293371	0.203	0.21		3.5	0.027	0.027	< 0.00010	< 0.00010	< 10	< 10		
12/17/2017	WL_WLCI_SP01	E293371	0.21	0.206		3.5	0.027	0.028	< 0.00010	< 0.00010	< 10	< 10		
12/18/2017	WL_WLCI_SP01	E293371	0.209	0.207		3.7	0.028	0.028	< 0.00010	< 0.00010	< 10	< 10		
12/19/2017	WL_WLCI_SP01	E293371	0.216	0.225		3.5	0.028	0.029	< 0.00010	< 0.00010	< 10	< 10		
12/20/2017	WL_WLCI_SP01	E293371	0.215	0.218		3.4	0.028	0.031	< 0.00010	< 0.00010	< 10	< 10		
12/21/2017	WL_WLCI_SP01	E293371	0.194	0.198		3.3	0.029	0.028	< 0.00010	< 0.00010	< 10	< 10		
12/22/2017	WL_WLCI_SP01	E293371	0.219	0.195		7.84	0.03	0.028	< 0.00010	< 0.00010	< 10	< 10		
12/22/2017	WL_WLCI_SP01	E293371	0.205	0.21			0.044	0.034	0.00014	0.00015	< 10	< 10		
12/23/2017	WL_WLCI_SP01	E293371	0.195	0.199		3	0.029	0.029	< 0.00010	< 0.00010	< 10	< 10		
12/23/2017	WL_WLCI_SP01	E293371		0.209				0.026		< 0.00010		< 10		
12/24/2017	WL_WLCI_SP01	E293371	0.212	0.208		3	0.028	0.028	< 0.00010	< 0.00010	< 10	< 10		
12/25/2017	WL_WLCI_SP01	E293371	0.208	0.211		3.1	0.03	0.029	< 0.00010	< 0.00010	< 10	< 10		
12/26/2017	WL_WLCI_SP01	E293371	0.206	0.201		3	0.027	0.028	< 0.00010	< 0.00010	< 10	< 10		
12/27/2017	WL_WLCI_SP01	E293371	0.2	0.19		3.1	0.027	0.036	< 0.00010	< 0.00010	< 10	< 10		

Analyte			STRONTIUM	STRONTIUM	SULFATE (AS SO4)	TEMPERATURE, FIELD	THALLIUM	THALLIUM	TIN	TIN	TITANIUM	TITANIUM	TOTAL DISSOLVED SOLIDS (RESIDUE, FILTERABLE)	TOTAL KJELDAHL NITROGEN
Fraction Result Unit			D mg/l	T mg/l	D mg/l	N deg c	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l	N mg/l	N mg/l
Sample Date	Location	EMS Number												
12/28/2017	WL_WLCI_SP01	E293371	0.205	0.218		3.2	0.03	0.032	< 0.00010	< 0.00010	< 10	< 10		
12/29/2017	WL_WLCI_SP01	E293371	0.201	0.202		3	0.027	0.03	< 0.00010	< 0.00010	< 10	< 10		
12/30/2017	WL_WLCI_SP01	E293371	0.196	0.193			0.029	0.03	< 0.00010	< 0.00010	< 10	< 10		
12/30/2017	WL_WLCI_SP01	E293371				3								
12/31/2017	WL_WLCI_SP01	E293371	0.218	0.215		2.9	0.028	0.028	< 0.00010	< 0.00010	< 10	< 10		

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
1/5/2017	CM_CC1	200209				7.45	7.49	< 0.50	< 0.50	17.3	18.5
1/17/2017	CM_CC1	200209	1.3	1.2	1.03	7.89	7.98	< 0.50	< 0.50	14.3	17.1
1/24/2017	CM_CC1	200209				7.4	7.68	< 0.50	< 0.50	16.2	15.9
1/29/2017	CM_CC1	200209									
1/30/2017	CM_CC1	200209				6.72	7.21	< 0.50	< 0.50	14.2	14.2
1/31/2017	CM_CC1	200209				7.52	7.63	< 2.5	< 2.5	13.9	17
2/1/2017	CM_CC1	200209	2.69	< 1.0	1.01	7.19	7.87	< 2.5	< 2.5	15.9	18
2/7/2017	CM_CC1	200209				7.37	7.48	< 0.50	0.85	14.4	14.2
2/21/2017	CM_CC1	200209				7.27	7.36	< 0.50	< 0.50	12	12.1
3/1/2017	CM_CC1	200209	0.82	1	1.05	7.52	8.57	< 0.50	< 0.50	14.2	13.8
3/7/2017	CM_CC1	200209				7.08	8.57	< 0.50	< 0.50	13.5	15.8
3/22/2017	CM_CC1	200209									
3/22/2017	CM_CC1	200209	0.62	3.4	1.66	5.86	6.54	< 0.50	< 0.50	10.5	12.6
3/29/2017	CM_CC1	200209	2.25	8	4.06	5.87	5.16	< 0.50	0.73	5.3	6.8
4/4/2017	CM_CC1	200209									
4/5/2017	CM_CC1	200209	0.82	1.6	2.7	6.13	5.55	< 0.50	< 0.50	6.3	7.2
4/12/2017	CM_CC1	200209	1.93	2.5	1.43	4.95	4.88	< 0.50	< 0.50	9.5	15.1
4/19/2017	CM_CC1	200209	1.34	4.3	2.8	5.27	6.08	< 0.50	< 0.50	18	18.5
4/26/2017	CM_CC1	200209	1.24	6.4	7.08	4.43	4.52	< 0.50	< 0.50	15.1	30.3
5/2/2017	CM_CC1	200209	1.09	3.6	1.15	4.97	5.3	< 0.50	< 0.50	10.7	12.1
5/9/2017	CM_CC1	200209	2.57	6.8	7.14	3.82	3.71	< 0.50	< 0.50	21.4	22.9
5/16/2017	CM_CC1	200209	1.95	4.3	5.05	4.2	4.29	< 0.50	< 0.50	37.7	45.4
5/17/2017	CM_CC1	200209		13.2							
5/17/2017	CM_CC1	200209		10.4							
5/18/2017	CM_CC1	200209		4.4							
5/23/2017	CM_CC1	200209	2.12	7.8	4.97	3.66	3.7	< 0.50	< 0.50	39.8	41.1
5/30/2017	CM_CC1	200209	1.79	6.2	8.38	3.42	3.51	< 0.50	< 0.50	51.2	52.4
6/6/2017	CM_CC1	200209	1.66	3.4	4.23	4.15	4.18	< 0.50	< 0.50	55.8	54.2
6/14/2017	CM_CC1	200209	0.88	2	2.56	4.78	4.98	< 0.50	< 0.50	52	51.1
6/21/2017	CM_CC1	200209	1.58	4.5	3.75	5.66	5.68	< 0.50	< 0.50	29.5	50.6
6/28/2017	CM_CC1	200209	1.32	2.7	0.7	5.27	5.63	< 0.50	< 0.50	9.4	22.1
7/5/2017	CM_CC1	200209	1.67	2	1.46	6.38	6.31	< 0.50	< 0.50	< 1.0	14.3
7/12/2017	CM_CC1	200209	1.22	3.5	1.04	5.96	6.27	< 0.50	< 0.50	< 1.0	10
7/19/2017	CM_CC1	200209	1.14	1.7	0.37	6.45	6.59	< 0.50	< 0.50	1.3	< 3.0
7/25/2017	CM_CC1	200209	1	1	0.43	5.85	5.98	< 0.50	< 0.50	< 1.0	< 3.0
8/1/2017	CM_CC1	200209	1.88	25.7	3.49	6.56	6.64	< 0.50	< 0.50	< 3.0	5.2
8/8/2017	CM_CC1	200209	1.15	1.7	0.74	7.11	7.45	< 0.50	< 0.50	< 3.0	< 3.0
8/15/2017	CM_CC1	200209	1.02	1.8	0.99	6.99	7.21	< 0.50	< 0.50	< 3.0	3.2
8/15/2017	CM_CC1	200209									
8/22/2017	CM_CC1	200209	1.23	1	1.18	7.19	7.03	< 0.50	< 0.50	< 3.0	< 3.0
8/29/2017	CM_CC1	200209	0.97	2.3	0.75	7.04	7.32	< 0.50	< 0.50	< 3.0	< 3.0
9/5/2017	CM_CC1	200209	0.96	2.8	0.68	7.5	7.97	< 0.50	< 0.50	< 3.0	< 3.0
9/12/2017	CM_CC1	200209	1.02	< 1.0	0.57	7	6.78	< 0.50	< 0.50	< 3.0	6.2
9/19/2017	CM_CC1	200209	1.12	1.2	0.43	5.61	6.11	< 0.50	< 0.50	< 3.0	4.2
10/4/2017	CM_CC1	200209	0.89	1.2	0.44	7.38	7.33	< 0.50	< 0.50	< 3.0	< 3.0
11/7/2017	CM_CC1	200209	0.98	3.3	0.65	6.76	5.97	< 0.50	< 0.50	3.5	4.2
12/6/2017	CM_CC1	200209	0.75	1.1	1.24	6.29	6.44	< 0.50	< 0.50	15.1	16.6

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
1/17/2017	CM_CCPD	E206438	1.25	3.1	3.44	7.97	8.1	< 0.50	< 0.50	29.1	30.8
2/1/2017	CM_CCPD	E206438	2.38	1.3	0.95	8.1	8.78	< 2.5	< 2.5	35.4	37
3/1/2017	CM_CCPD	E206438	0.94	< 1.0	1.22	9.32	10.3	< 0.50	< 0.50	27.4	25.8
4/5/2017	CM_CCPD	E206438	0.54	1.9	4.06	7.88	8.34	< 0.50	0.65	30.8	31
4/12/2017	CM_CCPD	E206438		1.2	4.93						
4/19/2017	CM_CCPD	E206438		22.7	6.98						
4/19/2017	CM_CCPD	E206438									
4/26/2017	CM_CCPD	E206438		2.2	2.79						
5/2/2017	CM_CCPD	E206438	1.6	15.2	7.16	6.66	6.85	< 0.50	< 0.50	8.1	29.7
5/6/2017	CM_CCPD	E206438		2.8							
5/9/2017	CM_CCPD	E206438		6.2	10.8						
5/16/2017	CM_CCPD	E206438		4.7	5.62						
5/17/2017	CM_CCPD	E206438		18.2							
5/17/2017	CM_CCPD	E206438		14.6							
5/18/2017	CM_CCPD	E206438		3.2							
5/23/2017	CM_CCPD	E206438		4.4	5.85						
5/30/2017	CM_CCPD	E206438	2.05	8.4	17.2	3.71	3.47	< 0.50	0.63	85.4	75
6/6/2017	CM_CCPD	E206438	1.21	2.8	4.25	4.13	4.24	< 0.50	< 0.50	86.7	82.2
6/14/2017	CM_CCPD	E206438	1.31	4	8.69	4.52	4.8	< 0.50	< 0.50	81.7	77.7
6/21/2017	CM_CCPD	E206438	1.88	2.1	4.89	5.65	5.72	< 0.50	0.53	101	97.9
6/28/2017	CM_CCPD	E206438	1.62	1.3	1.01	6.3	6.7	< 0.50	< 0.50	90.9	84.6
7/5/2017	CM_CCPD	E206438	2.03	1.8	2.26	7.65	7.54	< 0.50	0.52	93.5	87
7/12/2017	CM_CCPD	E206438	1.56	1.3	1.68	6.9	7.13	< 0.50	< 0.50	87.7	82.1
7/19/2017	CM_CCPD	E206438	3.28	11.3	4.69	8.05	7.88	< 0.50	< 0.50	74.1	65.9
7/25/2017	CM_CCPD	E206438	1.04	58.2	10.4	7.32	7.54	< 0.50	< 0.50	79.3	81.2
8/1/2017	CM_CCPD	E206438	0.74	< 1.0	1.03	8.72	8.94	< 0.50	< 0.50	3.4	77.1
8/22/2017	CM_CCPD	E206438	1.21	2.2	1.18	8.81	9.06	< 0.50	< 0.50	69.6	72
9/12/2017	CM_CCPD	E206438	1.25	4.4	2.63	8.89	8.9	< 0.50	< 0.50	53.7	60.6
9/19/2017	CM_CCPD	E206438	1.9	3.2	2.3	8.59	9.21	< 0.50	< 0.50	< 3.0	63.2
10/3/2017	CM_CCPD	E206438	0.96	4.7	4.23	9.81	10.2	< 0.50	< 0.50	< 3.0	30.8
10/10/2017	CM_CCPD	E206438	1.22	14.5	8.24	8.96	9.65	< 0.50	< 0.50	< 3.0	7.7
10/11/2017	CM_CCPD	E206438		1.9	2.58						
10/24/2017	CM_CCPD	E206438	1.46	8.7	6.42	9.18	9.54	< 0.50	< 0.50	< 3.0	11.7
11/7/2017	CM_CCPD	E206438	0.92	1.1	1.78	10.4	9.41	< 0.50	< 0.50	< 3.0	9
11/22/2017	CM_CCPD	E206438	1.38	8.1	6.87	9.97	10.6	< 0.50	< 0.50	< 3.0	20.1
11/28/2017	CM_CCPD	E206438	1.02	2.4	4.59	8.83	8.52	< 0.50	< 0.50	162	165
12/6/2017	CM_CCPD	E206438	1.41	2.5	3.42	7.81	8.83	< 0.50	< 0.50	67.8	83.3
12/12/2017	CM_CCPD	E206438	0.91	2.1	2.68	9.01	8.54	< 0.50	< 0.50	52.9	54.3
12/19/2017	CM_CCPD	E206438	1.43	2.3	3.14	7.7	7.83	< 1.0	< 1.0	44.1	47.7
12/27/2017	CM_CCPD	E206438	1.33	< 1.0	1.61	7.96	8.48	< 0.50	< 0.50	38.6	40.6
1/18/2017	CM_MC1	E258175	1.29	2	0.75	0.252	0.249	< 0.50	< 0.50	< 3.0	< 3.0
2/1/2017	CM_MC1	E258175	1.75	< 1.0	0.37	0.22	0.255	< 0.50	< 0.50	< 1.0	< 3.0
3/1/2017	CM_MC1	E258175	1.3	< 1.0	0.22	0.216	0.251	< 0.50	< 0.50	< 1.0	< 3.0
4/5/2017	CM_MC1	E258175	1.03	< 1.0	0.53	0.201	0.324	< 0.50	< 0.50	< 1.0	5.4
4/12/2017	CM_MC1	E258175	2.67	1.5	0.4	0.183	0.182	< 0.50	< 0.50	< 1.0	< 3.0
4/19/2017	CM_MC1	E258175	1.56	1.7	0.44	0.198	0.233	< 0.50	< 0.50	< 1.0	< 3.0
4/26/2017	CM_MC1	E258175	1.63	2.8	1.26	0.184	0.21	< 0.50	< 0.50	< 1.0	7.5

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
5/2/2017	CM_MC1	E258175	1.91	< 1.0	0.41	0.183	0.195	< 0.50	< 0.50	< 1.0	< 3.0
5/9/2017	CM_MC1	E258175	3.94	3.8	2.87	0.143	0.157	< 0.50	0.6	< 1.0	< 3.0
5/16/2017	CM_MC1	E258175	3.07	2.7	2.36	0.136	0.161	< 0.50	< 0.50	< 1.0	< 3.0
5/23/2017	CM_MC1	E258175	4.25	27.2	13.9	0.114	0.142	< 0.50	1.05	< 1.0	3.6
5/30/2017	CM_MC1	E258175	3.4	27.2	20.5	0.113	0.118	< 0.50	1.82	3.6	4.9
6/6/2017	CM_MC1	E258175	2.96	18.4	10.8	0.106	0.12	< 0.50	1.04	< 1.0	3.2
6/14/2017	CM_MC1	E258175	2.86	9.4	6.46	0.101	0.125	< 0.50	0.91	< 1.0	< 3.0
6/21/2017	CM_MC1	E258175	2.12	3.5	2.94	0.122	0.134	< 0.50	0.76	< 1.0	3.5
6/28/2017	CM_MC1	E258175	2	1.9	1.09	0.135	0.158	< 0.50	< 0.50	< 1.0	< 3.0
7/4/2017	CM_MC1	E258175	1.54	2.5	0.11	0.169	0.184	< 0.50	< 0.50	< 1.0	< 3.0
7/4/2017	CM_MC1	E258175									
7/12/2017	CM_MC1	E258175	1.38	2.8	0.78	0.169	0.183	< 0.50	< 0.50	< 1.0	< 3.0
7/19/2017	CM_MC1	E258175	2.3	3.1	0.38	0.201	0.207	< 0.50	< 0.50	< 1.0	< 3.0
7/25/2017	CM_MC1	E258175	1.19	< 1.0	0.37	0.195	0.194	< 0.50	< 0.50	< 1.0	< 3.0
8/1/2017	CM_MC1	E258175	1.24	< 1.0	0.41	0.222	0.225	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	CM_MC1	E258175	0.95	< 1.0	0.35	0.239	0.237	< 0.50	< 0.50	< 3.0	< 3.0
8/15/2017	CM_MC1	E258175	0.95	< 1.0	0.35	0.22	0.227	< 0.50	< 0.50	< 3.0	< 3.0
8/22/2017	CM_MC1	E258175	0.98	1	0.44	0.233	0.224	< 0.50	< 0.50	< 3.0	< 3.0
8/29/2017	CM_MC1	E258175	0.8	< 1.0	0.58	0.233	0.247	< 0.50	< 0.50	< 3.0	< 3.0
9/12/2017	CM_MC1	E258175	0.78	< 1.0	0.22	0.23	0.231	< 0.50	< 0.50	< 3.0	< 3.0
9/19/2017	CM_MC1	E258175	1.04	< 1.0	0.28	0.196	0.346	< 0.50	< 0.50	< 3.0	< 3.0
9/26/2017	CM_MC1	E258175	1.14	1.2	0.38	0.229	0.234	< 0.50	< 0.50	< 3.0	< 3.0
10/2/2017	CM_MC1	E258175	1.38	2.4	1.28	0.227	0.234	< 0.50	< 0.50	< 3.0	< 3.0
10/10/2017	CM_MC1	E258175	1.12	< 1.0	0.16	0.244	0.24	< 0.50	< 0.50	< 3.0	< 3.0
10/17/2017	CM_MC1	E258175	0.67	< 1.0	0.22	0.213	0.219	< 0.50	< 0.50	< 3.0	< 3.0
10/24/2017	CM_MC1	E258175	1.63	< 1.0	0.42	0.198	0.228	< 0.50	< 0.50	< 3.0	< 3.0
10/31/2017	CM_MC1	E258175	1.14	< 1.0	0.3	0.232	0.225	< 0.50	< 0.50	< 3.0	< 3.0
11/7/2017	CM_MC1	E258175	1.02	2.3	0.8	0.25	0.226	< 0.50	< 0.50	< 3.0	< 3.0
12/6/2017	CM_MC1	E258175	1.38	< 1.0	0.56	0.211	0.235	< 0.50	< 0.50	< 3.0	< 3.0
1/5/2017	CM_MC2	E258937				4.05	3.85	< 0.50	< 0.50	6.7	8.5
1/12/2017	CM_MC2	E258937				3.35	3.55	< 0.50	< 0.50	6.2	6.8
1/17/2017	CM_MC2	E258937	1.16	1.7	0.53	4.1	4.18	< 0.50	< 0.50	5.3	6.5
1/24/2017	CM_MC2	E258937				3.64	3.72	< 0.50	< 0.50	5.3	6.4
1/29/2017	CM_MC2	E258937									
1/30/2017	CM_MC2	E258937	1.26	1.1	0.46	3.36	3.61	< 0.50	< 0.50	4.4	4.9
1/31/2017	CM_MC2	E258937				4.03	4.24	< 0.50	< 0.50	5.2	5.5
2/1/2017	CM_MC2	E258937	0.88	1.3	0.82	3.69	4.03	< 0.50	< 0.50	5.3	5.7
2/7/2017	CM_MC2	E258937				3.52	3.57	< 0.50	< 0.50	5.1	5.6
2/21/2017	CM_MC2	E258937				3.06	3.31	< 0.50	< 0.50	4.1	4
2/28/2017	CM_MC2	E258937	1.03	1.1	0.55	3.49	3.55	< 0.50	< 0.50	3.5	4.5
3/1/2017	CM_MC2	E258937	0.88	4.8	1.01	2.95	3.06	< 0.50	< 0.50	4.2	5
3/7/2017	CM_MC2	E258937	0.74	1.1	0.69	4.01	3.95	< 0.50	< 0.50	4.5	5.6
3/14/2017	CM_MC2	E258937	0.57	1.2	0.65	4.37	3.88	< 0.50	< 0.50	5.2	5.3
3/21/2017	CM_MC2	E258937	2.18	4.2	3.1	1.91	1.95	< 0.50	< 0.50	< 3.0	4.8
3/22/2017	CM_MC2	E258937									
3/29/2017	CM_MC2	E258937									
4/5/2017	CM_MC2	E258937	< 0.50	2.4	1.98	3	2.85	< 0.50	< 0.50	2.8	5

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
4/12/2017	CM_MC2	E258937									
4/12/2017	CM_MC2	E258937	2.32	1.7	1.61	2.25	2.18	< 0.50	< 0.50	5	8.1
4/19/2017	CM_MC2	E258937	1.6	3.5	2.72	2.45	2.77	< 0.50	< 0.50	5.9	8.5
4/24/2017	CM_MC2	E258937	2.29	9	6.91	2.2	2.07	< 0.50	0.77	5	7.1
5/2/2017	CM_MC2	E258937	1.56	4.4	2.27	2.17	2.69	< 0.50	< 0.50	4.1	5.9
5/9/2017	CM_MC2	E258937	2.58	16	11.5	1.6	1.52	< 0.50	0.8	3.1	9.5
5/16/2017	CM_MC2	E258937	2.62	15.9	16.4	1.65	1.71	< 0.50	1.15	12.9	15.9
5/23/2017	CM_MC2	E258937	3.25	48.6	24.5	1.16	1.23	< 0.50	1.81	6.5	17.3
5/30/2017	CM_MC2	E258937	3	70.2	43.3	0.854	1.03	< 0.50	2.4	5.5	17.2
6/6/2017	CM_MC2	E258937	1.75	33.8	20.5	1.11	1.14	< 0.50	1.64	7.7	16.8
6/13/2017	CM_MC2	E258937	2.02	6.7	8.14	1.22	1.26	< 0.50	1.11	9.5	12.5
6/14/2017	CM_MC2	E258937	2.34	22.8	13.8	1.02	1.15	< 0.50	1.25	7	14
6/21/2017	CM_MC2	E258937	< 2.5	13.9	9.15	1.16	1.25	< 0.50	1.07	6.2	10.3
6/28/2017	CM_MC2	E258937	1.5	4.9	3.73	1.18	1.3	< 0.50	< 0.50	2.4	3.7
7/4/2017	CM_MC2	E258937	1.57	3.9	1.39	1.64	1.71	< 0.50	< 0.50	1.1	18.8
7/12/2017	CM_MC2	E258937	1.2	2.3	1.08	2.06	2.16	< 0.50	< 0.50	< 1.0	< 3.0
7/19/2017	CM_MC2	E258937	1.76	6.8	0.81	2.58	2.59	< 0.50	< 0.50	< 1.0	< 3.0
7/25/2017	CM_MC2	E258937	0.99	2.4	1.03	2.29	2.36	< 0.50	< 0.50	< 1.0	< 3.0
8/1/2017	CM_MC2	E258937	1.66	2.1	0.92	2.74	2.7	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	CM_MC2	E258937	1.41	5.1	1.6	3.32	3.3	< 0.50	< 0.50	< 3.0	6.5
8/15/2017	CM_MC2	E258937	0.92	3	1.4	3.09	3.21	< 0.50	< 0.50	< 3.0	< 3.0
8/22/2017	CM_MC2	E258937	1.16	3.4	0.85	3.44	3.45	< 0.50	< 0.50	< 3.0	< 3.0
8/29/2017	CM_MC2	E258937	0.94	1.1	0.52	3.58	3.79	< 0.50	< 0.50	< 3.0	< 3.0
9/12/2017	CM_MC2	E258937	0.84	1.6	0.53	3.5	3.65	< 0.50	< 0.50	< 3.0	< 3.0
9/19/2017	CM_MC2	E258937	1.06	2.2	0.35	2.59	2.82	< 0.50	< 0.50	< 3.0	3.2
9/26/2017	CM_MC2	E258937	1.32	1.2	0.32	2.63	2.62	< 0.50	< 0.50	< 3.0	< 3.0
10/2/2017	CM_MC2	E258937	1.06	1.4	0.63	3.28	3.35	< 0.50	< 0.50	< 3.0	< 3.0
10/2/2017	CM_MC2	E258937	1.14	5.2	2.23	3.38	3.46	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	CM_MC2	E258937	1.08	1.4	0.8	3.35	3.57	< 0.50	< 0.50	< 3.0	< 3.0
10/5/2017	CM_MC2	E258937	0.97	< 1.0	0.29	3.39	3.28	< 0.50	< 0.50	< 3.0	< 3.0
10/6/2017	CM_MC2	E258937	0.51	< 1.0	0.46	3.16	3.3	< 0.50	< 0.50	< 3.0	< 3.0
10/10/2017	CM_MC2	E258937	1.04	1	0.25	3.05	3.08	< 0.50	< 0.50	< 3.0	< 3.0
10/11/2017	CM_MC2	E258937	0.7	< 1.0	0.34	2.93	2.98	< 0.50	< 0.50	< 3.0	< 3.0
10/12/2017	CM_MC2	E258937	1.11	< 1.0	0.48	2.77	3.12	< 0.50	< 0.50	< 3.0	< 3.0
10/16/2017	CM_MC2	E258937	1.25	1.1	0.29	3.14	3.23	< 0.50	< 0.50	< 3.0	< 3.0
10/17/2017	CM_MC2	E258937	0.96	5.2	2.08	2.94	3.33	< 0.50	< 0.50	< 3.0	< 3.0
10/19/2017	CM_MC2	E258937	5.7	154	66.5	3.37	3.52	< 0.50	4.5	< 3.0	28
10/20/2017	CM_MC2	E258937	2.24	4.6	4.01	2.53	2.53	< 0.50	0.53	< 3.0	< 3.0
10/23/2017	CM_MC2	E258937	1.14	1.3	1.3	2.54	2.56	< 0.50	< 0.50	< 3.0	< 3.0
10/24/2017	CM_MC2	E258937	0.94	1.3	1.18	2.6	2.54	< 0.50	< 0.50	< 3.0	< 3.0
10/26/2017	CM_MC2	E258937	0.98	1.4	0.83	2.56	2.73	< 0.50	< 0.50	< 3.0	< 3.0
10/30/2017	CM_MC2	E258937	0.95	1.7	1.37	3.14	3.23	< 0.50	< 0.50	< 3.0	< 3.0
10/31/2017	CM_MC2	E258937	0.85	1.5	0.6	3.26	3.5	< 0.50	< 0.50	< 3.0	< 3.0
11/7/2017	CM_MC2	E258937	0.98	8.9	3.08	3.08	2.84	< 0.50	< 0.50	5.4	< 3.0
11/9/2017	CM_MC2	E258937	1.14	< 1.0	0.5	2.28	3.21	< 0.50	< 0.50	5.2	3.6
11/14/2017	CM_MC2	E258937	1.02	< 1.0	0.47	2.93	2.86	< 2.5	< 2.5	< 5.0	< 15
11/21/2017	CM_MC2	E258937	0.72	< 1.0	0.42	3.2	3.1	< 0.50	< 0.50	< 3.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
11/28/2017	CM_MC2	E258937	1.14	2	2.07	2.63	2.49	< 0.50	< 0.50	10.1	< 12
12/6/2017	CM_MC2	E258937	0.9	< 1.0	0.59	3.52	3.95	< 0.50	< 0.50	6	8
12/12/2017	CM_MC2	E258937	1.13	1.7	0.93	3.65	3.65	< 0.50	< 0.50	3.7	6.1
12/19/2017	CM_MC2	E258937	0.93	< 1.0	0.64	2.98	3.01	< 0.50	< 0.50	< 3.0	< 6.0
12/27/2017	CM_MC2	E258937	0.95	1.6	0.72	3.61	4	< 0.50	< 0.50	< 3.0	3
4/12/2017	CM_PC2	E298733		< 1.0	0.15						
4/19/2017	CM_PC2	E298733	2.15	9.7	2.88	0.895	1.04	< 0.50	< 0.50	3	4.2
4/26/2017	CM_PC2	E298733		< 1.0	0.19						
5/2/2017	CM_PC2	E298733	1.47			0.707	0.785	< 0.50	< 0.50	2.4	3
5/9/2017	CM_PC2	E298733		< 1.0	0.29						
5/16/2017	CM_PC2	E298733		< 1.0	0.28						
5/23/2017	CM_PC2	E298733		2.4	0.64						
5/30/2017	CM_PC2	E298733		< 1.0	0.65						
6/6/2017	CM_PC2	E298733	1.25			0.47	0.484	< 0.50	< 0.50	3.9	3.3
6/14/2017	CM_PC2	E298733		< 1.0	0.19						
6/21/2017	CM_PC2	E298733		< 1.0	0.19						
6/28/2017	CM_PC2	E298733		< 1.0	0.23						
7/5/2017	CM_PC2	E298733	1.26	1.2	0.43	0.506	0.55	< 0.50	0.59	4.3	4.9
7/12/2017	CM_PC2	E298733									
7/19/2017	CM_PC2	E298733									
7/25/2017	CM_PC2	E298733									
8/1/2017	CM_PC2	E298733									
8/8/2017	CM_PC2	E298733									
8/15/2017	CM_PC2	E298733									
8/22/2017	CM_PC2	E298733									
8/29/2017	CM_PC2	E298733									
9/5/2017	CM_PC2	E298733									
9/12/2017	CM_PC2	E298733									
9/19/2017	CM_PC2	E298733									
9/26/2017	CM_PC2	E298733									
10/3/2017	CM_PC2	E298733									
10/10/2017	CM_PC2	E298733									
10/17/2017	CM_PC2	E298733									
10/24/2017	CM_PC2	E298733									
10/31/2017	CM_PC2	E298733									
11/7/2017	CM_PC2	E298733									
11/14/2017	CM_PC2	E298733									
11/21/2017	CM_PC2	E298733									
11/24/2017	CM_PC2	E298733	2.57	< 1.0	1.02	0.906	0.808	< 0.50	< 0.50	4.6	7.2
11/28/2017	CM_PC2	E298733									
12/6/2017	CM_PC2	E298733									
12/12/2017	CM_PC2	E298733									
12/19/2017	CM_PC2	E298733									
12/27/2017	CM_PC2	E298733									
1/17/2017	CM_SOW	E298734	1.69	4.1	2.79	2.76	2.88	< 0.50	< 0.50	< 3.0	4
2/1/2017	CM_SOW	E298734	3.19	11.1	8.5	2.49	2.84	< 2.5	< 2.5	< 5.0	< 15
3/1/2017	CM_SOW	E298734	1.34	1	1.84	2.27	2.3	< 0.50	< 0.50	3.8	3.1

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
4/5/2017	CM_SOW	E298734	1.59	2.1	21.4	2.03	2.05	< 0.50	0.54	4	8.4
5/2/2017	CM_SOW	E298734	20.3	13.4	5.8	3.92	4.08	< 0.50	0.73	< 1.0	5.9
6/6/2017	CM_SOW	E298734	2.5	8.2	2.28	3.6	3.63	< 0.50	< 0.50	1.7	< 3.0
7/4/2017	CM_SOW	E298734	3.51	7.7	7.41	3.15	3.34	< 0.50	< 0.50	< 1.0	3
8/1/2017	CM_SOW	E298734	3.06	3.8	7.76	3.18	3.17	< 0.50	< 0.50	< 3.0	< 3.0
9/12/2017	CM_SOW	E298734	2.34	1	1.52	2.89	2.83	< 0.50	< 0.50	< 3.0	< 3.0
10/4/2017	CM_SOW	E298734	3.13	9.6	11.8	2.75	2.71	< 0.50	< 0.50	< 3.0	6.2
11/7/2017	CM_SOW	E298734	109	1490	608	2.07	3.35	< 0.50	63.3	< 3.0	91.5
12/5/2017	CM_SOW	E298734	410	4510	< 0.10	1.31	4.58	< 0.50	126	< 3.0	245
1/5/2017	CM_SPD	E102488				11.8	11.7	< 0.50	< 0.50	37.5	38
1/17/2017	CM_SPD	E102488	1.39	1.6	1.68	11.9	12	< 1.0	< 1.0	34.4	39.4
1/24/2017	CM_SPD	E102488				13.2	11.6	< 0.50	< 0.50	37	34.1
1/29/2017	CM_SPD	E102488									
1/30/2017	CM_SPD	E102488				11.1	11.1	< 0.50	< 0.50	31.5	34.9
1/31/2017	CM_SPD	E102488				9.85	11.2	< 2.5	< 2.5	31.7	39
2/1/2017	CM_SPD	E102488	1.43	1.9	2.8	9.96	11	< 2.5	< 2.5	35.6	45
2/7/2017	CM_SPD	E102488				11	10.5	< 0.50	< 0.50	35.4	33
2/21/2017	CM_SPD	E102488				10.1	10.6	< 0.50	< 0.50	28.2	33.1
3/1/2017	CM_SPD	E102488	1.04	1.6	2.07	11.7	12	< 0.50	< 0.50	28.8	25.9
3/7/2017	CM_SPD	E102488				10.1	13.3	< 0.50	< 0.50	10.9	40.5
3/29/2017	CM_SPD	E102488									
3/29/2017	CM_SPD	E102488									
4/5/2017	CM_SPD	E102488	0.84	16.2	8.11	8.81	7.54	< 0.50	< 0.50	3.3	11.6
4/10/2017	CM_SPD	E102488		8.2							
4/12/2017	CM_SPD	E102488		2.7	3.4						
4/19/2017	CM_SPD	E102488		3.9	4.37						
4/26/2017	CM_SPD	E102488		8.8	15						
4/27/2017	CM_SPD	E102488		20.9							
4/28/2017	CM_SPD	E102488		18.1							
4/28/2017	CM_SPD	E102488		21.3							
5/2/2017	CM_SPD	E102488	1.39	5.2	3.6	5.82	6.01	< 0.50	< 0.50	17.1	17.7
5/5/2017	CM_SPD	E102488		32.4							
5/5/2017	CM_SPD	E102488		26.6							
5/6/2017	CM_SPD	E102488		39.5							
5/6/2017	CM_SPD	E102488		29							
5/6/2017	CM_SPD	E102488		20							
5/6/2017	CM_SPD	E102488		21							
5/7/2017	CM_SPD	E102488		12.2							
5/9/2017	CM_SPD	E102488		10.5	12.3						
5/16/2017	CM_SPD	E102488		6.5	10.2						
5/17/2017	CM_SPD	E102488		26.6							
5/17/2017	CM_SPD	E102488		16.6							
5/18/2017	CM_SPD	E102488		8.6							
5/23/2017	CM_SPD	E102488		8.6	9.35						
5/30/2017	CM_SPD	E102488		7	10.5						
6/6/2017	CM_SPD	E102488	0.97	23.6	16.3	7.93	7.92	< 0.50	< 0.50	40.7	48.1
6/14/2017	CM_SPD	E102488		8.2	3.99						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
6/21/2017	CM_SPD	E102488		12.5	10.1						
6/28/2017	CM_SPD	E102488		2.1	1.79						
7/4/2017	CM_SPD	E102488	1.09	10.3	7.02	8.26	8.58	< 0.50	< 0.50	< 1.0	17.8
7/12/2017	CM_SPD	E102488		4.4	1.68						
7/19/2017	CM_SPD	E102488		8.1	2.37						
7/25/2017	CM_SPD	E102488		3.8	3.2						
8/1/2017	CM_SPD	E102488	0.86	40.8	14	9.63	9.82	< 0.50	0.9	< 3.0	33.4
8/8/2017	CM_SPD	E102488		13.7	5.68						
8/15/2017	CM_SPD	E102488		3.4	3.72						
8/22/2017	CM_SPD	E102488	1.29	5	5.1	10.1	9.92	< 0.50	< 0.50	< 3.0	< 3.0
8/29/2017	CM_SPD	E102488		1.9	2.49						
9/5/2017	CM_SPD	E102488		5.2	2.72						
9/12/2017	CM_SPD	E102488	1.02	2	1.03	10.6	10.3	< 0.50	< 0.50	< 3.0	3.2
9/19/2017	CM_SPD	E102488		4	5.96						
10/3/2017	CM_SPD	E102488	0.89	1.6	1.29	11.4	11.4	< 0.50	< 0.50	< 3.0	3.7
10/19/2017	CM_SPD	E102488		11.1	13.2						
10/19/2017	CM_SPD	E102488		33	35.6						
10/20/2017	CM_SPD	E102488		12	22.7						
10/23/2017	CM_SPD	E102488		2.7	7.63						
11/7/2017	CM_SPD	E102488	1.37	1.3	1.36	9.52	8.68	< 0.50	< 0.50	< 3.0	8.1
11/22/2017	CM_SPD	E102488	1.37	2	4.05	8.67	9.34	< 0.50	< 0.50	< 3.0	13
12/6/2017	CM_SPD	E102488	1.3	1.1	4.69	7.32	7.55	< 0.50	< 0.50	17	19.1
1/10/2017	EV_AQ1	E210369									
2/8/2017	EV_AQ1	E210369									
3/7/2017	EV_AQ1	E210369									
3/15/2017	EV_AQ1	E210369	4.16	3.5	7.01	0.338	0.334	< 0.50	< 0.50	3.5	5
3/15/2017	EV_AQ1	E210369		3	8.72						
3/16/2017	EV_AQ1	E210369		4.5	18.8						
3/17/2017	EV_AQ1	E210369		1.1	11.9						
3/18/2017	EV_AQ1	E210369		28	149						
3/19/2017	EV_AQ1	E210369		4.6	48.6						
3/19/2017	EV_AQ1	E210369		7	41.6						
3/20/2017	EV_AQ1	E210369		6	29.4						
3/21/2017	EV_AQ1	E210369		13.4	38.2						
3/22/2017	EV_AQ1	E210369	8.3	30.4	38.1	0.894	0.956	< 0.50	2.57	< 3.0	14.2
3/23/2017	EV_AQ1	E210369		13.6	47.5						
3/24/2017	EV_AQ1	E210369		36.6	58.8						
3/28/2017	EV_AQ1	E210369		14.7	33.5						
4/4/2017	EV_AQ1	E210369	5	6.1	13.1	0.94	1.04	< 0.50	1.79	4.8	9.5
4/12/2017	EV_AQ1	E210369		2.7	4.68						
4/20/2017	EV_AQ1	E210369		2.8	3.44						
4/26/2017	EV_AQ1	E210369		2.4	2.41						
5/3/2017	EV_AQ1	E210369	4.31	3.8	3.46	0.917	0.975	< 0.50	< 0.50	< 3.0	5.4
5/10/2017	EV_AQ1	E210369		3.9	1.95						
5/17/2017	EV_AQ1	E210369		15.4	16.7						
5/24/2017	EV_AQ1	E210369		7.6	1.7						
5/31/2017	EV_AQ1	E210369		2.9	1.82						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
6/5/2017	EV_AQ1	E210369	2.9	3.2	1.9	0.878	0.912	< 0.50	0.55	3.3	5.4
6/14/2017	EV_AQ1	E210369		5	4.52						
6/21/2017	EV_AQ1	E210369		3.3	2.28						
6/28/2017	EV_AQ1	E210369		3.4	3.04						
7/5/2017	EV_AQ1	E210369		3.2	2.98						
7/11/2017	EV_AQ1	E210369		7.6	15.1						
8/2/2017	EV_AQ1	E210369		< 1.0	1.45						
9/12/2017	EV_AQ1	E210369		1.3	1.77						
10/3/2017	EV_AQ1	E210369		< 1.0	1.62						
11/15/2017	EV_AQ1	E210369		1.6	2.95						
12/6/2017	EV_AQ1	E210369		< 1.0	2.23						
1/10/2017	EV_AQ6	E302170	1.85	< 1.0	1.91	0.911	0.926	< 0.50	< 0.50	13.4	14.7
2/8/2017	EV_AQ6	E302170									
2/16/2017	EV_AQ6	E302170	4.48	13.8	20.4	0.72	0.788	< 0.50	1.28	15.9	22
2/23/2017	EV_AQ6	E302170									
3/8/2017	EV_AQ6	E302170	1.94	< 1.0	1.55	0.914	1.01	< 0.50	< 0.50	22.9	24.5
3/15/2017	EV_AQ6	E302170		265	345						
3/15/2017	EV_AQ6	E302170		523	702						
3/16/2017	EV_AQ6	E302170		226	295						
3/17/2017	EV_AQ6	E302170		56.5	85.7						
3/18/2017	EV_AQ6	E302170		45.5	61.8						
3/18/2017	EV_AQ6	E302170		182	229						
3/19/2017	EV_AQ6	E302170		104	173						
3/20/2017	EV_AQ6	E302170		60	103						
3/21/2017	EV_AQ6	E302170		35.4	53.6						
3/22/2017	EV_AQ6	E302170		28.5	41.5						
3/23/2017	EV_AQ6	E302170		24.2	57.6						
3/24/2017	EV_AQ6	E302170		40.7	73.6						
3/28/2017	EV_AQ6	E302170		12.6	32.3						
3/31/2017	EV_AQ6	E302170		17.4	46						
4/4/2017	EV_AQ6	E302170	5.12	7	15.7	0.877	0.962	< 0.50	1.24	4.1	8.1
4/12/2017	EV_AQ6	E302170		3.1	5.19						
4/20/2017	EV_AQ6	E302170		2.4	3.59						
4/26/2017	EV_AQ6	E302170		2.9	2.34						
5/2/2017	EV_AQ6	E302170		4.1	2.77						
5/3/2017	EV_AQ6	E302170	4.49	4.2	3.23	0.924	0.938	< 0.50	< 0.50	< 3.0	5.6
5/7/2017	EV_AQ6	E302170									
5/10/2017	EV_AQ6	E302170		2.5	1.72						
5/17/2017	EV_AQ6	E302170		89.7	122						
5/18/2017	EV_AQ6	E302170		3.8	7.44						
5/24/2017	EV_AQ6	E302170		1.3	1.19						
5/31/2017	EV_AQ6	E302170		< 1.0	1.28						
6/5/2017	EV_AQ6	E302170	2.46	< 1.0	1.37	0.975	0.986	< 0.50	< 0.50	4.3	5.6
6/14/2017	EV_AQ6	E302170		8.5	7.06						
6/21/2017	EV_AQ6	E302170		2.2	1.31						
6/28/2017	EV_AQ6	E302170		< 1.0	1.56						
7/5/2017	EV_AQ6	E302170		1.5	1.24						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
7/11/2017	EV_AQ6	E302170	6.93	27.5	64.6	0.705	0.788	< 0.50	1.97	1.6	9.3
8/2/2017	EV_AQ6	E302170				0.89	0.854	< 0.50	< 0.50	< 3.0	8.4
8/2/2017	EV_AQ6	E302170	1.7	< 3.0	3						
8/10/2017	EV_AQ6	E302170									
9/12/2017	EV_AQ6	E302170	1.65	1.8	3.92	0.813	0.726	< 0.50	< 0.50	6.1	9.9
10/3/2017	EV_AQ6	E302170	2.26	1.2	2.24	0.798	0.767	< 0.50	< 0.50	8.4	12.2
11/15/2017	EV_AQ6	E302170	1.63	< 1.0	0.75	0.942	0.93	< 0.50	< 0.50	22.7	22
11/23/2017	EV_AQ6	E302170									
11/23/2017	EV_AQ6	E302170		65.2	120						
11/24/2017	EV_AQ6	E302170		24.4	9.74						
12/6/2017	EV_AQ6	E302170	3.92	1.2	1.76	1.06	1.07	< 0.50	< 0.50	9.7	11.5
1/10/2017	EV_BC1	E102685									
2/7/2017	EV_BC1	E102685									
3/7/2017	EV_BC1	E102685									
3/16/2017	EV_BC1	E102685									
3/17/2017	EV_BC1	E102685									
3/18/2017	EV_BC1	E102685									
3/18/2017	EV_BC1	E102685		47.5	76.5						
3/20/2017	EV_BC1	E102685	2.58	5.4	7.69	6.11	6.82	< 0.50	0.55	7.6	8.5
3/29/2017	EV_BC1	E102685	3.35	3.4	5.8	5.48	5.74	< 0.50	< 0.50	13.6	17.3
4/5/2017	EV_BC1	E102685	2.92	2.7	3.73	7.4	7.22	< 0.50	< 0.50	18.3	18.5
4/7/2017	EV_BC1	E102685									
4/12/2017	EV_BC1	E102685		2.1	1.6						
4/20/2017	EV_BC1	E102685		2.6	3.09						
4/26/2017	EV_BC1	E102685									
5/2/2017	EV_BC1	E102685	2.66	3.9	1.06	9.77	9.91	< 1.0	< 1.0	< 3.0	14.4
5/10/2017	EV_BC1	E102685		6.3	1.58						
5/18/2017	EV_BC1	E102685		11.9	9.42						
5/24/2017	EV_BC1	E102685		3.2	0.92						
5/31/2017	EV_BC1	E102685		2.3	0.84						
6/2/2017	EV_BC1	E102685		< 1.0	0.71						
6/6/2017	EV_BC1	E102685	0.73	< 1.0	0.89	9.9	10.1	< 0.50	< 0.50	< 3.0	9.8
6/14/2017	EV_BC1	E102685		28.8	25						
6/21/2017	EV_BC1	E102685		1.5	0.56						
6/28/2017	EV_BC1	E102685		1.6	0.54						
7/5/2017	EV_BC1	E102685		1.2	0.62						
7/12/2017	EV_BC1	E102685	0.92	10.5	10.1	9.27	9.45	< 0.50	< 0.50	< 1.0	10.5
8/3/2017	EV_BC1	E102685				11	10.6	< 0.50	< 0.50	< 3.0	5.9
8/3/2017	EV_BC1	E102685	1.01	2.8	1.7						
8/9/2017	EV_BC1	E102685									
9/12/2017	EV_BC1	E102685									
10/2/2017	EV_BC1	E102685									
10/4/2017	EV_BC1	E102685	1.61	3.8	4.22	8.79	9.51	< 0.50	< 0.50	< 3.0	< 3.0
11/10/2017	EV_BC1	E102685									
11/15/2017	EV_BC1	E102685	1.15	2	2.54	11.8	11.8	< 0.50	< 0.50	6.2	7.8
11/23/2017	EV_BC1	E102685									
12/6/2017	EV_BC1	E102685	1.3	1.2	1.28	10.6	10.8	< 0.50	< 0.50	5.5	8.3

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
1/9/2017	EV_BLM2	E298592	2.48	5	2.24	0.343	0.352	< 0.50	< 0.50	< 3.0	< 3.0
2/23/2017	EV_BLM2	E298592	2.94	5.1	3.44	0.323	0.353	< 0.50	< 0.50	1.5	< 3.0
3/6/2017	EV_BLM2	E298592	2.39	4.1	2.86	0.378	0.384	< 0.50	< 0.50	< 3.0	< 3.0
3/15/2017	EV_BLM2	E298592		113	52.6						
3/22/2017	EV_BLM2	E298592		10.8	7.74						
3/28/2017	EV_BLM2	E298592		8.7	13.3						
4/3/2017	EV_BLM2	E298592	7.32	48.2	12.7	0.26	0.291	< 0.50	1.56	< 3.0	4.2
4/11/2017	EV_BLM2	E298592		20.2	17.6						
4/19/2017	EV_BLM2	E298592		153	114						
4/20/2017	EV_BLM2	E298592		664	544						
4/21/2017	EV_BLM2	E298592		418	324						
4/22/2017	EV_BLM2	E298592		288	220						
4/23/2017	EV_BLM2	E298592		247	251						
4/25/2017	EV_BLM2	E298592		145	92.4						
5/2/2017	EV_BLM2	E298592	8.56	135	72.4	0.227	0.418	< 0.50	10.3	< 3.0	23.6
5/9/2017	EV_BLM2	E298592		322	125						
5/16/2017	EV_BLM2	E298592		203	127						
5/23/2017	EV_BLM2	E298592		196	239						
5/24/2017	EV_BLM2	E298592		180	169						
5/30/2017	EV_BLM2	E298592		145	192						
6/5/2017	EV_BLM2	E298592	4.04	40.2	26.1	0.197	0.236	< 0.50	2.24	< 3.0	6.4
6/13/2017	EV_BLM2	E298592		75	101						
6/20/2017	EV_BLM2	E298592		18.9	9.85						
6/27/2017	EV_BLM2	E298592		10.5	5.8						
7/4/2017	EV_BLM2	E298592		32.5	6.77						
7/10/2017	EV_BLM2	E298592	2.13	9.6	5.68	0.226	0.228	< 0.50	0.8	< 1.0	< 3.0
8/1/2017	EV_BLM2	E298592	2.59	6.8	2.92	0.312	0.307	< 0.50	0.62	< 3.0	< 3.0
8/10/2017	EV_BLM2	E298592									
8/15/2017	EV_BLM2	E298592									
9/11/2017	EV_BLM2	E298592	1.99	5.4	3.25	0.338	0.349	< 0.50	0.52	< 3.0	4.9
10/2/2017	EV_BLM2	E298592	2.15	12.8	4.96	0.295	0.314	< 0.50	0.59	< 3.0	3
11/14/2017	EV_BLM2	E298592	2.99	4.1	2.69	0.323	0.328	< 2.5	< 2.5	< 5.0	< 15
12/1/2017	EV_BLM2	E298592	2.01	3.5	3.69	0.308	0.338	< 0.50	< 0.50	< 3.0	3
1/9/2017	EV_DC1	E298590	1.03	< 1.0	0.13	9	9.3	< 0.50	< 0.50	< 3.0	< 3.0
2/21/2017	EV_DC1	E298590	1.15	< 1.0	0.15	9.55	9.55	< 0.50	< 0.50	< 3.0	< 3.0
3/6/2017	EV_DC1	E298590	0.96	< 1.0	0.13	9.37	9.78	< 0.50	< 0.50	< 3.0	< 3.0
3/15/2017	EV_DC1	E298590		< 1.0	0.23						
3/21/2017	EV_DC1	E298590		< 1.0	0.53						
3/28/2017	EV_DC1	E298590		< 1.0	0.29						
4/3/2017	EV_DC1	E298590	1.81	1.4	0.26	6.92	7.27	< 0.50	< 0.50	< 3.0	< 3.0
4/11/2017	EV_DC1	E298590		< 1.0	0.27						
4/19/2017	EV_DC1	E298590		1.5	0.58						
4/25/2017	EV_DC1	E298590		6	0.74						
5/1/2017	EV_DC1	E298590	2.94	1.4	0.62	5.37	5.59	< 0.50	< 0.50	< 3.0	< 3.0
5/9/2017	EV_DC1	E298590		1.6	1.02						
5/16/2017	EV_DC1	E298590		1.3	0.46						
5/23/2017	EV_DC1	E298590		1.8	0.5						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
5/30/2017	EV_DC1	E298590		1.2	0.33						
6/5/2017	EV_DC1	E298590	1.67	1.7	0.21	6.19	6.45	< 0.50	< 0.50	< 3.0	< 3.0
6/13/2017	EV_DC1	E298590		2.5	0.21						
6/20/2017	EV_DC1	E298590		< 1.0	0.82						
6/27/2017	EV_DC1	E298590		1.4	0.19						
7/4/2017	EV_DC1	E298590		1.7	0.21						
7/10/2017	EV_DC1	E298590	1.83	2.8	0.36	6.8	6.76	< 0.50	< 0.50	< 1.0	< 3.0
8/1/2017	EV_DC1	E298590	1.36	1.1	0.17	8.44	8.83	< 0.50	< 0.50	< 3.0	< 3.0
9/11/2017	EV_DC1	E298590	2.04	< 1.0	0.74	9.59	9.72	< 0.50	< 0.50	< 3.0	< 3.0
10/2/2017	EV_DC1	E298590									
10/4/2017	EV_DC1	E298590	1.11	< 1.0	0.41	10	9.78	< 0.50	< 0.50	< 3.0	3.3
10/6/2017	EV_DC1	E298590									
11/14/2017	EV_DC1	E298590	2.05	< 1.0	0.16	10.4	10.6	< 2.5	< 2.5	< 5.0	< 15
12/1/2017	EV_DC1	E298590	1.13	1.7	0.52	9.6	9.86	< 0.50	< 0.50	< 3.0	< 3.0
1/18/2017	EV_EC1	200097	0.75	< 1.0	< 0.10	7.73	7.68	< 0.50	< 0.50	< 3.0	< 3.0
2/23/2017	EV_EC1	200097	1.25	< 1.0	0.11	6.43	6.85	< 0.50	< 0.50	< 1.0	< 3.0
3/8/2017	EV_EC1	200097	0.88	< 1.0	0.15	7.36	8.01	< 0.50	< 0.50	< 3.0	< 3.0
3/16/2017	EV_EC1	200097		< 1.0	< 0.10						
3/19/2017	EV_EC1	200097		< 1.0	0.15						
3/29/2017	EV_EC1	200097		< 1.0	< 0.10						
4/4/2017	EV_EC1	200097	1.21	< 1.0	< 0.10	7.01	7.42	< 0.50	< 0.50	< 3.0	< 3.0
4/12/2017	EV_EC1	200097		1.9	0.18						
4/19/2017	EV_EC1	200097		< 1.0	0.11						
4/26/2017	EV_EC1	200097		1.7	0.11						
5/3/2017	EV_EC1	200097	1.5	1.4	0.12	6.26	6.61	< 0.50	< 0.50	< 3.0	< 3.0
5/10/2017	EV_EC1	200097		2.1	0.15						
5/17/2017	EV_EC1	200097		< 1.0	0.2						
5/24/2017	EV_EC1	200097		1.5	0.15						
5/31/2017	EV_EC1	200097		1.5	0.13						
6/7/2017	EV_EC1	200097		14.3	0.12						
6/14/2017	EV_EC1	200097	1.15	1.1	0.12	5.97	5.59	< 0.50	< 0.50	< 3.0	< 3.0
6/21/2017	EV_EC1	200097		< 1.0	0.1						
6/28/2017	EV_EC1	200097		1	< 0.10						
7/5/2017	EV_EC1	200097		< 1.0	< 0.10						
7/11/2017	EV_EC1	200097	1.34	< 2.0	0.2	4.94	5.19	< 0.50	< 0.50	< 1.0	< 3.0
8/2/2017	EV_EC1	200097				5.77	5.86	< 0.50	< 0.50	< 3.0	< 3.0
8/2/2017	EV_EC1	200097	0.74	< 3.0	0.12						
9/12/2017	EV_EC1	200097	0.92	< 1.0	0.13	6.31	5.72	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	EV_EC1	200097	1.16	< 1.0	< 0.10	6.06	5.84	< 0.50	< 0.50	< 3.0	< 3.0
11/15/2017	EV_EC1	200097	0.7	< 1.0	0.25	6.56	6.89	< 0.50	< 0.50	< 3.0	< 3.0
12/6/2017	EV_EC1	200097	< 0.50	< 1.0	0.26	5.82	6.07	< 0.50	< 0.50	< 3.0	< 3.0
1/10/2017	EV_ER1	200393	0.61	< 1.0	0.35	1.36	1.37	< 0.50	< 0.50	< 3.0	< 3.0
2/7/2017	EV_ER1	200393	0.62	1	0.35	1.39	1.45	< 0.50	< 0.50	< 3.0	< 3.0
2/20/2017	EV_ER1	200393	1.02	1.8	1.15	1.18	1.3	< 0.50	< 0.50	1	< 3.0
3/7/2017	EV_ER1	200393	0.56	1.2	0.25	1.42	1.31	< 0.50	< 0.50	< 3.0	< 3.0
3/16/2017	EV_ER1	200393	1.73	13	12.9	1.19	1.25	< 0.50	0.71	< 1.0	3.2
3/19/2017	EV_ER1	200393		22.6	16.2						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
3/20/2017	EV_ER1	200393	2.45	7.6	6.09	1.03	1.04	< 0.50	0.66	< 1.0	< 3.0
3/29/2017	EV_ER1	200393	1.78	5	5.21	0.931	1.02	< 0.50	0.51	< 1.0	< 3.0
4/5/2017	EV_ER1	200393	1.59	2.7	2.26	1.21	1.18	< 0.50	< 0.50	< 3.0	< 3.0
4/12/2017	EV_ER1	200393	2.74	3.3	1.83	0.978	0.983	< 0.50	< 0.50	< 1.0	3.8
4/20/2017	EV_ER1	200393	2.23	12.3	6.85	1.09	1.05	< 0.50	0.86	< 1.0	< 3.0
4/26/2017	EV_ER1	200393	3.32	13.7	6.22	1.01	1.02	< 0.50	0.81	< 3.0	< 3.0
5/2/2017	EV_ER1	200393	2.28	8.2	2	1.06	1.07	< 0.50	0.81	< 3.0	< 3.0
5/10/2017	EV_ER1	200393	3.59	24.2	15.6	0.766	0.772	< 0.50	2.45	< 3.0	5.4
5/17/2017	EV_ER1	200393	3.55	29.7	21.9	0.887	0.805	< 0.50	2.31	< 3.0	6.3
5/24/2017	EV_ER1	200393	20.4	528	255	0.466	1.01	< 0.50	19	< 3.0	58.7
5/30/2017	EV_ER1	200393	7.29	200	102	0.532	0.896	< 0.50	9.7	< 3.0	27.6
6/6/2017	EV_ER1	200393	4.1	70.1	35.6	0.608	0.647	< 0.50	3.42	< 3.0	8.7
6/13/2017	EV_ER1	200393	2.79	39.8	16.3	0.728	0.796	< 0.50	2.09	< 3.0	5.8
6/21/2017	EV_ER1	200393	1.58	18.7	6.91	0.736	0.763	< 0.50	1.14	< 3.0	3.1
6/28/2017	EV_ER1	200393	1.06	12.5	7.05	0.919	0.982	< 0.50	0.93	< 3.0	< 3.0
7/5/2017	EV_ER1	200393	1.15	5.8	2.15	0.924	0.948	< 0.50	0.54	< 3.0	3.3
7/12/2017	EV_ER1	200393	1.23	< 3.0	1.83	0.859	0.862	< 0.50	< 0.50	< 1.0	< 3.0
8/3/2017	EV_ER1	200393				1.17	1.18	< 0.50	< 0.50	< 3.0	< 3.0
8/3/2017	EV_ER1	200393	0.72	< 3.0	1.16						
9/12/2017	EV_ER1	200393	0.68	1	0.54	1.27	1.15	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	EV_ER1	200393	< 0.50	1.2	0.65	1.34	1.29	< 0.50	< 0.50	< 3.0	< 3.0
11/15/2017	EV_ER1	200393	0.53	< 1.0	0.33	1.42	1.42	< 0.50	< 0.50	< 3.0	< 3.0
12/6/2017	EV_ER1	200393	1.51	1.2	0.7	1.18	1.23	< 0.50	< 0.50	< 3.0	< 3.0
1/10/2017	EV_ER2	200111	0.63	< 1.0	0.29	1.27	1.28	< 0.50	< 0.50	< 3.0	< 3.0
2/7/2017	EV_ER2	200111	1.29	3.6	1.23	1.29	1.33	< 0.50	< 0.50	< 3.0	3
3/6/2017	EV_ER2	200111	0.5	3.2	0.41	1.24	1.32	< 0.50	1.03	< 3.0	4.5
3/16/2017	EV_ER2	200111		13.5	14.2						
3/17/2017	EV_ER2	200111		3.1	5.33						
3/18/2017	EV_ER2	200111		4.2	2.59						
3/19/2017	EV_ER2	200111		11.2	13.1						
3/20/2017	EV_ER2	200111		2.8	2.48						
3/21/2017	EV_ER2	200111		4.4	1.97						
3/28/2017	EV_ER2	200111		6.5	6.95						
4/3/2017	EV_ER2	200111	1.28	6.3	3.17	1.3	1.39	< 0.50	0.53	< 3.0	< 3.0
4/11/2017	EV_ER2	200111		2.3	1.27						
4/20/2017	EV_ER2	200111		7.4	3.49						
4/25/2017	EV_ER2	200111		9.8	6.05						
5/4/2017	EV_ER2	200111	1.52	7.6	4.43	1.19	1.26	< 0.50	0.59	< 1.0	< 3.0
5/9/2017	EV_ER2	200111		34.6	12.7						
5/16/2017	EV_ER2	200111		27.5	8.36						
5/23/2017	EV_ER2	200111		101	25.7						
5/31/2017	EV_ER2	200111		265	131						
6/5/2017	EV_ER2	200111	4.05	112	61.8	0.856	1	< 0.50	4.23	< 3.0	12.9
6/13/2017	EV_ER2	200111		55.4	20.9						
6/20/2017	EV_ER2	200111		24.4	8.22						
6/27/2017	EV_ER2	200111		12.6	4.53						
7/4/2017	EV_ER2	200111		9.1	2.53						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
7/10/2017	EV_ER2	200111	1.18	9.5	5.23	0.764	0.789	< 0.50	0.6	< 1.0	3.3
8/1/2017	EV_ER2	200111	0.8	1.4	0.6	1.02	1.05	< 0.50	< 0.50	< 3.0	< 3.0
8/9/2017	EV_ER2	200111									
9/11/2017	EV_ER2	200111	0.55	1	0.56	1.08	1.14	< 0.50	< 0.50	< 3.0	< 3.0
10/2/2017	EV_ER2	200111	0.57	1.4	1.81	1.08	1.21	< 0.50	< 0.50	< 3.0	< 3.0
11/14/2017	EV_ER2	200111	1.7	< 1.0	0.78	1.42	1.27	< 2.5	< 2.5	< 5.0	< 15
12/7/2017	EV_ER2	200111	0.61	1.3	0.67	1.28	1.37	< 0.50	< 0.50	< 3.0	< 3.0
1/10/2017	EV_ER4	200027	< 0.50	< 1.0	0.33	1.26	1.28	< 0.50	< 0.50	< 3.0	< 3.0
2/21/2017	EV_ER4	200027	< 0.50	1.2	0.31	1.26	1.28	< 0.50	< 0.50	< 3.0	< 3.0
3/6/2017	EV_ER4	200027	0.55	< 1.0	0.16	1.26	1.29	< 0.50	< 0.50	< 3.0	< 3.0
3/15/2017	EV_ER4	200027	0.74	1.3	0.79	1.36	1.33	< 0.50	< 0.50	< 3.0	< 3.0
3/19/2017	EV_ER4	200027		8.8	5.73						
3/20/2017	EV_ER4	200027	0.71	1.8	1.53	1.24	1.33	< 0.50	< 0.50	< 1.0	< 3.0
3/28/2017	EV_ER4	200027	0.74	3	1.89	1.27	1.3	< 0.50	< 0.50	< 3.0	< 3.0
4/3/2017	EV_ER4	200027	0.95	1.6	0.85	1.34	1.36	< 0.50	< 0.50	< 3.0	< 3.0
4/11/2017	EV_ER4	200027	1.08	1.5	0.98	1.49	1.43	< 0.50	< 0.50	< 3.0	< 3.0
4/19/2017	EV_ER4	200027	1.44	4.5	1.09	1.45	1.43	< 0.50	< 0.50	< 3.0	< 3.0
4/24/2017	EV_ER4	200027	1.46	8.2	4	1.35	1.41	< 0.50	0.85	1	< 3.0
5/1/2017	EV_ER4	200027	1.42	5.5	1.64	1.36	1.43	< 0.50	< 0.50	< 3.0	< 3.0
5/9/2017	EV_ER4	200027	3.28	37.4	18.8	1.07	1.15	< 0.50	2.49	< 3.0	6
5/16/2017	EV_ER4	200027	2.41	28.9	12.1	1.13	1.16	< 0.50	1.95	< 3.0	4.9
5/23/2017	EV_ER4	200027	3.36	52.7	22.5	1.02	1.04	< 0.50	2.34	< 3.0	10
5/30/2017	EV_ER4	200027	6.04	163	84.1	0.885	1.14	< 0.50	8.9	< 3.0	19.1
6/6/2017	EV_ER4	200027	4.27	92.7	40.9	0.917	1.03	< 0.50	3.65	< 3.0	9.2
6/13/2017	EV_ER4	200027	2.01	55.7	19.7	0.965	1.03	< 0.50	2.63	< 3.0	7.2
6/20/2017	EV_ER4	200027	1.94	23.6	9.61	0.995	0.976	< 0.50	1.26	< 3.0	3.8
6/21/2017	EV_ER4	200027									
6/27/2017	EV_ER4	200027	1.78	17.6	6.82	0.933	0.992	< 0.50	0.89	< 3.0	< 3.0
7/4/2017	EV_ER4	200027	1.33	13.2	4.03	0.963	0.92	< 0.50	0.64	< 3.0	4.9
7/10/2017	EV_ER4	200027	1.23	7.2	4.72	0.807	0.791	< 0.50	0.64	< 1.0	< 3.0
7/25/2017	EV_ER4	200027	0.98	3.4	1.09	0.965	0.963	< 0.50	< 0.50	< 3.0	< 3.0
8/1/2017	EV_ER4	200027	0.61	2	0.54	1.01	1.02	< 0.50	< 0.50	< 3.0	< 3.0
8/15/2017	EV_ER4	200027									
9/11/2017	EV_ER4	200027	0.66	1.2	1	1.08	1.08	< 0.50	< 0.50	< 3.0	< 3.0
10/2/2017	EV_ER4	200027	0.63	< 1.0	0.3	1.08	1.22	< 0.50	< 0.50	< 3.0	< 3.0
11/14/2017	EV_ER4	200027	2.15	< 1.0	0.48	1.38	1.37	< 2.5	< 2.5	< 5.0	< 15
12/7/2017	EV_ER4	200027	< 0.50	< 1.0	0.58	1.31	1.38	< 0.50	< 0.50	< 3.0	< 3.0
1/9/2017	EV_FC1	E298591									
2/19/2017	EV_FC1	E298591									
3/6/2017	EV_FC1	E298591									
3/16/2017	EV_FC1	E298591	8.32	92.6	53	0.366	0.619	< 0.50	4.34	1.1	27.4
3/21/2017	EV_FC1	E298591		12.2	11.4						
3/28/2017	EV_FC1	E298591		6.4	16.1						
4/3/2017	EV_FC1	E298591	6.99	54.2	43.1	0.406	0.452	< 0.50	3.36	< 3.0	9.6
4/11/2017	EV_FC1	E298591		89.5	59.6						
4/19/2017	EV_FC1	E298591		36.2	34.8						
4/20/2017	EV_FC1	E298591		40	35.9						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
4/21/2017	EV_FC1	E298591		36.3	48.1						
4/25/2017	EV_FC1	E298591		24.5	26.9						
5/2/2017	EV_FC1	E298591	8.1	10.2	12.4	0.235	0.258	< 0.50	2.22	< 3.0	4.5
5/9/2017	EV_FC1	E298591		7.9	10.2						
5/16/2017	EV_FC1	E298591		4.9	4.94						
5/23/2017	EV_FC1	E298591		3.7	4.02						
5/30/2017	EV_FC1	E298591		4.2	3.9						
6/5/2017	EV_FC1	E298591	4.6	3	3.23	0.323	0.336	< 0.50	0.55	< 3.0	< 3.0
6/13/2017	EV_FC1	E298591		2.6	2.81						
6/20/2017	EV_FC1	E298591		2.8	2.15						
6/27/2017	EV_FC1	E298591		4.8	2.15						
7/4/2017	EV_FC1	E298591		1.8	1.61						
7/10/2017	EV_FC1	E298591	3.99	< 2.0	2.34	0.422	0.43	< 0.50	0.56	1.6	< 3.0
8/1/2017	EV_FC1	E298591	3.61	1.4	1.59	0.574	0.566	< 0.50	< 0.50	< 3.0	< 3.0
8/15/2017	EV_FC1	E298591									
9/11/2017	EV_FC1	E298591	3.97	< 1.0	1.08	0.565	0.561	< 0.50	0.51	< 3.0	6.4
10/2/2017	EV_FC1	E298591	5.76	12.4	8.26	0.555	0.619	< 0.50	0.6	7	11.4
11/14/2017	EV_FC1	E298591	4.38	1.7	1.48	0.52	0.569	< 2.5	< 2.5	11	< 15
12/1/2017	EV_FC1	E298591	3.88	1.5	1.42	0.482	0.523	< 0.50	< 0.50	< 3.0	3.3
1/19/2017	EV_GC2	E208043	4.75	20.4	21.3	2.84	2.75	< 0.50	0.59	1.5	6.7
1/31/2017	EV_GC2	E208043	3.14	10	5.66	2.66	2.83	< 0.50	< 0.50	< 3.0	5.3
2/8/2017	EV_GC2	E208043	4.23	9.7	13.2	2.8	2.88	< 0.50	0.62	< 3.0	6.3
2/16/2017	EV_GC2	E208043		23.2	27						
2/16/2017	EV_GC2	E208043	3.49	27.1	25.7	2.16	1.95	< 0.50	0.98	2.4	4.7
2/17/2017	EV_GC2	E208043		32.9	59.3						
2/17/2017	EV_GC2	E208043		20.1	36						
3/6/2017	EV_GC2	E208043	1.41	12.7	7.9	2.66	2.77	< 0.50	0.53	< 3.0	3.6
3/15/2017	EV_GC2	E208043		32	33.2						
3/15/2017	EV_GC2	E208043		30.3	33.7						
3/16/2017	EV_GC2	E208043		30.7	35.8						
3/17/2017	EV_GC2	E208043									
3/18/2017	EV_GC2	E208043									
3/18/2017	EV_GC2	E208043		38.4	50.9						
3/19/2017	EV_GC2	E208043									
3/20/2017	EV_GC2	E208043		10	9.56						
3/28/2017	EV_GC2	E208043		17	17.3						
4/5/2017	EV_GC2	E208043	5.14	10.6	7.89	1.52	1.51	< 0.50	< 0.50	< 3.0	3.3
4/11/2017	EV_GC2	E208043		3.7	5.41						
4/20/2017	EV_GC2	E208043		15.6	14.9						
4/24/2017	EV_GC2	E208043		13	14						
5/2/2017	EV_GC2	E208043	3.43	15	1.88	2.34	2.45	< 0.50	1.16	< 3.0	6.1
5/3/2017	EV_GC2	E208043									
5/4/2017	EV_GC2	E208043	3.48	23.2	12.2	2.18	2.38	< 0.50	1.42	1.6	5.3
5/7/2017	EV_GC2	E208043		18.5	45.5						
5/11/2017	EV_GC2	E208043		9.3	10.6						
5/18/2017	EV_GC2	E208043		15.1	8.86						
5/23/2017	EV_GC2	E208043		18.3	1.28						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
5/30/2017	EV_GC2	E208043		21.6	2.95						
5/30/2017	EV_GC2	E208043	2.81	23.5	16.9	4.37	4.7	< 0.50	1.02	< 3.0	5.3
6/6/2017	EV_GC2	E208043	3.05	23.3	8.77	4.5	4	< 0.50	0.7	< 3.0	3.1
6/13/2017	EV_GC2	E208043		22.4	1.16						
6/20/2017	EV_GC2	E208043		18.9	8.6						
6/27/2017	EV_GC2	E208043		20.4	10.9						
7/4/2017	EV_GC2	E208043		13.6	3.86						
7/12/2017	EV_GC2	E208043	1.92	14.5	9.45	3.15	3.27	< 0.50	0.61	< 1.0	< 3.0
7/24/2017	EV_GC2	E208043									
8/3/2017	EV_GC2	E208043				3.81	3.97	< 0.50	< 0.50	< 3.0	< 3.0
8/3/2017	EV_GC2	E208043	1.72	13.6	7.83						
8/9/2017	EV_GC2	E208043									
9/1/2017	EV_GC2	E208043									
9/11/2017	EV_GC2	E208043	2.14	6	6.94	3.4	3.48	< 0.50	0.6	< 3.0	< 3.0
9/26/2017	EV_GC2	E208043									
9/27/2017	EV_GC2	E208043									
9/28/2017	EV_GC2	E208043									
10/3/2017	EV_GC2	E208043	0.92	4.8	4.42	3.04	2.93	< 0.50	< 0.50	< 3.0	< 3.0
10/13/2017	EV_GC2	E208043	2.23	4.3	6.24	2.57	2.9	< 0.50	< 0.50	< 3.5	< 3.0
10/16/2017	EV_GC2	E208043									
10/24/2017	EV_GC2	E208043									
10/30/2017	EV_GC2	E208043									
10/30/2017	EV_GC2	E208043	1.55	10.5	4.63	2.32	2.59	< 0.50	< 0.50	< 3.0	< 3.0
11/14/2017	EV_GC2	E208043	3.05	10.1	12.9	2.82	2.83	< 2.5	< 2.5	< 5.0	< 15
11/23/2017	EV_GC2	E208043									
11/23/2017	EV_GC2	E208043		167	229						
11/24/2017	EV_GC2	E208043		2.8	4						
12/6/2017	EV_GC2	E208043	3.13	9.2	18.3	2.48	2.58	< 0.50	0.75	< 3.0	3.6
1/1/2017	EV_GH1	E296310									
1/2/2017	EV_GH1	E296310									
1/9/2017	EV_GH1	E296310									
1/16/2017	EV_GH1	E296310									
1/23/2017	EV_GH1	E296310									
1/30/2017	EV_GH1	E296310									
2/6/2017	EV_GH1	E296310									
2/13/2017	EV_GH1	E296310									
2/20/2017	EV_GH1	E296310									
2/27/2017	EV_GH1	E296310									
3/6/2017	EV_GH1	E296310									
3/13/2017	EV_GH1	E296310									
3/20/2017	EV_GH1	E296310									
3/27/2017	EV_GH1	E296310									
4/1/2017	EV_GH1	E296310									
4/3/2017	EV_GH1	E296310									
4/9/2017	EV_GH1	E296310	309	1320	508	1.28	2.43	< 0.50	15.7	< 1.0	56
4/10/2017	EV_GH1	E296310									
4/17/2017	EV_GH1	E296310									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
4/24/2017	EV_GH1	E296310									
5/1/2017	EV_GH1	E296310									
5/8/2017	EV_GH1	E296310									
5/15/2017	EV_GH1	E296310									
5/22/2017	EV_GH1	E296310									
5/29/2017	EV_GH1	E296310									
6/5/2017	EV_GH1	E296310									
6/12/2017	EV_GH1	E296310									
6/19/2017	EV_GH1	E296310									
6/26/2017	EV_GH1	E296310									
7/1/2017	EV_GH1	E296310									
7/3/2017	EV_GH1	E296310									
7/10/2017	EV_GH1	E296310									
7/17/2017	EV_GH1	E296310									
7/24/2017	EV_GH1	E296310									
7/31/2017	EV_GH1	E296310									
8/7/2017	EV_GH1	E296310									
8/14/2017	EV_GH1	E296310									
8/21/2017	EV_GH1	E296310									
8/28/2017	EV_GH1	E296310									
9/4/2017	EV_GH1	E296310									
9/11/2017	EV_GH1	E296310									
9/18/2017	EV_GH1	E296310									
9/25/2017	EV_GH1	E296310									
10/1/2017	EV_GH1	E296310									
10/2/2017	EV_GH1	E296310									
10/3/2017	EV_GH1	E296310	1010	188000	< 0.10	10.7	66.9	0.67	774	< 3.0	2420
10/9/2017	EV_GH1	E296310									
10/16/2017	EV_GH1	E296310									
10/23/2017	EV_GH1	E296310									
10/30/2017	EV_GH1	E296310									
11/6/2017	EV_GH1	E296310									
11/13/2017	EV_GH1	E296310									
11/20/2017	EV_GH1	E296310									
11/27/2017	EV_GH1	E296310									
12/4/2017	EV_GH1	E296310									
12/11/2017	EV_GH1	E296310									
12/18/2017	EV_GH1	E296310									
12/25/2017	EV_GH1	E296310									
1/10/2017	EV_GT1	E206231	0.59	< 1.0	0.49	10.9	10.6	< 0.50	< 0.50	6.4	9.5
1/31/2017	EV_GT1	E206231									
2/7/2017	EV_GT1	E206231	0.67	< 1.0	0.41	10.3	11	< 0.50	< 0.50	7.3	8.3
2/17/2017	EV_GT1	E206231									
3/7/2017	EV_GT1	E206231	0.7	< 1.0	0.35	10	9.79	< 0.50	< 0.50	< 3.0	7.3
3/16/2017	EV_GT1	E206231		34	79.8						
3/17/2017	EV_GT1	E206231		9.9	37.5						
3/18/2017	EV_GT1	E206231									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
3/18/2017	EV_GT1	E206231		72.4	100						
3/19/2017	EV_GT1	E206231		68.8	167						
3/19/2017	EV_GT1	E206231		22	82						
3/20/2017	EV_GT1	E206231		7.4	33.5						
3/29/2017	EV_GT1	E206231	3.8	4.2	17.5	4.51	4.84	< 0.50	1.31	6.6	9.6
4/5/2017	EV_GT1	E206231	3.2	3.2	6.1	6.07	6.04	< 0.50	< 0.50	7.8	9.8
4/12/2017	EV_GT1	E206231		2.3	2.28						
4/20/2017	EV_GT1	E206231		1.8	2.33						
4/26/2017	EV_GT1	E206231		< 1.0	1.45						
5/2/2017	EV_GT1	E206231	2.9	2.4	2.53	5.28	5.57	< 0.50	0.71	< 3.0	5.6
5/10/2017	EV_GT1	E206231		4.1	3.28						
5/17/2017	EV_GT1	E206231		1.8	4.35						
5/24/2017	EV_GT1	E206231		2.9	2.24						
5/31/2017	EV_GT1	E206231		2.1	0.85						
6/6/2017	EV_GT1	E206231	0.95	2	0.93	10.3	11.2	< 0.50	< 0.50	20.2	20.2
6/14/2017	EV_GT1	E206231		5.4	6.78						
6/21/2017	EV_GT1	E206231		1.5	0.55						
6/28/2017	EV_GT1	E206231		1.6	0.42						
7/5/2017	EV_GT1	E206231		< 1.0	0.51						
7/12/2017	EV_GT1	E206231	1.7	< 3.0	1.35	10.4	10.6	< 0.50	< 0.50	20.5	23.2
8/3/2017	EV_GT1	E206231				10.8	11.5	< 0.50	< 0.50	< 3.0	18.5
8/3/2017	EV_GT1	E206231	1.11	< 3.0	2.35						
9/12/2017	EV_GT1	E206231	0.91	1.2	1.33	11.5	10.6	< 0.50	< 0.50	19.3	22.6
10/2/2017	EV_GT1	E206231	1.25	1.8	5.05	10.2	11.3	< 0.50	< 0.50	< 3.0	8.4
10/3/2017	EV_GT1	E206231		38	64.3						
10/4/2017	EV_GT1	E206231									
10/26/2017	EV_GT1	E206231		23.4	43.2						
10/27/2017	EV_GT1	E206231									
11/2/2017	EV_GT1	E206231									
11/3/2017	EV_GT1	E206231									
11/6/2017	EV_GT1	E206231									
11/7/2017	EV_GT1	E206231									
11/8/2017	EV_GT1	E206231									
11/9/2017	EV_GT1	E206231									
11/10/2017	EV_GT1	E206231									
11/15/2017	EV_GT1	E206231	2.01	3.6	8.93	11.6	11.9	< 0.50	0.7	9.9	12.7
11/16/2017	EV_GT1	E206231									
11/23/2017	EV_GT1	E206231									
12/6/2017	EV_GT1	E206231	< 0.50	1	1.62	10.1	10.3	< 0.50	< 0.50	12.4	15.2
1/9/2017	EV_HC1	E102682	0.97	< 1.0	0.53	2.58	2.67	< 0.50	< 0.50	< 3.0	< 3.0
2/21/2017	EV_HC1	E102682	0.89	< 1.0	0.4	2.7	2.73	< 0.50	< 0.50	< 3.0	< 3.0
3/6/2017	EV_HC1	E102682	0.76	< 1.0	0.2	2.8	2.72	< 0.50	< 0.50	< 3.0	< 3.0
3/15/2017	EV_HC1	E102682	1.25	1.5	0.82	2.95	2.86	< 0.50	< 0.50	< 3.0	< 3.0
3/21/2017	EV_HC1	E102682	2.54	1.9	2.52	2.56	2.66	< 0.50	0.55	< 3.0	< 3.0
3/24/2017	EV_HC1	E102682	3.13	< 1.0	1.31	2.05	2.43	< 0.50	< 0.50	< 1.0	< 3.0
3/28/2017	EV_HC1	E102682	1.52	< 1.0	1.03	2.36	2.42	< 0.50	< 0.50	< 3.0	< 3.0
4/3/2017	EV_HC1	E102682	2.31	1.7	1.26	2.52	2.61	< 0.50	< 0.50	< 3.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
4/11/2017	EV_HC1	E102682	2.36	< 1.0	1.24	2.65	2.68	< 0.50	< 0.50	< 3.0	< 3.0
4/19/2017	EV_HC1	E102682	2.61	8.1	2.27	2.55	2.61	< 0.50	< 0.50	< 3.0	< 3.0
4/24/2017	EV_HC1	E102682	3.07	4.2	3.36	2.23	2.25	< 0.50	0.79	< 1.0	4.4
5/2/2017	EV_HC1	E102682	2.96	3.4	3.01	2.5	2.53	< 0.50	0.54	< 3.0	< 3.0
5/9/2017	EV_HC1	E102682	4.25	10	8.01	1.33	1.38	< 0.50	1.13	< 3.0	< 3.0
5/16/2017	EV_HC1	E102682	3.24	11.3	7.29	1.7	1.71	< 0.50	1.51	< 3.0	3.6
5/23/2017	EV_HC1	E102682	4.55	27.2	25.9	1.24	1.39	< 0.50	2.31	< 3.0	6.4
5/30/2017	EV_HC1	E102682	3.01	12.8	13.5	1.24	1.15	< 0.50	1.34	< 3.0	4.1
6/6/2017	EV_HC1	E102682	2.14	4	2.95	1.37	1.23	< 0.50	0.54	< 3.0	< 3.0
6/13/2017	EV_HC1	E102682	1.43	2.1	1.35	1.5	1.45	< 0.50	< 0.50	< 3.0	< 3.0
6/20/2017	EV_HC1	E102682	1.47	1.5	0.73	1.85	1.73	< 0.50	< 0.50	< 3.0	< 3.0
6/27/2017	EV_HC1	E102682	1.07	< 1.0	0.5	1.83	1.83	< 0.50	< 0.50	< 3.0	< 3.0
7/4/2017	EV_HC1	E102682	0.9	2.7	0.4	2.06	1.94	< 0.50	< 0.50	< 3.0	< 3.0
7/10/2017	EV_HC1	E102682	1.21	2	1.2	1.75	1.74	< 0.50	< 0.50	< 1.0	< 3.0
7/25/2017	EV_HC1	E102682	1.04	< 1.0	0.31	2.11	2.14	< 0.50	< 0.50	< 3.0	< 3.0
8/1/2017	EV_HC1	E102682	1.04	1.4	0.34	2.25	2.21	< 0.50	< 0.50	< 3.0	< 3.0
8/10/2017	EV_HC1	E102682									
9/11/2017	EV_HC1	E102682	1.45	1	0.62	2.39	2.37	< 0.50	< 0.50	< 3.0	< 3.0
10/2/2017	EV_HC1	E102682	0.97	< 1.0	0.31	2.23	2.45	< 0.50	< 0.50	< 3.0	< 3.0
10/10/2017	EV_HC1	E102682	1	< 1.0	0.31	2.64	2.65	< 0.50	< 0.50	< 3.0	< 3.0
10/17/2017	EV_HC1	E102682	0.97	1.8	0.25	2.71	2.78	< 0.50	< 0.50	< 3.0	< 3.0
10/24/2017	EV_HC1	E102682	1.36	< 1.0	0.44	2.94	2.85	< 0.50	< 0.50	< 3.0	< 3.0
10/31/2017	EV_HC1	E102682									
10/31/2017	EV_HC1	E102682	0.89	< 1.0	0.21	2.74	3	< 0.50	< 0.50	< 3.0	< 3.0
11/14/2017	EV_HC1	E102682	2.61	< 1.0	0.53	2.7	2.81	< 2.5	< 2.5	< 5.0	< 15
12/1/2017	EV_HC1	E102682	0.94	< 1.0	0.59	2.78	2.94	< 0.50	< 0.50	< 3.0	< 3.0
1/19/2017	EV_LC1	E258135	2.59	1.6	4.17	3.27	3.29	< 0.50	< 0.50	2.1	< 3.0
2/20/2017	EV_LC1	E258135	2.6	2.6	11.1	2.46	2.62	< 0.50	< 0.50	4.1	4.6
3/7/2017	EV_LC1	E258135	2.97	21.7	12.1	3.13	3.16	< 0.50	0.87	< 3.0	6.4
3/15/2017	EV_LC1	E258135		44.5	93.6						
3/16/2017	EV_LC1	E258135									
3/17/2017	EV_LC1	E258135									
3/20/2017	EV_LC1	E258135									
3/28/2017	EV_LC1	E258135	4.23	5.4	8.53	3.94	4.14	< 0.50	< 0.50	< 3.0	3.4
4/5/2017	EV_LC1	E258135	3.38	1.4	3.21	4.08	4.02	< 0.50	< 0.50	< 3.0	4
4/11/2017	EV_LC1	E258135									
4/19/2017	EV_LC1	E258135									
4/24/2017	EV_LC1	E258135									
5/2/2017	EV_LC1	E258135	1.88	2.6	2.2	3.35	3.49	< 0.50	< 0.50	< 3.0	3.7
5/7/2017	EV_LC1	E258135									
5/11/2017	EV_LC1	E258135									
5/18/2017	EV_LC1	E258135									
5/23/2017	EV_LC1	E258135									
5/30/2017	EV_LC1	E258135									
6/6/2017	EV_LC1	E258135	1.75	2.3	2.54	3.47	3.41	< 0.50	< 0.50	< 3.0	4.4
6/13/2017	EV_LC1	E258135									
6/20/2017	EV_LC1	E258135									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
6/27/2017	EV_LC1	E258135									
7/4/2017	EV_LC1	E258135									
7/12/2017	EV_LC1	E258135	1.47	4	7.8	2.9	3.21	< 0.50	0.63	4.7	8.4
8/3/2017	EV_LC1	E258135				3.08	3.09	< 0.50	< 0.50	< 3.0	3.5
8/3/2017	EV_LC1	E258135	1.52	< 3.0	1.65						
8/9/2017	EV_LC1	E258135									
9/11/2017	EV_LC1	E258135	3	< 1.0	1.16	2.95	3.01	< 0.50	< 0.50	< 3.0	4
10/2/2017	EV_LC1	E258135	1.44	1	1.45	2.13	3.18	< 0.50	< 0.50	< 3.0	3.3
11/14/2017	EV_LC1	E258135	1.63	1.1	3.16	3.3	3.45	< 2.5	< 2.5	< 5.0	< 15
12/6/2017	EV_LC1	E258135	1.24	< 1.0	2.74	3.37	3.38	< 0.50	< 0.50	< 3.0	5.6
1/10/2017	EV_MC2	E300091	0.85	< 1.0	0.33	1.58	1.6	< 0.50	< 0.50	< 3.0	< 3.0
1/31/2017	EV_MC2	E300091									
2/7/2017	EV_MC2	E300091	1.11	2	0.5	1.71	1.78	< 0.50	< 0.50	< 3.0	< 3.0
2/21/2017	EV_MC2	E300091	0.73	< 1.0	0.7	1.63	1.6	< 0.50	< 0.50	< 3.0	< 3.0
3/7/2017	EV_MC2	E300091	0.77	< 1.0	0.18	1.65	1.69	< 0.50	< 0.50	< 3.0	< 3.0
3/16/2017	EV_MC2	E300091	2.29	11	15.5	1.26	1.33	< 0.50	0.83	1.4	3.8
3/17/2017	EV_MC2	E300091		2.3	4.23						
3/18/2017	EV_MC2	E300091		70	73.4						
3/19/2017	EV_MC2	E300091		17	17.9						
3/20/2017	EV_MC2	E300091	3.44	10.4	6.71	0.826	0.87	< 0.50	0.82	< 1.0	< 3.0
3/22/2017	EV_MC2	E300091		10.6	7.77						
3/23/2017	EV_MC2	E300091		13.4	7.07						
3/24/2017	EV_MC2	E300091		3.2	3.11						
3/29/2017	EV_MC2	E300091	2.32	4.4	4.02	0.782	0.901	< 0.50	0.61	< 1.0	< 3.0
4/5/2017	EV_MC2	E300091	2.22	3.2	2.36	1.06	1.05	< 0.50	< 0.50	< 3.0	< 3.0
4/12/2017	EV_MC2	E300091	2.78	3.5	2.49	0.82	0.811	< 0.50	< 0.50	< 1.0	7.6
4/20/2017	EV_MC2	E300091	3.68	14.7	8.87	0.853	0.851	< 0.50	0.59	< 1.0	4.4
4/24/2017	EV_MC2	E300091	3.3	20.4	11.3	0.781	0.729	< 0.50	0.96	1.1	< 3.0
5/2/2017	EV_MC2	E300091	3.26	7.4	3.61	0.778	0.803	< 0.50	0.98	< 3.0	3.4
5/9/2017	EV_MC2	E300091	5.36	36	21.6	0.496	0.569	< 0.50	3.73	< 3.0	6.3
5/16/2017	EV_MC2	E300091		14.3	8.59	0.666	0.693	< 0.50	1.37	< 3.0	3.8
5/23/2017	EV_MC2	E300091	6.72	126	64	0.385	0.551	< 0.50	7.12	< 3.0	16.1
5/30/2017	EV_MC2	E300091	5.75	124	80.4	0.434	0.543	< 0.50	6.88	< 3.0	18.2
6/6/2017	EV_MC2	E300091	2.69	31.2	17.4	0.481	0.484	< 0.50	2.25	< 3.0	5.4
6/14/2017	EV_MC2	E300091	3.22	29.5	15.7	0.523	0.562	< 0.50	2.23	< 3.0	7.2
6/21/2017	EV_MC2	E300091	1.94	7.5	2.85	0.654	0.663	< 0.50	0.77	< 3.0	< 3.0
6/28/2017	EV_MC2	E300091	1.53	2.8	1.02	0.758	0.933	< 0.50	< 0.50	< 3.0	< 3.0
7/5/2017	EV_MC2	E300091	1.46	1.6	0.47	1.03	1.03	< 0.50	< 0.50	< 3.0	< 3.0
7/12/2017	EV_MC2	E300091	1.79	3	1.25	1.06	1.06	< 0.50	< 0.50	< 1.0	< 3.0
7/25/2017	EV_MC2	E300091	1.66	1.7	0.45	1.24	1.21	< 0.50	< 0.50	< 3.0	< 3.0
8/3/2017	EV_MC2	E300091				1.43	1.45	< 0.50	< 0.50	< 3.0	< 3.0
8/3/2017	EV_MC2	E300091	1.03	< 3.0	0.77						
9/12/2017	EV_MC2	E300091	0.94	< 1.0	0.65	1.86	1.69	< 0.50	< 0.50	< 3.0	< 3.0
10/2/2017	EV_MC2	E300091	0.9	1.6	1.2	1.03	1.23	< 0.50	< 0.50	< 3.0	< 3.0
10/10/2017	EV_MC2	E300091	< 0.50	1.2	0.19	1.24	1.23	< 0.50	< 0.50	< 3.0	< 3.0
10/16/2017	EV_MC2	E300091									
10/17/2017	EV_MC2	E300091	1.07	< 1.0	0.25	1.32	1.35	< 0.50	< 0.50	< 3.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
10/24/2017	EV_MC2	E300091	1.55	1.7	0.44	0.893	0.903	< 0.50	< 0.50	< 3.0	< 3.0
10/31/2017	EV_MC2	E300091									
10/31/2017	EV_MC2	E300091	0.91	< 1.0	0.29	1.07	1.2	< 0.50	< 0.50	< 3.0	< 3.0
11/15/2017	EV_MC2	E300091	0.77	< 1.0	0.64	1.55	1.5	< 0.50	< 0.50	< 3.0	< 3.0
12/6/2017	EV_MC2	E300091	2.77	< 1.0	0.62	1.22	1.25	< 0.50	< 0.50	< 3.0	4.5
1/10/2017	EV_MC2A	E310168	0.85	2.6	0.33	1.21	1.17	< 0.50	< 0.50	< 3.0	< 3.0
1/31/2017	EV_MC2A	E310168									
2/7/2017	EV_MC2A	E310168	0.75	< 1.0	0.34	1.22	1.29	< 0.50	< 0.50	< 3.0	< 3.0
3/7/2017	EV_MC2A	E310168	0.75	< 1.0	0.26	1.2	1.26	< 0.50	< 0.50	< 3.0	< 3.0
3/16/2017	EV_MC2A	E310168		8.8	7.51						
3/17/2017	EV_MC2A	E310168		2.5	4.27						
3/18/2017	EV_MC2A	E310168		116	118						
3/19/2017	EV_MC2A	E310168		26	18.7						
3/20/2017	EV_MC2A	E310168		12	7.34						
3/29/2017	EV_MC2A	E310168	2.63	4	4.76	0.741	0.81	< 0.50	0.68	< 1.0	7.6
4/5/2017	EV_MC2A	E310168	2.2	3.1	1.97	0.936	0.999	< 0.50	< 0.50	< 3.0	< 3.0
5/2/2017	EV_MC2A	E310168	3.28	7.7	2.69	0.708	0.744	< 0.50	0.9	< 3.0	3.5
6/6/2017	EV_MC2A	E310168	3.24	40.7	22.1	0.385	0.399	< 0.50	3.05	< 3.0	7.1
7/12/2017	EV_MC2A	E310168	1.47	3	0.72	0.698	0.709	< 0.50	< 0.50	< 1.0	< 3.0
8/3/2017	EV_MC2A	E310168				1.11	1.09	< 0.50	< 0.50	< 3.0	< 3.0
8/3/2017	EV_MC2A	E310168	1.09	< 3.0	0.45						
9/12/2017	EV_MC2A	E310168	0.99	1.2	0.81	1.28	1.17	< 0.50	< 0.50	< 3.0	< 3.0
10/2/2017	EV_MC2A	E310168	1.06	1.4	0.67	1.01	1.13	< 0.50	< 0.50	< 3.0	< 3.0
11/15/2017	EV_MC2A	E310168									
11/15/2017	EV_MC2A	E310168	0.91	< 1.0	0.44	1.2	1.2	< 0.50	< 0.50	< 3.0	< 3.0
12/6/2017	EV_MC2A	E310168	4.11	1	1.14	0.845	0.868	< 0.50	< 0.50	< 3.0	< 3.0
1/20/2017	EV_MC3	200203	1.08	1.6	0.85	0.762	0.857	< 0.50	0.58	< 1.0	< 3.0
2/7/2017	EV_MC3	200203	1.14	3.3	1.74	0.761	0.807	< 0.50	< 0.50	< 3.0	< 3.0
3/7/2017	EV_MC3	200203	0.77	1	0.27	0.76	0.83	< 0.50	< 0.50	< 3.0	3.6
3/16/2017	EV_MC3	200203	2.8	138	120	0.777	0.826	< 0.50	4.23	< 1.0	14.1
3/19/2017	EV_MC3	200203		69.8	56.1						
3/20/2017	EV_MC3	200203	3.94	26.2	15.3	0.601	0.648	< 0.50	1.78	1.5	5.1
3/29/2017	EV_MC3	200203	2.41	3.4	5.54	0.575	0.61	< 0.50	0.79	< 1.0	< 3.0
4/4/2017	EV_MC3	200203	2.91	14.1	21.3	0.774	0.89	< 0.50	2.71	< 3.0	4.2
4/12/2017	EV_MC3	200203	2.81	6.1	5	0.592	0.614	< 0.50	0.53	< 1.0	< 3.0
4/20/2017	EV_MC3	200203	3.3	15.3	7.84	0.651	0.672	< 0.50	1.04	< 1.0	4.9
4/26/2017	EV_MC3	200203	4.11	17.9	10.4	0.545	0.572	< 0.50	1.55	< 3.0	3.6
5/3/2017	EV_MC3	200203	3.41	8.8	4.08	0.558	0.602	< 0.50	0.83	< 3.0	< 3.0
5/10/2017	EV_MC3	200203	4.5	23.6	14.3	0.398	0.428	< 0.50	3.16	< 3.0	6
5/17/2017	EV_MC3	200203	5.47	42.6	31.5	0.473	0.463	< 0.50	3.56	< 3.0	9.6
5/24/2017	EV_MC3	200203	15.7	505	253	0.255	0.869	0.58	21.4	< 3.0	61.5
5/30/2017	EV_MC3	200203	5.75	87.6	57.2	0.265	0.441	0.5	6.13	< 3.0	16.9
6/6/2017	EV_MC3	200203	3.44	46.1	22.5	0.282	0.314	< 0.50	3.04	< 3.0	8.1
6/13/2017	EV_MC3	200203	3.03	11	5.95	0.354	0.342	< 0.50	1.19	< 3.0	3.5
6/21/2017	EV_MC3	200203	2.19	10.2	3.79	0.343	0.372	< 0.50	1.06	< 3.0	< 3.0
6/28/2017	EV_MC3	200203	1.65	2.1	1.13	0.468	0.453	< 0.50	1.27	< 3.0	5.5
7/5/2017	EV_MC3	200203	1.6	1.8	0.72	0.566	0.525	< 0.50	< 0.50	< 3.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
7/11/2017	EV_MC3	200203	1.69	< 2.0	1.36	0.476	0.491	< 0.50	< 0.50	< 1.0	< 3.0
8/2/2017	EV_MC3	200203				0.63	0.638	< 0.50	< 0.50	< 3.0	< 3.0
8/2/2017	EV_MC3	200203	1.05	< 3.0	0.63						
9/12/2017	EV_MC3	200203	0.95	< 1.0	0.53	0.709	0.663	< 0.50	< 0.50	< 3.0	< 3.0
10/2/2017	EV_MC3	200203	0.95	1.5	1.13	0.605	0.692	< 0.50	< 0.50	< 3.0	< 3.0
11/15/2017	EV_MC3	200203	0.78	< 1.0	0.27	0.735	0.719	< 0.50	< 0.50	< 3.0	< 3.0
12/6/2017	EV_MC3	200203	3.45	1	1.01	0.573	0.56	< 0.50	< 0.50	< 3.0	< 3.0
1/18/2017	EV_MG1	E208057	3.19	< 1.0	0.27	3.45	3.38	< 0.50	0.79	10.1	10.5
2/23/2017	EV_MG1	E208057	3.38	< 1.0	0.42	2.79	3.07	0.58	0.84	10.3	9.8
3/8/2017	EV_MG1	E208057	2.86	< 1.0	0.36	2.71	2.97	0.62	0.6	5.9	6.1
3/16/2017	EV_MG1	E208057		1.2	0.62						
3/19/2017	EV_MG1	E208057		2	4.46						
3/29/2017	EV_MG1	E208057		4.4	10.7						
4/4/2017	EV_MG1	E208057	4.69	2.4	2.75	1.87	1.96	< 0.50	0.89	< 3.0	3.5
4/12/2017	EV_MG1	E208057		< 1.0	1.09						
4/19/2017	EV_MG1	E208057		2.2	1.42						
4/26/2017	EV_MG1	E208057		4.9	3.32						
5/2/2017	EV_MG1	E208057		2.5	1.4						
5/3/2017	EV_MG1	E208057	5.01	4.3	1.5	2.61	2.73	0.52	0.62	4	5.7
5/10/2017	EV_MG1	E208057		7.9	4.98						
5/17/2017	EV_MG1	E208057		2.3	1.72						
5/24/2017	EV_MG1	E208057		1.8	1.06						
5/31/2017	EV_MG1	E208057		1.4	1.09						
6/7/2017	EV_MG1	E208057		1.3	0.59						
6/14/2017	EV_MG1	E208057	3.96	1.7	0.88	2.36	2.2	0.59	0.66	< 3.0	6.1
6/21/2017	EV_MG1	E208057		2.6	1.47						
6/28/2017	EV_MG1	E208057		3.5	2.11						
7/5/2017	EV_MG1	E208057		6	3.57						
7/11/2017	EV_MG1	E208057	6.13	7.4	4.16	2.14	2.32	0.54	0.84	3.1	6.3
8/2/2017	EV_MG1	E208057				2.92	2.96	0.69	0.81	< 3.0	4.6
8/2/2017	EV_MG1	E208057	3.92	< 3.0	1.74						
8/10/2017	EV_MG1	E208057									
9/12/2017	EV_MG1	E208057	3.47	< 1.0	0.89	3.04	2.78	0.58	0.68	8.5	11
10/3/2017	EV_MG1	E208057	1.58	< 1.0	0.3	3.02	2.78	0.6	0.62	< 3.0	< 3.0
10/17/2017	EV_MG1	E208057									
10/18/2017	EV_MG1	E208057									
11/15/2017	EV_MG1	E208057	3.59	< 1.0	0.65	3.44	3.54	< 0.50	0.66	4.7	5.2
11/23/2017	EV_MG1	E208057									
12/6/2017	EV_MG1	E208057	3.13	< 1.0	0.48	2.77	2.82	< 0.50	0.6	< 3.0	< 3.0
1/10/2017	EV_OC1	E102679	1.61	< 1.0	1.92	0.457	0.465	< 0.50	< 0.50	< 3.0	< 3.0
2/8/2017	EV_OC1	E102679	10.5	3.9	6.04	0.408	0.405	< 0.50	< 0.50	< 3.0	< 3.0
2/20/2017	EV_OC1	E102679	29.4	35.5	85.2	0.44	0.522	< 0.50	1.52	2.9	14.4
2/21/2017	EV_OC1	E102679		25.3	62.9						
3/6/2017	EV_OC1	E102679	11.1	9.6	14.7	0.574	0.585	< 0.50	< 0.50	< 3.0	3.8
3/14/2017	EV_OC1	E102679		31.5	27.2						
3/15/2017	EV_OC1	E102679		86.7	154						
3/15/2017	EV_OC1	E102679		230	476						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
3/16/2017	EV_OC1	E102679		216	448						
3/17/2017	EV_OC1	E102679	29.8	121	241	0.528	0.613	< 0.50	3.72	2.8	28.4
3/18/2017	EV_OC1	E102679		51.6	96.8						
3/19/2017	EV_OC1	E102679		164	295						
3/20/2017	EV_OC1	E102679		36.5	62.3						
3/21/2017	EV_OC1	E102679		20.8	22.3						
3/22/2017	EV_OC1	E102679		10	10.9						
3/28/2017	EV_OC1	E102679		7.6	14.1						
4/3/2017	EV_OC1	E102679	4.47	9.3	12.7	0.878	0.897	< 0.50	0.89	< 3.0	4.2
4/11/2017	EV_OC1	E102679		7.8	10.9						
4/20/2017	EV_OC1	E102679		6.2	6.07						
4/25/2017	EV_OC1	E102679		7.5	5.61						
5/4/2017	EV_OC1	E102679	4.56	4	5.58	0.699	0.718	< 0.50	< 0.50	< 1.0	5.2
5/7/2017	EV_OC1	E102679									
5/9/2017	EV_OC1	E102679		5.5	4.39						
5/16/2017	EV_OC1	E102679		3.4	2.69						
5/23/2017	EV_OC1	E102679		3.6	1.88						
5/31/2017	EV_OC1	E102679		5.4	3.21						
6/5/2017	EV_OC1	E102679	2.66	5.4	2.7	0.637	0.683	< 0.50	< 0.50	< 3.0	< 3.0
6/13/2017	EV_OC1	E102679		5.7	2.98						
6/20/2017	EV_OC1	E102679		5.2	2.76						
6/27/2017	EV_OC1	E102679		4.6	3.05						
7/4/2017	EV_OC1	E102679		5.2	3.15						
7/10/2017	EV_OC1	E102679	3.26	7.6	6.07	0.438	0.444	< 0.50	< 0.50	< 1.0	< 3.0
8/1/2017	EV_OC1	E102679	2.78	3	3.26	0.467	0.465	< 0.50	< 0.50	< 3.0	< 3.0
9/11/2017	EV_OC1	E102679	3.26	3	5.73	0.413	0.428	< 0.50	0.56	< 3.0	< 3.0
10/2/2017	EV_OC1	E102679	2.18	4.2	4.24	0.425	0.479	< 0.50	< 0.50	< 3.0	< 3.0
11/14/2017	EV_OC1	E102679	3.35	< 1.0	2.63	0.534	0.543	< 2.5	< 2.5	< 5.0	< 15
12/7/2017	EV_OC1	E102679	2.83	1.7	5.44	0.603	0.65	< 0.50	< 0.50	< 3.0	3
1/9/2017	EV_SM1	E102681	2.01	2.3	7.63	0.666	0.682	< 0.50	0.57	< 3.0	< 3.0
2/23/2017	EV_SM1	E102681	2.64	1.3	5.9	0.548	0.532	< 0.50	< 0.50	< 1.0	< 3.0
3/6/2017	EV_SM1	E102681	1.75	< 1.0	3.62	0.676	0.659	< 0.50	< 0.50	< 3.0	< 3.0
3/15/2017	EV_SM1	E102681		10.8	14.4						
3/19/2017	EV_SM1	E102681		27.4	61.3						
3/20/2017	EV_SM1	E102681		29.4	58.2						
3/21/2017	EV_SM1	E102681		23.6	53						
3/22/2017	EV_SM1	E102681		12	46.1						
3/23/2017	EV_SM1	E102681		7.8	41.6						
3/28/2017	EV_SM1	E102681		5.2	21.3						
3/29/2017	EV_SM1	E102681		3	17.5						
4/3/2017	EV_SM1	E102681	4.12	8.6	20.7	0.553	0.582	< 0.50	1.36	< 3.0	3.4
4/11/2017	EV_SM1	E102681		6.7	27.7						
4/19/2017	EV_SM1	E102681		12.8	25.1						
4/25/2017	EV_SM1	E102681		13.9	35.2						
5/2/2017	EV_SM1	E102681	5.42	13.4	24.9	0.537	0.623	< 0.50	4.89	< 3.0	7.6
5/7/2017	EV_SM1	E102681		170	229						
5/8/2017	EV_SM1	E102681		106	201						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
5/9/2017	EV_SM1	E102681		130	184						
5/10/2017	EV_SM1	E102681		78.6	127						
5/11/2017	EV_SM1	E102681		53	108						
5/12/2017	EV_SM1	E102681		140	186						
5/13/2017	EV_SM1	E102681		150	354						
5/14/2017	EV_SM1	E102681		157	290						
5/15/2017	EV_SM1	E102681		80.3	191						
5/16/2017	EV_SM1	E102681		64.1	146						
5/17/2017	EV_SM1	E102681		66.3	119						
5/18/2017	EV_SM1	E102681		62.8	113						
5/19/2017	EV_SM1	E102681		16	63.4						
5/20/2017	EV_SM1	E102681		18.6	58.8						
5/23/2017	EV_SM1	E102681		57.6	133						
5/24/2017	EV_SM1	E102681		183	241						
5/25/2017	EV_SM1	E102681		69.4	130						
5/26/2017	EV_SM1	E102681		56.2	85.6						
5/27/2017	EV_SM1	E102681		56.9	105						
5/28/2017	EV_SM1	E102681		37.3	84.3						
5/29/2017	EV_SM1	E102681		19.5	69.8						
5/30/2017	EV_SM1	E102681		23.7	68.9						
6/5/2017	EV_SM1	E102681	3.83	17.5	40.4	0.438	0.479	< 0.50	1.9	< 3.0	6.1
6/13/2017	EV_SM1	E102681		9	19.4						
6/20/2017	EV_SM1	E102681		8.6	17.6						
6/27/2017	EV_SM1	E102681		8.1	10.7						
7/4/2017	EV_SM1	E102681		7.8	6.05						
7/10/2017	EV_SM1	E102681	2.77	4	4.59	0.431	0.443	< 0.50	< 0.50	< 1.0	6.1
8/1/2017	EV_SM1	E102681	1.85	1.6	2.2	0.566	0.559	< 0.50	< 0.50	< 3.0	< 3.0
9/11/2017	EV_SM1	E102681	2.13	2.2	4.81	0.562	0.587	< 0.50	0.64	< 3.0	< 3.0
10/2/2017	EV_SM1	E102681	2.15	3	3.46	0.554	0.556	< 0.50	< 0.50	< 3.0	< 3.0
10/4/2017	EV_SM1	E102681									
10/6/2017	EV_SM1	E102681									
10/10/2017	EV_SM1	E102681									
11/14/2017	EV_SM1	E102681	3.5	< 1.0	3.63	0.644	0.622	< 2.5	< 2.5	< 5.0	< 15
11/23/2017	EV_SM1	E102681									
12/1/2017	EV_SM1	E102681	1.86	1.9	9.05	0.605	0.643	< 0.50	0.69	< 3.0	< 3.0
1/18/2017	EV_SP1	E296311	0.85	< 1.0	0.11	11	11.5	< 0.50	< 0.50	25.9	26.3
2/23/2017	EV_SP1	E296311	1.4	< 1.0	0.18	11.3	11	< 0.50	< 0.50	23.5	22
3/8/2017	EV_SP1	E296311	2.1	3.7	5.55	9.62	9.9	< 0.50	< 0.50	4.5	6.6
3/16/2017	EV_SP1	E296311		14	25.4						
3/19/2017	EV_SP1	E296311		4	22.5						
3/29/2017	EV_SP1	E296311		4.8	5.85						
4/4/2017	EV_SP1	E296311	1.1	2.1	5.39	8.03	8.66	< 0.50	< 0.50	5.3	31.4
4/12/2017	EV_SP1	E296311		13.3	5.27						
4/19/2017	EV_SP1	E296311		14.8	14						
4/26/2017	EV_SP1	E296311		2.1	2.29						
5/3/2017	EV_SP1	E296311	0.96	2	1.2	10.2	11.1	< 0.50	< 0.50	< 3.0	45.4
5/10/2017	EV_SP1	E296311		2.8	1.54						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
5/17/2017	EV_SP1	E296311		2.7	3.61						
5/24/2017	EV_SP1	E296311		3.2	0.86						
5/31/2017	EV_SP1	E296311		1.9	0.27						
6/7/2017	EV_SP1	E296311		2	0.15						
6/14/2017	EV_SP1	E296311	1.2	2.9	2.75	9.65	10.4	< 0.50	< 0.50	< 3.0	50.9
6/21/2017	EV_SP1	E296311		< 1.0	0.33						
6/28/2017	EV_SP1	E296311		1.3	0.22						
7/5/2017	EV_SP1	E296311		< 1.0	0.23						
7/11/2017	EV_SP1	E296311	1.52	< 2.0	0.75	9.99	10.3	< 0.50	< 0.50	43.8	42.8
8/2/2017	EV_SP1	E296311				11.3	10.8	< 0.50	< 0.50	28.6	30
8/2/2017	EV_SP1	E296311	1.22	< 3.0	0.29						
9/12/2017	EV_SP1	E296311	1.43	< 1.0	0.48	13.1	11.6	< 0.50	< 0.50	18.3	21
10/3/2017	EV_SP1	E296311	4.15	1.2	0.33	12.3	13.6	< 0.50	< 0.50	15	64.6
10/3/2017	EV_SP1	E296311									
10/17/2017	EV_SP1	E296311	1.36	< 1.0	1.59	13	12.9	< 0.50	< 0.50	< 3.0	31.5
11/15/2017	EV_SP1	E296311	0.99	< 1.0	0.85	13.6	14.1	< 0.50	< 0.50	47.6	50.4
12/6/2017	EV_SP1	E296311	0.72	1.4	1.23	11.2	11.2	< 0.50	< 0.50	37.7	51.5
1/10/2017	EV_SPR2	E298594	1.12	1.7	0.2	0.968	0.977	< 0.50	< 0.50	< 3.0	< 3.0
2/8/2017	EV_SPR2	E298594	1.25	1	0.24	1	1.01	< 0.50	< 0.50	< 3.0	< 3.0
2/23/2017	EV_SPR2	E298594	1.36	< 1.0	0.18	0.884	0.966	< 0.50	< 0.50	1.2	< 3.0
3/7/2017	EV_SPR2	E298594	0.93	< 1.0	0.17	0.992	0.996	< 0.50	< 0.50	< 3.0	< 3.0
3/15/2017	EV_SPR2	E298594		36.9	44.6						
3/22/2017	EV_SPR2	E298594		1.2	0.69						
3/28/2017	EV_SPR2	E298594	3.14	1.7	0.91	0.932	0.957	< 0.50	< 0.50	< 3.0	< 3.0
4/4/2017	EV_SPR2	E298594	3.16	2.1	0.65	1.01	1.07	< 0.50	< 0.50	< 3.0	< 3.0
5/3/2017	EV_SPR2	E298594	2.77	1.9	0.27	1.1	1.15	< 0.50	< 0.50	< 3.0	< 3.0
6/5/2017	EV_SPR2	E298594	1.93	2.8	0.35	0.952	0.965	< 0.50	< 0.50	< 3.0	< 3.0
7/11/2017	EV_SPR2	E298594	1.88	< 3.0	0.54	0.747	0.765	< 0.50	< 0.50	< 1.0	< 3.0
8/2/2017	EV_SPR2	E298594				0.911	0.911	< 0.50	< 0.50	< 3.0	< 3.0
8/2/2017	EV_SPR2	E298594	1.16	< 3.0	0.93						
9/12/2017	EV_SPR2	E298594	1.18	2.4	0.34	0.914	0.917	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	EV_SPR2	E298594	1.42	< 1.0	0.19	0.942	0.897	< 0.50	< 0.50	< 3.0	3.6
11/15/2017	EV_SPR2	E298594	0.78	< 1.0	0.3	0.944	0.965	< 0.50	< 0.50	< 3.0	< 3.0
12/6/2017	EV_SPR2	E298594	2.02	< 1.0	0.65	0.896	0.914	< 0.50	< 0.50	< 3.0	< 3.0
1/18/2017	EV_TC1	E298593									
2/23/2017	EV_TC1	E298593									
3/8/2017	EV_TC1	E298593									
3/16/2017	EV_TC1	E298593	3.73	< 1.0	0.84	0.816	0.871	< 0.50	0.56	1.1	< 3.0
3/19/2017	EV_TC1	E298593		3	1.57						
3/29/2017	EV_TC1	E298593		< 1.0	0.43						
4/4/2017	EV_TC1	E298593	5.17	< 1.0	0.43	0.781	0.846	< 0.50	0.56	< 3.0	< 3.0
4/12/2017	EV_TC1	E298593		< 1.0	0.29						
4/19/2017	EV_TC1	E298593		4.9	1.31						
4/26/2017	EV_TC1	E298593		3.7	1.42						
5/3/2017	EV_TC1	E298593	5.7	2.6	1.03	0.654	0.675	< 0.50	< 0.50	< 3.0	3.4
5/10/2017	EV_TC1	E298593		4.7	2.35						
5/17/2017	EV_TC1	E298593		4.6	2.23						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
5/24/2017	EV_TC1	E298593		2.1	0.75						
5/31/2017	EV_TC1	E298593		1.3	0.44						
6/7/2017	EV_TC1	E298593		< 1.0	0.26						
6/14/2017	EV_TC1	E298593	3.7	1.2	0.39	0.716	0.685	< 0.50	0.54	< 3.0	3.6
6/21/2017	EV_TC1	E298593		< 1.0	0.33						
6/28/2017	EV_TC1	E298593									
7/5/2017	EV_TC1	E298593									
7/11/2017	EV_TC1	E298593									
8/2/2017	EV_TC1	E298593									
9/12/2017	EV_TC1	E298593									
10/3/2017	EV_TC1	E298593									
11/15/2017	EV_TC1	E298593									
12/6/2017	EV_TC1	E298593									
1/31/2017	FR_3PIT	E217403									
2/28/2017	FR_3PIT	E217403									
3/7/2017	FR_3PIT	E217403									
3/16/2017	FR_3PIT	E217403									
3/23/2017	FR_3PIT	E217403									
3/31/2017	FR_3PIT	E217403									
4/3/2017	FR_3PIT	E217403									
4/10/2017	FR_3PIT	E217403									
4/18/2017	FR_3PIT	E217403									
4/24/2017	FR_3PIT	E217403									
5/1/2017	FR_3PIT	E217403									
5/8/2017	FR_3PIT	E217403									
5/15/2017	FR_3PIT	E217403									
5/23/2017	FR_3PIT	E217403									
5/29/2017	FR_3PIT	E217403									
6/6/2017	FR_3PIT	E217403									
6/16/2017	FR_3PIT	E217403									
6/22/2017	FR_3PIT	E217403									
6/29/2017	FR_3PIT	E217403									
7/3/2017	FR_3PIT	E217403									
7/10/2017	FR_3PIT	E217403									
8/7/2017	FR_3PIT	E217403									
9/4/2017	FR_3PIT	E217403									
10/2/2017	FR_3PIT	E217403									
11/6/2017	FR_3PIT	E217403									
12/4/2017	FR_3PIT	E217403									
1/23/2017	FR_CC1	E102481	< 0.50	< 1.0	0.2	9.74	12.4	< 0.50	< 0.50	25.1	26.6
2/2/2017	FR_CC1	E102481	0.67	< 1.0	0.18	9.83	9.26	< 0.50	< 0.50	26.4	25.8
3/9/2017	FR_CC1	E102481	< 0.50	< 1.0	0.23	11.1	12.1	< 0.50	< 0.50	27	24.1
3/14/2017	FR_CC1	E102481	< 0.50	< 1.0	0.17	10.1	10.3	< 0.50	< 0.50	26.4	28.1
3/23/2017	FR_CC1	E102481		< 1.0	2.39						
3/28/2017	FR_CC1	E102481		1	3.48						
4/3/2017	FR_CC1	E102481	0.69	< 1.0	1.79	11.9	11.8	< 0.50	< 0.50	31.5	30.6
4/11/2017	FR_CC1	E102481		< 1.0	0.87						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
4/20/2017	FR_CC1	E102481		1.6	2.02						
4/26/2017	FR_CC1	E102481		1.6	2						
5/1/2017	FR_CC1	E102481	0.89	< 1.0	0.63	12.2	12.5	< 0.50	< 0.50	14.6	32.7
5/3/2017	FR_CC1	E102481		1.6	0.58						
5/6/2017	FR_CC1	E102481		< 1.0	0.72						
5/10/2017	FR_CC1	E102481		< 1.0	0.47						
5/15/2017	FR_CC1	E102481		< 1.0	0.49						
5/23/2017	FR_CC1	E102481		< 1.0	0.34						
5/29/2017	FR_CC1	E102481		< 1.0	0.57						
6/5/2017	FR_CC1	E102481	1.01	< 1.0	0.45	8.8	8.95	< 0.50	< 0.50	28.5	28.8
6/15/2017	FR_CC1	E102481		< 1.0	1.23						
6/20/2017	FR_CC1	E102481		2.6	0.56						
6/27/2017	FR_CC1	E102481		< 1.0	0.65						
7/3/2017	FR_CC1	E102481	1.47	< 1.0	0.5	9.22	9.69	< 0.50	< 0.50	14.8	26.3
7/10/2017	FR_CC1	E102481		< 1.0	0.69						
8/8/2017	FR_CC1	E102481	1.29	< 1.0	0.38	10.1	9.2	< 0.50	< 0.50	< 3.0	12
9/5/2017	FR_CC1	E102481	0.91	1.6	2.27	6.83	7.11	< 0.50	< 0.50	< 3.0	10.8
10/11/2017	FR_CC1	E102481	0.6	5.8	3.65	6.54	6.9	< 0.50	< 0.50	< 3.0	10.6
11/20/2017	FR_CC1	E102481	0.84	< 1.0	0.35	7.67	8.31	< 0.50	< 0.50	23.2	24.2
12/6/2017	FR_CC1	E102481	< 0.50	< 1.0	0.86	8.55	7.71	< 0.50	< 0.50	24.3	24.8
1/30/2017	FR_EC1	E102480									
2/28/2017	FR_EC1	E102480									
3/8/2017	FR_EC1	E102480									
3/16/2017	FR_EC1	E102480									
3/22/2017	FR_EC1	E102480	2.99	5	20.7	6.63	7.15	< 0.50	0.84	8.7	10
3/23/2017	FR_EC1	E102480									
3/27/2017	FR_EC1	E102480		12.7	27.8						
4/3/2017	FR_EC1	E102480	3.85	4.9	14	5.35	5.72	< 0.50	0.62	7.1	8.7
4/10/2017	FR_EC1	E102480		7.9	18.5						
4/19/2017	FR_EC1	E102480		4.9	7.31						
4/26/2017	FR_EC1	E102480		6	6.07						
5/1/2017	FR_EC1	E102480	1.48	10.8	9.58	14.4	15.8	< 0.50	< 0.50	2.8	7.7
5/3/2017	FR_EC1	E102480		5.2	4.76						
5/6/2017	FR_EC1	E102480		1.5	1.08						
5/10/2017	FR_EC1	E102480		1.4	2.1						
5/15/2017	FR_EC1	E102480		2	1.58						
5/23/2017	FR_EC1	E102480		1.2	0.94						
5/29/2017	FR_EC1	E102480		1.6	1.15						
6/5/2017	FR_EC1	E102480	2.17	1	1.44	19	19.1	< 0.50	< 0.50	< 1.0	52.3
6/13/2017	FR_EC1	E102480		1.7	0.92						
6/19/2017	FR_EC1	E102480		1.3	1.62						
6/26/2017	FR_EC1	E102480		1.6	0.17						
7/3/2017	FR_EC1	E102480	3.62	1.6	1.74	22.1	23.9	< 0.50	0.54	1.1	3.5
7/10/2017	FR_EC1	E102480		2	1.06						
8/7/2017	FR_EC1	E102480									
9/25/2017	FR_EC1	E102480									
10/31/2017	FR_EC1	E102480									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
11/28/2017	FR_EC1	E102480	2.39	3.1	7.11	19.6	20.5	< 1.0	< 0.50	8	8.4
12/31/2017	FR_EC1	E102480									
8/31/2017	FR_EC1H	E310047	3.13	1.6	1.11	22.1	23.2	< 1.0	< 1.0	8.3	< 6.0
9/25/2017	FR_EC1H	E310047	3.07	1.6	0.84	13.3	20	< 0.50	< 0.50	< 3.0	< 3.0
10/30/2017	FR_EC1H	E310047	2.08	2.7	1.96	17.9	17.7	< 1.0	< 1.0	3.9	< 6.0
11/23/2017	FR_EC1H	E310047	2.92	3	4	22.4	24.4	< 0.50	< 1.0	19.9	22.8
12/11/2017	FR_EC1H	E310047	1.86	2.5	4.05	22.9	20.8	< 1.0	< 0.50	8.4	8.5
1/17/2017	FR_FR1	200251									
2/28/2017	FR_FR1	200251									
3/8/2017	FR_FR1	200251									
3/14/2017	FR_FR1	200251									
3/22/2017	FR_FR1	200251									
3/27/2017	FR_FR1	200251	1.16	< 1.0	0.79	0.914	1.06	< 0.50	< 0.50	1	< 3.0
4/4/2017	FR_FR1	200251	1.46	< 1.0	0.56	1.4	1.39	< 0.50	< 0.50	1.4	4.7
4/11/2017	FR_FR1	200251		< 1.0	0.39						
4/18/2017	FR_FR1	200251		1.5	2.25						
4/26/2017	FR_FR1	200251		1.8	1.27						
5/1/2017	FR_FR1	200251	1.72	< 1.0	0.77	1	1.07	< 0.50	< 0.50	< 1.0	< 3.0
5/5/2017	FR_FR1	200251		230	80.2						
5/6/2017	FR_FR1	200251		29.5	20.1						
5/7/2017	FR_FR1	200251		7.9	5.2						
5/10/2017	FR_FR1	200251		2.8	2.16						
5/15/2017	FR_FR1	200251		2	1.61						
5/23/2017	FR_FR1	200251		14.2	7.29						
5/29/2017	FR_FR1	200251		17.2	16.4						
6/5/2017	FR_FR1	200251	1.98	4.8	3.17	0.506	0.524	< 0.50	< 0.50	1.3	< 3.0
6/14/2017	FR_FR1	200251		5.6	4.32						
6/20/2017	FR_FR1	200251		< 1.0	0.62						
6/28/2017	FR_FR1	200251		< 1.0	0.45						
7/3/2017	FR_FR1	200251	1.03	< 1.0	0.6	0.557	0.6	< 0.50	0.51	< 1.0	< 3.0
7/11/2017	FR_FR1	200251		< 1.0	0.56						
8/9/2017	FR_FR1	200251	1.22	1.3	0.31	0.976	0.938	< 0.50	< 0.50	< 3.0	< 3.0
8/28/2017	FR_FR1	200251	0.84	< 1.0	0.31	1.13	1.09	< 0.50	< 0.50	< 3.0	< 3.0
9/11/2017	FR_FR1	200251	< 0.50	1.1	0.44	1.16	1.1	< 0.50	< 0.50	< 3.0	4.4
10/11/2017	FR_FR1	200251	1.29	1	0.56	1.15	1.15	< 0.50	< 0.50	< 3.0	< 3.0
11/29/2017	FR_FR1	200251	0.75	< 1.0	0.56	1.08	1.09	< 0.50	< 0.50	< 3.0	< 3.0
12/4/2017	FR_FR1	200251									
1/16/2017	FR_FR2	200201	1.09	< 1.0	0.41	2.83	2.98	< 0.50	0.89	2.6	< 3.0
2/1/2017	FR_FR2	200201	0.76	< 1.0	0.4	3.05	3.46	< 0.50	< 0.50	2.3	< 3.0
3/9/2017	FR_FR2	200201	0.77	1.7	0.27	3.49	3.61	< 0.50	< 0.50	< 3.0	< 3.0
3/15/2017	FR_FR2	200201	0.86	3.8	4.44	3.54	3.67	< 0.50	0.64	2.4	4.7
3/22/2017	FR_FR2	200201	0.83	2.2	2.4	2.69	3.28	< 0.50	< 0.50	2	3.5
3/29/2017	FR_FR2	200201	2.09	2.4	3.63	2.62	2.59	< 0.50	0.96	2.5	5.1
4/5/2017	FR_FR2	200201	1.12	< 1.0	3.8	3.13	2.83	< 0.50	< 0.50	2.1	3.7
4/5/2017	FR_FR2	200201	1.41	2.4	2.67	3.37	3.39	< 0.50	< 0.50	< 3.0	3.4
4/12/2017	FR_FR2	200201	2.11	2.6	4.43	2.66	2.61	< 0.50	< 0.50	2.2	5.1
4/20/2017	FR_FR2	200201	9	53	72.8	2.09	2.46	< 0.50	9.9	1.5	37.4

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
4/25/2017	FR_FR2	200201	2.12	18.8	29.3	1.82	1.92	< 0.50	2.28	2	22.6
5/2/2017	FR_FR2	200201	1.97	5.3	3.58	2.95	2.96	< 0.50	1.48	< 3.0	4.7
5/8/2017	FR_FR2	200201	3.11	9.3	4.88	1.28	1.37	< 0.50	0.92	4.8	6.9
5/16/2017	FR_FR2	200201	2.16	2.6	2.82	1.26	1.45	< 0.50	0.67	2.7	3.5
5/23/2017	FR_FR2	200201	2.12	15.4	8.67	0.882	0.945	< 0.50	0.8	1.1	3.5
5/30/2017	FR_FR2	200201	2.5	54.2	35.4	0.708	0.774	< 0.50	1.98	< 1.0	7
6/6/2017	FR_FR2	200201	1.81	3.5	3.19	0.872	0.845	< 0.50	0.58	1.7	< 3.0
6/6/2017	FR_FR2	200201	1.67	5.2	2.83	0.885	0.919	< 0.50	0.55	< 3.0	< 3.0
6/13/2017	FR_FR2	200201	1.64	2.3	1.7	0.945	0.966	< 0.50	0.7	1.3	< 3.0
6/20/2017	FR_FR2	200201	1.29	1.4	0.94	1.01	1.08	< 0.50	0.59	< 1.0	< 3.0
6/26/2017	FR_FR2	200201	1.48	1.6	0.73	1.08	1.16	< 0.50	< 0.50	< 1.0	< 3.0
7/5/2017	FR_FR2	200201	1.22	1.4	0.86	1.23	1.33	< 0.50	< 0.50	< 1.0	< 3.0
7/5/2017	FR_FR2	200201	1.49	2.4	0.7	1.15	1.35	< 0.50	< 0.50	< 1.0	< 3.0
7/11/2017	FR_FR2	200201	1.34	1.1	0.33	1.39	1.35	< 0.50	< 0.50	< 1.0	< 3.0
7/17/2017	FR_FR2	200201									
8/10/2017	FR_FR2	200201	1.35	< 1.0	0.35	2.4	2.55	< 0.50	< 0.50	< 3.0	< 3.0
8/28/2017	FR_FR2	200201	0.8	1.2	0.48	2.95	2.91	< 0.50	< 0.50	< 3.0	< 3.0
9/6/2017	FR_FR2	200201	1.42	< 1.0	0.43	2.87	3.3	< 0.50	< 0.50	< 3.0	< 3.0
9/20/2017	FR_FR2	200201									
10/4/2017	FR_FR2	200201	0.82	1.6	0.57	3.59	3.63	< 0.50	< 0.50	< 3.0	3.4
10/19/2017	FR_FR2	200201	0.97	1	0.53	2.93	3	< 0.50	< 0.50	< 3.0	< 3.0
10/31/2017	FR_FR2	200201	0.93	< 1.0	0.41	2.46	2.77	< 0.50	< 0.50	< 3.0	< 3.0
11/1/2017	FR_FR2	200201	0.71	< 1.0	0.25	2.83	2.91	< 2.5	< 0.50	< 5.0	< 3.0
11/2/2017	FR_FR2	200201	0.66	1.2	0.67	2.13	2.88	< 0.50	< 2.5	< 3.0	< 15
11/16/2017	FR_FR2	200201									
12/5/2017	FR_FR2	200201	0.59	< 1.0	0.56	3.15	2.95	< 0.50	< 0.50	< 3.0	3.9
1/19/2017	FR_FRCP1	E300071									
2/21/2017	FR_FRCP1	E300071	1.53	1.2	0.44	5.91	6.01	< 0.50	< 0.50	2.3	< 3.0
2/28/2017	FR_FRCP1	E300071	1.55	< 1.0	0.25	6.09	6.65	< 0.50	< 0.50	2.6	< 3.0
3/7/2017	FR_FRCP1	E300071	1.08	< 1.0	0.29	11.4	11.6	< 0.50	< 0.50	1.8	< 3.0
3/14/2017	FR_FRCP1	E300071	0.93	1	0.4	5.83	5.1	< 0.50	< 0.50	< 1.0	< 3.0
3/21/2017	FR_FRCP1	E300071	1.19	2.4	4.09	4.46	5.12	< 0.50	0.61	2.3	3.6
3/28/2017	FR_FRCP1	E300071	2.36	3	5.1	3.17	3.16	< 0.50	1	2.1	< 3.0
4/5/2017	FR_FRCP1	E300071	0.9	2.9	4.3	3.96	3.67	< 0.50	< 0.50	2.4	4.1
4/10/2017	FR_FRCP1	E300071	2.68	5.1	17.4	3.74	3.95	< 0.50	1.37	2.3	14
4/20/2017	FR_FRCP1	E300071	7.9	46	71.6	2.5	2.46	< 0.50	6.16	1.1	17
4/24/2017	FR_FRCP1	E300071	3.2	17	22.5	2.41	2.45	< 0.50	3.21	2	9.8
5/2/2017	FR_FRCP1	E300071	2	3.2	4.86	2.96	3.17	< 0.50	1.12	2.5	4.9
5/9/2017	FR_FRCP1	E300071	3.7	10	7.17	1.52	1.58	< 0.50	1.29	3.5	8.2
5/16/2017	FR_FRCP1	E300071	2.13	5.2	2.92	1.79	2	< 0.50	0.69	3	3.3
5/23/2017	FR_FRCP1	E300071	2.51	47.2	14.1	1.39	1.53	< 0.50	1.75	1.1	6.9
5/30/2017	FR_FRCP1	E300071	3.01	66.2	36.7	1.29	1.38	< 0.50	2.18	1	8.3
6/6/2017	FR_FRCP1	E300071	1.92	5.4	2.92	1.66	1.64	< 0.50	0.72	2.8	4.3
6/13/2017	FR_FRCP1	E300071	1.73	4.1	1.68	1.69	1.73	< 0.50	0.77	2.1	< 3.0
6/20/2017	FR_FRCP1	E300071	1.4	1.8	1.17	1.66	1.8	< 0.50	0.54	< 1.0	< 3.0
6/26/2017	FR_FRCP1	E300071	1.48	2.2	0.88	1.75	1.77	< 0.50	< 0.50	< 1.0	< 3.0
7/5/2017	FR_FRCP1	E300071	1.34	1.6	0.88	2.02	2.14	< 0.50	< 0.50	< 1.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
7/11/2017	FR_FRCP1	E300071	1.59	1.7	0.75	2.18	2.18	< 0.50	< 0.50	< 1.0	< 3.0
7/25/2017	FR_FRCP1	E300071	3.4	1.8	0.47	2.65	2.73	< 0.50	< 0.50	< 1.0	< 3.0
8/1/2017	FR_FRCP1	E300071	1.12	1.9	0.5	4.09	3.96	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	FR_FRCP1	E300071	1.44	1.4	0.36	4.59	4.21	< 0.50	< 0.50	< 3.0	< 3.0
8/15/2017	FR_FRCP1	E300071	1.11	< 1.0	0.95	4.25	4.1	< 0.50	< 0.50	< 3.0	< 3.0
8/22/2017	FR_FRCP1	E300071	1.17	< 1.0	0.48	4.81	4.96	< 1.0	< 0.50	< 3.0	< 3.0
9/11/2017	FR_FRCP1	E300071	0.62	1.1	0.44	6.07	5.75	< 0.50	< 0.50	< 3.0	< 3.0
10/2/2017	FR_FRCP1	E300071	0.84	< 1.0	0.7	5.52	5.43	< 0.50	< 0.50	< 3.0	< 3.0
10/10/2017	FR_FRCP1	E300071	1.19	1.9	0.48	5.66	5.31	< 0.50	0.58	< 3.0	3.8
10/17/2017	FR_FRCP1	E300071	1.1	1.4	0.9	6.45	6.72	< 0.50	< 0.50	< 3.0	< 3.0
10/24/2017	FR_FRCP1	E300071	0.86	< 1.0	0.67	5.71	5.72	< 0.50	< 0.50	< 3.0	< 3.0
10/31/2017	FR_FRCP1	E300071	0.93	< 1.0	0.41	5.74	5.39	< 0.50	< 0.50	< 3.0	< 3.0
11/15/2017	FR_FRCP1	E300071	0.72	< 1.0	0.45	5.82	6.01	< 0.50	< 0.50	< 3.0	< 3.0
12/5/2017	FR_FRCP1	E300071	0.85	< 1.0	0.5	7.25	6.92	< 0.50	< 0.50	< 3.0	7
12/6/2017	FR_FRCP1	E300071	0.96	< 1.0	0.4	7.56	6.87	< 0.50	< 0.50	< 3.0	< 3.0
12/12/2017	FR_FRCP1	E300071	0.99	< 1.0	0.45	9.98	9.9	< 0.50	< 0.50	3.2	3.5
12/28/2017	FR_FRCP1	E300071	1.54	< 1.0	0.23	9.16	9.07	< 0.50	< 0.50	< 3.0	< 3.0
1/19/2017	FR_FRRD	E300097	0.55	< 1.0	0.15	3.68	3.75	< 0.50	< 0.50	< 1.0	< 3.0
2/22/2017	FR_FRRD	E300097	0.55	< 1.0	0.11	3.38	3.46	< 0.50	< 0.50	< 3.0	< 3.0
3/15/2017	FR_FRRD	E300097	0.77	< 1.0	0.35	3.22	3.65	< 0.50	0.6	< 1.0	< 3.0
4/25/2017	FR_FRRD	E300097	1.93	10.4	21.9	2.4	2.53	< 0.50	3.17	1.9	27.2
5/3/2017	FR_FRRD	E300097	1.76	2.6	3.53	2.96	3.18	< 0.50	0.64	2	5.3
5/3/2017	FR_FRRD	E300097	1.54	3	3.19	2.88	3.46	0.9	1.01	< 3.0	3.3
5/18/2017	FR_FRRD	E300097	1.62	4.1	2.44	2.17	2.31	< 0.50	0.56	2	< 3.0
6/13/2017	FR_FRRD	E300097	1.31	5	1.96	1.87	1.98	< 0.50	0.81	1.7	< 3.0
7/13/2017	FR_FRRD	E300097	2.01	2.2	0.59	2.62	2.5	< 0.50	< 0.50	< 1.0	< 3.0
7/13/2017	FR_FRRD	E300097	1.34	2.4	0.44	2.64	2.72	< 0.50	< 0.50	< 3.0	< 3.0
8/10/2017	FR_FRRD	E300097	1.21	1.1	0.22	3.91	4.16	< 0.50	< 0.50	< 3.0	< 3.0
9/13/2017	FR_FRRD	E300097	1.22	2.4	0.51	4.67	4.5	< 0.50	< 0.50	< 3.0	< 3.0
10/18/2017	FR_FRRD	E300097	1	< 1.0	0.33	4.86	5.06	< 0.50	< 0.50	< 3.0	< 3.0
11/6/2017	FR_FRRD	E300097	0.65	< 1.0	0.29	4	4.95	< 2.5	< 0.50	< 5.0	< 3.0
12/5/2017	FR_FRRD	E300097	< 0.50	< 1.0	0.43	4.08	3.9	< 0.50	< 0.50	< 3.0	< 3.0
1/9/2017	FR_HC1	E216778	1.25	< 1.0	0.36	1.36	1.42	< 0.50	< 0.50	1.7	< 3.0
2/14/2017	FR_HC1	E216778	0.94	< 1.0	0.16	1.42	1.48	< 0.50	< 0.50	1.7	< 3.0
3/7/2017	FR_HC1	E216778	< 0.50	< 1.0	0.25	1.47	1.55	< 0.50	< 0.50	1.9	< 3.0
3/14/2017	FR_HC1	E216778	< 0.50	< 1.0	0.19	1.33	1.3	< 0.50	< 0.50	1.7	4.9
3/22/2017	FR_HC1	E216778	< 0.50	< 1.0	1.08	1.37	1.52	< 0.50	< 0.50	2.3	< 3.0
3/28/2017	FR_HC1	E216778	0.69	1.6	1.58	1.22	1.19	< 0.50	0.52	1.9	< 3.0
4/4/2017	FR_HC1	E216778	0.84	< 1.0	0.58	1.6	1.51	< 0.50	< 0.50	2.2	3.5
4/11/2017	FR_HC1	E216778	1.41	< 1.0	0.52	1.5	1.3	< 0.50	< 0.50	2.4	< 3.0
4/18/2017	FR_HC1	E216778	0.57	< 1.0	0.83	1.72	1.78	< 0.50	< 0.50	2.1	14.3
4/26/2017	FR_HC1	E216778	0.66	1.4	0.44	1.56	1.6	< 0.50	< 0.50	2	14.7
5/1/2017	FR_HC1	E216778	0.73	< 1.0	0.26	1.57	1.62	< 0.50	< 0.50	2	4.5
5/5/2017	FR_HC1	E216778		59.9	31.6						
5/6/2017	FR_HC1	E216778		25.7	23.4						
5/7/2017	FR_HC1	E216778		7.1	5.46						
5/9/2017	FR_HC1	E216778	1.6	1.6	1.55	0.965	0.987	< 0.50	< 0.50	1.9	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
5/15/2017	FR_HC1	E216778	2.08	2.4	1.49	0.698	0.87	< 0.50	< 0.50	1.8	< 3.0
5/23/2017	FR_HC1	E216778	1.65	15.6	8.6	0.543	0.386	< 0.50	1	< 1.0	< 3.0
5/29/2017	FR_HC1	E216778	2.07			0.472	0.505	< 0.50	0.92	< 1.0	3.2
6/5/2017	FR_HC1	E216778	1.33	7.8	4.84	0.595	0.618	< 0.50	< 0.50	< 1.0	< 3.0
6/14/2017	FR_HC1	E216778	1.1	7.6	5.67	0.467	0.533	< 0.50	< 0.50	< 1.0	< 3.0
6/20/2017	FR_HC1	E216778	0.85	1	0.73	0.594	0.625	< 0.50	0.53	< 1.0	< 3.0
6/27/2017	FR_HC1	E216778	0.88	< 1.0	1.16	0.523	0.563	< 0.50	< 0.50	< 1.0	< 3.0
7/3/2017	FR_HC1	E216778	0.8	< 1.0	0.49	0.603	0.674	< 0.50	0.51	< 1.0	< 3.0
7/11/2017	FR_HC1	E216778	0.89	< 1.0	0.63	0.63	0.649	< 0.50	< 0.50	< 1.0	< 3.0
8/8/2017	FR_HC1	E216778	0.84	< 1.0	0.28	1.13	1.01	< 0.50	< 0.50	< 3.0	< 3.0
9/5/2017	FR_HC1	E216778	0.52	< 1.0	0.44	1.26	1.3	< 0.50	< 0.50	< 3.0	< 3.0
10/11/2017	FR_HC1	E216778	0.95	1	0.38	1.42	1.4	< 0.50	< 0.50	< 3.0	3.1
10/30/2017	FR_HC1	E216778									
11/7/2017	FR_HC1	E216778	< 0.50	< 1.0	0.34	1.25	1.35	< 0.50	< 0.50	< 3.0	< 3.0
11/14/2017	FR_HC1	E216778									
12/6/2017	FR_HC1	E216778	< 0.50	< 1.0	0.31	1.42	1.3	< 0.50	< 0.50	< 3.0	< 3.0
1/17/2017	FR_HC3	E300096	< 0.50	< 1.0	0.13	0.894	0.913	< 0.50	< 0.50	< 3.0	< 3.0
2/14/2017	FR_HC3	E300096	< 0.50	< 1.0	0.11	0.902	0.964	< 0.50	< 0.50	< 3.0	< 3.0
3/1/2017	FR_HC3	E300096	0.66	< 1.0	0.12	0.796	0.848	< 0.50	< 0.50	1.1	< 3.0
3/16/2017	FR_HC3	E300096		< 1.0	< 0.10						
3/23/2017	FR_HC3	E300096		< 1.0	< 0.10						
3/27/2017	FR_HC3	E300096		< 1.0	0.11						
4/4/2017	FR_HC3	E300096	< 0.50	< 1.0	0.1	0.902	0.861	< 0.50	< 0.50	1.1	< 3.0
4/4/2017	FR_HC3	E300096	< 0.50	7.6	0.11	0.935	0.933	< 0.50	< 0.50	< 3.0	< 3.0
4/11/2017	FR_HC3	E300096		< 1.0	< 0.10						
4/18/2017	FR_HC3	E300096		< 1.0	0.18						
4/26/2017	FR_HC3	E300096		1.4	0.16						
5/1/2017	FR_HC3	E300096	0.59	< 1.0	0.14	0.805	0.82	< 0.50	< 0.50	< 1.0	< 3.0
5/1/2017	FR_HC3	E300096	0.6	< 1.0	0.14	0.879	0.895	< 0.50	< 0.50	< 3.0	< 3.0
5/10/2017	FR_HC3	E300096		< 1.0	0.53						
5/15/2017	FR_HC3	E300096		< 1.0	0.37						
5/24/2017	FR_HC3	E300096		83	6.79						
5/29/2017	FR_HC3	E300096		10.2	5.64						
6/5/2017	FR_HC3	E300096	0.77	3.6	2.1	0.407	0.424	< 0.50	< 0.50	1.2	< 3.0
6/5/2017	FR_HC3	E300096	0.76	3.9	1.16	0.411	0.416	< 0.50	< 0.50	< 3.0	< 3.0
6/14/2017	FR_HC3	E300096		10.4	5.72						
6/21/2017	FR_HC3	E300096		1.3	0.51						
6/27/2017	FR_HC3	E300096		< 1.0	0.62						
7/3/2017	FR_HC3	E300096	< 0.50	1.2	0.33	0.476	0.49	< 0.50	< 0.50	< 3.0	< 3.0
7/3/2017	FR_HC3	E300096	0.67	< 1.0	0.63	0.39	0.458	< 0.50	< 0.50	< 1.0	< 3.0
7/11/2017	FR_HC3	E300096		< 1.0	0.37						
8/9/2017	FR_HC3	E300096	0.65	< 1.0	0.12	0.744	0.717	< 0.50	< 0.50	< 3.0	4.4
9/5/2017	FR_HC3	E300096	< 0.50	< 1.0	0.15	0.785	0.783	< 0.50	< 0.50	< 3.0	< 3.0
10/11/2017	FR_HC3	E300096	0.65	< 1.0	0.12	1.03	1.07	< 0.50	< 0.50	< 3.0	< 3.0
11/14/2017	FR_HC3	E300096	< 0.50	< 1.0	0.27	0.912	1.01	< 0.50	< 0.50	< 3.0	< 3.0
12/21/2017	FR_HC3	E300096	< 0.50	< 1.0	0.26	0.932	0.964	< 0.50	< 0.50	< 3.0	< 3.0
1/31/2017	FR_HP1	E216781									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
2/28/2017	FR_HP1	E216781									
3/8/2017	FR_HP1	E216781									
3/15/2017	FR_HP1	E216781									
3/22/2017	FR_HP1	E216781									
3/31/2017	FR_HP1	E216781									
4/3/2017	FR_HP1	E216781									
4/10/2017	FR_HP1	E216781									
4/17/2017	FR_HP1	E216781									
4/24/2017	FR_HP1	E216781									
5/1/2017	FR_HP1	E216781									
5/8/2017	FR_HP1	E216781									
5/15/2017	FR_HP1	E216781									
5/22/2017	FR_HP1	E216781									
5/29/2017	FR_HP1	E216781									
6/5/2017	FR_HP1	E216781									
6/15/2017	FR_HP1	E216781									
6/22/2017	FR_HP1	E216781									
6/29/2017	FR_HP1	E216781									
7/3/2017	FR_HP1	E216781									
7/10/2017	FR_HP1	E216781									
8/7/2017	FR_HP1	E216781									
9/4/2017	FR_HP1	E216781									
10/2/2017	FR_HP1	E216781									
11/6/2017	FR_HP1	E216781									
12/4/2017	FR_HP1	E216781									
1/19/2017	FR_KC1	200252	0.79	< 1.0	0.12	9.47	9.49	< 0.50	< 0.50	5.4	9.8
2/1/2017	FR_KC1	200252	0.84	< 1.0	0.19	10.4	10.1	< 0.50	< 0.50	7.6	10.7
3/6/2017	FR_KC1	200252	0.78	1.8	0.19	10.8	11.4	< 0.50	< 0.50	6.7	11.9
3/15/2017	FR_KC1	200252		1.2	0.73						
3/22/2017	FR_KC1	200252		1	0.55						
3/29/2017	FR_KC1	200252		2	0.14						
4/5/2017	FR_KC1	200252	< 0.50	< 1.0	0.32	11.3	10.6	< 0.50	< 0.50	15.1	15
4/12/2017	FR_KC1	200252		< 1.0	< 0.10						
4/20/2017	FR_KC1	200252		< 1.0	0.17						
4/25/2017	FR_KC1	200252		1.8	0.19						
5/2/2017	FR_KC1	200252	0.91	< 1.0	0.11	11.1	11.6	< 0.50	< 0.50	15.2	14.2
5/7/2017	FR_KC1	200252		5.9	6.12						
5/8/2017	FR_KC1	200252		1.7	3.08						
5/16/2017	FR_KC1	200252		1	0.56						
5/23/2017	FR_KC1	200252		2.4	0.7						
5/30/2017	FR_KC1	200252		1.4	0.79						
6/6/2017	FR_KC1	200252	1.04	< 1.0	0.44	3.4	3.37	< 0.50	< 0.50	16.9	16.2
6/13/2017	FR_KC1	200252		1.1	0.43						
6/19/2017	FR_KC1	200252		< 1.0	0.17						
6/26/2017	FR_KC1	200252		< 1.0	0.12						
7/5/2017	FR_KC1	200252	1.01	< 1.0	0.35	4.44	4.75	< 0.50	< 0.50	11.9	11.6
7/10/2017	FR_KC1	200252		< 1.0	0.26						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
8/8/2017	FR_KC1	200252	1.05	< 1.0	< 0.10	7.21	6.86	< 0.50	< 0.50	11.1	12.4
9/6/2017	FR_KC1	200252	1.03	< 1.0	0.13	8.09	9.17	< 0.50	< 0.50	10.6	12.1
9/20/2017	FR_KC1	200252									
10/4/2017	FR_KC1	200252	0.64	1.8	0.7	10.8	11	< 0.50	< 0.50	8.6	16.4
10/19/2017	FR_KC1	200252	0.54	< 1.0	0.1	10.3	10.7	< 0.50	< 0.50	< 3.0	12.1
11/1/2017	FR_KC1	200252	0.61	< 1.0	0.17	9.16	10.4	< 0.50	< 0.50	< 3.0	12.6
11/16/2017	FR_KC1	200252									
12/12/2017	FR_KC1	200252	< 0.50	< 1.0	0.25	12.1	10.7	< 0.50	< 0.50	14.3	13.5
1/10/2017	FR_LMP1	E306924	2.16	< 1.0	1.09	1.22	1.23	< 0.50	0.54	2	< 3.0
1/10/2017	FR_LMP1	E306924	2.24	< 4.0	1.1		1.21		0.62		< 3.0
1/11/2017	FR_LMP1	E306924	2.45	< 1.0	1.12	1.06	1.19	< 0.50	0.66	1.9	< 3.0
1/12/2017	FR_LMP1	E306924	2.42	< 1.0	1.14	1.11	1.2	< 0.50	0.63	1.9	< 3.0
1/13/2017	FR_LMP1	E306924	2.16	< 1.0	2.22	1.16	1.23	< 0.50	0.55	1.6	< 3.0
1/14/2017	FR_LMP1	E306924	2.31	< 1.0	1.26	1.15	1.21	< 0.50	1.04	1.8	< 3.0
1/15/2017	FR_LMP1	E306924	1.99	1.1	1.44	1.2	1.26	< 0.50	0.87	2	< 3.0
1/16/2017	FR_LMP1	E306924	2.15	< 1.0	1.39	1.29	1.4	< 0.50	1.04	1.9	< 3.0
1/17/2017	FR_LMP1	E306924	1.8	1.1	1.62	1.47	1.45	< 0.50	< 0.50	2.3	< 3.0
1/24/2017	FR_LMP1	E306924	1.9	< 1.0	0.88	1.94	1.91	< 0.50	< 0.50	3.3	3.6
2/15/2017	FR_LMP1	E306924	1.48	< 1.0	1.08	1.72	1.78	< 0.50	< 0.50	< 3.0	3.2
3/2/2017	FR_LMP1	E306924	2.02	< 1.0	0.77	1.45	1.75	< 0.50	< 0.50	2.6	< 3.0
3/14/2017	FR_LMP1	E306924		< 1.0	0.6						
3/18/2017	FR_LMP1	E306924		5.8	37.3						
3/19/2017	FR_LMP1	E306924		8.4	35.9						
3/22/2017	FR_LMP1	E306924		5.4	46						
3/27/2017	FR_LMP1	E306924		12.5	64.2						
4/3/2017	FR_LMP1	E306924	5.19	8.3	39.3	1.15	1.3	< 0.50	3.66	1.1	12.3
4/3/2017	FR_LMP1	E306924	5.15	11.7	36.4	1.32	1.34	< 0.50	4.07	< 3.0	8.8
4/8/2017	FR_LMP1	E306924		87.9	185						
4/8/2017	FR_LMP1	E306924		37.4	173						
4/9/2017	FR_LMP1	E306924		32.5	127						
4/10/2017	FR_LMP1	E306924		27.1	95.2						
4/11/2017	FR_LMP1	E306924		9.1	74.2						
4/14/2017	FR_LMP1	E306924		6.2	32.3						
4/17/2017	FR_LMP1	E306924		33.8	106						
4/18/2017	FR_LMP1	E306924		42	128						
4/19/2017	FR_LMP1	E306924	13.9	41.5	177	0.871	1.41	0.62	26.5	1.1	42.3
4/19/2017	FR_LMP1	E306924		43.5	199						
4/20/2017	FR_LMP1	E306924		114	346						
4/20/2017	FR_LMP1	E306924	26	84	329	0.783	1.59	0.87	43.5	1.2	88.8
4/20/2017	FR_LMP1	E306924		131	263						
4/21/2017	FR_LMP1	E306924		146	270						
4/21/2017	FR_LMP1	E306924	17.4	109	225	0.856	1.12	0.81	21.6	< 1.0	44
4/21/2017	FR_LMP1	E306924		77	176						
4/22/2017	FR_LMP1	E306924		44.2	116						
4/22/2017	FR_LMP1	E306924		36	105						
4/23/2017	FR_LMP1	E306924	6.55	31	81.5	0.926	1.11	0.77	10.6	1.1	21.6
4/25/2017	FR_LMP1	E306924		57	172						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
4/27/2017	FR_LMP1	E306924	6.3	42.5	89.4	1.07	1.23	0.68	12.1	< 1.0	27.4
4/27/2017	FR_LMP1	E306924		34.9	77.6						
5/1/2017	FR_LMP1	E306924	3.11	3.4	37.3	0.984	1.11	0.65	5.62	< 1.0	11.6
5/1/2017	FR_LMP1	E306924	5.09	4.9	39	1.17	1.29	0.74	6.82	< 3.0	12.3
5/2/2017	FR_LMP1	E306924		3.2	35.5						
5/3/2017	FR_LMP1	E306924		5.6	34.6						
5/4/2017	FR_LMP1	E306924		35.8	117						
5/5/2017	FR_LMP1	E306924		83.3	249						
5/5/2017	FR_LMP1	E306924	12	62.8	211	0.603	0.909	0.9	20.6	< 1.0	44.9
5/5/2017	FR_LMP1	E306924		50.4	173						
5/5/2017	FR_LMP1	E306924		89.8	102						
5/6/2017	FR_LMP1	E306924		50.3	51.1						
5/6/2017	FR_LMP1	E306924	6.2	33.1	40.9	0.818	0.991	0.58	4.37	1.3	10.4
5/6/2017	FR_LMP1	E306924		34.2	44.7						
5/7/2017	FR_LMP1	E306924		19.7	41.2						
5/7/2017	FR_LMP1	E306924		21.3	22.3						
5/8/2017	FR_LMP1	E306924		15.7	15.7						
5/9/2017	FR_LMP1	E306924		16.4	31.3						
5/10/2017	FR_LMP1	E306924	5.12	11.8	34	1.06	1.23	< 0.50	3.58	1.2	13.5
5/15/2017	FR_LMP1	E306924		2	12.4						
5/23/2017	FR_LMP1	E306924		14.2	10.2						
5/29/2017	FR_LMP1	E306924		1	9.95						
6/5/2017	FR_LMP1	E306924	3.33	2	16.6	0.808	0.841	< 0.50	1.91	2	5.2
6/5/2017	FR_LMP1	E306924	4.19	2.3	16	0.81	0.863	< 0.50	2.36	< 3.0	5.1
6/15/2017	FR_LMP1	E306924		1.4	8.62						
6/20/2017	FR_LMP1	E306924		2	5.41						
6/26/2017	FR_LMP1	E306924		1.6	4.09						
7/3/2017	FR_LMP1	E306924	3.53	< 1.0	3.36	0.92	1.06	< 0.50	0.96	< 1.0	4.7
7/3/2017	FR_LMP1	E306924	2.9	2.3	3.06	1	1.04	< 0.50	0.76	< 3.0	< 3.0
7/10/2017	FR_LMP1	E306924		< 1.0	3.04						
8/8/2017	FR_LMP1	E306924	3.24	2.7	2.06	1.45	1.3	< 0.50	0.8	< 3.0	< 3.0
9/4/2017	FR_LMP1	E306924									
10/2/2017	FR_LMP1	E306924									
11/20/2017	FR_LMP1	E306924	2.24	< 1.0	1.33	1.44	1.58	< 0.50	< 0.50	< 3.0	< 3.0
12/11/2017	FR_LMP1	E306924	2.91	< 1.0	4.43	1.62	1.52	< 0.50	0.76	< 3.0	< 3.0
12/14/2017	FR_LMP1	E306924									
1/11/2017	FR_LP1	E304835		3.4	5.77						
1/11/2017	FR_LP1	E304835		6.6	10.6						
1/12/2017	FR_LP1	E304835		11.6	18.1						
1/16/2017	FR_LP1	E304835	8.52	12.7	14.7	3.47	3.69	< 0.50	1.55	188	198
2/16/2017	FR_LP1	E304835	6.52	15.5	51.4	2.7	2.75	< 0.50	2.21	100	120
3/2/2017	FR_LP1	E304835	2.86	1.2	2.72	2.93	3.16	< 0.50	0.63	195	223
3/9/2017	FR_LP1	E304835		< 1.0	1.33						
3/14/2017	FR_LP1	E304835	2.43	1.4	3.01	2.89	2.49	< 0.50	< 0.50	137	127
3/18/2017	FR_LP1	E304835		154	258						
3/19/2017	FR_LP1	E304835		18.2	99.3						
3/20/2017	FR_LP1	E304835		8	55.7						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
3/29/2017	FR_LP1	E304835		6	20.1						
4/3/2017	FR_LP1	E304835	4.99	8.3	17	2.96	2.88	< 0.50	0.97	76.3	76.9
4/3/2017	FR_LP1	E304835	6.55	12	12.1	3.13	3	< 0.50	0.54	71.3	75.3
4/10/2017	FR_LP1	E304835		5.4	7.68						
4/19/2017	FR_LP1	E304835		4.1	3.34						
4/26/2017	FR_LP1	E304835		1.8	3.91						
5/1/2017	FR_LP1	E304835	2.18	1.2	1.97	2.81	2.94	< 0.50	< 0.50	5	32.5
5/1/2017	FR_LP1	E304835	3.29	2	1.3	3.23	3.35	< 0.50	0.53	4.9	36.1
5/7/2017	FR_LP1	E304835		20.7	7.46						
5/10/2017	FR_LP1	E304835		2.6	2.87						
5/15/2017	FR_LP1	E304835		3.8	2.67						
5/23/2017	FR_LP1	E304835		3.2	2.1						
5/29/2017	FR_LP1	E304835		1.2	2.21						
6/5/2017	FR_LP1	E304835	2.44	1.4	2.01	2.22	2.25	< 0.50	< 0.50	186	173
6/5/2017	FR_LP1	E304835	2.9	1.5	1.62	2.17	2.26	< 0.50	< 0.50	184	176
6/13/2017	FR_LP1	E304835		6.7	4.58						
6/19/2017	FR_LP1	E304835		1.7	2.3						
6/26/2017	FR_LP1	E304835									
7/3/2017	FR_LP1	E304835									
7/10/2017	FR_LP1	E304835									
8/7/2017	FR_LP1	E304835									
9/25/2017	FR_LP1	E304835	3.63	1	1.46	4.52	5.09	0.55	0.67	4.1	124
10/2/2017	FR_LP1	E304835									
11/20/2017	FR_LP1	E304835	2.2	1.2	2.23	4.42	4.8	< 0.50	0.65	< 3.0	31.2
12/11/2017	FR_LP1	E304835	2.76	4.1	3.18	5.18	4.95	< 0.50	0.68	36.2	39.6
12/14/2017	FR_LP1	E304835									
12/18/2017	FR_LP1	E304835	28.4	104	33	4.52	4.79	0.52	2.19	13.6	< 39
12/19/2017	FR_LP1	E304835	4.32	6.1	6.05	5.19	5.12	< 0.50	0.64	21.3	< 27
12/20/2017	FR_LP1	E304835	2.71	6.4	5.99	6.27	6.18	< 0.50	0.61	< 3.0	30
12/21/2017	FR_LP1	E304835	2.96	20	12.9	6.22	6.58	< 0.50	0.52	< 3.0	37.4
7/26/2017	FR_LP1H	E310052	4.38	12.6	16.2	3	2.94	< 0.50	1.23	3.5	6.5
8/28/2017	FR_LP1H	E310052	3.79	5.8	6.36	4.82	4.68	< 0.50	0.74	< 3.0	< 3.0
10/30/2017	FR_LP1H	E310052	3.88	6.3	4.02	4.57	4.5	0.52	0.7	< 3.0	3.1
1/31/2017	FR_MS1	E102478									
2/28/2017	FR_MS1	E102478									
3/7/2017	FR_MS1	E102478									
3/16/2017	FR_MS1	E102478									
3/23/2017	FR_MS1	E102478									
3/31/2017	FR_MS1	E102478									
4/4/2017	FR_MS1	E102478									
4/10/2017	FR_MS1	E102478									
4/17/2017	FR_MS1	E102478									
4/24/2017	FR_MS1	E102478									
5/1/2017	FR_MS1	E102478									
5/8/2017	FR_MS1	E102478									
5/15/2017	FR_MS1	E102478									
5/25/2017	FR_MS1	E102478									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
5/29/2017	FR_MS1	E102478									
6/5/2017	FR_MS1	E102478									
6/16/2017	FR_MS1	E102478									
6/22/2017	FR_MS1	E102478									
6/27/2017	FR_MS1	E102478									
7/3/2017	FR_MS1	E102478									
7/10/2017	FR_MS1	E102478									
8/7/2017	FR_MS1	E102478									
9/4/2017	FR_MS1	E102478									
10/2/2017	FR_MS1	E102478									
11/6/2017	FR_MS1	E102478									
12/4/2017	FR_MS1	E102478									
1/31/2017	FR_NL1	E102476									
2/28/2017	FR_NL1	E102476									
3/7/2017	FR_NL1	E102476									
3/11/2017	FR_NL1	E102476									
3/21/2017	FR_NL1	E102476									
3/28/2017	FR_NL1	E102476	3.33	11	25.3	0.633	0.671	< 0.50	0.61	399	425
4/4/2017	FR_NL1	E102476	3.08	2.7	6.71	0.731	0.694	< 0.50	< 0.50	333	358
4/11/2017	FR_NL1	E102476		1.3	6.45						
4/18/2017	FR_NL1	E102476									
4/25/2017	FR_NL1	E102476									
5/1/2017	FR_NL1	E102476									
5/8/2017	FR_NL1	E102476									
5/17/2017	FR_NL1	E102476									
5/25/2017	FR_NL1	E102476									
5/29/2017	FR_NL1	E102476									
6/5/2017	FR_NL1	E102476									
6/16/2017	FR_NL1	E102476									
6/22/2017	FR_NL1	E102476									
6/26/2017	FR_NL1	E102476									
7/3/2017	FR_NL1	E102476									
7/10/2017	FR_NL1	E102476									
8/7/2017	FR_NL1	E102476									
9/4/2017	FR_NL1	E102476									
10/2/2017	FR_NL1	E102476									
11/27/2017	FR_NL1	E102476	4.45	7.4	16.2	5.75	5.16	0.88	1.3	11.8	14.2
12/4/2017	FR_NL1	E102476	1.02	1.1	4.7	3.9	3.34	< 0.50	< 0.50	114	132
7/26/2017	FR_NL1H	E310046	8.46	8.2	12	1.79	1.86	< 0.50	0.84	6.1	7.7
8/28/2017	FR_NL1H	E310046	1.84	1.6	3.45	1.86	1.8	< 0.50	< 0.50	< 3.0	< 7.0
9/25/2017	FR_NL1H	E310046	2.45	2.4	3.01	0.925	1.45	< 0.50	< 0.50	< 3.0	3.5
10/23/2017	FR_NL1H	E310046	5.45	11.4	23.2	1.24	1.32	< 0.50	0.55	< 3.0	4
9/4/2017	FR_PP1	E304750									
1/31/2017	FR_SKP1	E208394									
2/28/2017	FR_SKP1	E208394									
3/6/2017	FR_SKP1	E208394									
3/15/2017	FR_SKP1	E208394									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
3/21/2017	FR_SKP1	E208394									
3/28/2017	FR_SKP1	E208394									
4/3/2017	FR_SKP1	E208394									
4/10/2017	FR_SKP1	E208394									
4/17/2017	FR_SKP1	E208394									
4/24/2017	FR_SKP1	E208394									
5/1/2017	FR_SKP1	E208394									
5/9/2017	FR_SKP1	E208394									
5/17/2017	FR_SKP1	E208394									
5/23/2017	FR_SKP1	E208394									
5/31/2017	FR_SKP1	E208394									
6/5/2017	FR_SKP1	E208394									
6/16/2017	FR_SKP1	E208394									
6/19/2017	FR_SKP1	E208394									
6/27/2017	FR_SKP1	E208394									
7/3/2017	FR_SKP1	E208394									
7/10/2017	FR_SKP1	E208394									
8/7/2017	FR_SKP1	E208394									
9/4/2017	FR_SKP1	E208394									
10/2/2017	FR_SKP1	E208394									
11/6/2017	FR_SKP1	E208394									
12/4/2017	FR_SKP1	E208394									
7/26/2017	FR_SKP1H	E310049	2.9	2.2	1.03	4.5	4.67	< 0.50	< 0.50	< 1.0	< 3.0
8/28/2017	FR_SKP1H	E310049	2.81	2.2	1.45	6.63	7.5	< 0.50	< 0.50	< 3.0	< 4.5
9/25/2017	FR_SKP1H	E310049	3.27	1.8	0.91	8.19	8.86	< 0.50	< 0.50	< 3.0	< 3.0
10/23/2017	FR_SKP1H	E310049	2	1.4	1.11	8.49	8.7	< 0.50	< 0.50	< 3.0	< 3.0
11/22/2017	FR_SKP1H	E310049	2.95	3.5	2.18	8.82	11.6	< 0.50	< 0.50	< 3.0	< 3.0
12/12/2017	FR_SKP1H	E310049	1.66	2.3	1.71	11.9	11.1	< 0.50	< 0.50	< 3.0	< 3.0
1/31/2017	FR_SKP2	E208395									
2/28/2017	FR_SKP2	E208395									
3/6/2017	FR_SKP2	E208395									
3/15/2017	FR_SKP2	E208395									
3/21/2017	FR_SKP2	E208395									
3/28/2017	FR_SKP2	E208395									
4/3/2017	FR_SKP2	E208395									
4/10/2017	FR_SKP2	E208395									
4/17/2017	FR_SKP2	E208395									
4/24/2017	FR_SKP2	E208395									
5/2/2017	FR_SKP2	E208395									
5/9/2017	FR_SKP2	E208395									
5/16/2017	FR_SKP2	E208395									
5/23/2017	FR_SKP2	E208395									
5/30/2017	FR_SKP2	E208395	1.43	1.2	0.77	4.08	4.44	< 0.50	< 0.50	13.3	12.7
6/6/2017	FR_SKP2	E208395	0.93	< 1.0	0.36	3.38	3.45	< 0.50	< 0.50	16.6	16.5
6/13/2017	FR_SKP2	E208395		< 1.0	0.45						
6/19/2017	FR_SKP2	E208395		< 1.0	0.17						
6/27/2017	FR_SKP2	E208395									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
7/3/2017	FR_SKP2	E208395									
7/10/2017	FR_SKP2	E208395									
8/7/2017	FR_SKP2	E208395									
9/4/2017	FR_SKP2	E208395									
10/2/2017	FR_SKP2	E208395									
11/6/2017	FR_SKP2	E208395									
12/4/2017	FR_SKP2	E208395									
7/26/2017	FR_SKP2H	E310050	0.61	< 1.0	0.42	4.63	4.75	< 0.50	< 0.50	< 1.0	< 3.0
8/28/2017	FR_SKP2H	E310050	0.73	< 1.0	0.52	8.2	8.04	< 0.50	< 0.50	< 3.0	< 3.0
9/25/2017	FR_SKP2H	E310050	1.19	1	0.35	7.97	9.13	< 0.50	< 0.50	< 3.0	< 3.0
10/23/2017	FR_SKP2H	E310050	0.79	< 1.0	0.26	9.5	9.55	< 0.50	< 0.50	< 3.0	< 3.0
11/22/2017	FR_SKP2H	E310050	< 0.50	< 1.0	0.25	8.71	10.9	< 0.50	< 0.50	< 3.0	3.2
12/12/2017	FR_SKP2H	E310050	< 0.50	< 1.0	0.21	11	10.9	< 0.50	< 0.50	< 3.0	5.3
1/18/2017	FR_SP1	E261897	1.18	< 1.0	0.62	4.45	4.41	< 0.50	< 0.50	3.6	3.2
2/15/2017	FR_SP1	E261897	< 0.50	< 1.0	0.38	5.13	5.19	< 0.50	< 0.50	2.1	3.1
3/2/2017	FR_SP1	E261897	1.25	< 1.0	0.28	4.82	5.26	< 0.50	< 0.50	3	3.3
3/16/2017	FR_SP1	E261897		1.2	2.86						
3/22/2017	FR_SP1	E261897	1.35	4	0.91	4.57	5.12	< 0.50	< 0.50	1.9	4
3/27/2017	FR_SP1	E261897		1	1.01						
4/3/2017	FR_SP1	E261897	1.44	< 1.0	0.55	4.8	5.2	< 0.50	< 0.50	2.3	6.2
4/10/2017	FR_SP1	E261897		< 1.0	0.33						
4/20/2017	FR_SP1	E261897		< 1.0	0.21						
4/26/2017	FR_SP1	E261897		< 1.0	0.32						
5/1/2017	FR_SP1	E261897	1.18	< 1.0	0.3	4.2	4.51	< 0.50	< 0.50	3.4	4.1
5/2/2017	FR_SP1	E261897		< 1.0	0.14						
5/7/2017	FR_SP1	E261897		< 1.0	0.12						
5/8/2017	FR_SP1	E261897		< 1.0	0.15						
5/15/2017	FR_SP1	E261897		< 1.0	0.13						
5/24/2017	FR_SP1	E261897		1.8	0.21						
5/29/2017	FR_SP1	E261897		< 1.0	0.18						
6/5/2017	FR_SP1	E261897	0.94	< 1.0	0.53	3.62	3.75	< 0.50	< 0.50	3.9	4.7
6/13/2017	FR_SP1	E261897		1.1	0.16						
6/19/2017	FR_SP1	E261897		< 1.0	0.26						
6/26/2017	FR_SP1	E261897		< 1.0	0.11						
7/3/2017	FR_SP1	E261897	1.82	< 1.0	0.27	2.8	4.05	< 0.50	< 0.50	3.4	3.7
7/10/2017	FR_SP1	E261897		2.6	0.46						
8/8/2017	FR_SP1	E261897	1.58	< 1.0	0.22	5.37	4.74	< 0.50	< 0.50	3.7	3.6
9/6/2017	FR_SP1	E261897	1.92	< 1.0	0.36	4.91	5.2	< 0.50	< 0.50	< 3.0	4.1
10/11/2017	FR_SP1	E261897	1.35	1	0.23	5.41	5.55	< 0.50	< 0.50	< 3.0	3
11/20/2017	FR_SP1	E261897	1.29	< 1.0	0.4	4.21	4.49	< 0.50	< 0.50	< 3.0	3.1
12/11/2017	FR_SP1	E261897	0.73	< 1.0	0.45	4.85	4.57	< 0.50	< 0.50	< 3.0	< 3.0
1/31/2017	FR_TP1	E102475									
3/31/2017	FR_TP1	E102475									
10/2/2017	FR_TP1	E102475									
1/31/2017	FR_TP3	E206660									
3/31/2017	FR_TP3	E206660									
1/9/2017	FR_UFR1	E216777	0.96	< 1.0	0.32	0.44	0.487	< 0.50	0.59	< 1.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
2/21/2017	FR_UFR1	E216777	1.02	< 1.0	0.25	0.462	0.484	< 0.50	< 0.50	< 1.0	< 3.0
2/28/2017	FR_UFR1	E216777	0.97	< 1.0	0.38	0.433	0.478	< 0.50	< 0.50	< 1.0	< 3.0
3/7/2017	FR_UFR1	E216777	< 0.50	< 1.0	0.25	0.471	0.499	< 0.50	< 0.50	< 1.0	< 3.0
3/14/2017	FR_UFR1	E216777	0.57	< 1.0	0.2	0.458	0.398	< 0.50	< 0.50	< 1.0	5.7
3/21/2017	FR_UFR1	E216777	< 0.50	< 1.0	0.59	0.411	0.597	< 0.50	< 0.50	< 1.0	< 3.0
3/27/2017	FR_UFR1	E216777		< 1.0	0.39						
4/4/2017	FR_UFR1	E216777	1.57	< 1.0	0.84	0.399	0.391	< 0.50	< 0.50	< 1.0	5.6
4/11/2017	FR_UFR1	E216777		< 1.0	0.92						
4/18/2017	FR_UFR1	E216777		2	4.24						
4/24/2017	FR_UFR1	E216777	3.67	4.4	4.72	0.345	0.344	0.53	1.04	1.3	< 3.0
5/2/2017	FR_UFR1	E216777	2.68	< 1.0	1.31	0.326	0.359	< 0.50	0.51	< 1.0	< 3.0
5/5/2017	FR_UFR1	E216777		242	93.6						
5/6/2017	FR_UFR1	E216777		28.1	14.7						
5/7/2017	FR_UFR1	E216777		11.1	5.8						
5/9/2017	FR_UFR1	E216777	3.82	4	2.64	0.289	0.328	< 0.50	0.59	< 1.0	< 3.0
5/16/2017	FR_UFR1	E216777	2.93	2.6	1.64	0.289	0.324	< 0.50	< 0.50	1	< 3.0
5/23/2017	FR_UFR1	E216777	2.48	20.4	10.7	0.252	0.288	< 0.50	1.32	< 1.0	< 3.0
5/30/2017	FR_UFR1	E216777	2.63	22.4	13.4	0.218	0.256	< 0.50	1.19	< 1.0	3.5
6/6/2017	FR_UFR1	E216777	2.69	2.5	1.48	0.291	0.289	< 0.50	0.54	< 1.0	< 3.0
6/14/2017	FR_UFR1	E216777		4.6	1.98						
6/20/2017	FR_UFR1	E216777		1.6	0.72						
6/27/2017	FR_UFR1	E216777		1.4	1.2						
7/3/2017	FR_UFR1	E216777	1.45	< 1.0	0.5	0.339	0.386	< 0.50	0.53	< 1.0	< 3.0
7/11/2017	FR_UFR1	E216777		1.1	0.32						
7/25/2017	FR_UFR1	E216777	2.66	1.1	0.36	0.366	0.378	< 0.50	< 0.50	< 1.0	< 3.0
8/1/2017	FR_UFR1	E216777	1.27	1.4	0.2	0.455	0.421	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	FR_UFR1	E216777	1.1	< 1.0	0.2	0.466	0.435	< 0.50	< 0.50	< 3.0	< 3.0
8/15/2017	FR_UFR1	E216777	0.94	< 1.0	0.19	0.441	0.424	< 0.50	< 0.50	< 3.0	< 3.0
8/22/2017	FR_UFR1	E216777	0.87	< 1.0	0.43	0.476	0.461	< 0.50	< 0.50	< 3.0	< 3.0
9/5/2017	FR_UFR1	E216777	0.61	1.4	0.33	0.47	0.472	< 0.50	< 0.50	< 3.0	< 3.0
10/2/2017	FR_UFR1	E216777	1.02	1.2	0.45	0.506	0.45	< 0.50	< 0.50	< 3.0	< 3.0
10/10/2017	FR_UFR1	E216777	0.8	< 1.0	0.24	0.507	0.504	< 0.50	< 0.50	< 3.0	< 3.0
10/17/2017	FR_UFR1	E216777	0.61	< 1.0	0.36	0.56	0.568	< 0.50	< 0.50	< 3.0	< 3.0
10/24/2017	FR_UFR1	E216777	0.67	< 1.0	0.38	0.511	0.504	< 0.50	< 0.50	< 3.0	< 3.0
10/31/2017	FR_UFR1	E216777	0.91	< 1.0	0.44	0.512	0.439	< 0.50	< 0.50	< 3.0	< 3.0
11/7/2017	FR_UFR1	E216777	0.57	< 1.0	0.23	0.488	0.505	< 0.50	< 0.50	< 3.0	< 3.0
12/21/2017	FR_UFR1	E216777	0.85	< 1.0	0.55	0.473	0.51	< 0.50	< 0.50	< 3.0	< 3.0
1/16/2017	GH_BR_F	E287437									
2/14/2017	GH_BR_F	E287437									
3/6/2017	GH_BR_F	E287437									
3/16/2017	GH_BR_F	E287437									
3/21/2017	GH_BR_F	E287437	5.73	< 1.0	0.97	0.268	0.266	< 0.50	< 0.50	< 3.0	< 3.0
3/27/2017	GH_BR_F	E287437		3.9	5.18						
4/4/2017	GH_BR_F	E287437		1.2	3.15						
4/10/2017	GH_BR_F	E287437		2.9	2.71						
4/18/2017	GH_BR_F	E287437	7.71	4	3.06	0.185	0.18	< 0.50	0.67	< 3.0	< 3.0
4/25/2017	GH_BR_F	E287437		7.7	5.19						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
5/1/2017	GH_BR_F	E287437	8.45	3.3	3.4	0.171	0.163	< 0.50	0.83	< 3.0	< 3.0
5/8/2017	GH_BR_F	E287437		14	10.7						
5/15/2017	GH_BR_F	E287437		7.8	4.63						
5/24/2017	GH_BR_F	E287437		6.5	3.37						
5/29/2017	GH_BR_F	E287437		2.7	1.17						
6/5/2017	GH_BR_F	E287437	5.86	2.2	0.69	0.202	0.199	< 0.50	< 0.50	< 3.0	< 3.0
6/12/2017	GH_BR_F	E287437		4.6	0.86						
6/20/2017	GH_BR_F	E287437									
6/27/2017	GH_BR_F	E287437									
7/4/2017	GH_BR_F	E287437									
7/10/2017	GH_BR_F	E287437									
8/1/2017	GH_BR_F	E287437									
9/12/2017	GH_BR_F	E287437									
10/3/2017	GH_BR_F	E287437									
11/6/2017	GH_BR_F	E287437									
12/6/2017	GH_BR_F	E287437									
1/10/2017	GH_CC1	E0200384	1.4	< 1.0	0.13	20.2	20.3	< 1.0	< 1.0	7.9	9.3
2/9/2017	GH_CC1	E0200384	1.69	< 1.0	0.15	20.6	21.4	< 0.50	< 0.50	3.5	6.9
3/6/2017	GH_CC1	E0200384	2.01	7.8	0.19	19.8	21.8	< 0.50	0.57	3.7	5.9
3/15/2017	GH_CC1	E0200384		< 1.0	0.14						
3/21/2017	GH_CC1	E0200384	1.62	3.6	0.26	18.7	21.1	< 0.50	< 0.50	3.8	8.3
3/29/2017	GH_CC1	E0200384		< 1.0	0.35						
4/5/2017	GH_CC1	E0200384	1.09	< 1.0	0.39	16.7	15.5	< 0.50	< 0.50	10.3	12.4
4/5/2017	GH_CC1	E0200384	1.65	< 1.0	0.28	16.4	16.6	< 1.0	< 1.0	6.9	9.1
4/12/2017	GH_CC1	E0200384		< 1.0	< 0.10						
4/20/2017	GH_CC1	E0200384		1	0.26						
4/25/2017	GH_CC1	E0200384		1.2	0.29						
5/2/2017	GH_CC1	E0200384		1.4	0.24						
5/3/2017	GH_CC1	E0200384	1.9	1.4	0.21	15	14.9	< 0.50	< 0.50	16.1	16.3
5/3/2017	GH_CC1	E0200384	1.68	3.2	0.18	15.2	15.6	< 1.0	< 1.0	15	17.2
5/7/2017	GH_CC1	E0200384		1.3	0.3						
5/8/2017	GH_CC1	E0200384	3.49	< 1.0	0.26	11.8	12.2	< 0.50	< 0.50	36.6	36.9
5/17/2017	GH_CC1	E0200384		< 1.0	0.17						
5/23/2017	GH_CC1	E0200384		1.4	0.18						
5/31/2017	GH_CC1	E0200384		< 1.0	0.14						
6/6/2017	GH_CC1	E0200384	1.81	1.1	0.13	18.7	18.3	< 0.50	< 0.50	30.1	38.9
6/6/2017	GH_CC1	E0200384	1.9	1.7	0.22	16.6	17.7	< 1.0	< 1.0	27.9	38.6
6/13/2017	GH_CC1	E0200384		< 1.0	0.15						
6/19/2017	GH_CC1	E0200384		7.5	0.43						
6/27/2017	GH_CC1	E0200384		1.4	0.63						
7/5/2017	GH_CC1	E0200384	1.84	1.1	0.45	20.6	24.1	< 0.50	0.58	4.7	9.2
7/5/2017	GH_CC1	E0200384	< 0.50	18.8	9.32	16.1	19.5	< 1.0	< 1.0	9.9	34
7/10/2017	GH_CC1	E0200384		< 1.0	0.52						
8/8/2017	GH_CC1	E0200384	2	3.6	1.26	18.3	20.3	< 1.0	< 1.0	11.6	33.7
9/6/2017	GH_CC1	E0200384	2.28	6.2	5.93	19	22.9	< 0.50	< 1.0	10.1	30.9
9/20/2017	GH_CC1	E0200384									
10/4/2017	GH_CC1	E0200384	1.59	1.8	0.29	25	26.4	< 0.50	< 0.50	< 3.0	25.7

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
10/19/2017	GH_CC1	E0200384	2.04	4	0.17	19.2	23.1	< 1.0	< 1.0	5.8	23.3
11/1/2017	GH_CC1	E0200384	1.38	1	0.52	17.6	23.6	< 1.0	< 0.50	< 3.0	18.5
11/16/2017	GH_CC1	E0200384									
12/5/2017	GH_CC1	E0200384	1.47	1.2	0.47	20.5	21.5	< 0.50	< 1.0	3.5	14.4
1/16/2017	GH_COUGAR	E287432									
2/15/2017	GH_COUGAR	E287432									
3/6/2017	GH_COUGAR	E287432									
3/16/2017	GH_COUGAR	E287432	5.57	3	4.14	0.402	0.39	< 0.50	< 0.50	< 1.0	3.2
3/22/2017	GH_COUGAR	E287432		< 1.0	0.6						
3/27/2017	GH_COUGAR	E287432		3	2.36						
4/4/2017	GH_COUGAR	E287432		188	55.7						
4/10/2017	GH_COUGAR	E287432		140	22.3						
4/18/2017	GH_COUGAR	E287432	9.39	21	8.57	0.221	0.222	< 0.50	1.4	< 3.0	7.2
4/25/2017	GH_COUGAR	E287432		20.1	8.02						
5/1/2017	GH_COUGAR	E287432	9.39	21	7.93	0.229	0.24	< 0.50	1.39	< 3.0	4.9
5/8/2017	GH_COUGAR	E287432		47.5	16.4						
5/15/2017	GH_COUGAR	E287432		8.1	1.26						
5/24/2017	GH_COUGAR	E287432		8.1	2.65						
5/29/2017	GH_COUGAR	E287432		4.3	2.17						
6/5/2017	GH_COUGAR	E287432	5.73	2.1	1.03	0.309	0.316	< 0.50	< 0.50	< 3.0	3.2
6/12/2017	GH_COUGAR	E287432		3.4	1.88						
6/20/2017	GH_COUGAR	E287432									
6/27/2017	GH_COUGAR	E287432									
7/4/2017	GH_COUGAR	E287432									
7/10/2017	GH_COUGAR	E287432									
8/2/2017	GH_COUGAR	E287432									
9/12/2017	GH_COUGAR	E287432									
10/3/2017	GH_COUGAR	E287432									
11/6/2017	GH_COUGAR	E287432									
12/6/2017	GH_COUGAR	E287432									
1/16/2017	GH_ER1	206661	0.5	< 1.0	0.17	0.741	0.872	< 0.50	< 0.50	< 3.0	< 3.0
2/14/2017	GH_ER1	206661	0.51	< 1.0	0.14	0.71	0.689	< 0.50	< 0.50	< 3.0	< 3.0
2/21/2017	GH_ER1	206661			0.12						
3/6/2017	GH_ER1	206661	< 0.50	< 1.0	0.12	0.792	0.806	< 0.50	< 0.50	< 3.0	< 3.0
3/16/2017	GH_ER1	206661	< 0.50	1.4	1.43	0.783	0.903	< 0.50	< 0.50	< 1.0	< 3.0
3/21/2017	GH_ER1	206661	1.06	< 1.0	0.67	0.855	0.825	< 0.50	< 0.50	< 3.0	< 3.0
3/27/2017	GH_ER1	206661	< 0.50	< 1.0	0.52	0.833	0.894	< 0.50	< 0.50	< 3.0	< 3.0
4/4/2017	GH_ER1	206661	0.82	1.1	0.55	0.913	0.932	< 0.50	< 0.50	< 3.0	< 3.0
4/10/2017	GH_ER1	206661	0.85	< 1.0	0.8	0.877	0.912	< 0.50	< 0.50	< 3.0	< 3.0
4/20/2017	GH_ER1	206661	1.02	2.2	1.33	0.905	0.819	< 0.50	< 0.50	< 1.0	< 3.0
4/25/2017	GH_ER1	206661	1.04	9.9	2.29	0.884	0.881	< 0.50	< 0.50	< 3.0	< 3.0
5/1/2017	GH_ER1	206661	1.45	2.5	1.19	1.03	0.906	< 0.50	< 0.50	< 3.0	< 3.0
5/8/2017	GH_ER1	206661	3.72	52.9	28.3	0.876	0.982	< 0.50	2.59	< 3.0	7.7
5/15/2017	GH_ER1	206661	2.93	35.4	18	0.871	0.914	< 0.50	1.87	< 3.0	4.8
5/24/2017	GH_ER1	206661	17.9	432	278	0.746	1.29	< 0.50	15.2	< 3.0	50.6
5/29/2017	GH_ER1	206661	5.02	136	87.7	0.748	0.951	< 0.50	5.78	< 3.0	15.9
6/6/2017	GH_ER1	206661	3.57	79.5	52.6	0.727	0.827	< 0.50	4.45	< 3.0	11

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
6/12/2017	GH_ER1	206661	3.09	82.2	45.2	0.659	0.784	< 0.50	3.51	< 1.0	8.1
6/20/2017	GH_ER1	206661	2.06	23	13.9	0.609	0.676	< 0.50	1.28	< 1.0	< 3.0
6/27/2017	GH_ER1	206661	1.92	25.9	13.7	0.668	0.766	< 0.50	1.51	< 1.0	3.1
7/4/2017	GH_ER1	206661	1.93	13.7	7.42	0.658	0.674	< 0.50	1.01	2.1	< 3.0
7/11/2017	GH_ER1	206661	1.29	9.8	2.56	0.609	0.638	< 0.50	0.59	< 1.0	< 3.0
8/2/2017	GH_ER1	206661	0.75	3.1	0.61	0.691	0.716	< 0.50	< 0.50	< 3.0	< 3.0
9/5/2017	GH_ER1	206661	< 0.50	< 2.0	0.33	0.43	0.774	< 0.50	< 0.50	< 3.0	< 3.0
9/11/2017	GH_ER1	206661	0.84	2.2	0.56	0.745	0.702	< 0.50	< 0.50	< 3.0	< 3.0
10/4/2017	GH_ER1	206661	0.8	< 1.0	0.19	0.827	0.795	< 0.50	< 0.50	< 3.0	< 3.0
11/6/2017	GH_ER1	206661	< 0.50	< 1.0	0.3	0.719	0.712	< 0.50	< 2.5	< 3.0	< 15
12/5/2017	GH_ER1	206661	< 0.50	< 1.0	0.12	0.772	0.866	< 0.50	< 0.50	< 3.0	< 3.0
1/16/2017	GH_ER1A	E305876	< 0.50	< 1.0	0.25	0.711	0.838	< 0.50	< 0.50	< 3.0	< 3.0
2/15/2017	GH_ER1A	E305876	0.82	< 1.0	0.3	0.841	0.813	< 0.50	< 0.50	< 3.0	< 3.0
3/6/2017	GH_ER1A	E305876									
3/16/2017	GH_ER1A	E305876									
3/21/2017	GH_ER1A	E305876									
3/27/2017	GH_ER1A	E305876									
4/4/2017	GH_ER1A	E305876		2.1	0.97						
4/10/2017	GH_ER1A	E305876		1.7	1.16						
4/18/2017	GH_ER1A	E305876	1.45	< 1.0	0.59	1.57	1.52	< 0.50	< 0.50	< 3.0	< 3.0
4/25/2017	GH_ER1A	E305876		54.7	13.4						
5/1/2017	GH_ER1A	E305876	1.95	6.3	2.51	1.39	1.36	< 0.50	< 0.50	< 3.0	< 3.0
5/8/2017	GH_ER1A	E305876		63	32.3						
5/15/2017	GH_ER1A	E305876		38.8	13.9						
5/24/2017	GH_ER1A	E305876		337	216						
5/29/2017	GH_ER1A	E305876		122	78.4						
6/6/2017	GH_ER1A	E305876	1.89	82.8	46.3	0.75	0.865	< 0.50	3.47	< 3.0	8.4
6/12/2017	GH_ER1A	E305876		82.6	37.8						
6/19/2017	GH_ER1A	E305876	< 2.5	29.1	13.4	0.681	0.79	< 0.50	1.7	< 1.0	3
6/27/2017	GH_ER1A	E305876									
7/11/2017	GH_ER1A	E305876	1.19	1.5	3.15	0.569	0.64	< 0.50	0.73	< 1.0	< 3.0
8/2/2017	GH_ER1A	E305876	0.88	4.1	1.03	0.656	0.66	< 0.50	< 0.50	< 3.0	< 3.0
9/8/2017	GH_ER1A	E305876	0.73	< 3.0	0.66	0.635	0.706	< 0.50	< 0.50	< 3.0	< 3.0
9/12/2017	GH_ER1A	E305876	0.64	< 5.0	0.82	0.645	0.63	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	GH_ER1A	E305876	0.86	< 1.0	0.65	0.771	0.753	< 0.50	< 0.50	< 3.0	< 3.0
11/28/2017	GH_ER1A	E305876	1.22	2.2	1.32	0.75	0.75	< 0.50	< 0.50	< 3.0	< 3.0
12/12/2017	GH_ER1A	E305876									
1/16/2017	GH_ER2	200389	0.64	< 1.0	0.21	0.719	0.816	< 0.50	< 0.50	< 3.0	5.5
2/14/2017	GH_ER2	200389	< 0.50	< 1.0	0.26	0.826	0.823	< 0.50	< 0.50	< 3.0	< 3.0
2/21/2017	GH_ER2	200389			0.3						
3/6/2017	GH_ER2	200389	0.57	< 1.0	0.18	0.782	0.827	< 0.50	< 0.50	< 3.0	< 3.0
3/16/2017	GH_ER2	200389	< 0.50	3.6	4.47	0.8	0.705	< 0.50	< 0.50	< 1.0	< 3.0
3/21/2017	GH_ER2	200389		< 1.0	0.59						
3/27/2017	GH_ER2	200389		1.5	0.81						
4/4/2017	GH_ER2	200389		< 1.0	0.33						
4/10/2017	GH_ER2	200389		1.4	0.61						
4/18/2017	GH_ER2	200389	0.89	1.5	0.4	0.864	0.817	< 0.50	< 0.50	< 3.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
4/24/2017	GH_ER2	200389		4.3	1.41						
4/25/2017	GH_ER2	200389	1.12	6.2	3.79	0.789	0.787	< 0.50	0.61	< 3.0	< 3.0
5/2/2017	GH_ER2	200389	1.12	2.5	1.18	0.801	0.845	< 0.50	< 0.50	< 3.0	< 3.0
5/9/2017	GH_ER2	200389	2.71	18.8	10	0.726	0.837	< 0.50	1.3	< 3.0	< 3.0
5/16/2017	GH_ER2	200389	2.38	16.8	5.74	0.834	0.816	< 0.50	1.2	< 3.0	< 3.0
5/23/2017	GH_ER2	200389	4.99	77.3	36	0.729	0.821	< 0.50	3.34	< 3.0	10.9
5/30/2017	GH_ER2	200389	7.45	179	98	0.624	0.96	< 0.50	7.05	< 3.0	21.1
6/11/2017	GH_ER2	200389	2.85	105	59.4	0.535	0.712	< 0.50	3.79	< 1.0	9.2
6/13/2017	GH_ER2	200389	2.48	37.1	22.7	0.572	0.648	< 0.50	1.89	< 1.0	4.5
6/20/2017	GH_ER2	200389		13	5.92						
6/27/2017	GH_ER2	200389		17.7	6.98						
7/4/2017	GH_ER2	200389		5.9	2.8						
7/10/2017	GH_ER2	200389	1.24	5	2.88	0.519	0.56	< 0.50	< 0.50	< 1.0	< 3.0
7/25/2017	GH_ER2	200389	0.91	1.4	0.81	0.528	0.575	< 0.50	< 0.50	< 1.0	< 3.0
8/1/2017	GH_ER2	200389	0.76	1.8	0.31	0.665	0.641	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	GH_ER2	200389	0.81	< 1.0	1.1	0.651	0.674	< 0.50	< 0.50	< 3.0	< 3.0
8/15/2017	GH_ER2	200389	0.69	< 1.0	0.26	0.689	0.64	< 0.50	< 0.50	< 3.0	< 3.0
8/22/2017	GH_ER2	200389	1.11	< 1.0	0.51	0.688	0.723	< 0.50	< 0.50	< 3.0	< 3.0
9/10/2017	GH_ER2	200389	< 0.50	1.4	0.44	0.571	0.645	< 0.50	< 0.50	< 3.0	< 3.0
9/12/2017	GH_ER2	200389	0.57	< 5.0	1.06	0.622	0.603	< 0.50	< 0.50	< 3.0	< 3.0
10/2/2017	GH_ER2	200389	0.91	< 1.0	0.38	0.768	0.717	< 0.50	< 0.50	< 3.0	< 3.0
10/10/2017	GH_ER2	200389	0.54	< 1.0	0.86	0.751	0.675	< 0.50	< 0.50	< 3.0	< 3.0
10/16/2017	GH_ER2	200389	0.65	1.1	0.63	0.762	0.73	< 0.50	< 0.50	< 3.0	< 3.0
10/17/2017	GH_ER2	200389	0.57	< 1.0	0.99	0.804	0.837	< 0.50	< 0.50	< 3.0	< 3.0
10/24/2017	GH_ER2	200389	0.75	3.3	0.57	0.779	0.814	< 0.50	< 0.50	< 3.0	< 3.0
10/31/2017	GH_ER2	200389	0.55	< 1.0	0.85	0.763	0.731	< 0.50	< 0.50	< 3.0	< 3.0
11/6/2017	GH_ER2	200389	< 0.50	1.2	0.34	0.735	0.721	< 0.50	< 2.5	< 3.0	< 15
12/6/2017	GH_ER2	200389	< 0.50	< 1.0	0.3	0.774	0.681	< 0.50	< 0.50	< 3.0	< 3.0
1/16/2017	GH_ERC	E300090	< 0.50	< 1.0	0.12	0.781	0.883	< 0.50	< 0.50	< 3.0	< 3.0
2/1/2017	GH_ERC	E300090	0.86	1.1	0.11	0.88	0.856	< 0.50	< 0.50	< 3.0	< 3.0
2/14/2017	GH_ERC	E300090	< 0.50	< 1.0	0.12	0.855	0.855	< 0.50	< 0.50	< 3.0	< 3.0
2/21/2017	GH_ERC	E300090	< 0.50	< 1.0	0.13	0.852	0.827	< 0.50	< 0.50	< 3.0	< 3.0
3/6/2017	GH_ERC	E300090	< 0.50	< 1.0	0.24	0.776	0.799	< 0.50	< 0.50	< 3.0	< 3.0
3/16/2017	GH_ERC	E300090	0.53	12.8	16.7	0.789	0.838	< 0.50	0.84	< 1.0	< 3.0
3/21/2017	GH_ERC	E300090	0.73	< 1.0	0.38	0.854	0.812	< 0.50	< 0.50	< 3.0	< 3.0
3/28/2017	GH_ERC	E300090	0.5	5.3	2.01	0.898	0.949	< 0.50	< 0.50	< 3.0	< 3.0
4/4/2017	GH_ERC	E300090	0.89	1.4	0.85	0.9	0.942	< 0.50	< 0.50	< 3.0	< 3.0
4/10/2017	GH_ERC	E300090	0.7	2.2	1.6	0.927	0.937	< 0.50	< 0.50	< 3.0	< 3.0
4/20/2017	GH_ERC	E300090	1.38	4	1.54	0.917	0.94	< 0.50	< 0.50	< 1.0	6
4/24/2017	GH_ERC	E300090	1.08	6.8	2.5	0.936	0.983	< 0.50	0.7	< 3.0	< 3.0
5/2/2017	GH_ERC	E300090	1.09	3.2	0.68	0.994	1.01	< 0.50	< 0.50	< 3.0	< 3.0
5/9/2017	GH_ERC	E300090	3.27	34.2	18.2	0.843	0.941	< 0.50	2.09	< 3.0	5.7
5/16/2017	GH_ERC	E300090	2.47	24.6	10	0.942	0.935	< 0.50	1.73	< 3.0	4
5/23/2017	GH_ERC	E300090	4.94	106	48.4	0.711	0.92	< 0.50	4.06	< 3.0	11.7
5/30/2017	GH_ERC	E300090	7.89	225	122	0.712	1.06	< 0.50	7.55	< 3.0	22.9
6/11/2017	GH_ERC	E300090	3.65	129	74.8	0.643	0.808	< 0.50	4.26	< 1.0	11.5
6/13/2017	GH_ERC	E300090	3.26	65.9	35.5	0.636	0.734	< 0.50	3.09	< 1.0	8.1

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
6/19/2017	GH_ERC	E300090	1.47	24.2	11.8	0.651	0.684	< 0.50	1.36	< 1.0	< 3.0
6/27/2017	GH_ERC	E300090	2.04	30.3	14.2	0.653	0.786	< 0.50	1.63	< 1.0	3.5
7/4/2017	GH_ERC	E300090	1.79	17.3	8.9	0.644	0.677	< 0.50	1.06	< 1.0	< 3.0
7/11/2017	GH_ERC	E300090	1.22	7.6	2.02	0.596	0.611	< 0.50	0.57	< 1.0	< 3.0
7/25/2017	GH_ERC	E300090	0.83	4	1.7	0.577	0.637	< 0.50	< 0.50	< 1.0	< 3.0
8/1/2017	GH_ERC	E300090	0.78	2.9	0.5	0.711	0.722	< 0.50	< 0.50	< 3.0	< 3.0
9/5/2017	GH_ERC	E300090	< 0.50	< 2.0	0.4	0.382	0.756	< 0.50	< 0.50	< 3.0	< 3.0
9/11/2017	GH_ERC	E300090	0.83	< 2.0	0.59	0.721	0.672	< 0.50	< 0.50	< 3.0	< 3.0
10/2/2017	GH_ERC	E300090	0.96	< 1.0	0.56	0.869	0.787	< 0.50	< 0.50	< 3.0	< 3.0
10/10/2017	GH_ERC	E300090	1.03	< 1.0	0.8	0.782	0.793	< 0.50	< 0.50	< 3.0	3.6
10/17/2017	GH_ERC	E300090	< 0.50	1.3	0.45	0.813	0.855	< 0.50	< 0.50	< 3.0	< 3.0
10/24/2017	GH_ERC	E300090	0.6	< 2.0	0.55	0.829	0.848	< 0.50	< 0.50	< 3.0	< 3.0
10/31/2017	GH_ERC	E300090	< 0.50	< 1.0	0.41	0.849	0.787	< 0.50	< 0.50	< 3.0	< 3.0
11/14/2017	GH_ERC	E300090	< 0.50	1.2	0.98	0.758	0.795	< 0.50	< 0.50	< 3.0	< 3.0
12/5/2017	GH_ERC	E300090	< 0.50	< 1.0	0.12	0.769	0.892	< 0.50	< 0.50	< 3.0	< 3.0
1/16/2017	GH_ERSC2	E305877									
2/15/2017	GH_ERSC2	E305877									
3/6/2017	GH_ERSC2	E305877									
3/16/2017	GH_ERSC2	E305877									
3/22/2017	GH_ERSC2	E305877									
3/29/2017	GH_ERSC2	E305877									
4/5/2017	GH_ERSC2	E305877									
4/10/2017	GH_ERSC2	E305877									
4/20/2017	GH_ERSC2	E305877									
4/25/2017	GH_ERSC2	E305877	5.7	16.7	12.3	1.3	1.28	< 0.50	1.1	< 3.0	3.4
5/3/2017	GH_ERSC2	E305877	6.15	5	4.93	1.33	1.36	< 0.50	0.75	< 3.0	< 3.0
5/10/2017	GH_ERSC2	E305877		20	13.6						
5/15/2017	GH_ERSC2	E305877		16	10.2						
5/24/2017	GH_ERSC2	E305877		246	183						
5/29/2017	GH_ERSC2	E305877		75.4	60.7						
6/7/2017	GH_ERSC2	E305877	1.49	51.1	39.2	0.843	0.942	0.66	2.2	< 3.0	5.2
6/12/2017	GH_ERSC2	E305877		39	27.6						
6/19/2017	GH_ERSC2	E305877	< 2.5	42.3	23.2	0.736	0.861	< 0.50	1.98	< 1.0	3.7
6/27/2017	GH_ERSC2	E305877									
7/4/2017	GH_ERSC2	E305877									
7/11/2017	GH_ERSC2	E305877	< 2.5	1.3	3.76	0.667	0.717	< 0.50	1.45	< 1.0	3.9
8/2/2017	GH_ERSC2	E305877	1.64	15.7	5.81	0.771	0.817	< 0.50	1.03	< 3.0	< 3.0
9/13/2017	GH_ERSC2	E305877									
10/3/2017	GH_ERSC2	E305877									
11/14/2017	GH_ERSC2	E305877									
12/18/2017	GH_ERSC2	E305877									
1/16/2017	GH_ERSC4	E305878	1.32	< 1.0	0.28	1.3	1.49	< 0.50	< 0.50	< 3.0	< 3.0
2/15/2017	GH_ERSC4	E305878	0.53	2.7	0.44	0.849	0.857	< 0.50	< 0.50	< 3.0	< 3.0
3/6/2017	GH_ERSC4	E305878									
3/16/2017	GH_ERSC4	E305878									
3/21/2017	GH_ERSC4	E305878									
3/29/2017	GH_ERSC4	E305878									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
4/4/2017	GH_ERSC4	E305878									
4/10/2017	GH_ERSC4	E305878									
4/20/2017	GH_ERSC4	E305878	1.66	4.3	2.54	0.844	0.939	< 0.50	< 0.50	< 1.0	3.8
4/25/2017	GH_ERSC4	E305878		11.1	5.45						
5/1/2017	GH_ERSC4	E305878	1.48	4	1.67	0.933	0.895	< 0.50	< 0.50	< 3.0	< 3.0
5/10/2017	GH_ERSC4	E305878		21.6	10.6						
5/15/2017	GH_ERSC4	E305878		31.6	4.99						
5/24/2017	GH_ERSC4	E305878		490	259						
5/29/2017	GH_ERSC4	E305878		133	83						
6/5/2017	GH_ERSC4	E305878	3.84	132	63.1	0.667	0.838	< 0.50	4.9	< 3.0	13.2
6/12/2017	GH_ERSC4	E305878		82	37.2						
6/19/2017	GH_ERSC4	E305878									
6/27/2017	GH_ERSC4	E305878									
7/10/2017	GH_ERSC4	E305878	1.16	9	3.77	0.564	0.606	< 0.50	< 0.50	< 1.0	3.5
8/2/2017	GH_ERSC4	E305878	0.74	4.4	0.52	0.665	0.684	< 0.50	< 0.50	< 3.0	< 3.0
9/8/2017	GH_ERSC4	E305878	0.89	< 2.0	0.47	0.772	0.694	< 0.50	< 0.50	< 3.0	< 3.0
9/12/2017	GH_ERSC4	E305878	0.59	< 5.0	0.92	0.632	0.638	< 0.50	0.75	< 3.0	< 3.0
10/3/2017	GH_ERSC4	E305878	0.77	< 1.0	0.24	0.753	0.741	< 0.50	< 0.50	< 3.0	< 3.0
11/14/2017	GH_ERSC4	E305878	0.81	2.8	2.68	0.743	0.745	< 0.50	< 0.50	< 3.0	< 3.0
12/12/2017	GH_ERSC4	E305878	0.62	1	0.39	0.847	0.813	< 0.50	< 0.50	< 3.0	< 3.0
1/9/2017	GH_FR1	200378	0.77	< 1.0	0.22	2.39	2.59	< 0.50	< 0.50	< 3.0	< 3.0
2/1/2017	GH_FR1	200378	0.83	< 1.0	0.32	2.61	2.58	< 0.50	< 0.50	< 3.0	< 3.0
2/14/2017	GH_FR1	200378	0.65	< 1.0	0.28	2.36	2.36	< 0.50	< 0.50	< 3.0	< 3.0
2/21/2017	GH_FR1	200378	0.63	< 1.0	0.47	2.38	2.31	< 0.50	< 0.50	< 3.0	< 3.0
2/28/2017	GH_FR1	200378	0.65	< 1.0	0.43	2.47	2.5	< 0.50	< 0.50	< 3.0	< 3.0
3/7/2017	GH_FR1	200378	0.85	< 1.0	0.17	2.52	2.52	< 0.50	< 0.50	< 3.0	< 3.0
3/14/2017	GH_FR1	200378	1	< 1.0	0.43	2.35	2.34	< 0.50	< 0.50	< 3.0	< 3.0
3/16/2017	GH_FR1	200378	1.26	2.8	4.23	3.13	3.13	< 0.50	< 0.50	< 1.0	< 3.0
3/21/2017	GH_FR1	200378	2.25	1.5	2.36	2.47	2.42	< 0.50	< 0.50	< 3.0	< 3.0
3/27/2017	GH_FR1	200378	1.11	1.3	1.86	2.33	2.4	< 0.50	< 0.50	< 3.0	< 3.0
4/4/2017	GH_FR1	200378	51.8	2.2	2.1	2.5	2.56	< 0.50	< 0.50	< 3.0	< 3.0
4/11/2017	GH_FR1	200378	1.85	1.6	1.67	2.68	2.73	< 0.50	< 0.50	< 3.0	< 3.0
4/18/2017	GH_FR1	200378	2.04	2.5	1.24	2.62	2.63	< 0.50	< 0.50	< 3.0	< 3.0
4/24/2017	GH_FR1	200378	5.87	15.1	25.4	2.36	2.41	< 0.50	2.74	< 3.0	7.2
5/2/2017	GH_FR1	200378	2.52	6	4.47	2.14	2.23	< 0.50	0.71	< 3.0	< 3.0
5/9/2017	GH_FR1	200378	5.28	15.7	19.1	1.55	1.53	< 0.50	1.72	< 3.0	5.7
5/16/2017	GH_FR1	200378	3.61	10.4	7.49	1.55	1.56	< 0.50	1.1	< 3.0	3.8
5/23/2017	GH_FR1	200378	4.74	63.5	25.7	1.43	1.48	< 0.50	2.07	< 3.0	9.7
5/30/2017	GH_FR1	200378	5.43	56.8	27.4	1.21	1.33	< 0.50	2.89	< 3.0	9.9
6/11/2017	GH_FR1	200378	1.96	21.4	7.27	1.54	1.63	< 0.50	1.19	1.5	< 3.0
6/13/2017	GH_FR1	200378	2.23	10.7	4.49	1.55	1.59	< 0.50	1.02	2	< 3.0
6/19/2017	GH_FR1	200378	1.77	3.9	2.03	1.55	1.74	< 0.50	0.66	< 1.0	< 3.0
6/27/2017	GH_FR1	200378	1.58	2.1	1.56	1.77	1.97	< 0.50	0.53	< 1.0	< 3.0
7/4/2017	GH_FR1	200378	1.81	1.5	0.65	1.94	1.91	< 0.50	< 0.50	< 1.0	< 3.0
7/11/2017	GH_FR1	200378	1.29	1.8	0.83	1.88	2.01	< 0.50	< 0.50	< 1.0	< 3.0
7/25/2017	GH_FR1	200378	0.99	1.2	0.54	1.86	2	< 0.50	< 0.50	< 1.0	< 3.0
8/1/2017	GH_FR1	200378	1.43	2.8	0.24	2.33	2.4	< 0.50	< 0.50	< 3.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
8/8/2017	GH_FR1	200378	1.21	1.3	0.4	2.3	2.32	< 0.50	< 0.50	< 3.0	< 3.0
8/15/2017	GH_FR1	200378	1.02	1.2	0.35	2.6	2.36	< 0.50	< 0.50	< 3.0	< 3.0
8/22/2017	GH_FR1	200378	1.39	1	0.36	2.47	2.47	< 0.50	< 0.50	< 3.0	< 3.0
9/5/2017	GH_FR1	200378	1.24	7.3	2.79	1.76	2.39	< 0.50	< 0.50	< 3.0	< 3.0
9/11/2017	GH_FR1	200378	1.1	< 2.0	0.46	2.18	2.14	< 0.50	< 0.50	< 3.0	< 3.0
10/2/2017	GH_FR1	200378	1.85	1.1	0.77	2.68	2.46	< 0.50	< 0.50	< 3.0	< 3.0
10/10/2017	GH_FR1	200378	1.35	1.2	0.96	3.31	3.34	< 0.50	< 0.50	< 3.0	< 3.0
10/17/2017	GH_FR1	200378	0.99	1.9	0.87	3.13	3.16	< 0.50	< 0.50	< 3.0	< 3.0
10/24/2017	GH_FR1	200378	1.7	< 1.0	0.6	2.85	3.03	< 0.50	< 0.50	< 3.0	< 3.0
10/31/2017	GH_FR1	200378	0.69	36.4	43.3	2.45	2.42	< 0.50	< 0.50	< 3.0	< 3.0
11/7/2017	GH_FR1	200378	0.87	< 1.0	0.32	2.93	2.94	< 0.50	< 0.50	< 3.0	< 3.0
11/14/2017	GH_FR1	200378	0.65	< 1.0	0.33	2.48	2.47	< 0.50	< 0.50	< 3.0	< 3.0
11/21/2017	GH_FR1	200378	0.81	< 1.0	0.33	2.44	2.43	< 0.50	< 0.50	< 3.0	< 3.0
12/5/2017	GH_FR1	200378	1.1	< 1.0	0.34	2.22	2.47	< 0.50	< 0.50	< 3.0	< 3.0
1/9/2017	GH_GH1	E102709	1.92	1.7	1.31	7.77	8.23	< 0.50	< 0.50	< 3.0	< 3.0
2/15/2017	GH_GH1	E102709	1.73	< 1.0	0.46	8.6	8.81	< 0.50	< 0.50	< 3.0	< 3.0
3/7/2017	GH_GH1	E102709	1.72	< 1.0	0.54	7.74	8.12	< 0.50	< 0.50	< 3.0	< 3.0
3/14/2017	GH_GH1	E102709	1.66	< 1.0	0.48	7.97	8.1	< 0.50	< 0.50	< 3.0	< 3.0
3/16/2017	GH_GH1	E102709		1	2.66						
3/21/2017	GH_GH1	E102709		4.5	18.5						
3/27/2017	GH_GH1	E102709		4.2	14.9						
4/4/2017	GH_GH1	E102709		4.8	11.8						
4/11/2017	GH_GH1	E102709		4.7	8.09						
4/18/2017	GH_GH1	E102709	4.31	3.9	5.66	3.94	4.17	< 0.50	0.6	< 3.0	3.5
4/24/2017	GH_GH1	E102709		36.1	65.8						
4/27/2017	GH_GH1	E102709		15.9	37.7						
5/2/2017	GH_GH1	E102709	6.25	5.1	16.1	2.23	2.25	< 0.50	1.28	< 3.0	5.6
5/3/2017	GH_GH1	E102709		10.2	19.4						
5/9/2017	GH_GH1	E102709	11.5	24.8	66.3	1.46	1.67	< 0.50	3.52	< 3.0	14
5/10/2017	GH_GH1	E102709		22.7	55.4						
5/15/2017	GH_GH1	E102709		16.7	43.5						
5/24/2017	GH_GH1	E102709		6.5	9.28						
5/29/2017	GH_GH1	E102709		3.4	7.03						
6/7/2017	GH_GH1	E102709	4.16	1.9	2.51	5.6	5.89	< 0.50	< 0.50	12.7	15.9
6/8/2017	GH_GH1	E102709	4.87	2.6	3.54	5.19	5.46	< 0.50	< 0.50	14.1	15.9
6/12/2017	GH_GH1	E102709		3	3.01						
6/19/2017	GH_GH1	E102709		3.5	3.4						
6/27/2017	GH_GH1	E102709		1.9	2.08						
7/4/2017	GH_GH1	E102709		1.7	1.26						
7/11/2017	GH_GH1	E102709	3.1	3	1.29	7.98	7.9	< 0.50	< 0.50	< 1.0	< 3.0
8/3/2017	GH_GH1	E102709	3.32	1.2	0.62	9.73	10.3	< 0.50	< 0.50	< 3.0	< 3.0
9/11/2017	GH_GH1	E102709	5.84	6.6	2.38	9.27	8.82	< 0.50	< 0.50	< 3.0	< 3.0
10/4/2017	GH_GH1	E102709	2.02	< 1.0	0.52	8.64	9.06	< 0.50	< 0.50	< 3.0	< 3.0
11/7/2017	GH_GH1	E102709	1.85	< 1.0	0.62	8	8.04	< 0.50	< 0.50	< 3.0	< 3.0
12/11/2017	GH_GH1	E102709	2.07	2.1	0.51	9.63	8.33	< 0.50	< 0.50	< 3.0	< 3.0
5/9/2017	GH_GH2	E309911	11.4	23.8	61.9	1.51	1.65	< 0.50	3.4	< 3.0	13.6
6/7/2017	GH_GH2	E309911	4.17	3.1	2.52	5.52	5.78	< 0.50	< 0.50	9	11.4

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
6/19/2017	GH_GH2	E309911	3.56	4.1	2.92	6.65	7.22	< 0.50	0.75	4.5	7
7/11/2017	GH_GH2	E309911	2.94	2.2	1.1	7.65	7.74	< 0.50	< 0.50	1.3	< 3.0
8/3/2017	GH_GH2	E309911									
8/7/2017	GH_GH2	E309911	3.52	1	0.59	9.35	9.64	< 0.50	< 0.50	< 3.0	< 3.0
9/12/2017	GH_GH2	E309911	2.08	< 5.0	0.94	8.42	8.36	< 0.50	< 0.50	< 3.0	< 3.0
10/25/2017	GH_GH2	E309911	1.94	2.7	0.95	8.31	8.12	< 0.50	< 0.50	< 3.0	< 3.0
11/7/2017	GH_GH2	E309911	1.89	< 1.0	0.52	7.75	7.87	< 0.50	< 0.50	< 3.0	< 3.0
12/11/2017	GH_GH2	E309911	2.22	2.4	0.86	9	8.56	< 0.50	< 0.50	< 3.0	< 3.0
1/16/2017	GH_LC1	E257796									
2/14/2017	GH_LC1	E257796	1.56	< 1.0	0.46	10	9.33	< 0.50	< 0.50	< 3.0	11.2
2/21/2017	GH_LC1	E257796	1.71	2.1	1.83	10.9	11.9	< 0.50	0.5	< 3.0	8.7
3/6/2017	GH_LC1	E257796	1.1	< 1.0	0.94	12.9	14.3	< 0.50	< 0.50	< 3.0	5.8
3/16/2017	GH_LC1	E257796		28.2	20.9						
3/21/2017	GH_LC1	E257796		18	23.2						
3/27/2017	GH_LC1	E257796		17.2	15.8						
4/4/2017	GH_LC1	E257796		8.5	4.48						
4/10/2017	GH_LC1	E257796		6.8	5.95						
4/18/2017	GH_LC1	E257796	1.52	1.2	0.71	13.5	14.2	< 0.50	< 0.50	< 3.0	4.1
4/25/2017	GH_LC1	E257796		2.1	1.09						
5/1/2017	GH_LC1	E257796	1.83	11.7	5.09	9.78	10.5	< 0.50	0.6	< 3.0	10
5/8/2017	GH_LC1	E257796		2.7	2.03						
5/15/2017	GH_LC1	E257796		1.1	0.51						
5/24/2017	GH_LC1	E257796		3.1	0.75						
5/29/2017	GH_LC1	E257796		9.7	1.26						
6/5/2017	GH_LC1	E257796	2.28	1.9	1.04	11.4	12	< 0.50	< 0.50	< 3.0	< 3.0
6/12/2017	GH_LC1	E257796		1.2	0.87						
6/19/2017	GH_LC1	E257796		1.8	0.85						
6/20/2017	GH_LC1	E257796		1.8	0.85						
6/27/2017	GH_LC1	E257796		42.3	3.78						
7/4/2017	GH_LC1	E257796		< 1.0	0.59						
7/10/2017	GH_LC1	E257796	1.89	1.6	0.74	10	10.3	< 0.50	< 0.50	< 1.0	< 3.0
8/2/2017	GH_LC1	E257796	2.15	2.9	0.34	11.4	11.4	< 1.0	< 1.0	< 3.0	< 6.0
9/11/2017	GH_LC1	E257796	5.19	5.4	2.54	13.2	12.2	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	GH_LC1	E257796	3.38	1.8	1.1	12.4	12.7	< 0.50	< 0.50	< 3.0	< 3.0
11/6/2017	GH_LC1	E257796									
12/12/2017	GH_LC1	E257796									
1/16/2017	GH_MC1	200388									
2/15/2017	GH_MC1	200388									
3/6/2017	GH_MC1	200388									
3/16/2017	GH_MC1	200388	3.46	1.2	1.42	2.88	3.12	< 0.50	< 0.50	< 1.0	3.2
3/22/2017	GH_MC1	200388	2.83	< 1.0	0.34	3.36	3.49	< 0.50	< 0.50	< 3.0	6.4
3/27/2017	GH_MC1	200388		1.2	0.76						
4/4/2017	GH_MC1	200388		4.1	2.03						
4/10/2017	GH_MC1	200388		5.1	2.46						
4/18/2017	GH_MC1	200388	5.38	2	1.38	1.93	1.99	< 0.50	< 0.50	< 3.0	< 3.0
4/25/2017	GH_MC1	200388		4.4	2.55						
5/1/2017	GH_MC1	200388	6.56	7.7	2.62	1.57	1.44	< 0.50	0.55	< 3.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
5/8/2017	GH_MC1	200388		10.1	4.91						
5/15/2017	GH_MC1	200388		5	1.17						
5/24/2017	GH_MC1	200388		2	0.68						
5/29/2017	GH_MC1	200388		1.3	0.48						
6/5/2017	GH_MC1	200388	4.11	1.4	0.3	1.92	1.88	< 0.50	< 0.50	< 3.0	< 3.0
6/12/2017	GH_MC1	200388		< 1.0	0.31						
6/20/2017	GH_MC1	200388		< 1.0	0.28						
6/27/2017	GH_MC1	200388		2.3	0.58						
7/4/2017	GH_MC1	200388		1.3	0.46						
7/10/2017	GH_MC1	200388	3	< 1.0	0.37	2.24	2.3	< 0.50	< 0.50	< 1.0	< 3.0
8/2/2017	GH_MC1	200388									
9/12/2017	GH_MC1	200388									
10/3/2017	GH_MC1	200388									
11/28/2017	GH_MC1	200388	3.25	< 1.0	0.35	2.53	2.55	< 0.50	< 0.50	< 3.0	< 3.0
12/6/2017	GH_MC1	200388	2.33	< 1.0	0.2	2.8	2.55	< 0.50	< 0.50	< 3.0	< 3.0
1/16/2017	GH_NNC	E305875	4.71	1.2	1.29	0.45	0.514	< 0.50	< 0.50	< 3.0	< 3.0
2/15/2017	GH_NNC	E305875									
3/6/2017	GH_NNC	E305875	4.21	5.8	2.75	0.414	0.488	< 0.50	0.83	3.4	42.5
3/16/2017	GH_NNC	E305875		5.2	3.52						
3/22/2017	GH_NNC	E305875		2.4	1.61						
3/28/2017	GH_NNC	E305875									
4/4/2017	GH_NNC	E305875									
4/10/2017	GH_NNC	E305875									
4/20/2017	GH_NNC	E305875	10.6	24.8	10.5	0.215	0.243	< 0.50	< 0.50	< 1.0	< 3.0
4/25/2017	GH_NNC	E305875		7.9	1.52						
5/1/2017	GH_NNC	E305875	9.05	2.7	1.07	0.251	0.225	< 0.50	< 0.50	< 3.0	< 3.0
5/8/2017	GH_NNC	E305875		3.2	1.29						
5/15/2017	GH_NNC	E305875		15.4	1.08						
5/24/2017	GH_NNC	E305875		21.7	3.11						
5/29/2017	GH_NNC	E305875		8.7	2.25						
6/5/2017	GH_NNC	E305875	6.29	8.7	1.63	0.289	0.278	< 0.50	0.6	< 3.0	3.8
6/12/2017	GH_NNC	E305875		5.6	1.84						
6/19/2017	GH_NNC	E305875									
6/26/2017	GH_NNC	E305875									
7/4/2017	GH_NNC	E305875									
7/10/2017	GH_NNC	E305875	4.43	2.2	1.42	0.288	0.305	< 0.50	< 0.50	< 1.0	< 3.0
8/2/2017	GH_NNC	E305875	4.8	3.7	1.86	0.44	0.398	< 0.50	0.86	< 3.0	< 3.0
9/12/2017	GH_NNC	E305875									
10/3/2017	GH_NNC	E305875									
11/28/2017	GH_NNC	E305875	5.67	< 1.0	1.29	0.285	0.307	< 0.50	< 0.50	< 3.0	< 3.0
12/6/2017	GH_NNC	E305875	3.99	< 1.0	0.57	0.34	0.295	< 0.50	< 0.50	< 3.0	< 3.0
1/9/2017	GH_PC1	200385	1.05	< 1.0	0.36	5.11	5.27	< 0.50	< 0.50	4.7	5.9
2/9/2017	GH_PC1	200385	1.2	< 1.0	0.37	5.05	5.49	< 0.50	< 0.50	4.8	4.9
2/9/2017	GH_PC1	200385									
3/6/2017	GH_PC1	200385	1.06	< 1.0	0.21	4.57	5.15	< 0.50	< 0.50	4.9	4.1
3/15/2017	GH_PC1	200385		< 1.0	0.28						
3/21/2017	GH_PC1	200385	1.05	< 1.0	0.34	4.64	5.61	< 0.50	< 0.50	3.9	4.5

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
3/29/2017	GH_PC1	200385		< 1.0	0.25						
4/5/2017	GH_PC1	200385	1.87	< 1.0	0.48	4.25	4.37	< 0.50	< 0.50	4.1	4.5
4/12/2017	GH_PC1	200385		< 1.0	0.34						
4/20/2017	GH_PC1	200385		4.6	6.48						
4/25/2017	GH_PC1	200385		2	2.67						
5/3/2017	GH_PC1	200385	1.99	1.4	0.66	2.78	4.28	< 0.50	< 0.50	5.2	5.5
5/8/2017	GH_PC1	200385	9.29	20.7	31.8	2.94	3.09	< 0.50	1.68	4.2	13.2
5/17/2017	GH_PC1	200385		1.6	3.33						
5/23/2017	GH_PC1	200385		3.6	3.77						
5/31/2017	GH_PC1	200385		14.3	22.9						
6/6/2017	GH_PC1	200385	1.98	1.1	2.18	5.58	5.15	< 0.50	0.6	6.7	7.5
6/13/2017	GH_PC1	200385		< 1.0	0.95						
6/19/2017	GH_PC1	200385		1.1	1.03						
6/27/2017	GH_PC1	200385		< 1.0	0.62						
7/5/2017	GH_PC1	200385	1.05	< 1.0	0.34	5.71	5.5	< 0.50	< 0.50	4.7	4.7
7/10/2017	GH_PC1	200385		< 1.0	0.49						
7/27/2017	GH_PC1	200385	1.61	< 1.0	0.46	4.73	5.02	< 0.50	< 0.50	4.5	5.1
8/8/2017	GH_PC1	200385									
8/8/2017	GH_PC1	200385	1.38	1.6	0.49	5.42	5.13	< 0.50	< 0.50	4.1	5.4
12/5/2017	GH_PC1	200385									
1/9/2017	GH_RLP	E207437									
2/7/2017	GH_RLP	E207437									
3/16/2017	GH_RLP	E207437	171	364	1350	0.456	0.808	< 0.50	10.7	1.9	41.4
3/21/2017	GH_RLP	E207437		81.9	278						
3/27/2017	GH_RLP	E207437		17.5	63.2						
4/4/2017	GH_RLP	E207437									
4/11/2017	GH_RLP	E207437		14.4	33.9						
4/18/2017	GH_RLP	E207437	5.1	11.7	25.4	1.43	1.44	0.61	0.85	< 3.0	4.6
4/25/2017	GH_RLP	E207437		10.6	24.1						
5/3/2017	GH_RLP	E207437	3.25	9.7	9.77	2.01	2.05	0.56	1.12	< 3.0	3.2
5/10/2017	GH_RLP	E207437		26.4	23.5						
5/15/2017	GH_RLP	E207437		8.6	11.8						
5/24/2017	GH_RLP	E207437		6.3	2.71						
5/29/2017	GH_RLP	E207437									
6/7/2017	GH_RLP	E207437									
6/12/2017	GH_RLP	E207437									
6/22/2017	GH_RLP	E207437									
6/27/2017	GH_RLP	E207437									
7/4/2017	GH_RLP	E207437		1.1	1.8						
7/11/2017	GH_RLP	E207437									
7/27/2017	GH_RLP	E207437	9.65	5.7	4.49	2.79	2.65	1.19	1.45	3.1	3.7
8/3/2017	GH_RLP	E207437									
9/27/2017	GH_RLP	E207437									
10/25/2017	GH_RLP	E207437									
11/14/2017	GH_RLP	E207437									
12/7/2017	GH_RLP	E207437	1.75	3.1	3.94	3.9	4.47	1.8	2.14	3.5	3.9
1/10/2017	GH_SC1	E221329	2.49	< 1.0	0.51	13.9	14.7	< 0.50	< 0.50	23.3	22.8

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
2/9/2017	GH_SC1	E221329	2.21	< 1.0	0.35	14.8	16.2	< 0.50	< 0.50	15.2	20.1
3/6/2017	GH_SC1	E221329	2.18	2.8	0.33	17.2	16.9	< 0.50	< 0.50	14.9	16.5
3/15/2017	GH_SC1	E221329		1	0.33						
3/21/2017	GH_SC1	E221329	2.93	2.8	12.2	11	13.1	< 0.50	0.69	16.7	18
3/29/2017	GH_SC1	E221329		32.6	61.7						
4/5/2017	GH_SC1	E221329	4.94	15.1	37.9	10.5	9.9	< 0.50	0.96	19.6	20.1
4/12/2017	GH_SC1	E221329		28.7	40						
4/20/2017	GH_SC1	E221329		5.2	9.49						
4/25/2017	GH_SC1	E221329		18.2	33.3						
5/2/2017	GH_SC1	E221329		22	21.4						
5/3/2017	GH_SC1	E221329	3.91	21.2	17.4	9.19	9.09	< 0.50	0.6	31.6	31.8
5/8/2017	GH_SC1	E221329	7.44	11.5	30.2	7.86	8.84	< 0.50	0.85	32.9	35.1
5/17/2017	GH_SC1	E221329		12.7	42.1						
5/17/2017	GH_SC1	E221329		12.1	37.5						
5/17/2017	GH_SC1	E221329		9.9	38.5						
5/18/2017	GH_SC1	E221329		12.9	22.8						
5/23/2017	GH_SC1	E221329		4	4.36						
5/31/2017	GH_SC1	E221329		1.5	2.01						
6/6/2017	GH_SC1	E221329	3.34	< 1.0	2.24	8.08	7.77	< 0.50	0.53	33.2	34.9
6/13/2017	GH_SC1	E221329		2.3	1.47						
6/19/2017	GH_SC1	E221329		1.1	1.24						
6/27/2017	GH_SC1	E221329		1.6	1.7						
7/5/2017	GH_SC1	E221329	2.6	1.1	0.92	10.1	10.5	< 0.50	< 0.50	7.3	29.8
7/10/2017	GH_SC1	E221329		1.6	1.33						
8/8/2017	GH_SC1	E221329	2.78	6	1.47	13.2	12.2	< 1.0	< 1.0	< 3.0	14.1
9/6/2017	GH_SC1	E221329	4.13	11.6	3.15	13.7	15.6	< 0.50	< 0.50	< 3.0	21.9
9/20/2017	GH_SC1	E221329									
10/4/2017	GH_SC1	E221329	2.38	2.4	1.55	18.1	17.5	< 0.50	< 0.50	30.7	38.7
10/19/2017	GH_SC1	E221329	2.25	3.4	3.31	16.5	16.2	< 1.0	< 1.0	< 3.0	15.7
11/1/2017	GH_SC1	E221329	2.14	< 1.0	0.58	14	16	< 1.0	< 0.50	< 3.0	23
11/16/2017	GH_SC1	E221329									
12/5/2017	GH_SC1	E221329	2.16	< 1.0	1.63	17.4	16.4	< 0.50	< 1.0	6.3	35.3
1/1/2017	GH_SC2	E105061									
2/1/2017	GH_SC2	E105061									
3/1/2017	GH_SC2	E105061									
4/1/2017	GH_SC2	E105061									
5/1/2017	GH_SC2	E105061									
6/1/2017	GH_SC2	E105061									
7/1/2017	GH_SC2	E105061									
8/1/2017	GH_SC2	E105061									
9/4/2017	GH_SC2	E105061									
10/2/2017	GH_SC2	E105061									
11/6/2017	GH_SC2	E105061									
12/4/2017	GH_SC2	E105061									
1/10/2017	GH_TC1	E102714	2.67	1.7	0.88	3.35	3.37	< 0.50	< 0.50	< 3.0	< 3.0
2/15/2017	GH_TC1	E102714	3.84	2	0.92	3.32	3.32	< 0.50	< 0.50	< 3.0	< 3.0
3/6/2017	GH_TC1	E102714	2.74	< 1.0	0.43	3.3	3.63	< 0.50	< 0.50	< 3.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
3/16/2017	GH_TC1	E102714		19.8	15.8						
3/21/2017	GH_TC1	E102714		3.4	4.82						
3/27/2017	GH_TC1	E102714		5.9	6.41						
4/4/2017	GH_TC1	E102714		5.1	5.47						
4/10/2017	GH_TC1	E102714		4.4	4.7						
4/20/2017	GH_TC1	E102714	8.87	22.7	23.4	1.2	1.21	< 0.50	0.89	< 1.0	3.4
4/25/2017	GH_TC1	E102714		8.5	9.45						
5/3/2017	GH_TC1	E102714	6.34	5.9	5.89	1.31	1.35	< 0.50	0.7	< 3.0	< 3.0
5/10/2017	GH_TC1	E102714		11.1	12.3						
5/15/2017	GH_TC1	E102714		6.3	7.29						
5/24/2017	GH_TC1	E102714		4.5	2.72						
5/29/2017	GH_TC1	E102714		4.5	2.7						
6/7/2017	GH_TC1	E102714	4.99	5.5	2.59	3.17	3.37	< 0.50	< 0.50	< 3.0	< 3.0
6/12/2017	GH_TC1	E102714		6	3.32						
6/19/2017	GH_TC1	E102714	4.3	4.3	2.43	3.22	3.53	< 0.50	0.66	< 1.0	< 3.0
6/27/2017	GH_TC1	E102714		3.9	1.9						
7/4/2017	GH_TC1	E102714		3.1	1.46						
7/10/2017	GH_TC1	E102714	3.67	6.8	2.78	4.19	4.29	< 0.50	< 0.50	< 1.0	< 3.0
8/2/2017	GH_TC1	E102714	4.44	5	1.13	5	5.38	< 0.50	< 0.50	< 3.0	< 3.0
9/13/2017	GH_TC1	E102714	4.11	< 5.0	0.8	6.16	6.12	< 0.50	< 0.50	< 3.0	< 3.0
10/4/2017	GH_TC1	E102714	2.95	4.3	0.57	5.77	5.84	< 0.50	< 0.50	< 3.0	< 3.0
11/6/2017	GH_TC1	E102714	2.83	< 1.0	0.78	4.96	4.67	< 0.50	< 2.5	< 3.0	< 15
12/12/2017	GH_TC1	E102714	3.12	2.9	0.82	4.31	4.17	< 0.50	< 0.50	< 3.0	< 3.0
1/10/2017	GH_TC2	E207436	2.69	< 1.0	0.77	3.35	3.36	< 0.50	< 0.50	< 3.0	< 3.0
2/9/2017	GH_TC2	E207436	5.75	2.7	3.31	2.84	2.69	< 0.50	0.59	1.3	< 3.0
2/15/2017	GH_TC2	E207436	3.76	< 1.0	1.15	3.33	3.41	< 0.50	< 0.50	< 3.0	< 3.0
3/6/2017	GH_TC2	E207436	2.7	< 1.0	0.61	3.32	3.58	< 0.50	< 0.50	< 3.0	< 3.0
3/16/2017	GH_TC2	E207436		17	18.6						
3/21/2017	GH_TC2	E207436		3.3	5.52						
3/28/2017	GH_TC2	E207436		5.5	7.7						
4/4/2017	GH_TC2	E207436		4.2	6.59						
4/10/2017	GH_TC2	E207436		6	5.21						
4/20/2017	GH_TC2	E207436	8.41	16.5	21.9	1.27	1.2	< 0.50	0.93	< 1.0	4.4
4/25/2017	GH_TC2	E207436		8.8	10.1						
5/3/2017	GH_TC2	E207436	6.33	5.6	5.04	1.3	1.37	< 0.50	0.8	< 3.0	< 3.0
5/10/2017	GH_TC2	E207436		11.2	13.1						
5/15/2017	GH_TC2	E207436		5.8	7.79						
5/24/2017	GH_TC2	E207436		3.3	4.51						
5/29/2017	GH_TC2	E207436		2.7	2.54						
6/7/2017	GH_TC2	E207436	4.19	3.3	1.71	3.31	3.42	< 0.50	< 0.50	< 3.0	< 3.0
6/12/2017	GH_TC2	E207436		3.2	2.67						
6/19/2017	GH_TC2	E207436	4.1	1.9	1.52	3.3	3.58	< 0.50	0.61	< 1.0	< 3.0
6/27/2017	GH_TC2	E207436		< 1.0	1.4						
7/4/2017	GH_TC2	E207436		2.5	1.38						
7/10/2017	GH_TC2	E207436	4.28	3.6	1.46	4.26	4.34	< 0.50	< 0.50	< 1.0	6.2
8/2/2017	GH_TC2	E207436	3.91	2.3	0.74	5.44	5.33	< 0.50	< 0.50	< 3.0	< 3.0
9/12/2017	GH_TC2	E207436	4.06	< 5.0	2.39	6.21	6.11	< 0.50	< 0.50	< 3.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
10/3/2017	GH_TC2	E207436	2.64	1.6	1.04	5.97	5.85	< 0.50	< 0.50	< 3.0	< 3.0
11/14/2017	GH_TC2	E207436	2.84	1.2	0.92	4.65	4.74	< 0.50	< 0.50	< 3.0	< 3.0
12/6/2017	GH_TC2	E207436	3.22	< 1.0	0.76	4.46	3.94	< 0.50	< 0.50	< 3.0	< 3.0
6/7/2017	GH_TPS	E287438	3.19	6.2	3.07	5.83	5.87	< 0.50	0.59	3.4	4.1
6/19/2017	GH_TPS	E287438	41.4	33.3	15.3	5.98	6.74	< 0.50	< 2.5	4.1	83
11/21/2017	GH_TPS	E287438	1.88	2.1	6.36	12.7	14.7	1	1.2	5.9	< 9.0
1/10/2017	GH_WADE	E287433									
2/14/2017	GH_WADE	E287433									
3/6/2017	GH_WADE	E287433									
3/16/2017	GH_WADE	E287433	12.8	33	55.3	0.734	0.835	< 0.50	2.04	1.3	7.6
3/22/2017	GH_WADE	E287433	5.17	1.7	5.51	0.88	0.862	< 0.50	0.6	< 3.0	< 3.0
3/27/2017	GH_WADE	E287433		76.6	94.2						
3/28/2017	GH_WADE	E287433		46	48						
3/30/2017	GH_WADE	E287433		15	17						
4/4/2017	GH_WADE	E287433		54.8	41.1						
4/4/2017	GH_WADE	E287433		95.4	47.7						
4/10/2017	GH_WADE	E287433		13.6	11.6						
4/18/2017	GH_WADE	E287433	6.18	9.1	9.15	0.756	0.787	< 0.50	0.54	< 3.0	< 3.0
4/25/2017	GH_WADE	E287433		16.1	13.7						
5/1/2017	GH_WADE	E287433	7.24	14.4	10.1	0.68	0.641	< 0.50	0.73	< 3.0	< 3.0
5/8/2017	GH_WADE	E287433		31.1	25.5						
5/15/2017	GH_WADE	E287433		5.7	4.01						
5/24/2017	GH_WADE	E287433		3.2	1.46						
5/29/2017	GH_WADE	E287433		1.3	1.11						
6/5/2017	GH_WADE	E287433	4.29	2.8	0.41	0.909	0.899	< 0.50	< 0.50	< 3.0	< 3.0
6/12/2017	GH_WADE	E287433		1	2.12						
6/20/2017	GH_WADE	E287433		< 1.0	0.69						
6/27/2017	GH_WADE	E287433		< 1.0	0.48						
7/4/2017	GH_WADE	E287433		2.1	0.52						
7/10/2017	GH_WADE	E287433	3.41	< 1.0	0.4	0.893	0.96	< 0.50	< 0.50	< 1.0	5
8/2/2017	GH_WADE	E287433									
9/12/2017	GH_WADE	E287433									
10/3/2017	GH_WADE	E287433									
11/28/2017	GH_WADE	E287433	3.97	1.6	0.55	1.14	1.13	< 0.50	< 0.50	< 3.0	< 3.0
12/6/2017	GH_WADE	E287433									
1/10/2017	GH_WC1	E257795									
2/15/2017	GH_WC1	E257795									
3/6/2017	GH_WC1	E257795									
3/16/2017	GH_WC1	E257795									
3/21/2017	GH_WC1	E257795									
3/27/2017	GH_WC1	E257795	5.35	3	5.6	2.2	2.1	< 0.50	0.72	< 3.0	3.4
4/4/2017	GH_WC1	E257795		35.9	61						
4/10/2017	GH_WC1	E257795		4.4	5.1						
4/20/2017	GH_WC1	E257795	3.67	2.8	2.7	8.61	8.13	< 0.50	< 0.50	19.2	19.3
4/25/2017	GH_WC1	E257795		1.9	1.48						
5/1/2017	GH_WC1	E257795	3.63	2.9	2.54	4.41	4.03	< 0.50	0.57	12.5	13.8
5/3/2017	GH_WC1	E257795		1	1.38						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
5/8/2017	GH_WC1	E257795		7.2	10.8						
5/15/2017	GH_WC1	E257795		1.2	0.7						
5/24/2017	GH_WC1	E257795		5.7	1.3						
5/29/2017	GH_WC1	E257795		3.3	1.26						
6/5/2017	GH_WC1	E257795	3.22	2.3	0.58	8.57	9.42	< 0.50	< 0.50	< 3.0	< 3.0
6/12/2017	GH_WC1	E257795		3	2.35						
6/19/2017	GH_WC1	E257795									
6/27/2017	GH_WC1	E257795									
7/4/2017	GH_WC1	E257795									
7/10/2017	GH_WC1	E257795									
8/2/2017	GH_WC1	E257795									
9/11/2017	GH_WC1	E257795									
10/3/2017	GH_WC1	E257795									
11/6/2017	GH_WC1	E257795									
12/12/2017	GH_WC1	E257795	1.49	1.7	0.4	12.2	11.5	< 0.50	< 0.50	< 3.0	18.6
1/16/2017	GH_WILLOW_SP1	E305854									
2/14/2017	GH_WILLOW_SP1	E305854									
3/6/2017	GH_WILLOW_SP1	E305854									
3/16/2017	GH_WILLOW_SP1	E305854									
3/22/2017	GH_WILLOW_SP1	E305854									
3/27/2017	GH_WILLOW_SP1	E305854									
4/4/2017	GH_WILLOW_SP1	E305854		3.3	6.89						
4/10/2017	GH_WILLOW_SP1	E305854		2.2	5.1						
4/18/2017	GH_WILLOW_SP1	E305854	6.64	1.2	1.79	0.386	0.37	< 0.50	< 0.50	< 3.0	< 3.0
4/25/2017	GH_WILLOW_SP1	E305854		3.3	5.98						
5/3/2017	GH_WILLOW_SP1	E305854	6.29	1.9	2.26	0.331	0.321	< 0.50	0.64	< 3.0	< 3.0
5/8/2017	GH_WILLOW_SP1	E305854		10.9	16.8						
5/15/2017	GH_WILLOW_SP1	E305854		4.4	6.15						
5/24/2017	GH_WILLOW_SP1	E305854		3.9	2.93						
5/29/2017	GH_WILLOW_SP1	E305854		1.5	2.38						
6/5/2017	GH_WILLOW_SP1	E305854	4.18	3.3	1.82	0.341	0.338	< 0.50	< 0.50	< 3.0	3.2
6/12/2017	GH_WILLOW_SP1	E305854		4	4.56						
6/20/2017	GH_WILLOW_SP1	E305854									
6/27/2017	GH_WILLOW_SP1	E305854									
7/4/2017	GH_WILLOW_SP1	E305854									
7/10/2017	GH_WILLOW_SP1	E305854									
8/2/2017	GH_WILLOW_SP1	E305854									
9/12/2017	GH_WILLOW_SP1	E305854									
10/3/2017	GH_WILLOW_SP1	E305854									
11/6/2017	GH_WILLOW_SP1	E305854									
12/6/2017	GH_WILLOW_SP1	E305854									
1/10/2017	GH_WOLF_SP1	E305855									
2/14/2017	GH_WOLF_SP1	E305855									
3/6/2017	GH_WOLF_SP1	E305855									
3/16/2017	GH_WOLF_SP1	E305855									
3/22/2017	GH_WOLF_SP1	E305855									
3/27/2017	GH_WOLF_SP1	E305855									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
4/4/2017	GH_WOLF_SP1	E305855									
4/10/2017	GH_WOLF_SP1	E305855									
4/20/2017	GH_WOLF_SP1	E305855									
4/24/2017	GH_WOLF_SP1	E305855									
5/1/2017	GH_WOLF_SP1	E305855									
5/8/2017	GH_WOLF_SP1	E305855									
5/15/2017	GH_WOLF_SP1	E305855									
5/22/2017	GH_WOLF_SP1	E305855									
5/29/2017	GH_WOLF_SP1	E305855									
6/5/2017	GH_WOLF_SP1	E305855									
6/12/2017	GH_WOLF_SP1	E305855									
6/20/2017	GH_WOLF_SP1	E305855									
6/27/2017	GH_WOLF_SP1	E305855									
7/4/2017	GH_WOLF_SP1	E305855									
7/10/2017	GH_WOLF_SP1	E305855									
8/1/2017	GH_WOLF_SP1	E305855									
9/12/2017	GH_WOLF_SP1	E305855									
10/3/2017	GH_WOLF_SP1	E305855									
11/6/2017	GH_WOLF_SP1	E305855									
12/6/2017	GH_WOLF_SP1	E305855									
1/12/2017	LC_LC1	E216142									
2/14/2017	LC_LC1	E216142									
3/9/2017	LC_LC1	E216142									
3/14/2017	LC_LC1	E216142									
3/21/2017	LC_LC1	E216142									
3/29/2017	LC_LC1	E216142									
4/5/2017	LC_LC1	E216142									
4/11/2017	LC_LC1	E216142									
4/20/2017	LC_LC1	E216142									
4/25/2017	LC_LC1	E216142	1.26	1	0.28	1.27	1.39	< 0.50	< 0.50	2.2	7.1
5/1/2017	LC_LC1	E216142	2.23	1.6	0.19	1.35	1.41	< 0.50	0.51	2.1	< 3.0
5/5/2017	LC_LC1	E216142		6.7	0.56						
5/6/2017	LC_LC1	E216142		19.3	2.17						
5/9/2017	LC_LC1	E216142		< 1.0	0.35						
5/9/2017	LC_LC1	E216142									
5/16/2017	LC_LC1	E216142		< 1.0	0.46						
5/24/2017	LC_LC1	E216142		105	16.2						
5/30/2017	LC_LC1	E216142		15.9	7.94						
6/6/2017	LC_LC1	E216142									
6/7/2017	LC_LC1	E216142	1.28	3.1	1.31	0.562	0.708	< 0.50	0.53	2.1	< 3.0
6/13/2017	LC_LC1	E216142		< 1.0	0.53						
6/20/2017	LC_LC1	E216142		< 1.0	0.39						
6/20/2017	LC_LC1	E216142									
6/26/2017	LC_LC1	E216142		< 1.0	0.67						
7/6/2017	LC_LC1	E216142	0.75	< 1.0	0.19	0.854	0.887	< 0.50	0.62	2.2	3.3
7/10/2017	LC_LC1	E216142									
7/11/2017	LC_LC1	E216142		< 1.0	0.5						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
8/2/2017	LC_LC1	E216142	1.09	< 1.0	0.23	1.2	1.29	< 0.50	0.62	< 3.0	< 3.0
8/2/2017	LC_LC1	E216142									
8/8/2017	LC_LC1	E216142									
8/15/2017	LC_LC1	E216142									
8/18/2017	LC_LC1	E216142									
8/18/2017	LC_LC1	E216142									
8/21/2017	LC_LC1	E216142									
8/24/2017	LC_LC1	E216142									
8/24/2017	LC_LC1	E216142									
8/27/2017	LC_LC1	E216142									
8/30/2017	LC_LC1	E216142									
9/2/2017	LC_LC1	E216142									
9/5/2017	LC_LC1	E216142	0.74	< 1.0	0.2	1.36	1.5	< 0.50	0.52	< 3.0	< 3.0
9/5/2017	LC_LC1	E216142									
9/8/2017	LC_LC1	E216142									
10/3/2017	LC_LC1	E216142	0.65	< 1.0	0.22	1.49	1.54	< 0.50	0.54	< 3.0	< 3.0
11/8/2017	LC_LC1	E216142	< 0.50	< 1.0	0.18	1.33	1.55	< 0.50	< 0.50	3.4	4.1
11/8/2017	LC_LC1	E216142									
11/30/2017	LC_LC1	E216142									
12/4/2017	LC_LC1	E216142	< 0.50	< 1.0	0.15	1.53	1.65	< 0.50	< 0.50	< 3.0	5.3
12/4/2017	LC_LC1	E216142									
1/9/2017	LC_LC12	E223240									
2/15/2017	LC_LC12	E223240									
3/6/2017	LC_LC12	E223240									
3/14/2017	LC_LC12	E223240									
3/20/2017	LC_LC12	E223240									
3/27/2017	LC_LC12	E223240									
4/3/2017	LC_LC12	E223240									
4/10/2017	LC_LC12	E223240									
4/17/2017	LC_LC12	E223240									
4/24/2017	LC_LC12	E223240									
5/1/2017	LC_LC12	E223240									
5/9/2017	LC_LC12	E223240	1.57	< 1.0	0.42	3.19	3.37	< 0.50	< 0.50	9.2	9.4
5/16/2017	LC_LC12	E223240		< 1.0	0.37						
5/23/2017	LC_LC12	E223240		2.9	0.46						
5/30/2017	LC_LC12	E223240		9	7.15						
6/6/2017	LC_LC12	E223240	0.99	< 1.0	0.37	2.26	2.66	< 0.50	< 0.50	6.6	6
6/13/2017	LC_LC12	E223240		< 1.0	0.31						
6/20/2017	LC_LC12	E223240		< 1.0	0.58						
6/26/2017	LC_LC12	E223240		1.8	0.55						
7/5/2017	LC_LC12	E223240	0.99	< 1.0	0.13	2.75	2.88	< 0.50	< 0.50	1.3	< 3.0
7/11/2017	LC_LC12	E223240		< 1.0	0.3						
1/9/2017	LC_LC2	200335	< 0.50	< 1.0	0.16	0.788	0.826	< 0.50	< 0.50	< 3.0	< 3.0
2/14/2017	LC_LC2	200335	< 0.50	< 1.0	0.26	0.757	0.822	< 0.50	< 0.50	< 1.0	< 3.0
3/6/2017	LC_LC2	200335	< 0.50	< 1.0	0.15	0.823	0.821	< 0.50	< 0.50	< 3.0	< 3.0
3/13/2017	LC_LC2	200335		< 1.0	0.25						
3/16/2017	LC_LC2	200335		2	2.2						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
3/17/2017	LC_LC2	200335	< 0.50	< 1.0	0.18	0.79	0.832	< 0.50	< 0.50	< 1.0	< 3.0
3/18/2017	LC_LC2	200335		1.6	0.35						
3/19/2017	LC_LC2	200335		1.2	0.35						
3/20/2017	LC_LC2	200335		< 1.0	0.34						
3/21/2017	LC_LC2	200335		< 1.0	0.69						
3/22/2017	LC_LC2	200335		< 1.0	0.14						
3/23/2017	LC_LC2	200335		< 1.0	0.18						
3/24/2017	LC_LC2	200335		< 1.0	0.3						
3/25/2017	LC_LC2	200335		1	0.15						
3/26/2017	LC_LC2	200335		1.3	0.29						
3/27/2017	LC_LC2	200335		< 1.0	0.31						
4/4/2017	LC_LC2	200335	0.9	< 1.0	0.53	0.777	0.727	< 0.50	< 0.50	< 1.0	< 3.0
4/4/2017	LC_LC2	200335									
4/10/2017	LC_LC2	200335		< 1.0	0.2						
4/18/2017	LC_LC2	200335		< 1.5	0.38						
4/25/2017	LC_LC2	200335		2	0.58						
5/1/2017	LC_LC2	200335	1.15	< 1.0	0.29	0.926	0.923	< 0.50	< 0.50	< 1.0	< 3.0
5/5/2017	LC_LC2	200335		16.4	1.99						
5/6/2017	LC_LC2	200335		30	3.55						
5/7/2017	LC_LC2	200335		9	10.9						
5/9/2017	LC_LC2	200335		2.1	1.08						
5/11/2017	LC_LC2	200335		6.9	4.08						
5/13/2017	LC_LC2	200335		17.4	10.2						
5/16/2017	LC_LC2	200335		2.2	1.91						
5/18/2017	LC_LC2	200335									
5/23/2017	LC_LC2	200335		13.6	8.81						
5/24/2017	LC_LC2	200335		112	56.6						
5/25/2017	LC_LC2	200335		17.4	10.2						
5/30/2017	LC_LC2	200335		17.7	10.5						
6/1/2017	LC_LC2	200335		30.9	15.3						
6/5/2017	LC_LC2	200335									
6/6/2017	LC_LC2	200335	0.95	4.5	1.89	0.51	0.63	< 0.50	0.55	1	< 3.0
6/13/2017	LC_LC2	200335		< 1.0	0.51						
6/20/2017	LC_LC2	200335		< 1.0	0.55						
6/26/2017	LC_LC2	200335		1	0.4						
7/5/2017	LC_LC2	200335	1.28	1.8	0.71	0.704	0.785	< 0.50	0.59	< 1.0	< 3.0
7/6/2017	LC_LC2	200335									
7/10/2017	LC_LC2	200335									
7/11/2017	LC_LC2	200335		< 1.0	0.41						
8/2/2017	LC_LC2	200335	0.97	< 1.0	0.13	0.801	0.786	< 0.50	< 0.50	< 3.0	< 3.0
8/2/2017	LC_LC2	200335									
9/6/2017	LC_LC2	200335	0.9	< 1.0	0.18	0.732	0.793	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	LC_LC2	200335	0.84	< 1.0	0.43	0.749	0.755	< 0.50	< 0.50	< 3.0	< 3.0
11/8/2017	LC_LC2	200335	< 0.50	1	0.19	0.744	0.783	< 0.50	< 0.50	< 3.0	< 3.0
11/8/2017	LC_LC2	200335									
12/4/2017	LC_LC2	200335	< 0.50	< 1.0	0.23	0.785	0.757	< 0.50	< 0.50	< 3.0	< 3.0
1/2/2017	LC_LC3	200337	1.05	< 1.0	0.33	4.44	5.5	< 0.50	< 0.50	8.3	9.6

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
1/2/2017	LC_LC3	200337									
1/9/2017	LC_LC3	200337	0.68	< 1.0	0.35	5.41	5.7	< 0.50	< 0.50	5.8	7.3
1/16/2017	LC_LC3	200337	0.55	< 1.0	0.32	5	5.78	< 0.50	< 0.50	5.9	7.5
1/23/2017	LC_LC3	200337	0.97	< 1.0	0.38	5.74	6.04	< 0.50	< 0.50	5.5	6.8
1/31/2017	LC_LC3	200337	1.12	1	0.42	5.94	6.08	< 0.50	< 0.50	5.9	7.8
2/7/2017	LC_LC3	200337	1.09	< 1.0	0.71	5.61	5.7	< 0.50	< 0.50	6.1	6.8
2/14/2017	LC_LC3	200337	< 0.50	< 1.0	0.63	5.55	5.53	< 0.50	< 0.50	5.8	5.8
2/20/2017	LC_LC3	200337	1.01	< 1.0	0.76	5.58	6.01	< 0.50	< 0.50	6.2	6.7
2/24/2017	LC_LC3	200337	0.98	< 1.0	0.75	5.67	5.83	< 0.50	< 0.50	6.4	6.4
2/27/2017	LC_LC3	200337	1.29	< 1.0	0.54	5.79	6.31	< 0.50	< 0.50	5.8	6.3
3/1/2017	LC_LC3	200337									
3/6/2017	LC_LC3	200337	0.77	1.1	0.5	6.11	6.23	< 0.50	< 0.50	5.8	6.2
3/13/2017	LC_LC3	200337	0.99	< 1.0	0.99	5.52	5.71	< 0.50	< 0.50	6.9	6
3/16/2017	LC_LC3	200337		9	8.9						
3/16/2017	LC_LC3	200337		89	94.3						
3/17/2017	LC_LC3	200337	4.86	11.4	34.2	5.13	5.48	< 0.50	1.12	8.7	15.4
3/18/2017	LC_LC3	200337		21.1	35.2						
3/19/2017	LC_LC3	200337		58	132						
3/20/2017	LC_LC3	200337	4.82	19	30.7	3.81	4.69	< 0.50	0.9	8.3	17
3/21/2017	LC_LC3	200337		14.7	21.7						
3/22/2017	LC_LC3	200337		7.8	10.9						
3/23/2017	LC_LC3	200337		10	14.7						
3/24/2017	LC_LC3	200337		15.8	23.1						
3/25/2017	LC_LC3	200337		5.8	8.58						
3/26/2017	LC_LC3	200337		5.8	4.02						
3/27/2017	LC_LC3	200337	4.14	6.8	4.95	5.18	5.69	< 0.50	1.08	8.1	9.4
3/28/2017	LC_LC3	200337		2.2	4.7						
3/29/2017	LC_LC3	200337		1.6	2.56						
3/30/2017	LC_LC3	200337		2.4	3.25						
4/3/2017	LC_LC3	200337	1.39	2.5	2.24	4.92	4.59	< 0.50	< 0.50	8.9	9.4
4/4/2017	LC_LC3	200337									
4/10/2017	LC_LC3	200337	2.06	4.1	4.55	6.21	5.64	< 0.50	< 0.50	9.7	10.5
4/18/2017	LC_LC3	200337	1.13	< 2.0	1.75	5.23	5.12	< 0.50	< 0.50	10.2	13
4/25/2017	LC_LC3	200337	1.24	2.7	2.42	4.53	4.96	< 0.50	< 0.50	10.1	19.3
5/1/2017	LC_LC3	200337	1.23	< 1.0	0.77	4.99	4.86	< 0.50	< 0.50	11.8	13
5/4/2017	LC_LC3	200337		23.8							
5/7/2017	LC_LC3	200337		4	11.4						
5/9/2017	LC_LC3	200337	1.54	< 1.0	0.73	2.75	3.05	< 0.50	< 0.50	18.8	17.6
5/16/2017	LC_LC3	200337	2.32	< 1.0	0.95	2.45	2.69	< 0.50	< 0.50	19.4	17.2
5/18/2017	LC_LC3	200337									
5/23/2017	LC_LC3	200337	1.27	< 1.0	0.75	2.96	2.94	< 0.50	< 0.50	20.4	18.4
5/30/2017	LC_LC3	200337	0.8	< 1.0	0.92	2.37	2.51	< 0.50	< 0.50	22	20.3
6/6/2017	LC_LC3	200337									
6/7/2017	LC_LC3	200337	0.83	< 1.0	0.37	2.37	2.77	< 0.50	< 0.50	26.3	23.7
6/13/2017	LC_LC3	200337	0.67	< 1.0	0.31	2.7	3.18	< 0.50	< 0.50	26.9	26.8
6/19/2017	LC_LC3	200337	0.92	< 1.0	0.45	3.03	2.95	< 0.50	< 0.50	28.3	24.4
6/26/2017	LC_LC3	200337	1.17	< 1.0	0.54	3.3	3.27	< 0.50	< 0.50	25.6	23.2

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
7/6/2017	LC_LC3	200337									
7/6/2017	LC_LC3	200337	1.17	< 1.0	0.27	3.44	3.54	< 0.50	< 0.50	19.7	22.7
7/11/2017	LC_LC3	200337									
7/11/2017	LC_LC3	200337	1.3	< 1.0	0.36	3.67	3.62	< 0.50	< 0.50	24.7	22.7
7/13/2017	LC_LC3	200337									
7/14/2017	LC_LC3	200337	1.21	48.8	6.61	4.55	4.64	< 0.50	< 0.50	27	32
7/14/2017	LC_LC3	200337									
7/18/2017	LC_LC3	200337	1.04	< 1.0	0.34	4.16	4.04	< 0.50	< 0.50	23.3	22.4
7/25/2017	LC_LC3	200337									
7/25/2017	LC_LC3	200337	1.22	< 1.0	0.4	4.16	4.22	< 0.50	< 0.50	20.3	19.3
7/26/2017	LC_LC3	200337	1.04	< 1.0	0.43	4.36	4.25	< 0.50	< 0.50	22	18.7
8/2/2017	LC_LC3	200337									
8/2/2017	LC_LC3	200337	1.2	< 1.0	0.28	5.33	5.28	< 0.50	< 0.50	18.1	18.6
8/8/2017	LC_LC3	200337									
8/8/2017	LC_LC3	200337	0.74	1.3	0.45	5.03	5.24	< 0.50	< 0.50	20.3	20.6
8/12/2017	LC_LC3	200337	0.83	< 1.0	0.67	4.25	4.4	< 0.50	< 0.50	16.3	15.9
8/12/2017	LC_LC3	200337									
8/15/2017	LC_LC3	200337									
8/15/2017	LC_LC3	200337	0.75	< 1.0	0.4	4.45	4.5	< 0.50	< 0.50	15.8	17.9
8/18/2017	LC_LC3	200337									
8/21/2017	LC_LC3	200337	0.63	< 1.0	0.51	4.98	4.62	< 0.50	< 0.50	16.3	15.9
8/24/2017	LC_LC3	200337									
8/24/2017	LC_LC3	200337									
8/25/2017	LC_LC3	200337									
8/27/2017	LC_LC3	200337									
8/27/2017	LC_LC3	200337									
8/30/2017	LC_LC3	200337									
8/30/2017	LC_LC3	200337	0.63	< 1.0	0.34	4.89	5.01	< 0.50	< 0.50	12.6	14.1
9/2/2017	LC_LC3	200337									
9/2/2017	LC_LC3	200337									
9/5/2017	LC_LC3	200337									
9/5/2017	LC_LC3	200337	1.04	< 1.0	0.26	4.94	5.47	< 0.50	< 0.50	12.8	14.4
9/5/2017	LC_LC3	200337									
9/8/2017	LC_LC3	200337									
9/12/2017	LC_LC3	200337	0.93	< 1.0	1.3	5.31	5.97	< 0.50	< 0.50	18.6	21.3
9/20/2017	LC_LC3	200337									
9/20/2017	LC_LC3	200337	0.64	< 1.0	0.35	5.28	5.33	< 0.50	< 0.50	12.5	12.7
9/21/2017	LC_LC3	200337	0.74	< 1.0	0.66	5.1	5.51	< 0.50	< 0.50	15.3	14.2
9/25/2017	LC_LC3	200337									
9/25/2017	LC_LC3	200337	0.66	< 1.0	0.31	4.94	5.11	< 0.50	< 0.50	14	14.3
9/25/2017	LC_LC3	200337	0.97	< 1.0	0.48	4.77	5.12	< 0.50	< 0.50	11.8	13.2
10/2/2017	LC_LC3	200337	0.75	1.2	0.67	4.55	4.85	< 0.50	< 0.50	10.7	13.1
10/10/2017	LC_LC3	200337	0.92	< 1.0	0.43	5.23	5.64	< 0.50	< 0.50	9.5	13.3
10/10/2017	LC_LC3	200337									
10/17/2017	LC_LC3	200337	1.15	< 1.0	0.51	5.6	5.81	< 0.50	< 0.50	14.1	18
10/24/2017	LC_LC3	200337	0.55	< 1.0	0.71	5.74	5.52	< 0.50	< 0.50	14.9	16.1
10/24/2017	LC_LC3	200337									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
10/31/2017	LC_LC3	200337	0.64	< 1.0	0.85	5.66	5.5	< 0.50	< 0.50	14	13.9
10/31/2017	LC_LC3	200337									
11/6/2017	LC_LC3	200337	0.73	1	0.54	5.71	5.82	< 0.50	< 0.50	10.9	12.6
11/8/2017	LC_LC3	200337									
11/9/2017	LC_LC3	200337	0.84	1	0.53	4.35	5.48	< 0.50	< 0.50	11	11.6
11/14/2017	LC_LC3	200337	0.54	< 1.0	0.68	5.46	5.56	< 0.50	< 0.50	10.5	13.2
11/21/2017	LC_LC3	200337	< 0.50	< 1.0	0.42	4.86	6.25	< 0.50	< 0.50	10.7	10.6
11/28/2017	LC_LC3	200337	< 0.50	< 1.0	1.36	5.19	5.22	< 0.50	< 0.50	11.8	12.9
12/4/2017	LC_LC3	200337	0.5	< 1.0	0.57	5.4	5.09	< 0.50	< 0.50	11.8	12.5
12/12/2017	LC_LC3	200337	< 0.50	1.2	0.38	5.29	5.74	< 0.50	< 0.50	9.5	12.3
12/18/2017	LC_LC3	200337	0.59	< 1.0	0.78	5.44	5.11	< 0.50	< 0.50	9.1	11.3
12/27/2017	LC_LC3	200337	0.79	< 1.0	0.64	6.12	6.08	< 0.50	< 0.50	7.3	8.7
12/27/2017	LC_LC3	200337									
1/9/2017	LC_LC4	200044	0.67	< 1.0	0.18	3.08	3.21	< 0.50	< 0.50	< 3.0	3.4
2/14/2017	LC_LC4	200044	1.13	< 1.0	0.29	3.07	2.8	< 0.50	< 0.50	2.7	3.4
2/24/2017	LC_LC4	200044	0.74	< 1.0	0.28	3.23	3.06	< 0.50	< 0.50	2.8	3.2
2/27/2017	LC_LC4	200044	1.11	3.9	0.82	2.98	3.25	< 0.50	< 0.50	2.5	3.9
3/6/2017	LC_LC4	200044	0.57	< 1.0	0.15	3.36	3.29	< 0.50	< 0.50	< 3.0	3.7
3/13/2017	LC_LC4	200044	1.68	1.5	4.51	2.87	3.07	< 0.50	< 0.50	2.3	3.1
3/15/2017	LC_LC4	200044		20	23						
3/16/2017	LC_LC4	200044		85	120.7						
3/17/2017	LC_LC4	200044	1.43	5.4	7.04	3.03	3.2	< 0.50	0.71	2.5	4.8
3/18/2017	LC_LC4	200044		387	533						
3/19/2017	LC_LC4	200044		13.4	18.4						
3/20/2017	LC_LC4	200044	1.84	4.4	5.28	2.41	2.85	< 0.50	< 0.50	2.7	10.4
3/21/2017	LC_LC4	200044		2.6	3.08						
3/22/2017	LC_LC4	200044		2.4	1.54						
3/23/2017	LC_LC4	200044		2.6	2.5						
3/24/2017	LC_LC4	200044		3	2.49						
3/25/2017	LC_LC4	200044		4	2.31						
3/26/2017	LC_LC4	200044		2.4	1.08						
3/27/2017	LC_LC4	200044	1.44	2.8	1.38	2.91	3.17	< 0.50	0.91	2.8	3.9
4/3/2017	LC_LC4	200044	1.3	1.3	0.51	3.04	2.75	< 0.50	< 0.50	2.5	5.5
4/10/2017	LC_LC4	200044	2.67	4.1	3.26	3.05	3.02	< 0.50	< 0.50	2.3	5.9
4/18/2017	LC_LC4	200044	1.3	2.5	1.44	2.98	2.77	< 0.50	< 0.50	2.2	5
4/24/2017	LC_LC4	200044	2.12	4	2.28	3.01	3.21	< 0.50	< 0.50	3.4	7.7
4/27/2017	LC_LC4	200044		19.2	9.64						
5/1/2017	LC_LC4	200044	1.99	2	0.78	3.11	3.17	< 0.50	< 0.50	3.8	5.6
5/5/2017	LC_LC4	200044		59.3	3.8						
5/6/2017	LC_LC4	200044		83.8	6.77						
5/7/2017	LC_LC4	200044		50	30.8						
5/8/2017	LC_LC4	200044		14.3	10.5						
5/8/2017	LC_LC4	200044	3.97	25.3	14.8	1.87	2.15	< 0.50	1.02	5.9	14.2
5/10/2017	LC_LC4	200044		8.1	4.34						
5/11/2017	LC_LC4	200044		14.3	10.3						
5/13/2017	LC_LC4	200044		93.2	48.4						
5/14/2017	LC_LC4	200044		29.6	18.4						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
5/15/2017	LC_LC4	200044	4.05	23.4	17	1.71	1.78	< 0.50	1.22	6.7	10.6
5/16/2017	LC_LC4	200044		18.8	15.5						
5/17/2017	LC_LC4	200044		10.6	7.21						
5/18/2017	LC_LC4	200044		20.9	19.7						
5/19/2017	LC_LC4	200044		29.8	49.2						
5/23/2017	LC_LC4	200044	3.12	27.1	11.6	1.4	1.41	< 0.50	0.75	4.2	9.6
5/24/2017	LC_LC4	200044		198	92.5						
5/25/2017	LC_LC4	200044		22.9	1.07						
5/30/2017	LC_LC4	200044	1.83	54.9	26.4	1.22	1.26	< 0.50	0.91	4.9	13.4
5/31/2017	LC_LC4	200044		61.7	23						
6/1/2017	LC_LC4	200044		113	47.4						
6/2/2017	LC_LC4	200044		21.3	11.2						
6/7/2017	LC_LC4	200044	1.5	5.7	2.65	1.32	1.62	< 0.50	0.5	9	10.9
6/13/2017	LC_LC4	200044	1.2	3.1	1.21	1.37	1.79	< 0.50	< 0.50	9.5	9.4
6/19/2017	LC_LC4	200044	1.14	1.8	0.45	1.75	1.73	< 0.50	< 0.50	8.6	9.4
6/26/2017	LC_LC4	200044	1.21	1.4	0.49	1.87	1.91	< 0.50	< 0.50	8.5	8.8
7/5/2017	LC_LC4	200044	1.43	1.2	0.56	2.05	2.13	< 0.50	< 0.50	6.8	8.9
7/11/2017	LC_LC4	200044	1.35	1.2	0.44	2.23	2.19	< 0.50	< 0.50	4.9	7.2
7/18/2017	LC_LC4	200044	1.46	1.8	0.42	2.55	2.52	< 0.50	< 0.50	4.4	8.9
7/25/2017	LC_LC4	200044	1.47	1.4	0.32	2.48	2.46	< 0.50	< 0.50	6.2	8
8/2/2017	LC_LC4	200044	1.71	< 1.0	0.26	3.02	3.13	< 0.50	< 0.50	4	6.1
8/8/2017	LC_LC4	200044	0.81	< 1.0	0.65	3.09	3.23	< 0.50	< 0.50	4.3	6
8/15/2017	LC_LC4	200044	0.92	1	0.37	2.83	2.75	< 0.50	< 0.50	3.8	6.5
8/18/2017	LC_LC4	200044									
8/21/2017	LC_LC4	200044	0.86	< 1.0	0.34	3.1	2.77	< 0.50	< 0.50	4.2	6
8/24/2017	LC_LC4	200044									
8/27/2017	LC_LC4	200044									
8/30/2017	LC_LC4	200044	1.11	< 1.0	0.27	2.79	3.1	< 0.50	< 0.50	< 3.0	5.5
9/2/2017	LC_LC4	200044									
9/5/2017	LC_LC4	200044									
9/5/2017	LC_LC4	200044	0.93	1.2	0.29	2.97	3.25	< 0.50	< 0.50	< 3.0	5.9
9/8/2017	LC_LC4	200044									
9/12/2017	LC_LC4	200044	0.95	1.2	0.88	2.95	3.16	< 0.50	< 0.50	3.5	17.1
9/20/2017	LC_LC4	200044	0.74	1.4	0.28	3.27	3.2	< 0.50	< 0.50	3.3	5.2
9/25/2017	LC_LC4	200044	0.84	1	1.18	2.91	3.18	< 0.50	< 0.50	3.3	6.2
10/2/2017	LC_LC4	200044	0.83	1.4	0.67	2.99	3.16	< 0.50	< 0.50	< 3.0	4.9
10/10/2017	LC_LC4	200044	0.73	1.1	0.31	3.21	3.24	< 0.50	< 0.50	3	5.9
10/17/2017	LC_LC4	200044	2.62	1.8	0.46	3.25	3.39	< 0.50	< 0.50	3.1	7.8
10/24/2017	LC_LC4	200044	0.86	1.8	1.1	3.36	3.24	< 0.50	< 0.50	3.9	6.2
10/31/2017	LC_LC4	200044	0.7	< 1.0	0.77	3.79	3.53	< 0.50	< 0.50	3.6	5.1
11/6/2017	LC_LC4	200044	0.62	< 1.0	0.33	3.29	3.36	< 0.50	< 0.50	3.8	4.6
11/10/2017	LC_LC4	200044	1	1	0.22	3.34	3.18	< 0.50	< 2.5	< 3.0	< 15
11/14/2017	LC_LC4	200044	0.55	< 1.0	0.36	3.47	3.48	< 0.50	< 0.50	3.5	5.6
11/21/2017	LC_LC4	200044	< 0.50	< 1.0	0.31	3.08	3.99	< 0.50	< 0.50	3.6	5.6
11/23/2017	LC_LC4	200044		23.3	16.3						
11/28/2017	LC_LC4	200044	0.7	< 1.0	0.92	3.12	35.9	< 0.50	< 0.50	3.1	8
12/4/2017	LC_LC4	200044	0.61	< 1.0	0.3	3.25	3.28	< 0.50	< 0.50	< 3.0	5.2

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
12/12/2017	LC_LC4	200044	< 0.50	1.4	0.53	3.33	3.7	< 0.50	< 0.50	< 3.0	7.6
12/18/2017	LC_LC4	200044	0.63	< 1.0	0.32	3.45	3.24	< 0.50	< 0.50	< 3.0	4.5
12/27/2017	LC_LC4	200044	0.74	< 1.0	0.91	3.7	3.66	< 0.50	< 0.50	< 3.0	6.9
1/2/2017	LC_LC5	200028	0.84	1.7	0.87	2.15	2.26	< 0.50	< 0.50	< 1.0	< 3.0
1/9/2017	LC_LC5	200028	0.57	1.4	0.34	2.03	2.15	< 0.50	< 0.50	< 3.0	< 3.0
1/16/2017	LC_LC5	200028	0.66	6.7	0.4	2.04	2.27	< 0.50	< 0.50	< 3.0	< 3.0
2/14/2017	LC_LC5	200028	< 0.50	5.8	3.75	2.05	2.14	< 0.50	< 0.50	< 1.0	< 3.0
3/6/2017	LC_LC5	200028	0.58	< 1.0	0.18	2.29	2.24	< 0.50	< 0.50	< 3.0	< 3.0
3/13/2017	LC_LC5	200028	0.76	1.3	1.39	1.93	2.15	< 0.50	< 0.50	1.1	< 3.0
3/16/2017	LC_LC5	200028		66	97.4						
3/20/2017	LC_LC5	200028	1.2	3.6	5.56	1.93	2.11	< 0.50	< 0.50	1.1	< 3.0
3/27/2017	LC_LC5	200028	1.66	5	3.24	2.02	2.09	< 0.50	0.85	< 1.0	< 3.0
4/3/2017	LC_LC5	200028	1.44	2.9	1.63	2.05	1.99	< 0.50	< 0.50	< 1.0	< 3.0
4/10/2017	LC_LC5	200028	2.39	1.9	0.37	2.1	2	< 0.50	< 0.50	< 1.0	15.1
4/18/2017	LC_LC5	200028	1.51	2.5	1.33	2.02	1.88	< 0.50	< 0.50	< 1.0	< 3.0
4/25/2017	LC_LC5	200028	2.11	8.2	5.82	1.73	1.85	< 0.50	0.56	< 1.0	16
5/1/2017	LC_LC5	200028	1.73	3	1.74	2.13	2.27	< 0.50	< 0.50	< 1.0	< 3.0
5/8/2017	LC_LC5	200028	4.14	38.3	17.8	1.27	1.49	< 0.50	1.34	1.7	6.7
5/15/2017	LC_LC5	200028	4.13	27	15.4	1.34	1.54	< 0.50	1.64	2.3	6.6
5/24/2017	LC_LC5	200028	14	281	116	1.03	1.36	< 0.50	5.97	1.1	32.7
5/31/2017	LC_LC5	200028	4.2	108	46.2	1.17	1.32	< 0.50	3.13	1.3	13.8
6/6/2017	LC_LC5	200028	2.12	15.7	5.91	1.26	1.42	< 0.50	0.81	2.6	4.9
6/13/2017	LC_LC5	200028	1.45	5.7	2.05	1.4	1.81	< 0.50	< 0.50	8.9	10
6/19/2017	LC_LC5	200028	1.52	3.2	1.4	1.44	1.47	< 0.50	< 0.50	1.8	3.7
6/26/2017	LC_LC5	200028	1.43	2.6	0.83	1.58	1.6	< 0.50	0.52	1.4	< 3.0
7/6/2017	LC_LC5	200028	1.47	1.8	0.43	1.6	1.66	< 0.50	< 0.50	1.2	< 3.0
7/10/2017	LC_LC5	200028	1.57	1.4	0.58	1.71	1.72	< 0.50	< 0.50	< 1.0	3.6
7/18/2017	LC_LC5	200028	1.36	1.6	0.46	1.85	1.88	< 0.50	< 0.50	1.1	3.4
7/25/2017	LC_LC5	200028	1.29	< 1.0	0.53	1.77	1.8	< 0.50	< 0.50	1.9	< 3.0
8/2/2017	LC_LC5	200028	2.16	1.8	0.5	2.12	2.14	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	LC_LC5	200028									
8/15/2017	LC_LC5	200028	2.8	< 1.0	0.48	2.04	2.01	< 0.50	< 0.50	< 3.0	< 3.0
8/18/2017	LC_LC5	200028									
8/21/2017	LC_LC5	200028									
8/24/2017	LC_LC5	200028									
8/27/2017	LC_LC5	200028									
8/30/2017	LC_LC5	200028									
9/2/2017	LC_LC5	200028									
9/5/2017	LC_LC5	200028									
9/5/2017	LC_LC5	200028	< 0.50	< 1.0	0.25	2.07	2.29	< 0.50	< 0.50	< 3.0	< 3.0
9/8/2017	LC_LC5	200028									
9/12/2017	LC_LC5	200028	0.87	< 1.0	0.36	2.01	3	< 0.50	< 0.50	< 3.0	16.7
10/2/2017	LC_LC5	200028	0.86	1	0.27	2.38	2.13	< 0.50	< 0.50	< 3.0	< 3.0
11/7/2017	LC_LC5	200028	0.78	< 1.0	0.81	2.21	2.47	< 0.50	< 0.50	< 3.0	< 3.0
11/28/2017	LC_LC5	200028	0.68	< 1.0	0.6	2.29	3.96	< 0.50	< 0.50	< 3.0	13.7
11/30/2017	LC_LC5	200028									
12/4/2017	LC_LC5	200028	< 0.50	< 1.0	0.32	2.45	2.49	< 0.50	< 0.50	< 3.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
1/9/2017	LC_LC7	E216144									
2/14/2017	LC_LC7	E216144									
3/6/2017	LC_LC7	E216144									
3/13/2017	LC_LC7	E216144									
3/17/2017	LC_LC7	E216144		11.8	30.3						
3/18/2017	LC_LC7	E216144		7.4	29.2						
3/19/2017	LC_LC7	E216144		40.5	175						
3/20/2017	LC_LC7	E216144		9.8	103						
3/21/2017	LC_LC7	E216144	3.9	12	70.3	1.4	1.62	< 0.50	1.8	8.1	19.9
3/21/2017	LC_LC7	E216144									
3/22/2017	LC_LC7	E216144		6.6	61.5						
3/23/2017	LC_LC7	E216144		8	31.6						
3/25/2017	LC_LC7	E216144		10.8	25.1						
3/26/2017	LC_LC7	E216144		7.7	11.7						
3/27/2017	LC_LC7	E216144	2.82	7.6	18.6	2.19	2.25	< 0.50	1.04	11.4	13.3
3/28/2017	LC_LC7	E216144		9	16.8						
3/29/2017	LC_LC7	E216144		4.3	12.2						
3/30/2017	LC_LC7	E216144		4	8.46						
3/31/2017	LC_LC7	E216144		4.2	7.86						
4/4/2017	LC_LC7	E216144	1.61	4.9	7.14	2.26	2.18	< 0.50	< 0.50	10.6	11.8
4/11/2017	LC_LC7	E216144									
4/18/2017	LC_LC7	E216144									
4/25/2017	LC_LC7	E216144									
5/1/2017	LC_LC7	E216144	1.59	1.4	2.45	2.16	2.2	< 0.50	< 0.50	8.1	12.2
5/1/2017	LC_LC7	E216144									
5/5/2017	LC_LC7	E216144		8.8							
5/6/2017	LC_LC7	E216144	2.66	36.6	26.8	1.19	1.45	< 0.50	2.63	3.7	13.3
5/7/2017	LC_LC7	E216144		5	6.66						
5/8/2017	LC_LC7	E216144									
5/11/2017	LC_LC7	E216144		3.6	5.17						
5/16/2017	LC_LC7	E216144									
5/23/2017	LC_LC7	E216144									
5/30/2017	LC_LC7	E216144									
5/31/2017	LC_LC7	E216144									
6/6/2017	LC_LC7	E216144	1.48	1.3	1.32	0.558	0.701	0.62	0.85	1.8	< 3.0
6/13/2017	LC_LC7	E216144									
6/20/2017	LC_LC7	E216144									
6/26/2017	LC_LC7	E216144									
7/5/2017	LC_LC7	E216144	2.22	< 1.0	0.34	0.673	0.692	< 0.50	0.56	< 1.0	< 3.0
7/7/2017	LC_LC7	E216144									
7/11/2017	LC_LC7	E216144									
7/11/2017	LC_LC7	E216144									
7/13/2017	LC_LC7	E216144									
8/2/2017	LC_LC7	E216144	1.68	1.6	0.66	0.87	0.859	< 0.50	0.55	< 3.0	< 3.0
8/2/2017	LC_LC7	E216144									
8/8/2017	LC_LC7	E216144	1.09	1.9	0.66						
8/8/2017	LC_LC7	E216144				0.843	0.874	< 0.50	< 0.50	< 3.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
9/6/2017	LC_LC7	E216144	0.62	< 1.0	0.47	0.921	1.01	< 0.50	< 0.50	< 3.0	< 3.0
9/6/2017	LC_LC7	E216144									
10/3/2017	LC_LC7	E216144	0.84	< 1.0	0.83	1.01	0.971	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	LC_LC7	E216144									
11/8/2017	LC_LC7	E216144	0.58	< 1.0	0.31	1.15	1.16	< 0.50	< 0.50	3.4	3.4
12/4/2017	LC_LC7	E216144	< 0.50	< 1.0	0.38	1.46	1.47	< 0.50	< 0.50	3.6	5.1
12/21/2017	LC_LC7	E216144									
5/23/2017	LC_LC7DSTF	E304613		8.4	9.51						
6/6/2017	LC_LC7DSTF	E304613	1.35	1.3	1.28	0.548	0.757	0.53	0.83	2.5	< 3.0
7/6/2017	LC_LC7DSTF	E304613	2.08	1.2	0.41	0.693	0.73	< 0.50	< 0.50	< 1.0	< 3.0
8/2/2017	LC_LC7DSTF	E304613	0.83		1.6						
8/8/2017	LC_LC7DSTF	E304613	1.17	2.1	0.78						
8/8/2017	LC_LC7DSTF	E304613				0.839	0.866	< 0.50	< 0.50	< 3.0	< 3.0
1/9/2017	LC_LC8	E219411									
2/14/2017	LC_LC8	E219411									
3/6/2017	LC_LC8	E219411									
3/13/2017	LC_LC8	E219411									
3/21/2017	LC_LC8	E219411									
3/27/2017	LC_LC8	E219411									
4/3/2017	LC_LC8	E219411									
4/11/2017	LC_LC8	E219411									
4/18/2017	LC_LC8	E219411									
4/25/2017	LC_LC8	E219411									
5/1/2017	LC_LC8	E219411									
5/9/2017	LC_LC8	E219411									
5/16/2017	LC_LC8	E219411									
5/23/2017	LC_LC8	E219411									
5/30/2017	LC_LC8	E219411									
6/6/2017	LC_LC8	E219411									
6/13/2017	LC_LC8	E219411									
6/19/2017	LC_LC8	E219411									
6/26/2017	LC_LC8	E219411									
10/3/2017	LC_LC8	E219411									
11/8/2017	LC_LC8	E219411									
12/4/2017	LC_LC8	E219411									
1/9/2017	LC_LC9	E221268									
2/14/2017	LC_LC9	E221268									
3/13/2017	LC_LC9	E221268									
3/16/2017	LC_LC9	E221268		90	311.1						
3/17/2017	LC_LC9	E221268									
3/18/2017	LC_LC9	E221268		92	389						
3/19/2017	LC_LC9	E221268		12.4	81						
3/21/2017	LC_LC9	E221268	11.5	9.5	6.52	1.7	1.89	< 0.50	1.57	3.5	7.5
3/21/2017	LC_LC9	E221268									
3/22/2017	LC_LC9	E221268		20.9	38.9						
3/23/2017	LC_LC9	E221268		11.5	107						
3/24/2017	LC_LC9	E221268		9.5	51.1						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
3/25/2017	LC_LC9	E221268		3.8	33						
3/26/2017	LC_LC9	E221268		9.8	18.7						
3/27/2017	LC_LC9	E221268		5.8	24.1						
3/28/2017	LC_LC9	E221268		5	23.8						
3/29/2017	LC_LC9	E221268		1.4	14.3						
3/30/2017	LC_LC9	E221268		3.6	18.1						
3/31/2017	LC_LC9	E221268		2.7	5.15						
4/4/2017	LC_LC9	E221268	2.88	4.7	14.9	2.42	2.35	< 0.50	< 0.50	2.4	4.7
4/5/2017	LC_LC9	E221268		3.2	9.69						
4/11/2017	LC_LC9	E221268									
4/18/2017	LC_LC9	E221268									
4/25/2017	LC_LC9	E221268									
5/1/2017	LC_LC9	E221268									
5/9/2017	LC_LC9	E221268									
5/16/2017	LC_LC9	E221268									
5/23/2017	LC_LC9	E221268									
5/30/2017	LC_LC9	E221268									
6/6/2017	LC_LC9	E221268									
6/13/2017	LC_LC9	E221268									
6/19/2017	LC_LC9	E221268									
6/26/2017	LC_LC9	E221268									
10/3/2017	LC_LC9	E221268									
11/8/2017	LC_LC9	E221268									
12/4/2017	LC_LC9	E221268									
1/2/2017	LC_LCDSSLCC	E297110	1.09	< 1.0	0.26	3.86	3.97	< 0.50	< 0.50	4.8	4.6
1/5/2017	LC_LCDSSLCC	E297110									
1/9/2017	LC_LCDSSLCC	E297110	0.62	< 1.0	0.17	3.72	3.9	< 0.50	< 0.50	3.2	4.2
1/13/2017	LC_LCDSSLCC	E297110									
1/16/2017	LC_LCDSSLCC	E297110	0.7	< 1.0	0.19	3.6	4.13	< 0.50	< 0.50	3.4	4
1/18/2017	LC_LCDSSLCC	E297110									
1/23/2017	LC_LCDSSLCC	E297110	0.76	< 1.0	0.15	3.82	3.97	< 0.50	< 0.50	3.3	4.2
1/31/2017	LC_LCDSSLCC	E297110	0.7	< 1.0	0.14	3.97	4.15	< 0.50	< 0.50	3.8	4.9
2/7/2017	LC_LCDSSLCC	E297110	0.94	< 1.0	0.28	3.65	3.76	< 0.50	< 0.50	4	3.5
2/14/2017	LC_LCDSSLCC	E297110	< 0.50	< 1.0	0.22	3.73	3.85	< 0.50	< 0.50	4.3	3.7
2/21/2017	LC_LCDSSLCC	E297110	0.71	1.4	0.36	3.93	4.05	< 0.50	< 0.50	3.4	4.2
2/21/2017	LC_LCDSSLCC	E297110									
2/22/2017	LC_LCDSSLCC	E297110									
2/27/2017	LC_LCDSSLCC	E297110	0.94	< 1.0	0.24	3.77	4.15	< 0.50	< 0.50	3.3	3.2
3/6/2017	LC_LCDSSLCC	E297110	0.68	< 1.0	0.24	4.12	3.97	< 0.50	< 0.50	< 3.0	4.3
3/9/2017	LC_LCDSSLCC	E297110									
3/13/2017	LC_LCDSSLCC	E297110	1.79	4.5	9.05	3.48	3.88	< 0.50	< 0.50	2.5	3.9
3/15/2017	LC_LCDSSLCC	E297110		1586	1559.3						
3/20/2017	LC_LCDSSLCC	E297110	1.25	5.2	6.48	2.95	3.31	< 0.50	< 0.50	4.1	4.5
3/21/2017	LC_LCDSSLCC	E297110									
3/27/2017	LC_LCDSSLCC	E297110	1.39	1.4	0.61	3.6	3.98	< 0.50	0.89	4.1	4.8
4/3/2017	LC_LCDSSLCC	E297110	1.24	< 1.0	0.54	3.65	3.44	< 0.50	< 0.50	4.3	4.6
4/10/2017	LC_LCDSSLCC	E297110	1.98	2.1	0.24	3.87	3.62	< 0.50	< 0.50	5	7.1

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
4/18/2017	LC_LCDSSLCC	E297110	0.87	1.5	0.45	3.72	3.35	< 0.50	< 0.50	4.6	6.5
4/24/2017	LC_LCDSSLCC	E297110									
4/25/2017	LC_LCDSSLCC	E297110	1.33	2.3	1.15	3.28	3.57	< 0.50	< 0.50	8.4	12.1
4/27/2017	LC_LCDSSLCC	E297110									
5/2/2017	LC_LCDSSLCC	E297110	1.07	1.6	0.73	3.77	3.73	< 0.50	< 0.50	6.5	7.8
5/5/2017	LC_LCDSSLCC	E297110									
5/9/2017	LC_LCDSSLCC	E297110	2.61	1	1.08	2.11	2.3	< 0.50	< 0.50	10.2	10.4
5/16/2017	LC_LCDSSLCC	E297110	2.04	1.4	1	1.93	2.03	< 0.50	< 0.50	11.2	10.4
5/17/2017	LC_LCDSSLCC	E297110									
5/23/2017	LC_LCDSSLCC	E297110	1.89	6.5	1.17	1.62	1.62	< 0.50	< 0.50	8.6	8.5
5/30/2017	LC_LCDSSLCC	E297110	1.48	7.1	5.38	1.39	1.41	< 0.50	< 0.50	9.5	10.8
6/7/2017	LC_LCDSSLCC	E297110	1.37	1.3	0.88	1.6	1.96	< 0.50	< 0.50	13.1	13.9
6/12/2017	LC_LCDSSLCC	E297110	1.19	1	0.88	1.94	2.06	< 0.50	< 0.50	13.8	14.2
6/13/2017	LC_LCDSSLCC	E297110									
6/19/2017	LC_LCDSSLCC	E297110	1.15	< 1.0	0.27	1.98	1.99	< 0.50	< 0.50	13.3	13.5
6/20/2017	LC_LCDSSLCC	E297110									
6/20/2017	LC_LCDSSLCC	E297110	1.5	1	0.47	1.96	1.98	< 0.50	< 0.50	12.7	13
6/26/2017	LC_LCDSSLCC	E297110	1.83	< 1.0	0.57	2.17	2.17	< 0.50	< 0.50	11.1	11.3
7/6/2017	LC_LCDSSLCC	E297110	1.34	1	0.44	2.37	2.4	< 0.50	< 0.50	11.1	10.4
7/11/2017	LC_LCDSSLCC	E297110									
7/11/2017	LC_LCDSSLCC	E297110	1.43	< 1.0	0.5	2.5	2.5	< 0.50	< 0.50	10.7	10.6
7/13/2017	LC_LCDSSLCC	E297110									
7/18/2017	LC_LCDSSLCC	E297110	1.27	< 1.0	0.25	3.02	2.89	< 0.50	< 0.50	10.7	9.8
7/21/2017	LC_LCDSSLCC	E297110									
7/25/2017	LC_LCDSSLCC	E297110									
7/25/2017	LC_LCDSSLCC	E297110	1.3	< 1.0	0.43	2.81	2.79	< 0.50	< 0.50	14.3	9.8
8/2/2017	LC_LCDSSLCC	E297110									
8/2/2017	LC_LCDSSLCC	E297110	2.86	< 1.0	0.25	3.47	3.43	< 0.50	< 0.50	8.5	8.9
8/8/2017	LC_LCDSSLCC	E297110									
8/8/2017	LC_LCDSSLCC	E297110	0.82	< 1.0	0.35	3.59	3.83	< 0.50	< 0.50	11.3	11
8/15/2017	LC_LCDSSLCC	E297110									
8/15/2017	LC_LCDSSLCC	E297110	1.4	< 1.0	0.33	3.37	3.23	< 0.50	< 0.50	7.2	8.8
8/18/2017	LC_LCDSSLCC	E297110									
8/21/2017	LC_LCDSSLCC	E297110	0.8	< 1.0	2.94	3.43	3.27	< 0.50	< 0.50	7.8	10.1
8/24/2017	LC_LCDSSLCC	E297110									
8/24/2017	LC_LCDSSLCC	E297110									
8/27/2017	LC_LCDSSLCC	E297110									
8/27/2017	LC_LCDSSLCC	E297110									
8/30/2017	LC_LCDSSLCC	E297110									
8/30/2017	LC_LCDSSLCC	E297110	1.12	< 1.0	0.3	3.65	3.61	< 0.50	< 0.50	6.2	8
9/2/2017	LC_LCDSSLCC	E297110									
9/5/2017	LC_LCDSSLCC	E297110									
9/5/2017	LC_LCDSSLCC	E297110	0.84	1	0.34	3.68	3.75	< 0.50	< 0.50	6.2	< 12
9/8/2017	LC_LCDSSLCC	E297110									
9/12/2017	LC_LCDSSLCC	E297110									
9/12/2017	LC_LCDSSLCC	E297110	0.79	< 1.0	0.38	3.44	3.72	< 0.50	< 0.50	6.1	7.3
9/13/2017	LC_LCDSSLCC	E297110									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
9/20/2017	LC_LCDSSLCC	E297110									
9/20/2017	LC_LCDSSLCC	E297110	0.94	1	0.22	3.63	3.69	< 0.50	< 0.50	6.5	6.6
9/25/2017	LC_LCDSSLCC	E297110	0.7	< 1.0	0.47	3.55	3.64	< 0.50	< 0.50	5.8	7.1
9/25/2017	LC_LCDSSLCC	E297110									
9/26/2017	LC_LCDSSLCC	E297110									
10/2/2017	LC_LCDSSLCC	E297110	0.94	< 1.0	0.28	3.81	3.76	< 0.50	< 0.50	5.6	7.6
10/3/2017	LC_LCDSSLCC	E297110									
10/10/2017	LC_LCDSSLCC	E297110	0.82	< 1.0	0.19	3.87	3.92	< 0.50	< 0.50	5.4	8.3
10/10/2017	LC_LCDSSLCC	E297110									
10/17/2017	LC_LCDSSLCC	E297110	1.24	< 1.0	0.24	4.04	4.07	< 0.50	< 0.50	4.8	8.6
10/18/2017	LC_LCDSSLCC	E297110									
10/24/2017	LC_LCDSSLCC	E297110	0.82	1	0.85	4.08	3.95	< 0.50	< 0.50	7.6	8
10/24/2017	LC_LCDSSLCC	E297110									
10/31/2017	LC_LCDSSLCC	E297110	0.86	< 1.0	0.65	4.47	4.35	< 0.50	< 0.50	7	8.1
11/6/2017	LC_LCDSSLCC	E297110	0.65	< 1.0	0.43	3.87	4.19	< 0.50	< 0.50	5.8	6.6
11/10/2017	LC_LCDSSLCC	E297110	1.11	< 1.0	0.53	3.99	3.85	< 0.50	< 2.5	5.8	< 15
11/14/2017	LC_LCDSSLCC	E297110	0.53	< 1.0	0.35	4.11	4.28	< 0.50	< 0.50	5.4	6.5
11/16/2017	LC_LCDSSLCC	E297110									
11/21/2017	LC_LCDSSLCC	E297110	< 0.50	< 1.0	0.36	3.66	4.6	< 0.50	< 0.50	6.2	7.2
11/28/2017	LC_LCDSSLCC	E297110									
11/28/2017	LC_LCDSSLCC	E297110	0.58	< 1.0	0.58	3.62	3.68	< 0.50	< 0.50	6.4	6.6
11/30/2017	LC_LCDSSLCC	E297110									
12/4/2017	LC_LCDSSLCC	E297110	< 0.50	< 1.0	0.23	4.13	4.34	< 0.50	< 0.50	6.3	8.7
12/12/2017	LC_LCDSSLCC	E297110	0.56	1.2	0.26	4.09	4.37	< 0.50	< 0.50	5.4	7.1
12/12/2017	LC_LCDSSLCC	E297110									
12/14/2017	LC_LCDSSLCC	E297110									
12/18/2017	LC_LCDSSLCC	E297110	0.64	< 1.0	0.39	4.17	3.87	< 0.50	< 0.50	4.9	6.7
12/18/2017	LC_LCDSSLCC	E297110									
12/27/2017	LC_LCDSSLCC	E297110									
12/27/2017	LC_LCDSSLCC	E297110	0.62	< 1.0	0.29	4.52	4.41	< 0.50	< 0.50	4.5	4.1
1/2/2017	LC_LCUSWLC	E293369	0.97	< 1.0	0.27	3.98	4.33	< 0.50	< 0.50	9.4	11.1
1/9/2017	LC_LCUSWLC	E293369	0.54	< 1.0	0.2	4.35	4.34	< 0.50	< 0.50	9.9	9.6
1/16/2017	LC_LCUSWLC	E293369	< 0.50	< 1.0	0.2	3.97	4.61	< 0.50	< 0.50	8.6	9.2
2/14/2017	LC_LCUSWLC	E293369	< 0.50	< 1.0	0.29	4.21	4.18	< 0.50	< 0.50	9.7	9.2
2/24/2017	LC_LCUSWLC	E293369	0.76	< 1.0	0.29	4.27	4.36	< 0.50	< 0.50	10	9.8
2/27/2017	LC_LCUSWLC	E293369	1.09	< 1.0	0.25	4.04	4.53	< 0.50	< 0.50	9.9	9
3/6/2017	LC_LCUSWLC	E293369	0.58	< 1.0	0.28	4.72	4.39	< 0.50	< 0.50	10	9.9
3/13/2017	LC_LCUSWLC	E293369	0.8	< 1.0	0.28	4.23	4.52	< 0.50	< 0.50	10.5	10.1
3/16/2017	LC_LCUSWLC	E293369		8	11.5						
3/18/2017	LC_LCUSWLC	E293369		6.8	22.3						
3/19/2017	LC_LCUSWLC	E293369		84.5	207						
3/20/2017	LC_LCUSWLC	E293369	7.13	20.8	50.6	3.73	4.07	< 0.50	1.21	10	12.9
3/22/2017	LC_LCUSWLC	E293369		5.8	21.2						
3/23/2017	LC_LCUSWLC	E293369		9	33.3						
3/24/2017	LC_LCUSWLC	E293369		23.2	57						
3/25/2017	LC_LCUSWLC	E293369		7	20.8						
3/26/2017	LC_LCUSWLC	E293369		5	12						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
3/27/2017	LC_LCUSWLC	E293369	4.95	6.8	11.6	4.18	4.38	< 0.50	1.22	11.4	12.3
3/28/2017	LC_LCUSWLC	E293369		3.4	7.04						
3/29/2017	LC_LCUSWLC	E293369		2.6	7.38						
3/30/2017	LC_LCUSWLC	E293369		2.7	5.79						
4/3/2017	LC_LCUSWLC	E293369	0.97	1.3	5.07	4.27	3.99	< 0.50	< 0.50	12.7	12.3
4/10/2017	LC_LCUSWLC	E293369	3.36	3.7	10.3	4.45	3.9	< 0.50	< 0.50	11.8	13.4
4/18/2017	LC_LCUSWLC	E293369	1.22	< 1.5	2.23	4.36	3.99	< 0.50	< 0.50	13.6	14.7
4/25/2017	LC_LCUSWLC	E293369	1.44	2.7	2.34	4.49	4.65	< 0.50	< 0.50	12.5	17.1
5/1/2017	LC_LCUSWLC	E293369	0.88	< 1.0	0.72	4.23	4.32	< 0.50	< 0.50	13	13.1
5/9/2017	LC_LCUSWLC	E293369	1.67	< 1.0	0.74	2.47	2.64	< 0.50	< 0.50	16.7	21.7
5/16/2017	LC_LCUSWLC	E293369	1.42	< 1.0	0.67	2.04	2.13	< 0.50	< 0.50	16.9	14.2
5/23/2017	LC_LCUSWLC	E293369	1.18	< 1.0	1.09	2.23	2.24	< 0.50	< 0.50	17.3	16.4
5/30/2017	LC_LCUSWLC	E293369	0.76	< 1.0	1.04	1.74	1.82	< 0.50	< 0.50	17.1	15.9
6/7/2017	LC_LCUSWLC	E293369	0.72	< 1.0	0.64	1.67	2.08	< 0.50	< 0.50	20.7	18.2
6/13/2017	LC_LCUSWLC	E293369	0.7	< 1.0	0.35	1.85	2.4	< 0.50	< 0.50	21.7	20.1
6/19/2017	LC_LCUSWLC	E293369	0.88	< 1.0	0.3	2.37	2.29	< 0.50	< 0.50	21.5	20.3
6/26/2017	LC_LCUSWLC	E293369	0.97	< 1.0	0.42	2.74	2.63	< 0.50	< 0.50	23.6	20.7
7/6/2017	LC_LCUSWLC	E293369	1.12	< 1.0	0.13	2.76	2.84	< 0.50	< 0.50	21.3	19.9
7/11/2017	LC_LCUSWLC	E293369	0.81	< 1.0	0.41	2.99	2.95	< 0.50	< 0.50	22.6	21.2
7/18/2017	LC_LCUSWLC	E293369	0.99	< 1.0	0.39	3.4	3.35	< 0.50	< 0.50	21.4	19.3
7/25/2017	LC_LCUSWLC	E293369	1.02	< 1.0	0.59	3.35	3.44	< 0.50	< 0.50	22.1	21.7
8/2/2017	LC_LCUSWLC	E293369	1.43	< 1.0	0.36	4.2	4.28	< 0.50	< 0.50	21.2	20.7
8/8/2017	LC_LCUSWLC	E293369	0.59	< 1.0	0.54	4.08	4.22	< 0.50	< 0.50	20.5	19.6
8/15/2017	LC_LCUSWLC	E293369	0.65	< 1.0	0.37	16.1	16	< 0.50	< 0.50	124	140
8/18/2017	LC_LCUSWLC	E293369									
8/21/2017	LC_LCUSWLC	E293369	0.83	< 1.0	0.35	3.32	3.38	< 0.50	< 0.50	17.7	17.4
8/24/2017	LC_LCUSWLC	E293369									
8/27/2017	LC_LCUSWLC	E293369									
8/30/2017	LC_LCUSWLC	E293369	0.89	< 1.0	0.42	3.56	3.72	< 0.50	< 0.50	16.4	17.3
9/2/2017	LC_LCUSWLC	E293369									
9/5/2017	LC_LCUSWLC	E293369									
9/5/2017	LC_LCUSWLC	E293369	0.66	< 1.0	0.35	3.63	3.68	< 0.50	< 0.50	17.8	< 21
9/8/2017	LC_LCUSWLC	E293369									
9/12/2017	LC_LCUSWLC	E293369	0.75	< 1.0	0.95	3.24	3.5	< 0.50	< 0.50	17.3	17.7
9/20/2017	LC_LCUSWLC	E293369	0.58	< 1.0	0.35	3.55	3.63	< 0.50	< 0.50	16.1	14.3
9/25/2017	LC_LCUSWLC	E293369	0.74	< 1.0	0.37	3.45	3.54	< 0.50	< 0.50	16.5	16.8
10/2/2017	LC_LCUSWLC	E293369	0.77	< 1.0	0.62	3.81	3.61	< 0.50	< 0.50	13	14.7
10/10/2017	LC_LCUSWLC	E293369	0.71	< 1.0	0.36	3.9	4.11	< 0.50	< 0.50	13	15.3
10/17/2017	LC_LCUSWLC	E293369	< 0.50	< 1.0	0.46	4.16	4.24	< 0.50	< 0.50	14.7	16.8
10/24/2017	LC_LCUSWLC	E293369	0.67	< 1.0	1.15	4.06	4.03	< 0.50	< 0.50	16.9	17
10/31/2017	LC_LCUSWLC	E293369	0.74	< 1.0	0.55	4.47	4.24	< 0.50	< 0.50	14	13.2
11/6/2017	LC_LCUSWLC	E293369	0.67	< 1.0	0.49	4.19	4.41	< 0.50	< 0.50	12.9	12
11/9/2017	LC_LCUSWLC	E293369	0.88	< 1.0	0.59	2.95	4.11	< 0.50	< 0.50	12.2	12.2
11/14/2017	LC_LCUSWLC	E293369	0.51	< 1.0	0.51	4.07	4.02	< 0.50	< 0.50	11.2	11.8
11/21/2017	LC_LCUSWLC	E293369	0.59	< 1.0	0.38	3.62	4.73	< 0.50	< 0.50	11.6	11.6
11/28/2017	LC_LCUSWLC	E293369	< 0.50	< 1.0	1.31	4.35	3.1	< 0.50	< 0.50	13.2	4.7
12/4/2017	LC_LCUSWLC	E293369	< 0.50	< 1.0	0.4	4.19	4.44	< 0.50	< 0.50	12.3	14.9

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
12/12/2017	LC_LCUSWLC	E293369	0.59	< 1.0	0.43	4.21	4.57	< 0.50	< 0.50	11.1	13.5
12/18/2017	LC_LCUSWLC	E293369	0.54	< 1.0	0.61	4.29	4.24	< 0.50	< 0.50	10.5	16.4
12/27/2017	LC_LCUSWLC	E293369	0.75	< 1.0	0.34	4.8	4.93	< 0.50	< 0.50	8.7	9.2
1/9/2017	LC_SLC	E282149									
1/9/2017	LC_SLC	E282149	0.71	< 1.0	0.11	1.68	1.68	< 0.50	< 0.50	< 3.0	< 3.0
2/14/2017	LC_SLC	E282149	< 0.50	< 1.0	0.1	1.57	1.64	< 0.50	< 0.50	2.1	< 3.0
2/14/2017	LC_SLC	E282149									
3/6/2017	LC_SLC	E282149	0.58	< 1.0	0.12	1.73	1.76	< 0.50	< 0.50	< 3.0	< 3.0
3/9/2017	LC_SLC	E282149									
4/3/2017	LC_SLC	E282149	1.66	< 1.0	0.14	1.51	1.44	< 0.50	< 0.50	1.7	< 3.0
4/3/2017	LC_SLC	E282149									
5/1/2017	LC_SLC	E282149	1.92	< 1.0	0.17	1.45	1.48	< 0.50	< 0.50	1.8	3.4
5/6/2017	LC_SLC	E282149		11.3	6.88						
5/7/2017	LC_SLC	E282149		5.1	3.51						
5/17/2017	LC_SLC	E282149									
5/24/2017	LC_SLC	E282149		15.9	5.31						
6/7/2017	LC_SLC	E282149	1.88	1.1	0.97	0.451	0.547	< 0.50	< 0.50	2	< 3.0
6/22/2017	LC_SLC	E282149									
7/6/2017	LC_SLC	E282149	1.31	< 1.0	0.37	0.827	0.882	< 0.50	0.51	1.5	< 3.0
7/13/2017	LC_SLC	E282149									
8/2/2017	LC_SLC	E282149	1.54	< 1.0	0.15	1.29	1.33	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	LC_SLC	E282149									
8/15/2017	LC_SLC	E282149									
8/18/2017	LC_SLC	E282149									
8/21/2017	LC_SLC	E282149									
8/24/2017	LC_SLC	E282149									
8/24/2017	LC_SLC	E282149									
8/27/2017	LC_SLC	E282149									
8/30/2017	LC_SLC	E282149									
9/2/2017	LC_SLC	E282149									
9/5/2017	LC_SLC	E282149									
9/5/2017	LC_SLC	E282149	0.58	< 1.0	0.19	1.47	1.6	< 0.50	< 0.50	< 3.0	< 3.0
9/5/2017	LC_SLC	E282149									
9/8/2017	LC_SLC	E282149									
9/29/2017	LC_SLC	E282149									
10/2/2017	LC_SLC	E282149	0.65	< 1.0	0.25	1.6	1.59	< 0.50	< 0.50	< 3.0	< 3.0
10/18/2017	LC_SLC	E282149									
11/8/2017	LC_SLC	E282149	0.93	< 1.0	0.22	1.71	1.68	< 0.50	< 0.50	3.2	3.3
11/8/2017	LC_SLC	E282149									
11/16/2017	LC_SLC	E282149									
12/4/2017	LC_SLC	E282149	0.6	< 1.0	0.13	1.6	1.69	< 0.50	< 0.50	< 3.0	< 3.0
12/14/2017	LC_SLC	E282149									
1/9/2017	LC_WLC	E261958	1.25	< 1.0	0.1	19	19.3	< 0.50	< 0.50	14.3	15.1
2/14/2017	LC_WLC	E261958	0.91	< 1.0	0.11	18.5	19.1	< 0.50	< 0.50	10.3	9.9
3/6/2017	LC_WLC	E261958	1.19	< 1.0	0.11	20	18.4	< 0.50	< 0.50	8.5	8.7
3/13/2017	LC_WLC	E261958	1.49	< 1.0	0.13	17.9	18.8	< 0.50	< 0.50	8.7	7.8
3/18/2017	LC_WLC	E261958		386	453						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
3/19/2017	LC_WLC	E261958		4.8	9.14						
3/20/2017	LC_WLC	E261958	1.41	2	3.44	17.1	20	< 0.50	< 0.50	7.7	9.7
3/21/2017	LC_WLC	E261958		< 1.0	1.09						
3/25/2017	LC_WLC	E261958		< 1.0	0.15						
3/26/2017	LC_WLC	E261958		< 1.0	0.29						
3/27/2017	LC_WLC	E261958	1.94	< 1.0	0.38	18.5	19.6	< 0.50	0.95	9.7	8.8
4/3/2017	LC_WLC	E261958	1.12	< 1.0	0.12	19	18.2	< 0.50	< 0.50	9.4	11.9
4/10/2017	LC_WLC	E261958	2.11	< 1.0	0.34	19	17.4	< 0.50	< 0.50	8.8	8.7
4/18/2017	LC_WLC	E261958	1.3	< 1.5	0.19	18.2	17	< 0.50	< 0.50	9.3	14
4/25/2017	LC_WLC	E261958	1.55	1.2	0.13	17.3	18.1	< 0.50	< 0.50	9.1	12.6
4/26/2017	LC_WLC	E261958									
5/1/2017	LC_WLC	E261958	1.37	< 1.0	0.12	19.3	19.3	< 0.50	< 0.50	10.9	11
5/1/2017	LC_WLC	E261958									
5/9/2017	LC_WLC	E261958	1.86	< 1.0	0.14	15.6	16.6	< 0.50	< 0.50	15.5	14.7
5/16/2017	LC_WLC	E261958	1.57	< 1.0	0.17	12.5	13	< 0.50	< 0.50	21.5	19.8
5/23/2017	LC_WLC	E261958	1.11	< 1.0	0.13	11.4	11.5	< 0.50	< 0.50	30	28.1
5/30/2017	LC_WLC	E261958	1.73	1.5	0.76	6.67	6.64	< 0.50	< 0.50	59.5	59
6/6/2017	LC_WLC	E261958	0.98	< 1.0	0.15	5.01	6.99	< 0.50	< 0.50	88.1	85.6
6/13/2017	LC_WLC	E261958	0.96	< 1.0	0.18	8.32	7.69	< 0.50	< 0.50	87.1	79.6
6/19/2017	LC_WLC	E261958	1.03	< 1.0	< 0.10	7.79	7.63	< 0.50	< 0.50	80.7	75.4
6/26/2017	LC_WLC	E261958	1.45	< 1.0	0.52	9.02	8.78	< 0.50	< 0.50	91.5	88.7
7/6/2017	LC_WLC	E261958									
7/6/2017	LC_WLC	E261958	1.39	< 1.0	0.34	10.8	10.6	< 0.50	0.52	108	102
7/11/2017	LC_WLC	E261958									
7/11/2017	LC_WLC	E261958	1.24	< 1.0	0.13	10.1	10.2	< 0.50	< 0.50	112	104
7/18/2017	LC_WLC	E261958	1.46	< 1.0	0.23	13.3	11.3	< 0.50	< 0.50	117	109
7/25/2017	LC_WLC	E261958									
7/25/2017	LC_WLC	E261958	2.18	< 1.0	< 0.10	11.6	11.7	< 0.50	< 0.50	132	124
8/2/2017	LC_WLC	E261958	1.91	< 1.0	0.14	15.5	14.7	< 0.50	< 0.50	117	122
8/3/2017	LC_WLC	E261958									
8/8/2017	LC_WLC	E261958									
8/8/2017	LC_WLC	E261958	1.33	< 1.0	0.3	16.2	16	< 0.50	< 0.50	131	111
8/15/2017	LC_WLC	E261958									
8/15/2017	LC_WLC	E261958	1.1	< 1.0	0.23	3.51	3.38	< 0.50	< 0.50	16.5	18.5
8/21/2017	LC_WLC	E261958	1	< 1.0	0.19	17	16.2	< 0.50	< 0.50	141	124
8/30/2017	LC_WLC	E261958									
8/30/2017	LC_WLC	E261958	1.1	< 1.0	0.17	18.5	19.1	< 0.50	< 0.50	103	95.3
9/5/2017	LC_WLC	E261958									
9/5/2017	LC_WLC	E261958	1.17	< 1.0	0.12	18	20.5	< 0.50	< 1.0	121	133
9/5/2017	LC_WLC	E261958									
9/12/2017	LC_WLC	E261958	1.29	< 1.0	0.22	18.7	19	< 0.50	< 0.50	125	119
9/20/2017	LC_WLC	E261958									
9/20/2017	LC_WLC	E261958	1.14	< 1.0	0.17	19	21.4	< 0.50	< 0.50	81.2	82.1
9/25/2017	LC_WLC	E261958									
9/25/2017	LC_WLC	E261958	1.31	< 1.0	0.34	21.4	20.3	< 0.50	< 0.50	72.9	65.4
10/3/2017	LC_WLC	E261958	1.15	< 1.0	0.13	21.3	20.9	< 0.50	< 0.50	< 3.0	61
10/10/2017	LC_WLC	E261958	1.6	< 1.0	0.11	21	21.8	< 0.50	< 0.50	50.5	53.4

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
10/10/2017	LC_WLC	E261958									
10/17/2017	LC_WLC	E261958	3.09	< 1.0	0.16	22.1	22.1	< 0.50	< 0.50	11.7	40.8
10/24/2017	LC_WLC	E261958	1.05	< 1.0	0.22	21.1	21.2	< 1.0	< 1.0	35.1	38.5
10/31/2017	LC_WLC	E261958									
10/31/2017	LC_WLC	E261958	1.32	< 1.0	0.27	22.4	22.5	< 1.0	< 1.0	25	33.6
11/8/2017	LC_WLC	E261958	1.4	< 1.0	0.11	22.1	21.7	< 0.50	< 1.0	24.7	16.8
11/8/2017	LC_WLC	E261958									
11/14/2017	LC_WLC	E261958	1.25	< 1.0	0.15	21.6	23.3	< 0.50	< 0.50	16.6	25
11/21/2017	LC_WLC	E261958	1.11	< 1.0	0.16	21.4	24.1	< 1.0	< 0.50	4.5	21.3
11/28/2017	LC_WLC	E261958	1.22	< 1.0	0.21	22	22.3	< 1.0	< 0.50	4.3	23.5
11/28/2017	LC_WLC	E261958									
12/4/2017	LC_WLC	E261958	1.08	< 1.0	0.32	20	22.7	< 0.50	< 1.0	18.8	22.8
12/12/2017	LC_WLC	E261958	1.5	< 1.0	0.15	20.8	21.4	< 1.0	< 1.0	15.2	16.7
12/18/2017	LC_WLC	E261958	1.22	< 1.0	0.36	20.5	20.1	< 0.50	< 0.50	14.6	17.1
12/18/2017	LC_WLC	E261958									
12/27/2017	LC_WLC	E261958	1.36	< 1.0	0.93	20.7	21.4	< 0.50	< 1.0	< 3.0	11.7
4/11/2017	RG_BORDER	E300094	2.59	35.2	39.1	0.864	0.945	0.56	1.74	< 3.0	5.8
4/11/2017	RG_BORDER	E300094	2.33	30.3	34.1	0.884	0.956	0.62	1.65	3.7	5.3
4/11/2017	RG_BORDER	E300094	2.5	30.7	33.2	0.869	0.964	< 0.50	1.64	< 3.0	4.3
4/17/2017	RG_BORDER	E300094	2.4	47.5	48.3	0.864	0.882	< 0.50	1.93	< 3.0	5.4
4/17/2017	RG_BORDER	E300094	2.34	41.6	46.6	0.855	0.949	< 0.50	1.79	< 3.0	4.8
4/17/2017	RG_BORDER	E300094	2.38	39.1	37.6	0.866	0.926	< 0.50	1.81	< 3.0	4.9
4/24/2017	RG_BORDER	E300094	3.09	69.7	75.2	0.965	1.1	< 0.50	4.57	< 3.0	8.2
4/24/2017	RG_BORDER	E300094	2.84	54.6	62.8	0.859	1.07	< 0.50	3.33	< 3.0	6.6
4/24/2017	RG_BORDER	E300094	2.57	51.4	58.6	0.835	1.07	< 0.50	2.86	< 3.0	6.3
5/2/2017	RG_BORDER	E300094	2.74	74.4	72.2	0.763	0.902	< 0.50	2.7	< 3.0	8.3
5/2/2017	RG_BORDER	E300094	2.96	56.2	62.4	0.825	0.879	< 0.50	2.13	< 3.0	9.1
5/9/2017	RG_BORDER	E300094	4.59	144	142	0.704	0.798	< 0.50	3.39	< 3.0	12.7
5/9/2017	RG_BORDER	E300094	4.61	151	164	0.778	0.785	< 0.50	3.44	< 3.0	12.7
5/9/2017	RG_BORDER	E300094	4.6	160	147	0.703	0.802	< 0.50	3.45	< 3.0	13.4
5/16/2017	RG_BORDER	E300094	3.14	65.1	66.5	0.605	0.658	< 0.50	1.48	< 3.0	6.1
5/16/2017	RG_BORDER	E300094	3.04	52.5	59.4	0.585	0.633	< 0.50	1.59	< 3.0	5.4
5/16/2017	RG_BORDER	E300094	3.05	45.5	56.9	0.729	0.638	< 0.50	1.41	< 3.0	5.2
5/23/2017	RG_BORDER	E300094	2.31	26.2	24.1	0.669	0.657	< 0.50	0.6	< 3.0	3.7
5/23/2017	RG_BORDER	E300094	2.36	22.1	22.4	0.646	0.663	< 0.50	0.75	< 3.0	< 3.0
5/23/2017	RG_BORDER	E300094	2.2	19.7	12.5	0.673	0.65	< 0.50	< 0.50	< 3.0	< 3.0
5/30/2017	RG_BORDER	E300094	2.36	50.5	24.1	0.584	0.629	< 0.50	1.92	< 3.0	7.4
5/30/2017	RG_BORDER	E300094	2.3	48.7	53.5	0.58	0.592	< 0.50	1.47	< 3.0	6.3
5/30/2017	RG_BORDER	E300094	2.7	27.4	33.9	0.581	0.566	< 0.50	0.92	< 3.0	5.4
6/6/2017	RG_BORDER	E300094	2.12	72.7	98.1	0.579	0.64	< 0.50	1.96	< 3.0	6
6/6/2017	RG_BORDER	E300094	1.92	66.3	90.9	0.578	0.632	< 0.50	2.06	< 3.0	6.1
6/6/2017	RG_BORDER	E300094	2.38	3.3	5.94	0.599	0.57	< 0.50	< 0.50	< 3.0	< 3.0
6/13/2017	RG_BORDER	E300094	1.71	37.2	49	0.534	0.643	0.59	1.37	< 3.0	4.5
6/13/2017	RG_BORDER	E300094	1.97	5.2	5.6	0.628	0.545	< 0.50	< 0.50	< 3.0	< 3.0
6/13/2017	RG_BORDER	E300094	1.69	66.9	79.4	0.711	0.682	< 0.50	1.86	< 3.0	6.7
6/20/2017	RG_BORDER	E300094	1.55	29.5	44.8	0.64	0.594	< 0.50	0.93	< 3.0	3.1
6/20/2017	RG_BORDER	E300094	1.61	14	22.3	0.643	0.587	< 0.50	0.59	< 3.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
6/20/2017	RG_BORDER	E300094	1.61	2.3	3.48	0.656	0.582	< 0.50	< 0.50	< 3.0	< 3.0
6/27/2017	RG_BORDER	E300094	1.81	11.1	17.6	0.666	0.664	< 0.50	0.6	< 3.0	3.4
6/27/2017	RG_BORDER	E300094	1.67	12.7	16.5	0.621	0.617	< 0.50	< 0.50	< 3.0	< 3.0
6/27/2017	RG_BORDER	E300094	1.75	1.4	1.36	0.638	0.636	< 0.50	< 0.50	< 3.0	< 3.0
7/4/2017	RG_BORDER	E300094	1.71	8.4	15	0.597	0.6	< 0.50	0.53	< 3.0	< 3.0
7/4/2017	RG_BORDER	E300094	1.18	7.9	9.03	0.554	0.55	< 0.50	< 0.50	< 3.0	< 3.0
7/4/2017	RG_BORDER	E300094	2.35	1.6	1.39	0.619	0.568	< 0.50	< 0.50	< 3.0	< 3.0
7/11/2017	RG_BORDER	E300094	1.73	5.1	11.2	0.595	0.676	< 0.50	< 0.50	< 3.0	< 3.0
7/11/2017	RG_BORDER	E300094	1.21	3.6	3.76	0.584	0.596	< 0.50	< 0.50	< 3.0	< 3.0
7/11/2017	RG_BORDER	E300094	1.84	1.5	1.02	0.678	0.625	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	RG_BORDER	E300094	1.25	1.8	0.84	0.608	0.58	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	RG_BORDER	E300094	1.68	2.5	2.53	0.636	0.605	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	RG_BORDER	E300094	1.53	1.8	0.66	0.648	0.616	< 0.50	< 0.50	< 3.0	< 3.0
9/18/2017	RG_BORDER	E300094	1.5	1.9	1.66	0.6	0.617	< 0.50	< 0.50	< 3.0	< 3.0
9/18/2017	RG_BORDER	E300094	1.18	1.6	0.61	0.674	0.674	< 0.50	< 0.50	< 3.0	< 3.0
9/18/2017	RG_BORDER	E300094	1.23	< 1.0	0.72	0.673	0.666	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	RG_BORDER	E300094	1.17	3.4	1.92	0.793	0.772	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	RG_BORDER	E300094	1.21	1.3	0.81	0.691	0.696	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	RG_BORDER	E300094	1.15	1.4	0.76	0.691	0.701	< 0.50	< 0.50	< 3.0	< 3.0
11/8/2017	RG_BORDER	E300094	1.13	1.8	1.12	0.687	0.708	< 0.50	< 0.50	4	< 3.0
11/8/2017	RG_BORDER	E300094	1.1	1.3	1.03	0.658	0.7	< 0.50	< 0.50	< 3.0	< 3.0
11/8/2017	RG_BORDER	E300094	1.19	1.7	0.95	0.671	0.691	< 0.50	< 0.50	< 3.0	< 3.0
12/5/2017	RG_BORDER	E300094	1.33	2.6	1.74	0.75	0.739	< 0.50	< 0.50	< 3.0	< 3.0
12/5/2017	RG_BORDER	E300094	1.41	1.2	0.86	0.748	0.703	< 0.50	< 0.50	< 3.0	< 3.0
12/5/2017	RG_BORDER	E300094	1.36	1.2	0.69	0.771	0.685	< 0.50	< 0.50	< 3.0	< 3.0
4/4/2017	RG_DSELK	E300230	4.21	130	78.8	0.964	1.15	< 0.50	3.78	< 3.0	25.2
4/11/2017	RG_DSELK	E300230	4.67	275	164	0.923	1.11	< 0.50	5.36	< 3.0	25.1
4/17/2017	RG_DSELK	E300230	7.97	527	262	0.886	1.05	< 0.50	2.76	< 3.0	18.5
4/24/2017	RG_DSELK	E300230	20	616	352	0.86	1.33	< 0.50	13.5	< 3.0	59.2
5/2/2017	RG_DSELK	E300230	5.59	229	108	0.773	0.95	< 0.50	4.68	< 3.0	21.4
5/9/2017	RG_DSELK	E300230	7.6	481	232	0.726	1.02	< 0.50	7.35	< 3.0	36.9
5/16/2017	RG_DSELK	E300230	3.22	93.2	66.6	0.669	0.737	< 0.50	1.75	< 3.0	8.9
5/23/2017	RG_DSELK	E300230	3.49	137	85.7	0.635	0.674	< 0.50	1.77	< 3.0	9.2
5/30/2017	RG_DSELK	E300230	5.3	254	160	0.588	0.717	< 0.50	5	< 3.0	19
6/6/2017	RG_DSELK	E300230	2.82	76.9	84.4	0.545	0.598	< 0.50	2.41	< 3.0	7.1
6/6/2017	RG_DSELK	E300230	1.88	76.1	88.2	0.59	0.64	< 0.50	1.31	< 3.0	5.3
6/6/2017	RG_DSELK	E300230	2.41	76.5	88.1	0.594	0.624	< 0.50	1.91	< 3.0	5.7
6/13/2017	RG_DSELK	E300230	1.85	75.7	86.9	0.629	0.621	< 0.50	1.36	< 3.0	6.9
6/13/2017	RG_DSELK	E300230	1.62	71.1	79.7	0.628	0.6	< 0.50	1.29	< 3.0	5.6
6/13/2017	RG_DSELK	E300230	1.45	42.3	46.1	0.626	0.586	< 0.50	1.49	< 3.0	5.6
6/20/2017	RG_DSELK	E300230	1.46	26	36	0.591	0.586	< 0.50	0.78	< 3.0	< 3.0
6/20/2017	RG_DSELK	E300230	1.53	23.9	33.6	0.588	0.575	< 0.50	0.63	< 3.0	< 3.0
6/20/2017	RG_DSELK	E300230	1.56	13.1	20.5	0.607	0.621	< 0.50	< 0.50	< 3.0	< 3.0
6/27/2017	RG_DSELK	E300230	1.59	1.1	1.49	0.553	0.548	< 0.50	< 0.50	< 3.0	< 3.0
6/27/2017	RG_DSELK	E300230	1.06	12.4	10.9	0.537	0.544	< 0.50	0.52	< 3.0	< 3.0
6/27/2017	RG_DSELK	E300230	1.18	7.3	7.28	0.535	0.553	< 0.50	< 0.50	< 3.0	< 3.0
7/4/2017	RG_DSELK	E300230	1	10.6	10.5	0.562	0.539	< 0.50	< 0.50	< 3.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
7/4/2017	RG_DSELK	E300230	1.09	3.4	3.22	0.606	0.576	< 0.50	< 0.50	< 3.0	< 3.0
7/4/2017	RG_DSELK	E300230	1.77	1.7	1.22	0.608	0.588	< 0.50	< 0.50	< 3.0	< 3.0
7/11/2017	RG_DSELK	E300230	0.97	8.1	5.42	0.599	0.589	< 0.50	< 0.50	< 3.0	< 3.0
7/11/2017	RG_DSELK	E300230	1.1	2.5	1.58	0.698	0.697	< 0.50	< 0.50	< 3.0	< 3.0
7/11/2017	RG_DSELK	E300230	1.6	1.2	0.73	0.657	0.587	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	RG_DSELK	E300230	1.28	1.6	0.69	0.718	0.663	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	RG_DSELK	E300230	1.54	6.2	7.49	0.667	0.645	< 0.50	< 0.50	< 3.0	< 3.0
9/18/2017	RG_DSELK	E300230	1.11	3.9	1.88	0.757	0.778	< 0.50	< 0.50	< 3.0	< 3.0
9/18/2017	RG_DSELK	E300230	1.12	1.2	0.67	0.68	0.716	< 0.50	< 0.50	< 3.0	< 3.0
9/18/2017	RG_DSELK	E300230	1.25	1.5	0.64	0.675	0.732	< 0.50	< 0.50	< 3.0	4.5
10/3/2017	RG_DSELK	E300230	1.18	3.4	1.77	0.829	0.839	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	RG_DSELK	E300230	1.18	< 1.0	0.61	0.733	0.721	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	RG_DSELK	E300230	1.17	< 1.0	0.59	0.754	0.718	< 0.50	< 0.50	< 3.0	< 3.0
11/8/2017	RG_DSELK	E300230	1.11	1.7	1.21	0.762	0.785	< 0.50	< 0.50	< 3.0	< 3.0
11/8/2017	RG_DSELK	E300230	1.13	1.3	1.13	0.755	0.754	< 0.50	< 0.50	< 3.0	3.2
11/8/2017	RG_DSELK	E300230	1.16	< 1.0	0.78	0.705	0.714	< 0.50	< 0.50	< 3.0	< 3.0
12/5/2017	RG_DSELK	E300230	1.53	2	1.92	0.788	0.775	< 0.50	< 0.50	< 3.0	< 3.0
12/5/2017	RG_DSELK	E300230	1.55	1.8	1.47	0.811	0.794	< 0.50	< 0.50	< 3.0	< 3.0
12/5/2017	RG_DSELK	E300230	1.64	2.8	2.02	0.734	0.73	< 0.50	< 0.50	< 3.0	< 3.0
1/3/2017	RG_ELKORES	E294312	1.32	23.6	9.37	1.21	1.35	< 0.50	0.85	11	15.1
2/8/2017	RG_ELKORES	E294312	3.74	12.4	6.75	1.14	1.22	< 0.50	0.69	6.1	10.1
3/7/2017	RG_ELKORES	E294312	2.11	27.9	8.53	0.897	1.1	< 0.50	0.99	25	39.8
3/14/2017	RG_ELKORES	E294312	2.31	8.7	6.92	0.648	0.462	< 0.50	1.79	7.5	22
3/21/2017	RG_ELKORES	E294312	3.11	30.8	24.6	0.589	0.652	< 0.50	1.93	< 3.0	5.8
3/28/2017	RG_ELKORES	E294312	1.76	6.4	5.81	0.674	0.763	< 0.50	0.74	< 3.0	< 3.0
4/4/2017	RG_ELKORES	E294312	2.42	6.6	4.15	0.77	0.808	< 0.50	0.78	< 3.0	< 3.0
4/11/2017	RG_ELKORES	E294312	2.1	5.5	5.14	0.798	0.82	< 0.50	0.78	< 3.0	< 3.0
4/18/2017	RG_ELKORES	E294312	1.99	6.4	2.91	0.813	0.818	< 0.50	0.7	< 3.0	< 3.0
4/25/2017	RG_ELKORES	E294312	3.31	41	14.2	0.711	0.743	< 0.50	1.8	< 3.0	4.1
5/1/2017	RG_ELKORES	E294312	2.67	11.3	6.35	0.774	0.8	< 0.50	0.89	< 3.0	< 3.0
5/9/2017	RG_ELKORES	E294312	4.59	60.3	40.2	0.702	0.742	< 0.50	2.98	< 3.0	9.2
5/16/2017	RG_ELKORES	E294312	3.38	49	12.6	0.775	0.777	< 0.50	2.3	< 3.0	5.4
5/23/2017	RG_ELKORES	E294312	5.6	98.9	49.5	0.61	0.664	0.74	3.77	11.5	11.7
5/30/2017	RG_ELKORES	E294312	7.58	246	144	0.554	0.818	< 0.50	8.6	< 3.0	26.4
6/6/2017	RG_ELKORES	E294312	4.27	150	90.6	0.61	0.802	< 0.50	4.76	< 3.0	12.6
6/13/2017	RG_ELKORES	E294312	1.74	59.4	32.6	0.739	0.712	< 0.50	2.56	< 3.0	6.9
6/20/2017	RG_ELKORES	E294312	2.25	26.3	12.1	0.762	0.744	< 0.50	1.37	< 3.0	3.4
6/27/2017	RG_ELKORES	E294312	1.64	14.4	8.29	0.87	0.861	< 0.50	0.81	< 3.0	< 3.0
7/4/2017	RG_ELKORES	E294312	0.94	6.8	1.97	0.86	0.827	< 0.50	0.5	< 3.0	< 3.0
7/11/2017	RG_ELKORES	E294312	1.01	19.3	12.6	0.823	0.914	< 0.50	1.54	< 3.0	4.8
8/1/2017	RG_ELKORES	E294312	1.15	3.5	2.11	0.97	0.977	< 0.50	< 0.50	< 3.0	< 3.0
9/19/2017	RG_ELKORES	E294312	0.99	1.7	0.67	1.07	1.07	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	RG_ELKORES	E294312	0.74	< 1.0	0.73	0.958	1.03	< 0.50	< 0.50	< 3.0	< 3.0
11/8/2017	RG_ELKORES	E294312	0.88	1.9	0.84	1.05	1.11	< 0.50	< 0.50	< 3.0	< 3.0
12/5/2017	RG_ELKORES	E294312	1.21	1.7	0.91	0.984	0.982	< 0.50	< 0.50	< 3.0	< 3.0
4/4/2017	RG_GRASMERE	E300092	2.47	66.7	48.7	0.996	1.02	< 0.50	1.72	< 3.0	6.2
4/4/2017	RG_GRASMERE	E300092	2.33	54.6	47.1	0.964	1.03	< 0.50	1.81	< 3.0	5.4

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
4/11/2017	RG_GRASMERE	E300092	3.14	95.6	77	0.902	1.01	< 0.50	2.63	3.2	10.2
4/17/2017	RG_GRASMERE	E300092	2.71	110	79.1	0.882	0.999	< 0.50	2.64	< 3.0	11.6
4/24/2017	RG_GRASMERE	E300092	2.9	80.6	78.2	0.921	1.01	< 0.50	2.38	< 3.0	8.1
5/2/2017	RG_GRASMERE	E300092	8.26	825	340	0.855	1.32	< 0.50	12.1	< 3.0	61.2
5/9/2017	RG_GRASMERE	E300092	3.28	435	225	0.731	0.943	< 0.50	6.24	< 3.0	32.2
5/16/2017	RG_GRASMERE	E300092	2.55	38.5	41.2	0.66	0.698	< 0.50	1.21	< 3.0	4.4
5/23/2017	RG_GRASMERE	E300092	2.38	38.2	35.5	0.65	0.672	< 0.50	0.78	< 3.0	4.3
5/30/2017	RG_GRASMERE	E300092	2.96	117	85.8	0.628	0.662	< 0.50	2.05	< 3.0	9.3
6/6/2017	RG_GRASMERE	E300092	2.01	72.3	89.8	0.57	0.603	< 0.50	1.41	< 3.0	5.8
6/6/2017	RG_GRASMERE	E300092	2.2	78.5	97.1	0.606	0.647	< 0.50	2.26	< 3.0	6.1
6/6/2017	RG_GRASMERE	E300092	1.68	67.2	84.3	0.617	0.628	< 0.50	1.18	< 3.0	3.9
6/13/2017	RG_GRASMERE	E300092	1.5	89.2	87.8	0.635	0.618	< 0.50	1.56	< 3.0	7
6/13/2017	RG_GRASMERE	E300092	1.67	68.3	78.8	0.64	0.607	< 0.50	1.48	< 3.0	8.1
6/13/2017	RG_GRASMERE	E300092	1.94	28.1	35.6	0.621	0.582	< 0.50	0.96	< 3.0	3.6
6/20/2017	RG_GRASMERE	E300092	1.3	32.4	33.8	0.587	0.595	< 0.50	0.81	< 3.0	< 3.0
6/20/2017	RG_GRASMERE	E300092	1.5	15.4	22.9	0.583	0.579	< 0.50	0.55	< 3.0	< 3.0
6/20/2017	RG_GRASMERE	E300092	1.77	3.1	3	0.606	0.592	< 0.50	< 0.50	< 3.0	< 3.0
6/27/2017	RG_GRASMERE	E300092	1.14	15.5	9.81	0.543	0.543	< 0.50	< 0.50	< 3.0	< 3.0
6/27/2017	RG_GRASMERE	E300092	1.22	5.7	5.89	0.545	0.532	< 0.50	< 0.50	< 3.0	< 3.0
6/27/2017	RG_GRASMERE	E300092	1.63	< 1.0	1.36	0.542	0.523	< 0.50	< 0.50	< 3.0	< 3.0
7/4/2017	RG_GRASMERE	E300092	1.13	11	1.26	0.566	0.553	< 0.50	< 0.50	< 3.0	< 3.0
7/4/2017	RG_GRASMERE	E300092	1.19	1.7	11.4	0.544	0.565	< 0.50	< 0.50	< 3.0	< 3.0
7/4/2017	RG_GRASMERE	E300092	1.95	1.2	0.85	0.611	0.565	< 0.50	< 0.50	< 3.0	< 3.0
7/11/2017	RG_GRASMERE	E300092	1.34	9.1	4.56	0.63	0.621	< 0.50	< 0.50	< 3.0	< 3.0
7/11/2017	RG_GRASMERE	E300092	0.88	7.3	5.33	0.558	0.573	< 0.50	< 0.50	< 3.0	31
7/11/2017	RG_GRASMERE	E300092	1.79	< 1.0	1.02	0.633	0.614	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	RG_GRASMERE	E300092	1.22	1.8	0.99	0.697	0.655	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	RG_GRASMERE	E300092	1.47	1.6	0.46	0.689	0.625	< 0.50	< 0.50	< 3.0	< 3.0
9/18/2017	RG_GRASMERE	E300092	1.14	2.9	1.23	0.727	0.76	< 0.50	< 0.50	< 3.0	< 3.0
9/18/2017	RG_GRASMERE	E300092	1.13	2	0.66	0.682	0.728	< 0.50	< 0.50	< 3.0	< 3.0
9/18/2017	RG_GRASMERE	E300092	1.28	1.6	0.62	0.699	0.706	< 0.50	< 0.50	< 3.0	3
10/3/2017	RG_GRASMERE	E300092	0.93	2	0.8	0.791	0.782	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	RG_GRASMERE	E300092	1.14	1.1	0.59	0.731	0.701	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	RG_GRASMERE	E300092	0.99	1.2	0.54	0.754	0.728	< 0.50	< 0.50	< 3.0	< 3.0
11/8/2017	RG_GRASMERE	E300092	1.05	2.1	1.6	0.738	0.717	< 0.50	< 0.50	< 3.0	< 3.0
11/8/2017	RG_GRASMERE	E300092	1.28	1	0.77	0.724	0.825	< 0.50	< 0.50	< 3.0	< 3.0
11/8/2017	RG_GRASMERE	E300092	1.16	1	0.76	0.721	0.718	< 0.50	< 0.50	< 3.0	< 3.0
12/5/2017	RG_GRASMERE	E300092	1.43	2	1.68	0.849	0.833	< 0.50	< 0.50	< 3.0	< 3.0
12/5/2017	RG_GRASMERE	E300092	1.54	1.6	1.31	0.763	0.755	< 0.50	< 0.50	< 3.0	4.5
12/5/2017	RG_GRASMERE	E300092	1.56	1.1	1.02	0.727	0.699	< 0.50	< 0.50	< 3.0	3
4/24/2017	RG_KERRRD	E300095	3.2	109	56	0.781	0.848	< 0.50	1.66	< 3.0	8.7
5/2/2017	RG_KERRRD	E300095	2.72	37.8	12.5	0.806	0.845	< 0.50	0.81	< 3.0	3.9
5/9/2017	RG_KERRRD	E300095	4.15	207	133	0.666	0.775	< 0.50	2.38	< 3.0	15.3
5/16/2017	RG_KERRRD	E300095	2.68	72.4	49.7	0.66	0.706	< 0.50	1.11	< 3.0	5.9
5/23/2017	RG_KERRRD	E300095	3.21	187	20.7	0.652	0.738	< 0.50	2.69	< 3.0	14.1
5/30/2017	RG_KERRRD	E300095	4.31	243	165	0.611	0.788	< 0.50	3.3	< 3.0	16.6
6/6/2017	RG_KERRRD	E300095	2.72	125	115	0.635	0.68	< 0.50	1.88	< 3.0	8.6

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
6/6/2017	RG_KERRRD	E300095	2.19	103	108	0.65	0.722	< 0.50	1.85	< 3.0	8
6/13/2017	RG_KERRRD	E300095	1.37	63.3	60.3	0.648	0.611	< 0.50	1.13	< 3.0	5.3
6/13/2017	RG_KERRRD	E300095	1.48	62.4	73.2	0.657	0.613	< 0.50	1.07	< 3.0	5.2
6/20/2017	RG_KERRRD	E300095	1.57	28.7	35.7	0.599	0.604	< 0.50	0.53	< 3.0	< 3.0
6/20/2017	RG_KERRRD	E300095	1.34	26.3	34.6	0.626	0.621	< 0.50	0.56	< 3.0	< 3.0
6/20/2017	RG_KERRRD	E300095	1.49	28.4	34.4	0.602	0.617	< 0.50	0.53	< 3.0	< 3.0
6/27/2017	RG_KERRRD	E300095	1.13	14	11.8	0.567	0.565	< 0.50	< 0.50	< 3.0	< 3.0
6/27/2017	RG_KERRRD	E300095	1	13.2	8.82	0.562	0.559	< 0.50	< 0.50	< 3.0	< 3.0
6/27/2017	RG_KERRRD	E300095	1.09	12.2	8.64	0.555	0.559	< 0.50	< 0.50	< 3.0	< 3.0
7/4/2017	RG_KERRRD	E300095	1.22	7.6	6.6	0.541	0.547	< 0.50	< 0.50	< 3.0	< 3.0
7/4/2017	RG_KERRRD	E300095	1.12	8.7	9.47	0.554	0.534	< 0.50	< 0.50	< 3.0	< 3.0
7/4/2017	RG_KERRRD	E300095	1.4	2.4	2.74	0.6	0.554	< 0.50	< 0.50	< 3.0	< 3.0
7/11/2017	RG_KERRRD	E300095	0.97	7.8	4.86	0.579	0.578	< 0.50	< 0.50	< 3.0	< 3.0
7/11/2017	RG_KERRRD	E300095	1.01	6	3.12	0.596	0.57	< 0.50	< 0.50	< 3.0	< 3.0
7/11/2017	RG_KERRRD	E300095	1.79	2	1.31	0.603	0.62	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	RG_KERRRD	E300095	0.93	1.4	3.2	0.733	0.677	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	RG_KERRRD	E300095	1.04	< 1.0	1.1	0.744	0.686	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	RG_KERRRD	E300095	1.21	< 1.0	0.7	0.658	0.625	< 0.50	< 0.50	< 3.0	< 3.0
9/18/2017	RG_KERRRD	E300095	1.14	3.3	2.05	0.747	0.779	< 0.50	< 0.50	< 3.0	< 3.0
9/18/2017	RG_KERRRD	E300095	1.2	2.3	0.69	0.693	0.708	< 0.50	< 0.50	< 3.0	3.2
9/18/2017	RG_KERRRD	E300095	1.18	2.1	0.73	0.69	0.732	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	RG_KERRRD	E300095	1.22	3.2	1.69	0.897	0.874	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	RG_KERRRD	E300095	1.19	< 1.0	0.4	0.76	0.736	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	RG_KERRRD	E300095	1.3	1.4	0.41	0.764	0.687	< 0.50	< 0.50	< 3.0	< 3.0
11/8/2017	RG_KERRRD	E300095	1.17	< 1.0	1.27	0.777	0.804	< 0.50	< 0.50	< 3.0	< 3.0
11/8/2017	RG_KERRRD	E300095	1.27	1.1	1.03	0.769	0.735	< 0.50	< 0.50	< 3.0	15.9
11/8/2017	RG_KERRRD	E300095	1.12	< 1.0	1.19	0.802	0.742	< 0.50	< 0.50	< 3.0	< 3.0
12/5/2017	RG_KERRRD	E300095	1.61	3.6	3.41	0.839	0.817	< 0.50	< 0.50	< 3.0	3.1
12/5/2017	RG_KERRRD	E300095	1.69	3.1	3.94	0.817	0.763	< 0.50	< 0.50	< 3.0	3.2
12/5/2017	RG_KERRRD	E300095	1.6	3.9	3.3	0.804	0.781	< 0.50	< 0.50	< 3.0	3.7
4/4/2017	RG_USGOLD	E300093	2.13	34.9	32.2	0.966	1.01	< 0.50	1.39	< 3.0	4.2
4/4/2017	RG_USGOLD	E300093	1.79	29	24.7	0.926	0.985	< 0.50	1.22	< 3.0	3.2
4/11/2017	RG_USGOLD	E300093	2.52	68.7	66.1	0.89	0.957	< 0.50	1.61	< 3.0	8.5
4/17/2017	RG_USGOLD	E300093	2.4	87.4	78.5	0.929	1.01	< 0.50	1.8	< 3.0	6.4
4/24/2017	RG_USGOLD	E300093	5.17	323	222	0.918	1.06	< 0.50	6.36	< 3.0	23
5/2/2017	RG_USGOLD	E300093	3.66	220	157	1.07	1.23	< 0.50	4.4	< 3.0	18.1
5/9/2017	RG_USGOLD	E300093	4.06	154	127	0.73	0.806	< 0.50	3.01	< 3.0	12.7
5/16/2017	RG_USGOLD	E300093	2.63	58.1	59	0.652	0.691	< 0.50	1.25	< 3.0	5.8
5/23/2017	RG_USGOLD	E300093	2.7	68.7	52.5	0.632	0.633	< 0.50	1.11	< 3.0	6.4
5/30/2017	RG_USGOLD	E300093	3.25	97.2	67.9	0.57	0.62	< 0.50	2.58	< 3.0	9.5
5/30/2017	RG_USGOLD	E300093	3.2	95	88.7	0.563	0.598	< 0.50	2.61	< 3.0	9.4
5/30/2017	RG_USGOLD	E300093	2.9	62.1	64.9	0.551	0.576	< 0.50	2.23	< 3.0	7.3
6/6/2017	RG_USGOLD	E300093	2.23	74.9	96	0.552	0.607	< 0.50	2.13	< 3.0	7.6
6/6/2017	RG_USGOLD	E300093	1.87	57.6	91.1	0.609	0.638	< 0.50	1.56	< 3.0	5.2
6/6/2017	RG_USGOLD	E300093	1.98	26.2	39.3	0.597	0.604	< 0.50	1.11	< 3.0	< 3.0
6/13/2017	RG_USGOLD	E300093	1.67	96.8	73.3	0.641	0.636	< 0.50	1.67	< 3.0	8.2
6/13/2017	RG_USGOLD	E300093	1.56	47.3	58	0.646	0.599	< 0.50	1.22	< 3.0	5.2

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
6/13/2017	RG_USGOLD	E300093	1.91	5.6	7.01	0.609	0.55	< 0.50	< 0.50	< 3.0	< 3.0
6/20/2017	RG_USGOLD	E300093	1.55	27.5	38.9	0.597	0.589	< 0.50	0.87	< 3.0	< 3.0
6/20/2017	RG_USGOLD	E300093	1.35	9.4	15.8	0.585	0.559	< 0.50	< 0.50	< 3.0	< 3.0
6/20/2017	RG_USGOLD	E300093	1.88	1.9	3.39	0.597	0.589	< 0.50	< 0.50	< 3.0	4.2
6/27/2017	RG_USGOLD	E300093	1.25	14.9	11.2	0.55	0.543	< 0.50	0.54	< 3.0	< 3.0
6/27/2017	RG_USGOLD	E300093	1.57	10	5.68	0.522	0.547	< 0.50	< 0.50	< 3.0	< 3.0
6/27/2017	RG_USGOLD	E300093	1.73	< 1.0	1.05	0.554	0.539	< 0.50	< 0.50	< 3.0	< 3.0
7/4/2017	RG_USGOLD	E300093	1.15	10.9	14.1	0.561	0.544	< 0.50	< 0.50	< 3.0	< 3.0
7/4/2017	RG_USGOLD	E300093	1.23	3.4	3.13	0.568	0.538	< 0.50	< 0.50	< 3.0	< 3.0
7/4/2017	RG_USGOLD	E300093	1.71	1.4	1.38	0.613	0.582	< 0.50	< 0.50	< 3.0	< 3.0
7/11/2017	RG_USGOLD	E300093	1.32	5	6.31	0.638	0.64	< 0.50	< 0.50	< 3.0	< 3.0
7/11/2017	RG_USGOLD	E300093	0.97	5	3.89	0.589	0.591	< 0.50	< 0.50	< 3.0	< 3.0
7/11/2017	RG_USGOLD	E300093	1.91	1.2	0.88	0.67	0.622	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	RG_USGOLD	E300093	1.32	1.8	2.02	0.627	0.598	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	RG_USGOLD	E300093	1.02	1.6	0.55	0.757	0.734	< 0.50	< 0.50	< 3.0	< 3.0
8/8/2017	RG_USGOLD	E300093	1.44	1.7	0.51	0.669	0.629	< 0.50	< 0.50	< 3.0	< 3.0
9/18/2017	RG_USGOLD	E300093	1.19	5.3	3.45	0.698	0.719	< 0.50	< 0.50	< 3.0	< 3.0
9/18/2017	RG_USGOLD	E300093	1.14	1.8	0.71	0.692	0.726	< 0.50	< 0.50	< 3.0	< 3.0
9/18/2017	RG_USGOLD	E300093	1.16	1	0.66	0.678	0.705	< 0.50	< 0.50	< 3.0	5.5
10/3/2017	RG_USGOLD	E300093	1.03	3.8	2.17	0.83	0.813	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	RG_USGOLD	E300093	0.96	< 1.0	0.54	0.726	0.72	< 0.50	< 0.50	< 3.0	< 3.0
10/3/2017	RG_USGOLD	E300093	1.04	< 1.0	0.48	0.688	0.736	< 0.50	< 0.50	< 3.0	< 3.0
11/8/2017	RG_USGOLD	E300093	1.22	2.4	1.36	0.698	0.721	< 0.50	< 0.50	< 3.0	< 3.0
11/8/2017	RG_USGOLD	E300093	1.04	< 1.0	0.94	0.677	0.699	< 0.50	< 0.50	< 3.0	< 3.0
11/8/2017	RG_USGOLD	E300093	1.47	< 1.0	0.7	0.679	0.687	< 0.50	< 0.50	< 3.0	< 3.0
12/5/2017	RG_USGOLD	E300093	1.54	2.3	2.12	0.824	0.815	< 0.50	< 0.50	< 3.0	< 3.0
12/5/2017	RG_USGOLD	E300093	1.48	1.4	0.85	0.756	0.715	< 0.50	< 0.50	< 3.0	< 3.0
12/5/2017	RG_USGOLD	E300093	1.25	1	1.08	0.743	0.719	< 0.50	< 0.50	< 3.0	< 3.0
1/1/2017	WL_BFWB_OUT_SP21	E291569		1.3	1.32	8.91	8.84	< 0.50	< 0.50	3.8	4.2
1/2/2017	WL_BFWB_OUT_SP21	E291569		1.6	1.6	8.92	8.92	< 0.50	< 0.50	2.8	3.7
1/3/2017	WL_BFWB_OUT_SP21	E291569	1.31	1.6	1.51	9.12	9.35	< 0.50	< 0.50	3.3	< 3.0
1/4/2017	WL_BFWB_OUT_SP21	E291569		4	2.25						
1/5/2017	WL_BFWB_OUT_SP21	E291569		4.5	2.52	9.52	10.3	< 0.50	< 0.50	2.6	< 3.0
1/6/2017	WL_BFWB_OUT_SP21	E291569		1.1	1.84						
1/7/2017	WL_BFWB_OUT_SP21	E291569		1.4	1.31						
1/8/2017	WL_BFWB_OUT_SP21	E291569		1	1.39	10	10.8	< 0.50	< 0.50	2	< 3.0
1/9/2017	WL_BFWB_OUT_SP21	E291569	1.82	1	1.36	8.96	10.4	< 0.50	< 0.50	1.1	< 3.0
1/10/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.24	9.66	10.2	< 0.50	< 0.50	2.5	4.8
1/11/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.36						
1/12/2017	WL_BFWB_OUT_SP21	E291569		1	1.14	9.8	10.6	< 0.50	< 0.50	1.7	< 3.0
1/12/2017	WL_BFWB_OUT_SP21	E291569									
1/13/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.36						
1/14/2017	WL_BFWB_OUT_SP21	E291569		1.5	1.71						
1/15/2017	WL_BFWB_OUT_SP21	E291569		2.1	2.09	9.9	10.5	< 0.50	0.84	5.1	5.1
1/16/2017	WL_BFWB_OUT_SP21	E291569	1.2	1.3	1.37	10.1	10.9	< 0.50	0.55	4.4	< 3.0
1/17/2017	WL_BFWB_OUT_SP21	E291569		1	1.1	9.72	11.6	< 0.50	< 0.50	8.4	< 3.0
1/18/2017	WL_BFWB_OUT_SP21	E291569		1	1.31						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
1/19/2017	WL_BFWB_OUT_SP21	E291569		1.6	1.22	10.7	10.7	< 0.50	< 0.50	3	< 3.0
1/20/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.2						
1/21/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.17						
1/22/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.22	10	10.7	< 0.50	< 0.50	5.9	< 3.0
1/23/2017	WL_BFWB_OUT_SP21	E291569	1.33	1.2	1.32	10.7	11.2	< 0.50	< 0.50	4.3	< 3.0
1/24/2017	WL_BFWB_OUT_SP21	E291569		1.8	1.37	10.2	10.8	< 0.50	< 0.50	1.5	< 3.0
1/25/2017	WL_BFWB_OUT_SP21	E291569		1.3	1.58						
1/26/2017	WL_BFWB_OUT_SP21	E291569		1.5	1.31	9.61	9.1	< 0.50	< 0.50	1.7	< 3.0
1/27/2017	WL_BFWB_OUT_SP21	E291569		1.5	1.38						
1/28/2017	WL_BFWB_OUT_SP21	E291569		1.5	1.37						
1/29/2017	WL_BFWB_OUT_SP21	E291569		1.5	1.31	9.37	9.78	< 0.50	< 0.50	2.5	< 3.0
1/30/2017	WL_BFWB_OUT_SP21	E291569		1.7	1.27	8.97	9.58	< 2.5	< 2.5	< 5.0	< 15
1/31/2017	WL_BFWB_OUT_SP21	E291569	1.38	1.5	1.25	8.93	9.28	< 2.5	< 2.5	< 5.0	< 15
1/31/2017	WL_BFWB_OUT_SP21	E291569									
2/1/2017	WL_BFWB_OUT_SP21	E291569		1.9	1.24						
2/1/2017	WL_BFWB_OUT_SP21	E291569									
2/2/2017	WL_BFWB_OUT_SP21	E291569		1.5	1.32	10.5	10.3	< 0.50	< 0.50	25.1	5
2/2/2017	WL_BFWB_OUT_SP21	E291569									
2/3/2017	WL_BFWB_OUT_SP21	E291569		1.3	1.42						
2/3/2017	WL_BFWB_OUT_SP21	E291569									
2/4/2017	WL_BFWB_OUT_SP21	E291569		1.5	1.39						
2/4/2017	WL_BFWB_OUT_SP21	E291569									
2/5/2017	WL_BFWB_OUT_SP21	E291569		1.5	1.41	10.4	9.77	< 0.50	< 0.50	3.1	< 3.0
2/6/2017	WL_BFWB_OUT_SP21	E291569		1.7	2.39	9.66	10.2	< 0.50	< 0.50	2.6	3.4
2/6/2017	WL_BFWB_OUT_SP21	E291569									
2/7/2017	WL_BFWB_OUT_SP21	E291569	2.33	1.5	2.59	9.59	10.7	< 0.50	< 0.50	3.9	3.1
2/8/2017	WL_BFWB_OUT_SP21	E291569		1.3	1.95						
2/8/2017	WL_BFWB_OUT_SP21	E291569									
2/9/2017	WL_BFWB_OUT_SP21	E291569		1.5	1.66	9.85	10.4	< 0.50	< 0.50	2.5	< 3.0
2/10/2017	WL_BFWB_OUT_SP21	E291569		1.5	1.75						
2/10/2017	WL_BFWB_OUT_SP21	E291569									
2/11/2017	WL_BFWB_OUT_SP21	E291569		1	1.36						
2/11/2017	WL_BFWB_OUT_SP21	E291569									
2/12/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.32	9.31	9.31	< 0.50	< 0.50	2.5	< 3.0
2/12/2017	WL_BFWB_OUT_SP21	E291569									
2/13/2017	WL_BFWB_OUT_SP21	E291569		1.2	1.43	9.79	9.93	< 0.50	< 0.50	4.7	< 3.0
2/13/2017	WL_BFWB_OUT_SP21	E291569									
2/14/2017	WL_BFWB_OUT_SP21	E291569	1.47	1.2	1.3	9.6	9.79	< 0.50	< 0.50	3.2	< 3.0
2/14/2017	WL_BFWB_OUT_SP21	E291569									
2/15/2017	WL_BFWB_OUT_SP21	E291569		8.4	3.76						
2/16/2017	WL_BFWB_OUT_SP21	E291569		1.6	1.68	9.33	9.19	< 0.50	0.54	3.1	3.2
2/16/2017	WL_BFWB_OUT_SP21	E291569									
2/17/2017	WL_BFWB_OUT_SP21	E291569		2	1.73						
2/17/2017	WL_BFWB_OUT_SP21	E291569									
2/18/2017	WL_BFWB_OUT_SP21	E291569		1.4	1.86						
2/18/2017	WL_BFWB_OUT_SP21	E291569									
2/19/2017	WL_BFWB_OUT_SP21	E291569									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
2/19/2017	WL_BFWB_OUT_SP21	E291569		2	1.62	9.4	9.98	< 0.50	< 0.50	2.6	3.7
2/19/2017	WL_BFWB_OUT_SP21	E291569									
2/20/2017	WL_BFWB_OUT_SP21	E291569		1.6	1.94	9.48	9.43	< 0.50	0.9	3.2	3.5
2/20/2017	WL_BFWB_OUT_SP21	E291569									
2/21/2017	WL_BFWB_OUT_SP21	E291569									
2/21/2017	WL_BFWB_OUT_SP21	E291569	2.09	1.2	1.74	9.09	10.1	< 0.50	< 0.50	1.9	< 3.0
2/21/2017	WL_BFWB_OUT_SP21	E291569									
2/22/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.61						
2/22/2017	WL_BFWB_OUT_SP21	E291569									
2/23/2017	WL_BFWB_OUT_SP21	E291569		1.1	1.45	9.22	11.1	< 0.50	< 0.50	2.3	< 3.0
2/23/2017	WL_BFWB_OUT_SP21	E291569									
2/24/2017	WL_BFWB_OUT_SP21	E291569		1.3	1.9						
2/24/2017	WL_BFWB_OUT_SP21	E291569									
2/25/2017	WL_BFWB_OUT_SP21	E291569		1.7	1.69						
2/25/2017	WL_BFWB_OUT_SP21	E291569									
2/26/2017	WL_BFWB_OUT_SP21	E291569		1.5	1.76	8.52	9.68	< 0.50	< 0.50	2.5	< 3.0
2/26/2017	WL_BFWB_OUT_SP21	E291569									
2/27/2017	WL_BFWB_OUT_SP21	E291569	1.62	1.3	1.29	9.09	9.3	< 0.50	< 0.50	2.2	3.3
2/27/2017	WL_BFWB_OUT_SP21	E291569									
2/28/2017	WL_BFWB_OUT_SP21	E291569		1.8	1.44	9.49	10.4	< 0.50	< 0.50	2.7	< 3.0
2/28/2017	WL_BFWB_OUT_SP21	E291569									
3/1/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.7						
3/2/2017	WL_BFWB_OUT_SP21	E291569		1	1.52	8.17	9.37	< 0.50	< 0.50	3.4	3.2
3/2/2017	WL_BFWB_OUT_SP21	E291569									
3/3/2017	WL_BFWB_OUT_SP21	E291569		1.4	1.73						
3/3/2017	WL_BFWB_OUT_SP21	E291569									
3/4/2017	WL_BFWB_OUT_SP21	E291569		1.2	1.49						
3/4/2017	WL_BFWB_OUT_SP21	E291569									
3/5/2017	WL_BFWB_OUT_SP21	E291569									
3/5/2017	WL_BFWB_OUT_SP21	E291569		1	1.65	9.31	10.1	< 0.50	1.42	4.8	3.3
3/5/2017	WL_BFWB_OUT_SP21	E291569									
3/6/2017	WL_BFWB_OUT_SP21	E291569	< 0.50	< 1.0	1.47	9.05	9.99	< 0.50	< 0.50	6.1	< 3.0
3/6/2017	WL_BFWB_OUT_SP21	E291569									
3/7/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.42	9.47	9.48	< 0.50	< 0.50	2.5	< 3.0
3/7/2017	WL_BFWB_OUT_SP21	E291569									
3/8/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.12						
3/8/2017	WL_BFWB_OUT_SP21	E291569									
3/8/2017	WL_BFWB_OUT_SP21	E291569									
3/9/2017	WL_BFWB_OUT_SP21	E291569									
3/9/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.03	8.92	9.64	< 0.50	< 0.50	2.5	< 3.0
3/9/2017	WL_BFWB_OUT_SP21	E291569									
3/10/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.06	9.1	9.6	< 0.50	< 0.50	< 3.0	3.5
3/10/2017	WL_BFWB_OUT_SP21	E291569									
3/11/2017	WL_BFWB_OUT_SP21	E291569		1	0.99	8.47	9.27	< 0.50	< 0.50	3	< 3.0
3/11/2017	WL_BFWB_OUT_SP21	E291569									
3/12/2017	WL_BFWB_OUT_SP21	E291569				8.32	9.33	< 0.50	< 0.50	4.6	< 3.0
3/12/2017	WL_BFWB_OUT_SP21	E291569		1	1.09						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
3/12/2017	WL_BFWB_OUT_SP21	E291569									
3/13/2017	WL_BFWB_OUT_SP21	E291569	1.47	< 1.0	1.07	9.02	8.87	< 0.50	< 0.50	3.9	< 3.0
3/13/2017	WL_BFWB_OUT_SP21	E291569									
3/14/2017	WL_BFWB_OUT_SP21	E291569		1	1.06	8.49	9.27	< 0.50	< 0.50	< 3.0	3.5
3/14/2017	WL_BFWB_OUT_SP21	E291569									
3/15/2017	WL_BFWB_OUT_SP21	E291569		1.2	1.35	8.78	9.39	< 0.50	< 0.50	3.4	< 3.0
3/15/2017	WL_BFWB_OUT_SP21	E291569									
3/16/2017	WL_BFWB_OUT_SP21	E291569		1	1.39	8.29	9.92	< 0.50	< 0.50	< 3.0	3.2
3/16/2017	WL_BFWB_OUT_SP21	E291569									
3/20/2017	WL_BFWB_OUT_SP21	E291569				7.22	7.75	< 0.50	< 0.50	3	3.3
3/20/2017	WL_BFWB_OUT_SP21	E291569		1.4	1.84						
3/21/2017	WL_BFWB_OUT_SP21	E291569									
3/21/2017	WL_BFWB_OUT_SP21	E291569	1.26	1.4	1.85	8.28	11.2	< 0.50	< 0.50	1.7	< 3.0
3/21/2017	WL_BFWB_OUT_SP21	E291569									
3/22/2017	WL_BFWB_OUT_SP21	E291569		1.2	1.68	9.74	10.3	< 0.50	< 0.50	< 3.0	< 3.0
3/22/2017	WL_BFWB_OUT_SP21	E291569									
3/23/2017	WL_BFWB_OUT_SP21	E291569		1.4	1.96	10.5	10.8	< 0.50	< 0.50	< 3.0	3
3/23/2017	WL_BFWB_OUT_SP21	E291569									
3/24/2017	WL_BFWB_OUT_SP21	E291569		3.2	2.58	10.7	11.4	< 0.50	< 0.50	< 3.0	< 3.0
3/24/2017	WL_BFWB_OUT_SP21	E291569									
3/25/2017	WL_BFWB_OUT_SP21	E291569		1.1	1.4	10.9	11.8	< 0.50	< 0.50	< 3.0	< 3.0
3/25/2017	WL_BFWB_OUT_SP21	E291569									
3/26/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.34						
3/26/2017	WL_BFWB_OUT_SP21	E291569									
3/27/2017	WL_BFWB_OUT_SP21	E291569	2.12	1.4	1.31	9.8	10.4	< 0.50	< 0.50	< 3.0	< 3.0
3/27/2017	WL_BFWB_OUT_SP21	E291569									
3/28/2017	WL_BFWB_OUT_SP21	E291569		1.4	1.46	10.4	10.8	< 0.50	< 0.50	< 3.0	< 3.0
3/28/2017	WL_BFWB_OUT_SP21	E291569									
3/29/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.6	10.1	10.8	< 0.50	< 0.50	< 3.0	< 3.0
3/29/2017	WL_BFWB_OUT_SP21	E291569									
3/30/2017	WL_BFWB_OUT_SP21	E291569		2.2	1.69	9.56	9.88	< 0.50	< 0.50	2.1	6.1
3/31/2017	WL_BFWB_OUT_SP21	E291569		1.2	1.71	9.15	10	< 0.50	< 0.50	< 3.0	3.2
3/31/2017	WL_BFWB_OUT_SP21	E291569									
4/1/2017	WL_BFWB_OUT_SP21	E291569		1.5	1.26	8.77	9.44	< 0.50	< 0.50	3.2	< 3.0
4/1/2017	WL_BFWB_OUT_SP21	E291569									
4/2/2017	WL_BFWB_OUT_SP21	E291569				8.88	9.51	< 0.50	< 0.50	4	< 3.0
4/2/2017	WL_BFWB_OUT_SP21	E291569		1.1	1.13						
4/2/2017	WL_BFWB_OUT_SP21	E291569									
4/3/2017	WL_BFWB_OUT_SP21	E291569	1.72	1.7	1.35	8.8	9.38	< 0.50	< 0.50	< 3.0	< 3.0
4/3/2017	WL_BFWB_OUT_SP21	E291569									
4/4/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.09	9.37	9.37	< 0.50	< 0.50	< 3.0	< 3.0
4/4/2017	WL_BFWB_OUT_SP21	E291569									
4/5/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.16	9.34	10	< 0.50	< 0.50	3.1	< 3.0
4/5/2017	WL_BFWB_OUT_SP21	E291569									
4/6/2017	WL_BFWB_OUT_SP21	E291569		1.2	1.03	9.06	9.88	< 0.50	< 0.50	< 3.0	< 3.0
4/6/2017	WL_BFWB_OUT_SP21	E291569									
4/7/2017	WL_BFWB_OUT_SP21	E291569		< 2.0	1.05	9.22	10.2	< 0.50	< 0.50	< 3.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
4/7/2017	WL_BFWB_OUT_SP21	E291569									
4/8/2017	WL_BFWB_OUT_SP21	E291569		1	1.1	8.79	9.83	< 0.50	< 0.50	3.4	< 3.0
4/8/2017	WL_BFWB_OUT_SP21	E291569									
4/9/2017	WL_BFWB_OUT_SP21	E291569		1	1.09	9.16	10.2	< 0.50	< 0.50	6	< 3.0
4/9/2017	WL_BFWB_OUT_SP21	E291569									
4/10/2017	WL_BFWB_OUT_SP21	E291569	2.18	< 1.0	1.19	9.13	10.2	< 0.50	0.6	< 3.0	< 3.0
4/10/2017	WL_BFWB_OUT_SP21	E291569									
4/11/2017	WL_BFWB_OUT_SP21	E291569		1.5	1.02	9.51	9.97	< 0.50	< 0.50	< 3.0	< 3.0
4/11/2017	WL_BFWB_OUT_SP21	E291569									
4/12/2017	WL_BFWB_OUT_SP21	E291569		1.3	1.02	9.7	10.7	< 0.50	< 0.50	< 3.0	< 3.0
4/12/2017	WL_BFWB_OUT_SP21	E291569									
4/13/2017	WL_BFWB_OUT_SP21	E291569		1.9	1.16	8.75	10.5	< 0.50	< 0.50	< 3.0	< 3.0
4/13/2017	WL_BFWB_OUT_SP21	E291569									
4/14/2017	WL_BFWB_OUT_SP21	E291569		1.1	1.04	8.84	10.1	< 0.50	< 0.50	< 3.0	3.4
4/14/2017	WL_BFWB_OUT_SP21	E291569									
4/15/2017	WL_BFWB_OUT_SP21	E291569		1.5	1.03	8.84	10.3	< 0.50	< 0.50	4.5	< 3.0
4/15/2017	WL_BFWB_OUT_SP21	E291569									
4/16/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.15	10.4	9.19	< 0.50	< 0.50	< 3.0	< 3.0
4/16/2017	WL_BFWB_OUT_SP21	E291569									
4/17/2017	WL_BFWB_OUT_SP21	E291569	1.61	1.7	1.23	9.21	10.2	< 0.50	< 0.50	5	< 3.0
4/17/2017	WL_BFWB_OUT_SP21	E291569									
4/18/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.06	9.63	10.4	< 0.50	< 0.50	< 3.0	< 3.0
4/18/2017	WL_BFWB_OUT_SP21	E291569									
4/19/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.01	10.1	9.99	< 0.50	< 0.50	< 3.0	< 3.0
4/19/2017	WL_BFWB_OUT_SP21	E291569									
4/20/2017	WL_BFWB_OUT_SP21	E291569		1.8	0.87	10.2	9.42	< 0.50	< 0.50	< 3.0	< 3.0
4/20/2017	WL_BFWB_OUT_SP21	E291569									
4/21/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.88	10.5	10.5	< 0.50	< 0.50	< 3.0	< 3.0
4/21/2017	WL_BFWB_OUT_SP21	E291569									
4/22/2017	WL_BFWB_OUT_SP21	E291569		1.1	1.01	10	10.6	< 0.50	< 0.50	< 3.0	< 3.0
4/22/2017	WL_BFWB_OUT_SP21	E291569									
4/23/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.87	9.96	10.5	< 0.50	< 0.50	< 3.0	< 3.0
4/23/2017	WL_BFWB_OUT_SP21	E291569									
4/24/2017	WL_BFWB_OUT_SP21	E291569	1.39	< 1.0	0.91	9.81	10.7	< 0.50	< 0.50	< 3.0	< 3.0
4/24/2017	WL_BFWB_OUT_SP21	E291569									
4/25/2017	WL_BFWB_OUT_SP21	E291569		1.4	1.1	10.3	10.7	< 0.50	< 0.50	< 3.0	< 3.0
4/25/2017	WL_BFWB_OUT_SP21	E291569									
4/26/2017	WL_BFWB_OUT_SP21	E291569		1.8	1.03	10.4	10.8	< 0.50	< 0.50	< 3.0	< 3.0
4/27/2017	WL_BFWB_OUT_SP21	E291569		1.3	0.83	9.78	9.86	< 0.50	< 0.50	< 3.0	< 3.0
4/27/2017	WL_BFWB_OUT_SP21	E291569									
4/28/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.04	9.45	9.75	< 0.50	< 0.50	< 3.0	< 3.0
4/28/2017	WL_BFWB_OUT_SP21	E291569									
4/29/2017	WL_BFWB_OUT_SP21	E291569		1	1.21	9.95	9.81	< 0.50	< 0.50	3.5	< 3.0
4/29/2017	WL_BFWB_OUT_SP21	E291569									
4/30/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.78	9.79	9.68	< 0.50	< 0.50	4.2	< 3.0
4/30/2017	WL_BFWB_OUT_SP21	E291569									
5/1/2017	WL_BFWB_OUT_SP21	E291569	1.36	< 1.0	0.72	9.7	9.37	< 0.50	< 0.50	< 3.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
5/1/2017	WL_BFWB_OUT_SP21	E291569									
5/2/2017	WL_BFWB_OUT_SP21	E291569				10.1	9.31	< 0.50	< 0.50	< 3.0	< 3.0
5/2/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.81						
5/2/2017	WL_BFWB_OUT_SP21	E291569									
5/3/2017	WL_BFWB_OUT_SP21	E291569		1.4	1.1	9.87	9.8	< 0.50	< 0.50	< 3.0	< 3.0
5/3/2017	WL_BFWB_OUT_SP21	E291569									
5/4/2017	WL_BFWB_OUT_SP21	E291569		1.2	1.8	4.72	9.93	< 0.50	< 0.50	15.7	< 3.0
5/4/2017	WL_BFWB_OUT_SP21	E291569									
5/5/2017	WL_BFWB_OUT_SP21	E291569		1.8	1.21	8.28	10.3	< 0.50	< 0.50	< 3.0	< 3.0
5/5/2017	WL_BFWB_OUT_SP21	E291569									
5/5/2017	WL_BFWB_OUT_SP21	E291569									
5/6/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.92	9.81	10.5	< 0.50	< 0.50	< 3.0	< 3.0
5/6/2017	WL_BFWB_OUT_SP21	E291569									
5/7/2017	WL_BFWB_OUT_SP21	E291569		1.7	0.98	10.2	10.4	< 0.50	< 0.50	< 3.0	< 3.0
5/7/2017	WL_BFWB_OUT_SP21	E291569									
5/8/2017	WL_BFWB_OUT_SP21	E291569	1.49	1.1	1.02	11.1	11	< 0.50	< 0.50	< 3.0	< 3.0
5/8/2017	WL_BFWB_OUT_SP21	E291569									
5/9/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.82	12.6	11.1	< 0.50	< 0.50	< 3.0	< 3.0
5/9/2017	WL_BFWB_OUT_SP21	E291569									
5/10/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.89	12	11.9	< 0.50	< 0.50	< 3.0	< 3.0
5/10/2017	WL_BFWB_OUT_SP21	E291569									
5/11/2017	WL_BFWB_OUT_SP21	E291569		1	1.07	11.3	11.9	< 0.50	< 0.50	< 3.0	< 3.0
5/11/2017	WL_BFWB_OUT_SP21	E291569									
5/12/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.96	12.2	12.3	< 0.50	< 0.50	< 3.0	< 3.0
5/12/2017	WL_BFWB_OUT_SP21	E291569									
5/13/2017	WL_BFWB_OUT_SP21	E291569		1.2	1.01	12.4	12.5	< 0.50	< 0.50	< 3.0	< 3.0
5/13/2017	WL_BFWB_OUT_SP21	E291569									
5/14/2017	WL_BFWB_OUT_SP21	E291569		1.6	0.96	13.1	11.9	< 0.50	< 0.50	< 3.0	< 3.0
5/14/2017	WL_BFWB_OUT_SP21	E291569									
5/15/2017	WL_BFWB_OUT_SP21	E291569					12		< 0.50		16.9
5/15/2017	WL_BFWB_OUT_SP21	E291569	1.61	1.2	1.06						
5/15/2017	WL_BFWB_OUT_SP21	E291569									
5/16/2017	WL_BFWB_OUT_SP21	E291569		1.5	0.93	13.5	12.1	< 0.50	< 0.50	< 3.0	< 3.0
5/16/2017	WL_BFWB_OUT_SP21	E291569									
5/17/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.08	10.5	11.6	< 0.50	< 0.50	< 3.0	< 3.0
5/17/2017	WL_BFWB_OUT_SP21	E291569									
5/18/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.2	11.8	11.9	< 0.50	< 0.50	< 3.0	< 3.0
5/18/2017	WL_BFWB_OUT_SP21	E291569									
5/19/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.91	11.8	12.1	< 0.50	< 0.50	< 3.0	< 3.0
5/19/2017	WL_BFWB_OUT_SP21	E291569									
5/20/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.41		12.4		< 0.50		< 3.0
5/20/2017	WL_BFWB_OUT_SP21	E291569									
5/21/2017	WL_BFWB_OUT_SP21	E291569		1.1	0.89	12.2	12.1	< 0.50	< 0.50	< 3.0	< 3.0
5/21/2017	WL_BFWB_OUT_SP21	E291569									
5/22/2017	WL_BFWB_OUT_SP21	E291569	1.59	1.2	0.98	11.6	11.8	< 0.50	< 0.50	< 3.0	< 3.0
5/22/2017	WL_BFWB_OUT_SP21	E291569									
5/23/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.78	11.4	11	< 0.50	< 0.50	< 3.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
5/23/2017	WL_BFWB_OUT_SP21	E291569									
5/24/2017	WL_BFWB_OUT_SP21	E291569		1.6	0.78	11.7	10.9	< 0.50	< 0.50	< 3.0	< 3.0
5/24/2017	WL_BFWB_OUT_SP21	E291569									
5/25/2017	WL_BFWB_OUT_SP21	E291569		1.1	0.84	9.92		< 0.50		< 3.0	
5/25/2017	WL_BFWB_OUT_SP21	E291569									
5/25/2017	WL_BFWB_OUT_SP21	E291569									
5/26/2017	WL_BFWB_OUT_SP21	E291569		1.3	1.14						
5/26/2017	WL_BFWB_OUT_SP21	E291569				8.33	8.31	< 0.50	< 0.50	< 3.0	< 3.0
5/26/2017	WL_BFWB_OUT_SP21	E291569									
5/27/2017	WL_BFWB_OUT_SP21	E291569		1.2	1.2	7.54	7.55	< 0.50	< 0.50	< 3.0	< 3.0
5/27/2017	WL_BFWB_OUT_SP21	E291569									
5/28/2017	WL_BFWB_OUT_SP21	E291569		1	0.93	8.3	8.41	< 0.50	< 0.50	< 3.0	< 3.0
5/28/2017	WL_BFWB_OUT_SP21	E291569									
5/29/2017	WL_BFWB_OUT_SP21	E291569	1.28	< 1.0	0.6	8.3	8.23	< 0.50	< 0.50	< 3.0	< 3.0
5/29/2017	WL_BFWB_OUT_SP21	E291569									
5/30/2017	WL_BFWB_OUT_SP21	E291569		1.1	1.14	7.76	7.54	< 0.50	< 0.50	< 3.0	< 3.0
5/30/2017	WL_BFWB_OUT_SP21	E291569									
5/31/2017	WL_BFWB_OUT_SP21	E291569		1.3	0.65	6.85	6.68	< 0.50	< 0.50	< 3.0	< 3.0
5/31/2017	WL_BFWB_OUT_SP21	E291569									
5/31/2017	WL_BFWB_OUT_SP21	E291569									
6/1/2017	WL_BFWB_OUT_SP21	E291569		1.7	0.62	5.94	6.2	< 0.50	< 0.50	< 3.0	< 3.0
6/1/2017	WL_BFWB_OUT_SP21	E291569									
6/2/2017	WL_BFWB_OUT_SP21	E291569		1.1	0.74	6.24	5.88	< 0.50	< 0.50	< 3.0	< 3.0
6/2/2017	WL_BFWB_OUT_SP21	E291569									
6/3/2017	WL_BFWB_OUT_SP21	E291569									
6/3/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.68	5.73	5.72	< 0.50	< 0.50	< 3.0	< 3.0
6/4/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.73	5.51	5.59	< 0.50	< 0.50	< 3.0	< 3.0
6/4/2017	WL_BFWB_OUT_SP21	E291569									
6/5/2017	WL_BFWB_OUT_SP21	E291569	1.3	< 1.0	0.5	5.41	5.37	< 0.50	< 0.50	< 3.0	< 3.0
6/5/2017	WL_BFWB_OUT_SP21	E291569									
6/6/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.56	5.06	5.6	< 0.50	< 0.50	< 3.0	< 3.0
6/6/2017	WL_BFWB_OUT_SP21	E291569									
6/7/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.57	5.4	5.22	< 0.50	< 0.50	< 3.0	< 3.0
6/7/2017	WL_BFWB_OUT_SP21	E291569									
6/8/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.48	5.34	5.34	< 0.50	< 0.50	< 3.0	< 3.0
6/8/2017	WL_BFWB_OUT_SP21	E291569									
6/9/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.65	5.2	5.38	< 0.50	< 0.50	< 3.0	< 3.0
6/9/2017	WL_BFWB_OUT_SP21	E291569									
6/10/2017	WL_BFWB_OUT_SP21	E291569		1.1	0.53	5.5	5.69	< 0.50	< 0.50	6.9	3.4
6/10/2017	WL_BFWB_OUT_SP21	E291569									
6/11/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.62	5.03	5	< 0.50	< 0.50	< 3.0	< 3.0
6/11/2017	WL_BFWB_OUT_SP21	E291569									
6/12/2017	WL_BFWB_OUT_SP21	E291569	1.49	< 1.0	0.63	5.47	5.44	< 0.50	< 0.50	16.6	3.6
6/12/2017	WL_BFWB_OUT_SP21	E291569									
6/12/2017	WL_BFWB_OUT_SP21	E291569									
6/13/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.62	5.55	5.69	< 0.50	< 0.50	< 3.0	< 3.0
6/13/2017	WL_BFWB_OUT_SP21	E291569									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
6/14/2017	WL_BFWB_OUT_SP21	E291569		1.3	0.87	6.11	6.1	< 0.50	< 0.50	< 3.0	< 3.0
6/14/2017	WL_BFWB_OUT_SP21	E291569									
6/15/2017	WL_BFWB_OUT_SP21	E291569		1.8	0.79	6.28	6.21	< 0.50	< 0.50	< 3.0	< 3.0
6/15/2017	WL_BFWB_OUT_SP21	E291569									
6/16/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.67	6.19	5.88	< 0.50	< 0.50	< 3.0	< 3.0
6/16/2017	WL_BFWB_OUT_SP21	E291569									
6/17/2017	WL_BFWB_OUT_SP21	E291569		1	0.71	6.55	6.68	< 0.50	< 0.50	< 3.0	< 3.0
6/17/2017	WL_BFWB_OUT_SP21	E291569									
6/18/2017	WL_BFWB_OUT_SP21	E291569		2.1	0.57	6.61		< 0.50		< 3.0	
6/18/2017	WL_BFWB_OUT_SP21	E291569									
6/19/2017	WL_BFWB_OUT_SP21	E291569	1.6	1.3	0.65	6.12	6.96	< 0.50	< 0.50	< 3.0	< 3.0
6/19/2017	WL_BFWB_OUT_SP21	E291569									
6/20/2017	WL_BFWB_OUT_SP21	E291569		1.7	0.79	6.56	7.03	< 0.50	< 0.50	< 3.0	3.9
6/22/2017	WL_BFWB_OUT_SP21	E291569		1.2	1.1	6.27	6.34	< 0.50	< 0.50	< 3.0	3.5
6/22/2017	WL_BFWB_OUT_SP21	E291569									
6/23/2017	WL_BFWB_OUT_SP21	E291569		1	0.75	6.43	6.78	< 0.50	< 0.50	< 3.0	< 3.0
6/23/2017	WL_BFWB_OUT_SP21	E291569									
6/24/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.65	6.97	7.21	< 0.50	< 0.50	< 3.0	< 3.0
6/24/2017	WL_BFWB_OUT_SP21	E291569									
6/25/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.5	7.29	7.27	< 0.50	< 0.50	10.5	< 3.0
6/25/2017	WL_BFWB_OUT_SP21	E291569									
6/26/2017	WL_BFWB_OUT_SP21	E291569	1.57	1.4	0.69	7.65	7.91	< 0.50	< 0.50	< 3.0	< 3.0
6/27/2017	WL_BFWB_OUT_SP21	E291569		1.1	1.2	8.98	8.37	< 0.50	< 0.50	< 3.0	< 3.0
6/28/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.63	9.19	8.59	< 0.50	< 0.50	< 3.0	< 3.0
6/29/2017	WL_BFWB_OUT_SP21	E291569		1	0.66	7.91	7.99	< 0.50	< 0.50	< 3.0	< 3.0
6/29/2017	WL_BFWB_OUT_SP21	E291569									
6/30/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.61	7.82	7.85	< 0.50	< 0.50	< 3.0	< 3.0
7/1/2017	WL_BFWB_OUT_SP21	E291569		1	0.61	8.67	7.88	< 0.50	< 0.50	< 3.0	3.2
7/2/2017	WL_BFWB_OUT_SP21	E291569		1	0.59	8.07	8.03	< 0.50	< 0.50	< 3.0	< 3.0
7/3/2017	WL_BFWB_OUT_SP21	E291569	1.63	< 1.0	0.58	8.37	8.2	< 0.50	< 0.50	< 3.0	< 3.0
7/3/2017	WL_BFWB_OUT_SP21	E291569									
7/4/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.72	8.46	9.6	< 0.50	< 0.50	< 3.0	< 3.0
7/5/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.05	8.76	9.4	< 0.50	< 0.50	< 3.0	< 3.0
7/6/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.49	9.06	9.78	< 0.50	< 0.50	< 3.0	< 3.0
7/7/2017	WL_BFWB_OUT_SP21	E291569		1.3	0.91	8.56	10	< 0.50	< 0.50	5	< 3.0
7/8/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.45	9.39	9.5	< 0.50	< 0.50	4.7	3.5
7/9/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.68	9.48	9.71	< 0.50	< 0.50	< 3.0	< 3.0
7/10/2017	WL_BFWB_OUT_SP21	E291569									
7/10/2017	WL_BFWB_OUT_SP21	E291569	1.58	< 1.0	0.61	9.15	9.92	< 0.50	< 0.50	3	< 3.0
7/11/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.54	9.17	9.03	< 0.50	< 0.50	< 3.0	< 3.0
7/12/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.6	10.6	10.5	< 0.50	< 0.50	5.3	< 3.0
7/12/2017	WL_BFWB_OUT_SP21	E291569									
7/13/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.35	9.27	9.43	< 0.50	< 0.50	< 3.0	< 3.0
7/14/2017	WL_BFWB_OUT_SP21	E291569	1.77	< 1.0	0.47	9.4	9.5	< 0.50	< 0.50	< 3.0	< 3.0
7/14/2017	WL_BFWB_OUT_SP21	E291569									
7/14/2017	WL_BFWB_OUT_SP21	E291569									
7/15/2017	WL_BFWB_OUT_SP21	E291569									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
7/16/2017	WL_BFWB_OUT_SP21	E291569									
7/16/2017	WL_BFWB_OUT_SP21	E291569									
7/17/2017	WL_BFWB_OUT_SP21	E291569	2.4	1.6	0.84	9.15	9.1	< 0.50	< 0.50	< 3.0	< 3.0
7/18/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.68	9	9.13	< 0.50	< 0.50	< 3.0	< 3.0
7/19/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.81	9.74	9.83	< 0.50	< 0.50	< 3.0	< 3.0
7/20/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.75	10.2	9.58	< 0.50	< 0.50	< 3.0	3.4
7/20/2017	WL_BFWB_OUT_SP21	E291569									
7/21/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.57	9.76	9.84	< 0.50	< 0.50	4	< 3.0
7/22/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.45	10.3	10.8	< 0.50	< 0.50	< 3.0	< 3.0
7/22/2017	WL_BFWB_OUT_SP21	E291569									
7/23/2017	WL_BFWB_OUT_SP21	E291569		1	0.43	10.7	10.8	< 0.50	< 0.50	3.2	< 3.0
7/24/2017	WL_BFWB_OUT_SP21	E291569	1.61	1.1	0.44	10.7	11.4	< 0.50	< 0.50	14.6	< 3.0
7/25/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.46	11.4	11.1	< 0.50	< 0.50	< 3.0	3.1
7/26/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.54	11.4	11.4	< 0.50	< 0.50	< 3.0	< 3.0
7/27/2017	WL_BFWB_OUT_SP21	E291569		1.1	0.5	11.5	11.6	< 0.50	< 0.50	< 3.0	< 3.0
7/28/2017	WL_BFWB_OUT_SP21	E291569		1.1	0.51	11.2	11.9	< 0.50	< 0.50	< 3.0	< 3.0
7/29/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.46	12.1	12.1	< 0.50	< 0.50	< 3.0	< 3.0
7/30/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.53	12.4	12.7	< 0.50	< 0.50	3.3	< 3.0
7/31/2017	WL_BFWB_OUT_SP21	E291569	1.71	< 1.0	0.41	12.3	13.2	< 0.50	< 0.50	< 3.0	< 3.0
8/1/2017	WL_BFWB_OUT_SP21	E291569		1	0.84	12.7	12.4	< 0.50	< 0.50	< 3.0	3.3
8/2/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.55	12.6	12.3	< 0.50	< 0.50	< 3.0	< 3.0
8/3/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.51	13.2	12.6	< 0.50	< 0.50	< 3.0	< 3.0
8/4/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.58	13.2	12.9	< 0.50	< 0.50	3.1	< 3.0
8/5/2017	WL_BFWB_OUT_SP21	E291569		1.3	0.62	12.5	12.8	< 0.50	< 0.50	< 3.0	< 3.0
8/6/2017	WL_BFWB_OUT_SP21	E291569		2.1	0.74	13.2		< 0.50		6.1	
8/7/2017	WL_BFWB_OUT_SP21	E291569		1.5	0.68	12.5	13.4	< 0.50	< 0.50	3.1	3.4
8/8/2017	WL_BFWB_OUT_SP21	E291569	1.38	1.3	0.65	12.7	12.3	< 0.50	< 0.50	5.9	< 3.0
8/9/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.57	12.2	12.1	< 0.50	< 0.50	5.8	< 3.0
8/9/2017	WL_BFWB_OUT_SP21	E291569									
8/10/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.56	12	11.8	< 0.50	< 0.50	8	< 3.0
8/11/2017	WL_BFWB_OUT_SP21	E291569		1.8	0.65	12.3	13	< 0.50	< 0.50	13.6	< 3.0
8/11/2017	WL_BFWB_OUT_SP21	E291569									
8/12/2017	WL_BFWB_OUT_SP21	E291569	1.6	< 1.0	0.92	13.1	13.4	< 0.50	< 0.50	3.1	< 3.0
8/13/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.54	13.5	13	< 0.50	< 0.50	< 3.0	3.2
8/13/2017	WL_BFWB_OUT_SP21	E291569									
8/14/2017	WL_BFWB_OUT_SP21	E291569	1.83	< 1.0	0.62	13.3	13	< 0.50	< 0.50	3.3	< 3.0
8/15/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.87	13.2	13.2	< 0.50	< 0.50	< 3.0	< 3.0
8/16/2017	WL_BFWB_OUT_SP21	E291569		1.1	0.57	13.4	12.5	< 0.50	< 0.50	3.2	< 3.0
8/17/2017	WL_BFWB_OUT_SP21	E291569		1.6	0.58	13.7	13.9	< 0.50	< 0.50	4.5	< 3.0
8/18/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.53		14.1		< 0.50		6.4
8/19/2017	WL_BFWB_OUT_SP21	E291569		2.5	1.37	13.6	13.5	< 0.50	< 0.50	4.1	< 3.0
8/20/2017	WL_BFWB_OUT_SP21	E291569		1.6	0.83	13.7	13.6	< 0.50	< 0.50	4.1	3.6
8/21/2017	WL_BFWB_OUT_SP21	E291569	1.47	1.4	0.61	13.7	14.1	< 0.50	< 0.50	3.3	3.4
8/22/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.79	12.7	13.2	< 0.50	< 0.50	3.1	< 3.0
8/23/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.46	13.5	13.9	< 0.50	< 0.50	3.5	< 3.0
8/24/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.46	13.1	13.4	< 0.50	< 0.50	4.5	< 3.0
8/25/2017	WL_BFWB_OUT_SP21	E291569		1	0.65	12.9	13.1	< 0.50	< 0.50	3.8	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
8/25/2017	WL_BFWB_OUT_SP21	E291569									
8/26/2017	WL_BFWB_OUT_SP21	E291569		1	0.58	13.6	13.8	< 0.50	< 0.50	3.8	< 3.0
8/26/2017	WL_BFWB_OUT_SP21	E291569									
8/27/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.37	13.3	13.6	< 0.50	< 0.50	< 3.0	< 3.0
8/28/2017	WL_BFWB_OUT_SP21	E291569	1.42	< 1.0	0.61	13.5	13.3	< 0.50	< 0.50	3.8	< 3.0
8/29/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.47	13.4	13.4	< 0.50	< 0.50	< 3.0	< 3.0
8/30/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.5	13.8	13.7	< 0.50	< 0.50	< 3.5	< 3.0
8/31/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.55	13.5	15.5	< 0.50	< 0.50	4.9	< 3.0
9/1/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.48	13.8	13.7	< 0.50	< 0.50	< 3.0	< 3.0
9/2/2017	WL_BFWB_OUT_SP21	E291569		1	0.41	13.8	13.9	< 0.50	< 0.50	< 3.0	< 3.0
9/3/2017	WL_BFWB_OUT_SP21	E291569		1.7	0.49	13.8	13.9	< 0.50	< 0.50	4.6	4
9/4/2017	WL_BFWB_OUT_SP21	E291569		1.7	0.73	13.4	13.6	< 0.50	< 0.50	4.9	3.9
9/5/2017	WL_BFWB_OUT_SP21	E291569	1.14	1	0.48	13.5	13.4	< 0.50	< 0.50	5.1	< 3.0
9/6/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.65	13.6	13.7	< 0.50	< 0.50	< 6.0	3.4
9/7/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.32	13.1	13.1	< 0.50	< 0.50	< 3.0	3.3
9/8/2017	WL_BFWB_OUT_SP21	E291569		1	0.54	13.4	13.5	< 0.50	< 0.50	3.3	9.3
9/9/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.49	12.6	13.2	< 0.50	< 0.50	3.3	4
9/10/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.42	13.4	13.3	< 0.50	< 0.50	3	3.5
9/11/2017	WL_BFWB_OUT_SP21	E291569		1.6	0.49	12.9	13.5	< 0.50	< 0.50	3.5	< 3.0
9/12/2017	WL_BFWB_OUT_SP21	E291569	0.94	1	0.55	13	13.3	< 0.50	< 0.50	< 3.0	4
9/13/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.52	12.7	13.3	< 0.50	< 0.50	< 3.0	3.9
9/14/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.49	12.4	13	< 0.50	< 0.50	< 3.0	3.9
9/15/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.43	13.4	12.4	< 0.50	< 0.50	< 3.0	3.1
9/16/2017	WL_BFWB_OUT_SP21	E291569		2.6	0.41	12.8	12.8	< 0.50	< 0.50	7.9	3.3
9/17/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.39	12.9	12.6	< 0.50	< 0.50	4.8	5
9/18/2017	WL_BFWB_OUT_SP21	E291569	1.04	< 1.0	0.38	13.2	12.7	< 0.50	< 0.50	23.3	3.8
9/19/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.62	13.3	13.7	< 0.50	< 0.50	5.5	4.8
9/20/2017	WL_BFWB_OUT_SP21	E291569		1.6	0.86	13.3	13.5	< 0.50	< 0.50	6.2	5.6
9/21/2017	WL_BFWB_OUT_SP21	E291569	1.22	1.4	1.43	13.9	12.8	< 0.50	< 0.50	5.8	4.8
9/21/2017	WL_BFWB_OUT_SP21	E291569									
9/22/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.6	13.9	13.5	< 0.50	< 0.50	4.2	4
9/23/2017	WL_BFWB_OUT_SP21	E291569		1.5	0.57	13.2	14.4	< 0.50	< 0.50	6	6.7
9/24/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.52	13.8	13.7	< 0.50	< 0.50	8.7	9.8
9/24/2017	WL_BFWB_OUT_SP21	E291569									
9/25/2017	WL_BFWB_OUT_SP21	E291569	1.18	< 1.0	0.5	13.5	14.1	< 0.50	< 0.50	4	6.6
9/26/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.85	14	14.4	< 0.50	< 0.50	< 3.0	4.5
9/26/2017	WL_BFWB_OUT_SP21	E291569									
9/27/2017	WL_BFWB_OUT_SP21	E291569		1	0.61	13.8	13.9	< 0.50	< 0.50	3	3.4
9/28/2017	WL_BFWB_OUT_SP21	E291569		3	1.43	13.6	13.1	< 0.50	< 0.50	3.5	5.3
9/28/2017	WL_BFWB_OUT_SP21	E291569									
9/29/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.47		13		< 0.50		4.2
9/29/2017	WL_BFWB_OUT_SP21	E291569				13.6		< 0.50		4.1	
9/30/2017	WL_BFWB_OUT_SP21	E291569		1.3	0.6	13.3	13.4	< 0.50	< 0.50	3.8	3.2
9/30/2017	WL_BFWB_OUT_SP21	E291569									
10/1/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.69	13.3	12.9	< 0.50	< 0.50	4	3.5
10/2/2017	WL_BFWB_OUT_SP21	E291569									
10/2/2017	WL_BFWB_OUT_SP21	E291569	1.77	1.4	0.61	14	13.3	< 0.50	< 0.50	4	3.4

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
10/3/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.55	13.5	13.9	< 0.50	< 0.50	4.1	4
10/4/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.67	13.7	13.8	< 0.50	< 0.50	4.4	3.8
10/5/2017	WL_BFWB_OUT_SP21	E291569					14.3		< 0.50		6.4
10/5/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.93	13.8		< 0.50		3.4	
10/6/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.44	14.1	13.7	< 0.50	< 0.50	4	5.7
10/6/2017	WL_BFWB_OUT_SP21	E291569									
10/7/2017	WL_BFWB_OUT_SP21	E291569		1.7	0.38	14.1	13.2	< 0.50	< 0.50	< 9.0	4.2
10/7/2017	WL_BFWB_OUT_SP21	E291569									
10/8/2017	WL_BFWB_OUT_SP21	E291569		1.5	0.48	13.4	13.2	< 0.50	< 0.50	< 6.0	4.6
10/9/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.37	13.8	13.3	< 0.50	< 0.50	< 9.0	3.3
10/9/2017	WL_BFWB_OUT_SP21	E291569									
10/10/2017	WL_BFWB_OUT_SP21	E291569	1.17	< 3.0	0.41	13.5	13.2	< 0.50	< 0.50	< 3.0	5.3
10/11/2017	WL_BFWB_OUT_SP21	E291569		1.3	0.4	13.5	13.2	< 0.50	< 0.50	5.2	3.8
10/12/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.35	13.1	13.3	< 0.50	< 0.50	< 3.0	5.1
10/13/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.4	12.7	12.9	< 0.50	< 0.50	4.5	4.6
10/14/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.44	14.4	13.1	< 0.50	< 0.50	4.5	3.9
10/15/2017	WL_BFWB_OUT_SP21	E291569		1	0.38	14.6	13.2	< 0.50	< 0.50	3.5	4.1
10/16/2017	WL_BFWB_OUT_SP21	E291569	1.08	< 1.0	0.4	15.8	13.6	< 0.50	< 0.50	3.1	3.7
10/17/2017	WL_BFWB_OUT_SP21	E291569									
10/18/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.55	12.2	12.9	< 0.50	< 0.50	3.8	< 3.0
10/19/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.56	10.8	10.7	< 0.50	< 0.50	< 3.0	3.1
10/20/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.56	8.45	8.39	< 0.50	< 0.50	< 3.0	< 3.0
10/21/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.58	7.99	7.5	< 0.50	< 0.50	< 3.0	< 3.0
10/21/2017	WL_BFWB_OUT_SP21	E291569									
10/22/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.65	6.84	6.18	< 0.50	< 0.50	< 3.0	4.2
10/23/2017	WL_BFWB_OUT_SP21	E291569	0.66	< 1.0	0.46	6.19	5.64	< 0.50	< 0.50	< 3.0	< 3.0
10/24/2017	WL_BFWB_OUT_SP21	E291569		1	0.58	4.78	4.88	< 0.50	< 0.50	4.2	< 3.0
10/25/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.55	4.14	4.43	< 0.50	< 0.50	< 3.0	3.2
10/26/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.73	4.8	4.57	< 0.50	< 0.50	< 3.0	< 3.0
10/27/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.68	4.78	4.34	< 0.50	< 0.50	< 3.0	< 3.0
10/28/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.73	4.43	4.3	< 0.50	< 0.50	< 3.0	< 3.0
10/28/2017	WL_BFWB_OUT_SP21	E291569									
10/29/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.13	4.27	4.14	< 0.50	< 0.50	< 3.0	< 3.0
10/30/2017	WL_BFWB_OUT_SP21	E291569	0.98	< 1.0	0.79	4.43	4.17	< 0.50	< 0.50	< 3.0	< 3.0
10/31/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.55	3.91	4.2	< 0.50	< 0.50	< 3.0	< 3.0
11/1/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.08	3.66	3.84	< 0.50	< 2.5	3.3	< 15
11/2/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.93	3.7	4.1	< 0.50	< 0.50	< 3.0	< 3.0
11/3/2017	WL_BFWB_OUT_SP21	E291569					4.18		< 0.50		3.4
11/3/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.71	3.63		< 0.50		5.8	
11/4/2017	WL_BFWB_OUT_SP21	E291569		1	0.79	3.51	4.22	0.89	< 0.50	< 3.0	3.5
11/5/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.68	3.68	3.64	0.76	< 0.50	< 3.0	< 3.0
11/5/2017	WL_BFWB_OUT_SP21	E291569									
11/6/2017	WL_BFWB_OUT_SP21	E291569	0.65	< 1.0	0.63	3.56	3.47	0.9	< 0.50	< 3.0	< 3.0
11/7/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.93	3.64	3.72	< 0.50	< 0.50	< 3.0	4
11/8/2017	WL_BFWB_OUT_SP21	E291569									
11/8/2017	WL_BFWB_OUT_SP21	E291569		1	0.69	3.51	3.74	< 0.50	< 0.50	< 3.0	3.1
11/9/2017	WL_BFWB_OUT_SP21	E291569		1.6	0.62	3.62	3.62	< 0.50	< 0.50	< 6.0	< 3.0

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
11/9/2017	WL_BFWB_OUT_SP21	E291569									
11/10/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.68	3.52	3.58	< 0.50	< 0.50	< 3.0	< 3.0
11/10/2017	WL_BFWB_OUT_SP21	E291569				4.4	3.87	< 0.50	< 0.50	3.5	3.2
11/10/2017	WL_BFWB_OUT_SP21	E291569									
11/11/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.51	3.53	3.8	< 0.50	< 0.50	14.1	3.8
11/11/2017	WL_BFWB_OUT_SP21	E291569									
11/12/2017	WL_BFWB_OUT_SP21	E291569		1	0.55	3.56	3.67	< 0.50	< 0.50	< 6.0	5.3
11/12/2017	WL_BFWB_OUT_SP21	E291569									
11/13/2017	WL_BFWB_OUT_SP21	E291569		1	0.57	3.68	3.79	< 0.50	< 0.50	3.9	< 3.0
11/13/2017	WL_BFWB_OUT_SP21	E291569									
11/14/2017	WL_BFWB_OUT_SP21	E291569	1.05	1.2	0.9	3.99	3.95	< 0.50	< 0.50	4.4	3.6
11/15/2017	WL_BFWB_OUT_SP21	E291569		1.2	1.27	3.82	3.86	< 0.50	< 0.50	3.2	< 3.0
11/16/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.59	4.2	3.94	< 0.50	< 0.50	< 3.0	< 3.0
11/16/2017	WL_BFWB_OUT_SP21	E291569				3.89	4.14	< 0.50	< 0.50	3.9	3.9
11/17/2017	WL_BFWB_OUT_SP21	E291569		1	0.56	4.41	4.1	< 0.50	< 0.50	< 3.0	3.4
11/17/2017	WL_BFWB_OUT_SP21	E291569				3.97	3.85	< 0.50	< 0.50	< 3.0	3.1
11/18/2017	WL_BFWB_OUT_SP21	E291569		1	0.82	4.1	4.23	< 0.50	< 0.50	< 3.0	< 3.0
11/18/2017	WL_BFWB_OUT_SP21	E291569									
11/19/2017	WL_BFWB_OUT_SP21	E291569		1.2	0.53	4.19	4.19	< 0.50	< 0.50	< 3.0	4.6
11/20/2017	WL_BFWB_OUT_SP21	E291569	0.9	< 1.0	0.65	4.24	4.36	< 0.50	< 0.50	< 3.0	< 3.0
11/21/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.82	4.1	4.54	< 0.50	< 0.50	4.2	3.3
11/22/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.87	4.11	4.6	< 0.50	< 0.50	3.3	4.9
11/23/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.84	4	4.13	< 0.50	< 0.50	< 3.0	4
11/23/2017	WL_BFWB_OUT_SP21	E291569									
11/24/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.99	4.14	4.28	< 0.50	< 0.50	4.6	5
11/24/2017	WL_BFWB_OUT_SP21	E291569				3.96	4.4	< 0.50	< 0.50	6.5	< 3.0
11/25/2017	WL_BFWB_OUT_SP21	E291569		1.4	0.56	4.82	4.18	< 0.50	< 0.50	< 3.0	< 3.0
11/26/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.16	4.87	4.18	< 0.50	< 0.50	< 3.0	< 3.0
11/27/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.14	4.71	4.21	< 0.50	< 0.50	3.6	< 3.0
11/28/2017	WL_BFWB_OUT_SP21	E291569				4.2	4.09	< 0.50	< 0.50	< 3.0	3.2
11/28/2017	WL_BFWB_OUT_SP21	E291569	0.95	1	0.74	3.88	4.15	< 0.50	< 0.50	< 3.0	3.5
11/29/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.64	3.98	4.31	< 0.50	< 0.50	< 3.0	< 3.0
11/30/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.63	4.35	4.24	< 0.50	< 0.50	4.9	3.2
11/30/2017	WL_BFWB_OUT_SP21	E291569				4.02	4.07	< 0.50	< 1.0	5.5	< 6.0
12/1/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.73	4.14	4.37	< 0.50	< 0.50	< 3.0	< 3.0
12/2/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.5	3.66	3.75	< 0.50	< 0.50	3.7	< 3.0
12/3/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.6	3.72	3.73	< 0.50	< 0.50	3	< 9.0
12/4/2017	WL_BFWB_OUT_SP21	E291569	0.67	< 1.0	0.64	3.76	3.84	< 0.50	< 0.50	< 3.0	< 6.0
12/5/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.75	3.94	4.1	< 0.50	< 0.50	3.2	3.8
12/6/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.44	3.76	3.95	< 0.50	< 0.50	5.6	< 6.0
12/6/2017	WL_BFWB_OUT_SP21	E291569				4.29	3.73	< 0.50	< 0.50	6.3	3.3
12/6/2017	WL_BFWB_OUT_SP21	E291569									
12/7/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.35	4.38	4.36	< 0.50	< 0.50	< 3.0	< 3.0
12/7/2017	WL_BFWB_OUT_SP21	E291569									
12/8/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.47	4.16	4.3	< 0.50	< 0.50	< 3.0	3.2
12/9/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.53	4.04		< 0.50		3.1	
12/10/2017	WL_BFWB_OUT_SP21	E291569		1.3	0.65	4.21	3.96	< 0.50	< 0.50	4.2	5.3

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
12/11/2017	WL_BFWB_OUT_SP21	E291569	0.93	< 1.0	0.63	4.2	4.14	< 0.50	< 0.50	< 3.0	3.1
12/12/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.18	4.06	4.21	< 0.50	< 0.50	4.3	< 3.0
12/13/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.55	4.16	4.26	< 0.50	< 0.50	3.1	< 3.0
12/14/2017	WL_BFWB_OUT_SP21	E291569		1	0.33	4.36	4.44	< 0.50	< 0.50	3.1	< 3.0
12/15/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.4	4.17	4.39	< 0.50	< 0.50	< 3.0	< 3.0
12/16/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.4	3.82	3.93	< 0.50	< 0.50	5.3	4.5
12/17/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.43	3.9	3.75	< 0.50	< 0.50	5.1	3.8
12/18/2017	WL_BFWB_OUT_SP21	E291569	0.82	< 1.0	0.49	3.87	3.82	< 0.50	< 0.50	< 3.0	8.1
12/19/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.47	3.89	4.01	< 0.50	< 0.50	< 3.0	< 3.0
12/20/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	1.2	3.99	4.11	< 0.50	< 0.50	< 3.0	< 3.0
12/20/2017	WL_BFWB_OUT_SP21	E291569				3.96	4.59	< 0.50	< 0.50	6.4	9.6
12/21/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.34	5.18	4.23	< 0.50	< 0.50	< 3.0	< 9.0
12/22/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.36	4.5	4.34	< 0.50	< 0.50	3.1	< 12
12/23/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.41	4.27	20.7	< 0.50	< 0.50	< 3.0	14.5
12/23/2017	WL_BFWB_OUT_SP21	E291569									
12/24/2017	WL_BFWB_OUT_SP21	E291569		1	0.41	4.39	4.32	< 0.50	< 0.50	< 3.0	< 3.0
12/25/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.5	4.73	4.72	< 0.50	< 0.50	< 3.0	< 3.0
12/26/2017	WL_BFWB_OUT_SP21	E291569		1	0.51	4.7	4.56	< 0.50	< 0.50	< 3.0	< 3.0
12/27/2017	WL_BFWB_OUT_SP21	E291569	1.12	< 1.0	0.7	4.66	4.99	< 0.50	< 0.50	< 3.0	< 3.0
12/28/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.47	4.74	4.38	< 0.50	< 0.50	< 3.0	< 3.0
12/29/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.49	4.71	4.2	< 0.50	< 0.50	< 3.0	< 3.0
12/30/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.56	4.57	4.18	< 0.50	< 0.50	< 3.0	< 3.0
12/31/2017	WL_BFWB_OUT_SP21	E291569		< 1.0	0.6	4.59	4.77	< 0.50	< 0.50	< 3.0	< 3.0
1/1/2017	WL_LCI_SP02	E293370		< 1.0	0.16	4.32	4.35	< 0.50	< 0.50	11.1	12
1/2/2017	WL_LCI_SP02	E293370		< 1.0	0.19	4.26	4.33	< 0.50	< 0.50	10.7	10.8
1/3/2017	WL_LCI_SP02	E293370		< 1.0	0.26	4.18	4.4	< 0.50	< 0.50	10.6	12.4
1/4/2017	WL_LCI_SP02	E293370		< 1.0	0.18						
1/5/2017	WL_LCI_SP02	E293370		< 1.0	0.27	4.5	4.61	< 0.50	< 0.50	9.2	9.9
1/6/2017	WL_LCI_SP02	E293370		< 1.0	0.38						
1/7/2017	WL_LCI_SP02	E293370		< 1.0	0.21						
1/8/2017	WL_LCI_SP02	E293370		< 1.0	0.19	4.22	4.41	< 0.50	0.52	8.7	10.1
1/9/2017	WL_LCI_SP02	E293370	0.93	< 1.0	0.22	4.15	4.47	< 0.50	0.54	8.8	9.6
1/10/2017	WL_LCI_SP02	E293370		< 1.0	0.31	4.11	4.25	< 0.50	0.5	9.6	10.2
1/11/2017	WL_LCI_SP02	E293370		< 1.0	0.3						
1/12/2017	WL_LCI_SP02	E293370		< 1.0	0.36	3.81	4.45	< 0.50	< 0.50	9.6	11.3
1/13/2017	WL_LCI_SP02	E293370		< 1.0	0.19						
1/14/2017	WL_LCI_SP02	E293370		< 1.0	0.19						
1/15/2017	WL_LCI_SP02	E293370		< 1.0	0.22	4.9	5.28	< 0.50	0.88	18	10.1
1/16/2017	WL_LCI_SP02	E293370		< 1.0	0.23	4.4	4.32	< 0.50	< 0.50	10.1	9.4
1/17/2017	WL_LCI_SP02	E293370		< 1.0	0.23	4.08	4.26	< 0.50	< 0.50	10.3	9.7
1/18/2017	WL_LCI_SP02	E293370		< 1.0	0.32	4.23	4.3	< 0.50	< 0.50	10.1	10.1
1/19/2017	WL_LCI_SP02	E293370		< 1.0	0.33	4.44	4.69	< 0.50	< 0.50	9.7	10.4
1/20/2017	WL_LCI_SP02	E293370		< 1.0	0.28						
1/21/2017	WL_LCI_SP02	E293370		< 1.0	0.42						
1/22/2017	WL_LCI_SP02	E293370		< 1.0	0.23	4.18	4.47	< 0.50	< 0.50	13.9	9.9
1/23/2017	WL_LCI_SP02	E293370		< 1.0	0.19	4.99	4.61	< 0.50	< 0.50	9.5	10.1
1/24/2017	WL_LCI_SP02	E293370		< 1.0	0.23	4.49	4.74	< 0.50	< 0.50	8	10.3

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
1/25/2017	WL_LCI_SP02	E293370		< 1.0	0.21						
1/26/2017	WL_LCI_SP02	E293370		< 1.0	0.38	4.1	4.15	< 0.50	0.61	9.1	8.5
1/27/2017	WL_LCI_SP02	E293370		< 1.0	0.21						
1/28/2017	WL_LCI_SP02	E293370		< 1.0	0.16						
1/29/2017	WL_LCI_SP02	E293370		< 1.0	0.18	4.37	4.59	< 0.50	< 0.50	11.7	9.7
1/30/2017	WL_LCI_SP02	E293370		< 1.0	0.22	4	4.3	< 0.50	< 0.50	14.5	9.8
1/31/2017	WL_LCI_SP02	E293370		< 1.0	0.38	4.06	4.2	< 0.50	< 0.50	9.5	9.3
2/1/2017	WL_LCI_SP02	E293370		< 1.0	0.17						
2/1/2017	WL_LCI_SP02	E293370		< 1.0		4.43	4.69	< 0.50	< 0.50	10.6	10
2/2/2017	WL_LCI_SP02	E293370		< 1.0	0.17	4.12	4.57	< 0.50	< 0.50	11.8	9.4
2/3/2017	WL_LCI_SP02	E293370		< 1.0	0.21						
2/4/2017	WL_LCI_SP02	E293370		< 1.0	0.47						
2/5/2017	WL_LCI_SP02	E293370		< 1.0	0.26	4.6	4.67	< 0.50	< 0.50	10.6	9.1
2/6/2017	WL_LCI_SP02	E293370		< 1.0	0.32	4.47	4.67	< 0.50	< 0.50	9.2	8.6
2/7/2017	WL_LCI_SP02	E293370	0.91	< 1.0	0.31	4.31	4.53	< 0.50	< 0.50	9.6	8.7
2/8/2017	WL_LCI_SP02	E293370		< 1.0	0.24						
2/8/2017	WL_LCI_SP02	E293370		< 1.0		4.11	4.45	< 0.50	0.53	8.9	8.6
2/9/2017	WL_LCI_SP02	E293370									
2/10/2017	WL_LCI_SP02	E293370		< 1.0	0.23	4.92	4.82	< 0.50	< 0.50	9.8	9.2
2/11/2017	WL_LCI_SP02	E293370		< 1.0	0.16						
2/12/2017	WL_LCI_SP02	E293370		< 1.0	0.17	4.11	4.46	< 0.50	< 0.50	9	9.6
2/13/2017	WL_LCI_SP02	E293370		< 1.0	0.19	4.32	4.55	< 0.50	< 0.50	9.7	9.4
2/14/2017	WL_LCI_SP02	E293370		< 1.0	0.22	4.2	4.4	< 0.50	< 0.50	9	9.4
2/15/2017	WL_LCI_SP02	E293370		< 1.0	0.21						
2/16/2017	WL_LCI_SP02	E293370		< 1.0	0.42	4.47	4.3	< 0.50	0.71	9	9.6
2/17/2017	WL_LCI_SP02	E293370		< 1.0	2.2						
2/18/2017	WL_LCI_SP02	E293370		2	4.21						
2/19/2017	WL_LCI_SP02	E293370		< 1.0	0.8	4.28	4.63	< 0.50	< 0.50	10.3	10.1
2/20/2017	WL_LCI_SP02	E293370		1	1.1	5.01	4.66	< 0.50	1.66	10.1	10.3
2/21/2017	WL_LCI_SP02	E293370		< 1.0	0.95	4.39	4.69	< 0.50	< 0.50	8.7	10
2/22/2017	WL_LCI_SP02	E293370		< 1.0	0.34						
2/22/2017	WL_LCI_SP02	E293370									
2/23/2017	WL_LCI_SP02	E293370		< 1.0	0.84	4.5	4.66	< 0.50	< 0.50	9.2	10
2/24/2017	WL_LCI_SP02	E293370		< 1.0	0.39						
2/25/2017	WL_LCI_SP02	E293370		< 1.0	0.25						
2/26/2017	WL_LCI_SP02	E293370		1.7	0.24	4.69	4.85	< 0.50	< 0.50	9.6	9.3
2/27/2017	WL_LCI_SP02	E293370		< 1.0	0.2	4.55	4.58	< 0.50	< 0.50	9.2	9.4
2/28/2017	WL_LCI_SP02	E293370		< 1.0	0.29	4.29	4.89	< 0.50	< 0.50	9.3	9.3
3/1/2017	WL_LCI_SP02	E293370		1.2	0.25						
3/2/2017	WL_LCI_SP02	E293370		< 1.0	0.2	4.04	4.4	< 0.50	< 0.50	9.1	9.2
3/3/2017	WL_LCI_SP02	E293370		< 1.0	0.2						
3/4/2017	WL_LCI_SP02	E293370		< 1.0	0.22						
3/5/2017	WL_LCI_SP02	E293370		< 1.0	0.23	4.54	4.89	< 0.50	1.37	9.7	9.9
3/6/2017	WL_LCI_SP02	E293370	< 0.50	< 1.0	0.21	4.45	4.71	< 0.50	0.5	7	9.9
3/7/2017	WL_LCI_SP02	E293370		< 1.0	0.22	4.11	4.58	< 0.50	< 0.50	9.2	9.3
3/8/2017	WL_LCI_SP02	E293370		< 1.0	0.17						
3/9/2017	WL_LCI_SP02	E293370		< 1.0	0.2	4.61	4.2	< 0.50	< 0.50	7	8.4

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
3/10/2017	WL_LCI_SP02	E293370		< 1.0	0.21	4.65	4.51	< 0.50	< 0.50	7.7	9
3/11/2017	WL_LCI_SP02	E293370		< 1.0	0.26	4.23	4.13	< 0.50	< 0.50	9.1	10.2
3/12/2017	WL_LCI_SP02	E293370		< 1.0	0.27	4.25	4.6	< 0.50	< 0.50	9	10.2
3/13/2017	WL_LCI_SP02	E293370		< 1.0	0.19	4.23	4.42	< 0.50	< 0.50	11.3	9.8
3/14/2017	WL_LCI_SP02	E293370		< 1.0	0.21	4.23	4.38	< 0.50	< 0.50	9.9	9.8
3/15/2017	WL_LCI_SP02	E293370		< 1.0	0.52	4.5	4.64	< 0.50	< 0.50	9.3	9.7
3/16/2017	WL_LCI_SP02	E293370		10.4	25.1	3.74	4.2	< 0.50	1.31	9.3	15.3
3/20/2017	WL_LCI_SP02	E293370				3.5	3.72	< 0.50	< 0.50	9.4	11.3
3/21/2017	WL_LCI_SP02	E293370				4.11	4.43	< 0.50	1.4	9.2	15.1
3/22/2017	WL_LCI_SP02	E293370		4	12.1	4.15	4.54	< 0.50	0.62	11.1	12.2
3/23/2017	WL_LCI_SP02	E293370		6	14.6	4.27	4.55	< 0.50	1.05	10	11.5
3/24/2017	WL_LCI_SP02	E293370		5.8	15.6	4.2	4.52	< 0.50	1.02	9.7	12.7
3/25/2017	WL_LCI_SP02	E293370		5.2	12.9	4.16	4.51	< 0.50	0.88	10.5	12.6
3/26/2017	WL_LCI_SP02	E293370		5.2	17.5	4.2	4.53	< 0.50	0.76	10.7	12.9
3/27/2017	WL_LCI_SP02	E293370		4	12.1	4.32	4.62	< 0.50	0.64	9.8	11.6
3/28/2017	WL_LCI_SP02	E293370		3.6	9.5	4.42	4.82	< 0.50	0.69	19.4	13.6
3/29/2017	WL_LCI_SP02	E293370		2.9	7.68	4.44	4.75	< 0.50	0.61	11	12.6
3/30/2017	WL_LCI_SP02	E293370		2.4	6.45	4.23	4.76	< 0.50	< 0.50	9.2	13
3/31/2017	WL_LCI_SP02	E293370		7.4	15.7	5.6	5.59	< 0.50	0.99	11.3	16.4
4/1/2017	WL_LCI_SP02	E293370		2.5	5.44	4.31	4.65	< 0.50	< 0.50	12	13.2
4/2/2017	WL_LCI_SP02	E293370		1.9	5.78	4.38	4.89	< 0.50	0.52	12.8	12.7
4/3/2017	WL_LCI_SP02	E293370	1.35	1.3	3.68	4.47	4.68	< 0.50	< 0.50	12.8	12.8
4/4/2017	WL_LCI_SP02	E293370		< 1.0	3.56	4.59	4.82	< 0.50	< 0.50	13.3	12.2
4/5/2017	WL_LCI_SP02	E293370		< 1.0	3.12	4.65	4.79	< 0.50	< 0.50	14.1	12
4/6/2017	WL_LCI_SP02	E293370		1.6	2.74	4.54	4.97	< 0.50	< 0.50	14	14
4/7/2017	WL_LCI_SP02	E293370									
4/7/2017	WL_LCI_SP02	E293370		1.2	3.07	4.73	5.01	< 0.50	< 0.50	17.3	14.6
4/8/2017	WL_LCI_SP02	E293370		< 1.0	3.33	4.5	5.34	< 0.50	0.55	11.8	15.2
4/9/2017	WL_LCI_SP02	E293370		2.2	6.93	4.5	5.04	< 0.50	0.59	12.4	15.1
4/10/2017	WL_LCI_SP02	E293370		1.2	6.06	4.72	4.87	< 0.50	0.77	11.6	14.2
4/12/2017	WL_LCI_SP02	E293370		< 1.0	3.79	4.89	5.22	< 0.50	< 0.50	11.6	13.1
4/13/2017	WL_LCI_SP02	E293370		1.1	4.04	4.58	4.79	< 0.50	< 0.50	12.7	12.4
4/14/2017	WL_LCI_SP02	E293370		1.3	2.77	4.49	5.25	< 0.50	< 0.50	17	13.6
4/15/2017	WL_LCI_SP02	E293370		1.5	3.66	5.2	4.93	< 0.50	< 0.50	13.4	13.1
4/16/2017	WL_LCI_SP02	E293370		1.3	2.68	5.27	4.94	< 0.50	< 0.50	28.4	13.4
4/17/2017	WL_LCI_SP02	E293370		1.3	2.62	4.58	5.04	< 0.50	< 0.50	13.4	13.7
4/18/2017	WL_LCI_SP02	E293370		< 1.0	2.16	4.68	5	< 0.50	< 0.50	32.8	13.1
4/19/2017	WL_LCI_SP02	E293370		< 1.0	2.34	4.93	4.92	< 0.50	< 0.50	12.4	14.3
4/20/2017	WL_LCI_SP02	E293370		1.6	2.95	4.79	4.62	< 0.50	0.53	11.9	14.1
4/21/2017	WL_LCI_SP02	E293370		1.2	2.54	5.05	4.61	< 0.50	0.53	12.7	14.1
4/22/2017	WL_LCI_SP02	E293370		7.7	11.9	4.89	5.04	< 0.50	0.86	24.4	15.6
4/23/2017	WL_LCI_SP02	E293370		1.2	2.27	4.82	4.97	< 0.50	< 0.50	13	14
4/24/2017	WL_LCI_SP02	E293370		1	2.43	4.76	4.99	< 0.50	< 0.50	13.9	14.6
4/25/2017	WL_LCI_SP02	E293370		1	1.83	5.05	5.2	< 0.50	< 0.50	18.2	15.4
4/26/2017	WL_LCI_SP02	E293370		1	2.13	5.03	5.14	< 0.50	< 0.50	13	15
4/27/2017	WL_LCI_SP02	E293370		< 1.0	1.31	4.7	4.89	< 0.50	< 0.50	18.6	14.4
4/28/2017	WL_LCI_SP02	E293370		< 1.0	1.16	4.55	4.64	< 0.50	< 0.50	12.6	14.6

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
4/29/2017	WL_LCI_SP02	E293370		< 1.0	0.69	4.76	4.84	< 0.50	< 0.50	18.7	15.5
4/30/2017	WL_LCI_SP02	E293370		< 1.0	0.98	4.78	4.96	< 0.50	< 0.50	14.9	31
5/1/2017	WL_LCI_SP02	E293370	0.73	< 1.0	0.74	4.72	4.93	< 0.50	< 0.50	13.5	15.8
5/2/2017	WL_LCI_SP02	E293370		< 1.0	0.71	4.85	4.92	< 0.50	< 0.50	12.8	13.7
5/3/2017	WL_LCI_SP02	E293370		< 1.0	0.64	4.82	4.85	< 0.50	< 0.50	13.4	13.3
5/4/2017	WL_LCI_SP02	E293370		< 1.0	0.61	4.82	4.71	< 0.50	< 0.50	16.8	14.4
5/5/2017	WL_LCI_SP02	E293370		< 1.0	0.59	4.82	4.75	< 0.50	< 0.50	11.9	9.8
5/6/2017	WL_LCI_SP02	E293370		2	3.84	4.89	5.05	< 0.50	< 0.50	20.5	18.3
5/7/2017	WL_LCI_SP02	E293370		1.5	3.66	4.17	4.41	< 0.50	< 0.50	18.4	19
5/8/2017	WL_LCI_SP02	E293370		1.1	1.6	3.71	3.76	< 0.50	< 0.50	19	19.4
5/9/2017	WL_LCI_SP02	E293370		< 1.0	0.9	3.53	3.09	< 0.50	< 0.50	14.7	19.2
5/10/2017	WL_LCI_SP02	E293370		< 1.0	0.62	3.62	3.25	< 0.50	< 0.50	17.3	21.8
5/11/2017	WL_LCI_SP02	E293370		< 1.0	0.44	3.68	3.53	< 0.50	< 0.50	20.3	22
5/12/2017	WL_LCI_SP02	E293370		< 1.0	0.38	3.47	3.45	< 0.50	< 0.50	20.4	23
5/13/2017	WL_LCI_SP02	E293370		< 1.0	0.45	3.7	3.74	< 0.50	< 0.50	39.9	22.3
5/14/2017	WL_LCI_SP02	E293370		< 1.0	0.57	3.66	3.66	< 0.50	< 0.50	23.4	22.2
5/15/2017	WL_LCI_SP02	E293370		< 1.0	0.71						
5/16/2017	WL_LCI_SP02	E293370		1.7	0.69	2.95	2.89	< 0.50	< 0.50	21.5	21.3
5/17/2017	WL_LCI_SP02	E293370		< 1.0	0.68	2.95	3.14	< 0.50	< 0.50	18.5	22.9
5/18/2017	WL_LCI_SP02	E293370		< 1.0	0.6	3.48	3.42	< 0.50	< 0.50	23.6	23
5/19/2017	WL_LCI_SP02	E293370		1.2	0.58	3.56	3.64	< 0.50	< 0.50	19.7	26
5/20/2017	WL_LCI_SP02	E293370		< 1.0	0.71						
5/21/2017	WL_LCI_SP02	E293370		< 1.0	0.27	3.96	4.05	< 0.50	< 0.50	25.4	23.6
5/22/2017	WL_LCI_SP02	E293370		< 1.0	0.59	3.7	4.1	< 0.50	< 0.50	23.1	28.3
5/23/2017	WL_LCI_SP02	E293370		< 1.0	0.56	3.8	3.71	< 0.50	< 0.50	20	26.9
5/24/2017	WL_LCI_SP02	E293370		< 1.0	0.73	3.3	3.18	< 0.50	< 0.50	26.3	24.3
5/25/2017	WL_LCI_SP02	E293370		< 1.0	1.03	3.07	2.98	< 0.50	< 0.50	21.8	24.5
5/26/2017	WL_LCI_SP02	E293370		< 1.0	1.26	2.93	3.03	< 0.50	< 0.50	20.3	24.2
5/27/2017	WL_LCI_SP02	E293370		< 1.0	0.7	2.95	2.67	< 0.50	< 0.50	24.8	21.5
5/28/2017	WL_LCI_SP02	E293370		< 1.0	0.5	3.34	3.28	< 0.50	< 0.50	31.2	26.1
5/29/2017	WL_LCI_SP02	E293370		< 1.0	0.78	2.86	3.04	< 0.50	< 0.50	26.6	26.8
5/30/2017	WL_LCI_SP02	E293370		< 1.0	0.53	3.23	2.7	< 0.50	< 0.50	46.1	24
5/31/2017	WL_LCI_SP02	E293370		< 1.0	0.59	2.94	3.21	< 0.50	< 0.50	27.2	28
6/1/2017	WL_LCI_SP02	E293370		< 1.0	0.78	3	3.31	< 0.50	< 0.50	25.1	32.2
6/2/2017	WL_LCI_SP02	E293370		1.1	0.87	3.08	3.12	< 0.50	< 0.50	30.2	29
6/3/2017	WL_LCI_SP02	E293370		< 1.0	0.59	3.03	5.7	< 0.50	< 0.50	30.6	< 3.0
6/4/2017	WL_LCI_SP02	E293370		< 1.0	0.51	3.08	3.19	< 0.50	< 0.50	31	31.2
6/5/2017	WL_LCI_SP02	E293370	1.01	< 1.0	0.41						
6/5/2017	WL_LCI_SP02	E293370				3.09	3.19	< 0.50	< 0.50	29.7	32.4
6/6/2017	WL_LCI_SP02	E293370		< 1.0	0.48	3.08	3.22	< 0.50	< 0.50	31.8	32.7
6/7/2017	WL_LCI_SP02	E293370		< 1.0	0.44	3.37	3.24	< 0.50	< 0.50	34.3	33.3
6/8/2017	WL_LCI_SP02	E293370		< 1.0	0.34	2.93	3.63	< 0.50	< 0.50	28.9	35.8
6/9/2017	WL_LCI_SP02	E293370		1.5	0.47	3.1	3.28	< 0.50	< 0.50	33.4	34.5
6/10/2017	WL_LCI_SP02	E293370		< 1.0	0.38	3.26	3.07	< 0.50	< 0.50	31.3	29.3
6/11/2017	WL_LCI_SP02	E293370		< 1.0	0.41	3.29	3.2	0.52	0.54	31.3	30.2
6/12/2017	WL_LCI_SP02	E293370	0.81	< 1.0	0.25	3.5	3.39	< 0.50	< 0.50	31	29.1
6/13/2017	WL_LCI_SP02	E293370		< 1.0	0.3	3.47	3.68	< 0.50	< 0.50	33.3	33.5

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
6/13/2017	WL_LCI_SP02	E293370									
6/14/2017	WL_LCI_SP02	E293370		< 1.0	0.35	3.85	4.08	< 0.50	< 0.50	33	36.1
6/14/2017	WL_LCI_SP02	E293370									
6/15/2017	WL_LCI_SP02	E293370		< 1.0	0.4	3.84	3.66	< 0.50	< 0.50	33.1	33.1
6/15/2017	WL_LCI_SP02	E293370									
6/16/2017	WL_LCI_SP02	E293370		< 1.0	0.42	3.15	3.17	< 0.50	< 0.50	28.3	27.8
6/16/2017	WL_LCI_SP02	E293370									
6/17/2017	WL_LCI_SP02	E293370		< 1.0	0.41	3.36	3.4	< 0.50	< 0.50	27.2	29.3
6/17/2017	WL_LCI_SP02	E293370									
6/18/2017	WL_LCI_SP02	E293370		2.1	0.36	3.57	3.63	< 0.50	< 0.50	28.8	30.8
6/18/2017	WL_LCI_SP02	E293370									
6/19/2017	WL_LCI_SP02	E293370		< 1.0	0.3	3.4	3.79	< 0.50	< 0.50	34.6	31.5
6/19/2017	WL_LCI_SP02	E293370									
6/20/2017	WL_LCI_SP02	E293370									
6/21/2017	WL_LCI_SP02	E293370									
6/22/2017	WL_LCI_SP02	E293370		< 1.0	0.73	4.23	4.15	< 0.50	< 0.50	36.1	35.8
6/22/2017	WL_LCI_SP02	E293370									
6/23/2017	WL_LCI_SP02	E293370		< 1.0	0.38	4.03	3.83	< 0.50	< 0.50	33.3	31.8
6/23/2017	WL_LCI_SP02	E293370									
6/24/2017	WL_LCI_SP02	E293370		< 1.0	0.25	4.36	4.41	< 0.50	< 0.50	33.9	34.1
6/24/2017	WL_LCI_SP02	E293370									
6/25/2017	WL_LCI_SP02	E293370		< 1.0	0.35	4.42	4.49	< 0.50	< 0.50	36.9	32.9
6/25/2017	WL_LCI_SP02	E293370									
6/26/2017	WL_LCI_SP02	E293370		< 1.0	0.38	4.61	4.56	< 0.50	< 0.50	30.6	33.2
6/27/2017	WL_LCI_SP02	E293370		< 1.0	0.45	4.09	3.76	< 0.50	< 0.50	33.2	30.3
6/28/2017	WL_LCI_SP02	E293370		1.1	0.5	4.44	3.61	< 0.50	< 0.50	34.4	29.5
6/29/2017	WL_LCI_SP02	E293370		< 1.0	0.53	3.84	3.59	< 0.50	< 0.50	32.1	29.2
6/30/2017	WL_LCI_SP02	E293370		< 1.0	0.32	3.83	3.94	< 0.50	< 0.50	30.4	30.5
7/1/2017	WL_LCI_SP02	E293370		< 1.0	0.49	4.34	4.3	< 0.50	< 0.50	32.3	32.4
7/2/2017	WL_LCI_SP02	E293370		< 1.0	0.33	3.65	4.34	< 0.50	< 0.50	31.7	32.4
7/3/2017	WL_LCI_SP02	E293370		< 1.0	0.36	4.02	3.69	< 0.50	< 0.50	43.4	29.3
7/4/2017	WL_LCI_SP02	E293370		< 1.0	0.34	4.23	4.18	< 0.50	< 0.50	33.1	31.3
7/5/2017	WL_LCI_SP02	E293370		< 1.0	0.53	4.12	4.06	< 0.50	< 0.50	31	29
7/6/2017	WL_LCI_SP02	E293370		< 1.0	0.37	4.61	4.59	< 0.50	< 0.50	30.7	30.6
7/7/2017	WL_LCI_SP02	E293370		< 1.0	0.39	4.53	4.61	< 0.50	< 0.50	58.2	69.8
7/8/2017	WL_LCI_SP02	E293370		< 1.0	0.3	4.11	3.98	< 0.50	< 0.50	33.2	29.9
7/9/2017	WL_LCI_SP02	E293370		1.3	0.44	3.99	4	< 0.50	< 0.50	31.8	29.7
7/10/2017	WL_LCI_SP02	E293370	1.04	< 1.0	0.56	3.97	4.05	< 0.50	< 0.50	30.6	29.8
7/11/2017	WL_LCI_SP02	E293370		< 1.0	0.34	4.28	4.33	< 0.50	< 0.50	29.3	29.7
7/12/2017	WL_LCI_SP02	E293370		1	0.48	4.45	4.76	< 0.50	< 0.50	29.4	29.5
7/13/2017	WL_LCI_SP02	E293370		< 1.0	0.33	4.09	4.09	< 0.50	< 0.50	27	26.1
7/14/2017	WL_LCI_SP02	E293370	1.16	< 1.0	0.36	4.16	4.07	< 0.50	< 0.50	27.5	28.1
7/14/2017	WL_LCI_SP02	E293370									
7/15/2017	WL_LCI_SP02	E293370									
7/16/2017	WL_LCI_SP02	E293370									
7/17/2017	WL_LCI_SP02	E293370		< 1.0	0.47	4.44	4.35	< 0.50	< 0.50	29.4	27.5
7/18/2017	WL_LCI_SP02	E293370		1	0.39	4.36	4.48	< 0.50	< 0.50	30	29.8

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
7/19/2017	WL_LCI_SP02	E293370		< 1.0	0.33	4.36	4.52	< 0.50	< 0.50	30.2	29.7
7/20/2017	WL_LCI_SP02	E293370		< 1.0	0.38	4.28	4.33	< 0.50	< 0.50	26.5	26.2
7/21/2017	WL_LCI_SP02	E293370		< 1.0	0.46	3.93	4.06	< 0.50	< 0.50	25.5	25.6
7/22/2017	WL_LCI_SP02	E293370		1.2	0.33	4.17	4.29	< 0.50	< 0.50	25.6	35.1
7/23/2017	WL_LCI_SP02	E293370		< 1.0	0.3	4.32	4.39	< 0.50	< 0.50	24.3	25.4
7/24/2017	WL_LCI_SP02	E293370		< 1.0	0.32	4.13	4.35	< 0.50	< 0.50	38.5	25.6
7/25/2017	WL_LCI_SP02	E293370		1	0.3	4.43	4.41	< 0.50	< 0.50	25.5	26.4
7/26/2017	WL_LCI_SP02	E293370		< 1.0	0.36	4.54	4.44	< 0.50	< 0.50	28.5	27.7
7/27/2017	WL_LCI_SP02	E293370		< 1.0	0.48	4.43	4.64	< 0.50	< 0.50	23.6	26.4
7/28/2017	WL_LCI_SP02	E293370		1.1	0.35	4.45	4.59	< 0.50	< 0.50	23.6	26.6
7/29/2017	WL_LCI_SP02	E293370		< 1.0	0.31	4.41	4.35	< 0.50	< 0.50	25.3	25.6
7/30/2017	WL_LCI_SP02	E293370		1	0.41	4.26	4.1	< 0.50	< 0.50	23.4	24.1
7/31/2017	WL_LCI_SP02	E293370		< 1.0	0.26	4.28	4.41	< 0.50	< 0.50	23.6	22.8
8/1/2017	WL_LCI_SP02	E293370		< 1.0	0.6	4.49	4.43	< 0.50	< 0.50	22.4	21.2
8/2/2017	WL_LCI_SP02	E293370		< 1.0	0.34	4.45	4.68	< 0.50	< 0.50	21.7	21.8
8/3/2017	WL_LCI_SP02	E293370		< 1.0	0.33	4.48	4.43	< 0.50	< 0.50	23.1	20.7
8/4/2017	WL_LCI_SP02	E293370		< 1.0	0.28	4.56	4.54	< 0.50	< 0.50	21.6	21.6
8/5/2017	WL_LCI_SP02	E293370		< 1.0	0.53	3.72	3.65	< 0.50	< 0.50	20.5	21.5
8/6/2017	WL_LCI_SP02	E293370		< 1.0	0.43	4.05	4.06	< 0.50	< 0.50	26.2	20.9
8/7/2017	WL_LCI_SP02	E293370		< 1.0	0.39	3.99	4.22	< 0.50	< 0.50	20	21.2
8/8/2017	WL_LCI_SP02	E293370		< 1.0	0.45	4.45	4.69	< 0.50	< 0.50	27.9	25.8
8/9/2017	WL_LCI_SP02	E293370		< 1.0	0.32	5.41	5.24	< 0.50	< 0.50	37.4	30.7
8/11/2017	WL_LCI_SP02	E293370		1.6	0.41	4.1	4.15	< 0.50	< 0.50	27.6	22.5
8/12/2017	WL_LCI_SP02	E293370		1	0.43	3.87	3.79	< 0.50	< 0.50	21.6	22.6
8/13/2017	WL_LCI_SP02	E293370		< 1.0	0.32	3.83	3.86	< 0.50	< 0.50	20.6	22.3
8/13/2017	WL_LCI_SP02	E293370									
8/14/2017	WL_LCI_SP02	E293370	1	< 1.0	0.34	3.82	3.77	< 0.50	< 0.50	21.5	21.7
8/15/2017	WL_LCI_SP02	E293370		< 1.0	0.56	3.64	3.72	< 0.50	< 0.50	22.5	23.1
8/16/2017	WL_LCI_SP02	E293370		< 1.0	0.42	3.72	3.62	< 0.50	< 0.50	23.3	21
8/17/2017	WL_LCI_SP02	E293370		< 1.0	0.26	3.96	3.9	< 0.50	< 0.50	25.2	21.7
8/18/2017	WL_LCI_SP02	E293370		< 1.0	0.28						
8/19/2017	WL_LCI_SP02	E293370		< 1.0	0.64	3.95	3.94	< 0.50	< 0.50	20.6	23.9
8/20/2017	WL_LCI_SP02	E293370		< 1.0	0.61	3.92	3.89	< 0.50	< 0.50	20.1	19.9
8/21/2017	WL_LCI_SP02	E293370		< 1.0	0.53	3.82	3.77	< 0.50	< 0.50	20.1	19.9
8/22/2017	WL_LCI_SP02	E293370		< 1.0	0.34	3.69	3.77	< 0.50	< 0.50	20.4	21.1
8/23/2017	WL_LCI_SP02	E293370		< 1.0	0.68	3.95	3.94	< 0.50	< 0.50	19.8	19.2
8/24/2017	WL_LCI_SP02	E293370		< 1.0	0.35	4.03	4.05	< 0.50	< 0.50	19.9	20.2
8/25/2017	WL_LCI_SP02	E293370		< 1.0	0.42	3.75	3.73	< 0.50	< 0.50	22.5	20
8/26/2017	WL_LCI_SP02	E293370		< 1.0	0.23	4.11	4.16	< 0.50	< 0.50	19.5	21.2
8/27/2017	WL_LCI_SP02	E293370		< 1.0	0.31	4	4.09	< 0.50	< 0.50	18.3	19.4
8/28/2017	WL_LCI_SP02	E293370		< 1.0	0.44	4.02	3.96	< 0.50	< 0.50	19.5	19.5
8/29/2017	WL_LCI_SP02	E293370		< 1.0	0.45	3.81	3.79	< 0.50	< 0.50	19.1	20.4
8/30/2017	WL_LCI_SP02	E293370		< 1.0	0.38	3.84	3.92	< 0.50	< 0.50	< 19	20
8/31/2017	WL_LCI_SP02	E293370		< 1.0	0.48	3.8	3.76	< 0.50	< 0.50	20.8	18.4
9/1/2017	WL_LCI_SP02	E293370		< 1.0	0.31	3.8	3.91	< 0.50	< 0.50	19.2	19.3
9/2/2017	WL_LCI_SP02	E293370									
9/2/2017	WL_LCI_SP02	E293370		< 1.0	0.29	3.81	3.83	< 0.50	< 0.50	17.2	18.7

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
9/3/2017	WL_LCI_SP02	E293370									
9/3/2017	WL_LCI_SP02	E293370		< 1.0	0.31	3.84	3.83	< 0.50	< 0.50	18.2	19
9/4/2017	WL_LCI_SP02	E293370									
9/4/2017	WL_LCI_SP02	E293370		< 1.0	0.4	3.67	3.75	< 0.50	< 0.50	20.2	21
9/5/2017	WL_LCI_SP02	E293370									
9/5/2017	WL_LCI_SP02	E293370		< 1.0	0.26	3.58	3.64	< 0.50	< 0.50	19.5	18.1
9/6/2017	WL_LCI_SP02	E293370									
9/6/2017	WL_LCI_SP02	E293370		< 1.0	0.42	3.86	3.96	< 0.50	< 0.50	19.9	24.5
9/7/2017	WL_LCI_SP02	E293370									
9/7/2017	WL_LCI_SP02	E293370		< 1.0	0.5	3.59	3.65	< 0.50	< 0.50	17	19.1
9/7/2017	WL_LCI_SP02	E293370		< 1.0	0.32	4.21	3.93	< 0.50	< 0.50	20.8	19.6
9/8/2017	WL_LCI_SP02	E293370									
9/8/2017	WL_LCI_SP02	E293370		< 1.0	0.26	3.68	3.76	< 0.50	< 0.50	21.4	19.9
9/9/2017	WL_LCI_SP02	E293370									
9/9/2017	WL_LCI_SP02	E293370		< 1.0	0.22	3.56	3.51	< 0.50	< 0.50	19	17.9
9/10/2017	WL_LCI_SP02	E293370									
9/10/2017	WL_LCI_SP02	E293370		< 1.0	0.21	3.7	3.59	< 0.50	< 0.50	18.5	18.7
9/11/2017	WL_LCI_SP02	E293370									
9/11/2017	WL_LCI_SP02	E293370		< 1.0	0.77	3.82	3.59	< 0.50	< 0.50	18	18.2
9/12/2017	WL_LCI_SP02	E293370									
9/12/2017	WL_LCI_SP02	E293370	0.52	< 1.0	0.58	3.63	3.94	< 0.50	< 0.50	18.8	17.9
9/13/2017	WL_LCI_SP02	E293370									
9/13/2017	WL_LCI_SP02	E293370		< 1.0	0.59	4.1	4.17	< 0.50	< 0.50	19.5	20.9
9/14/2017	WL_LCI_SP02	E293370									
9/14/2017	WL_LCI_SP02	E293370		< 1.0	0.37	4.19	4.24	< 0.50	< 0.50	18.5	20.6
9/15/2017	WL_LCI_SP02	E293370									
9/15/2017	WL_LCI_SP02	E293370		< 1.0	0.47	4.08	3.94	< 0.50	< 0.50	18.2	18.9
9/16/2017	WL_LCI_SP02	E293370									
9/16/2017	WL_LCI_SP02	E293370		< 1.0	0.3	4.12	3.91	< 0.50	< 0.50	22.5	17.9
9/17/2017	WL_LCI_SP02	E293370									
9/17/2017	WL_LCI_SP02	E293370		< 1.0	0.29	4.07	3.89	< 0.50	< 0.50	18.6	19.3
9/18/2017	WL_LCI_SP02	E293370									
9/18/2017	WL_LCI_SP02	E293370		< 1.0	0.34	4.11	3.92	< 0.50	< 0.50	18.2	18.3
9/18/2017	WL_LCI_SP02	E293370									
9/19/2017	WL_LCI_SP02	E293370									
9/19/2017	WL_LCI_SP02	E293370		< 1.0	0.27	3.6	3.77	< 0.50	< 0.50	16.6	17.2
9/20/2017	WL_LCI_SP02	E293370									
9/20/2017	WL_LCI_SP02	E293370		< 1.0	0.27	3.99	3.94	< 0.50	< 0.50	17.1	17.4
9/20/2017	WL_LCI_SP02	E293370									
9/21/2017	WL_LCI_SP02	E293370									
9/21/2017	WL_LCI_SP02	E293370		< 1.0	0.49	3.76	3.97	< 0.50	< 0.50	18.1	18.3
9/21/2017	WL_LCI_SP02	E293370	0.71	< 1.0	0.46	3.84	4.06	< 0.50	< 0.50	16.4	16.6
9/22/2017	WL_LCI_SP02	E293370									
9/22/2017	WL_LCI_SP02	E293370		< 1.0	0.38	3.83	3.82	< 0.50	< 0.50	16.5	15.8
9/23/2017	WL_LCI_SP02	E293370									
9/23/2017	WL_LCI_SP02	E293370		< 1.0	0.49	2.99	3.29	< 0.50	< 0.50	18.8	17.1
9/24/2017	WL_LCI_SP02	E293370									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
9/24/2017	WL_LCI_SP02	E293370		< 1.0	0.32	3.77	3.97	< 0.50	< 0.50	17.1	17.4
9/25/2017	WL_LCI_SP02	E293370									
9/25/2017	WL_LCI_SP02	E293370		< 1.0	0.42	3.92	3.74	< 0.50	< 0.50	18	17.6
9/26/2017	WL_LCI_SP02	E293370									
9/26/2017	WL_LCI_SP02	E293370		< 1.0	0.35	3.92	3.86	< 0.50	< 0.50	16.7	16.7
9/27/2017	WL_LCI_SP02	E293370									
9/27/2017	WL_LCI_SP02	E293370		< 1.0	0.24	3.77	3.89	< 0.50	< 0.50	16.7	17.6
9/28/2017	WL_LCI_SP02	E293370									
9/28/2017	WL_LCI_SP02	E293370		< 1.0	0.9	3.86	3.88	< 0.50	< 0.50	16.7	16.6
9/29/2017	WL_LCI_SP02	E293370									
9/29/2017	WL_LCI_SP02	E293370		< 1.0	0.21	3.93	3.83	< 0.50	< 0.50	17.7	17.2
9/30/2017	WL_LCI_SP02	E293370									
9/30/2017	WL_LCI_SP02	E293370		< 1.0	0.29	3.64	3.95	< 0.50	< 0.50	15.7	18.9
10/1/2017	WL_LCI_SP02	E293370									
10/1/2017	WL_LCI_SP02	E293370		< 1.0	0.54	3.88	3.91	< 0.50	< 0.50	18.7	18.3
10/2/2017	WL_LCI_SP02	E293370									
10/2/2017	WL_LCI_SP02	E293370	0.8	< 1.0	0.24	3.76	3.84	< 0.50	< 0.50	17.4	18.1
10/2/2017	WL_LCI_SP02	E293370									
10/3/2017	WL_LCI_SP02	E293370									
10/3/2017	WL_LCI_SP02	E293370		< 1.0	0.39	3.86	3.87	< 0.50	< 0.50	15.7	16.3
10/4/2017	WL_LCI_SP02	E293370									
10/4/2017	WL_LCI_SP02	E293370		< 1.0	0.32	3.92	3.92	< 0.50	< 0.50	16.2	15.6
10/5/2017	WL_LCI_SP02	E293370									
10/5/2017	WL_LCI_SP02	E293370		< 1.0	0.39	4.12	3.93	< 0.50	< 0.50	16.8	15.9
10/6/2017	WL_LCI_SP02	E293370									
10/6/2017	WL_LCI_SP02	E293370		< 1.0	0.85	4.16	3.84	< 0.50	< 0.50	16.2	15.5
10/7/2017	WL_LCI_SP02	E293370									
10/7/2017	WL_LCI_SP02	E293370		< 1.0	0.24	4.17	3.93	< 0.50	< 0.50	< 21	19.2
10/8/2017	WL_LCI_SP02	E293370									
10/8/2017	WL_LCI_SP02	E293370		< 1.0	0.22	4.01	3.88	< 0.50	< 0.50	< 21	15.9
10/9/2017	WL_LCI_SP02	E293370									
10/9/2017	WL_LCI_SP02	E293370		< 1.0	0.24	4.28	4.16	< 0.50	< 0.50	< 24	16.3
10/10/2017	WL_LCI_SP02	E293370									
10/10/2017	WL_LCI_SP02	E293370		< 1.0	0.44	4.15	4.39	< 0.50	< 0.50	15.1	17.7
10/11/2017	WL_LCI_SP02	E293370									
10/11/2017	WL_LCI_SP02	E293370		1.3	0.51	4.23	3.91	< 0.50	< 0.50	15.8	15.8
10/12/2017	WL_LCI_SP02	E293370									
10/12/2017	WL_LCI_SP02	E293370		< 1.0	0.27	3.97	4.25	< 0.50	< 0.50	17.8	15.8
10/13/2017	WL_LCI_SP02	E293370									
10/13/2017	WL_LCI_SP02	E293370		< 1.0	0.81	4.21	4.21	< 0.50	< 0.50	16.4	15.5
10/14/2017	WL_LCI_SP02	E293370									
10/14/2017	WL_LCI_SP02	E293370		< 1.0	0.44	5.1	5.03	< 0.50	< 0.50	15.2	13.7
10/15/2017	WL_LCI_SP02	E293370									
10/15/2017	WL_LCI_SP02	E293370		< 1.0	0.37	4.93	5.07	< 0.50	< 0.50	13.9	13.4
10/16/2017	WL_LCI_SP02	E293370									
10/16/2017	WL_LCI_SP02	E293370		< 1.0	0.84	5.22	4.96	< 0.50	< 0.50	14.3	14.5
10/17/2017	WL_LCI_SP02	E293370									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
10/17/2017	WL_LCI_SP02	E293370		< 1.0	1.04	6.3	6.62	< 0.50	< 0.50	17.8	19
10/18/2017	WL_LCI_SP02	E293370									
10/18/2017	WL_LCI_SP02	E293370		< 1.0	0.26	6.99	6.98	< 0.50	< 0.50	20.8	20.6
10/19/2017	WL_LCI_SP02	E293370									
10/19/2017	WL_LCI_SP02	E293370		< 1.0	0.7	7.09	6.86	< 0.50	< 0.50	17.6	23.6
10/20/2017	WL_LCI_SP02	E293370									
10/20/2017	WL_LCI_SP02	E293370		< 1.0	0.85	7.03	6.93	< 0.50	< 0.50	17.8	19.3
10/21/2017	WL_LCI_SP02	E293370									
10/21/2017	WL_LCI_SP02	E293370		9.4	33.6	6.59	6.71	< 0.50	1.33	16.8	21.1
10/22/2017	WL_LCI_SP02	E293370									
10/22/2017	WL_LCI_SP02	E293370		< 1.0	2.12	6.94	7	< 0.50	< 0.50	20.2	17.9
10/23/2017	WL_LCI_SP02	E293370									
10/23/2017	WL_LCI_SP02	E293370		< 1.0	1.96	6.61	6.93	< 0.50	< 0.50	17.7	18.8
10/24/2017	WL_LCI_SP02	E293370		< 1.0	0.84	5.86	6.19	< 0.50	< 0.50	17.8	18.2
10/25/2017	WL_LCI_SP02	E293370		< 1.0	1.9	5.95	6.61	< 0.50	< 0.50	16.1	16.2
10/26/2017	WL_LCI_SP02	E293370		< 1.0	1.32	6.9	6.76	< 0.50	< 0.50	18.8	18.9
10/27/2017	WL_LCI_SP02	E293370		< 1.0	0.64	6.84	6.45	< 0.50	< 0.50	19.6	17.7
10/28/2017	WL_LCI_SP02	E293370		< 1.0	0.62						
10/29/2017	WL_LCI_SP02	E293370		< 1.0	0.55	6.19	5.95	< 0.50	< 0.50	17.6	16.8
10/30/2017	WL_LCI_SP02	E293370		< 1.0	0.87	6.12	5.67	< 0.50	< 0.50	16.3	16.7
10/31/2017	WL_LCI_SP02	E293370		< 1.0	0.46	5.59	5.52	< 0.50	< 0.50	18.9	16.6
11/1/2017	WL_LCI_SP02	E293370		< 1.0	0.54	5.64	5.78	< 0.50	< 0.50	19.8	16.7
11/2/2017	WL_LCI_SP02	E293370		< 1.0	1.07	5.73	6.45	< 0.50	< 0.50	17.3	16.5
11/3/2017	WL_LCI_SP02	E293370		1	1.26	5.69	6.41	< 0.50	< 0.50	15.7	16.7
11/4/2017	WL_LCI_SP02	E293370		< 1.0	0.48	5.71	5.71	1.02	0.99	14.9	14.2
11/5/2017	WL_LCI_SP02	E293370		< 1.0	0.61	5.42	5.82	< 0.50	0.82	13.2	14
11/6/2017	WL_LCI_SP02	E293370	< 0.50	< 1.0	0.55	5.79	5.77	0.95	0.89	14	12.8
11/7/2017	WL_LCI_SP02	E293370		< 1.0	0.68	6.53	6.36	< 0.50	< 0.50	13.7	13.2
11/8/2017	WL_LCI_SP02	E293370		< 1.0	0.51	5.16	5.59	< 0.50	< 0.50	12.5	11.8
11/9/2017	WL_LCI_SP02	E293370		< 1.0	0.65	6.11	6.13	< 0.50	< 0.50	13.9	14
11/10/2017	WL_LCI_SP02	E293370		< 1.0	0.55	5.77	5.85	< 0.50	< 0.50	15.7	14.1
11/11/2017	WL_LCI_SP02	E293370		< 1.0	0.42	5.88	5.72	< 0.50	< 0.50	19.5	13.8
11/12/2017	WL_LCI_SP02	E293370		< 1.0	0.44	5.7	5.87	< 0.50	< 0.50	17	14.1
11/13/2017	WL_LCI_SP02	E293370		< 1.0	0.54	6.28	6.36	< 0.50	< 0.50	15.4	13.5
11/14/2017	WL_LCI_SP02	E293370		< 1.0	0.38	6.53	5.95	< 0.50	< 0.50	14.1	14.1
11/15/2017	WL_LCI_SP02	E293370		< 1.0	0.41	6.06	6.48	< 0.50	< 0.50	14	15.7
11/16/2017	WL_LCI_SP02	E293370		< 1.0	0.28	7.34	7	< 0.50	< 0.50	13.3	13.5
11/17/2017	WL_LCI_SP02	E293370		< 1.0	0.5	6.75	6.45	< 0.50	< 0.50	13.2	13.7
11/18/2017	WL_LCI_SP02	E293370		< 1.0	0.38	6.14	6.3	< 0.50	< 0.50	13.5	14
11/19/2017	WL_LCI_SP02	E293370		< 1.0	0.52	6.27	6.12	< 0.50	< 0.50	13.8	14.1
11/20/2017	WL_LCI_SP02	E293370		< 1.0	0.44	6.26	6.25	< 0.50	< 0.50	13.5	13.6
11/21/2017	WL_LCI_SP02	E293370		< 1.0	0.37	6.16	7.15	< 0.50	< 0.50	14.9	13.8
11/22/2017	WL_LCI_SP02	E293370		< 1.0	0.65	6.18	6.94	< 0.50	< 0.50	16.2	15.4
11/23/2017	WL_LCI_SP02	E293370		< 1.0	0.54	6.82	6.15	< 0.50	< 0.50	14	14
11/24/2017	WL_LCI_SP02	E293370		< 1.0	1.35	7.12	6.51	< 0.50	< 0.50	13.9	14
11/25/2017	WL_LCI_SP02	E293370		< 1.0	1.62	7.28	6.93	< 0.50	< 0.50	16.2	14.7
11/26/2017	WL_LCI_SP02	E293370		< 1.0	1.48	6.83	6.4	< 0.50	< 0.50	16.6	< 18

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
11/27/2017	WL_LCI_SP02	E293370		3.2	3.93	6.64	6.43	< 0.50	0.56	18.2	< 21
11/28/2017	WL_LCI_SP02	E293370		1.2	1.85	5.78	5.77	< 0.50	< 0.50	15.2	15.9
11/29/2017	WL_LCI_SP02	E293370		< 1.0	0.56	5.88	6.15	< 0.50	< 0.50	15.1	16.4
11/30/2017	WL_LCI_SP02	E293370		< 1.0	0.53	6.24	6.58	< 0.50	< 0.50	16.6	15.7
12/1/2017	WL_LCI_SP02	E293370		< 1.0	0.55	6.58	6.28	< 0.50	< 0.50	16.4	14.1
12/2/2017	WL_LCI_SP02	E293370		< 1.0	0.64	5.71	5.63	< 0.50	< 0.50	14.6	14.7
12/3/2017	WL_LCI_SP02	E293370		< 1.0	0.42	5.7	5.75	< 0.50	< 0.50	14.2	19.4
12/4/2017	WL_LCI_SP02	E293370	0.56	< 1.0	0.6	5.29	5.26	< 0.50	< 0.50	13.2	14.1
12/5/2017	WL_LCI_SP02	E293370		< 1.0	0.91	5.97	6.31	< 0.50	< 0.50	14.4	< 18
12/6/2017	WL_LCI_SP02	E293370		< 1.0	0.56	5.72	6.07	< 0.50	< 0.50	13.3	< 18
12/7/2017	WL_LCI_SP02	E293370		< 1.0	0.4	6.2	6.25	< 0.50	< 0.50	13.6	13.2
12/8/2017	WL_LCI_SP02	E293370		< 1.0	0.36	6.26	6.37	< 0.50	< 0.50	13.3	13.1
12/9/2017	WL_LCI_SP02	E293370		< 1.0	0.63	6.2	6.03	< 0.50	< 0.50	13.1	12.8
12/10/2017	WL_LCI_SP02	E293370		< 1.0	0.4	5.91	6.15	< 0.50	< 0.50	12.8	12.2
12/11/2017	WL_LCI_SP02	E293370		< 1.0	0.68	6.11	5.96	< 0.50	< 0.50	13.5	12.4
12/12/2017	WL_LCI_SP02	E293370		< 1.0	0.63	5.82	6.01	< 0.50	< 0.50	12.6	12.3
12/13/2017	WL_LCI_SP02	E293370		< 1.0	0.52	6.33	6.55	< 0.50	< 0.50	12.6	11.2
12/14/2017	WL_LCI_SP02	E293370		< 1.0	0.32	6.28	5.86	< 0.50	< 0.50	14.1	11.9
12/15/2017	WL_LCI_SP02	E293370		< 1.0	0.35	6.25	6.06	< 0.50	< 0.50	12.6	10.2
12/16/2017	WL_LCI_SP02	E293370		< 1.0	0.31	5.7	5.73	< 0.50	< 0.50	12.8	12.8
12/17/2017	WL_LCI_SP02	E293370		< 1.0	0.29	5.82	5.72	< 0.50	< 0.50	14.8	14.5
12/18/2017	WL_LCI_SP02	E293370		< 1.0	0.33	6.09	6.18	< 0.50	< 0.50	15.5	14.3
12/19/2017	WL_LCI_SP02	E293370		< 1.0	0.36	5.86	6.53	< 0.50	< 0.50	11.6	14.3
12/20/2017	WL_LCI_SP02	E293370		< 1.0	0.65	5.72	6.47	< 0.50	< 0.50	11.6	13.3
12/21/2017	WL_LCI_SP02	E293370		< 1.0	0.3	7.89	6.9	< 0.50	< 0.50	14	11.7
12/22/2017	WL_LCI_SP02	E293370		< 1.0	0.24	7.39	6.57	< 0.50	< 0.50	11.4	11.3
12/23/2017	WL_LCI_SP02	E293370		< 1.0	0.3	6.57	6.59	< 0.50	< 0.50	11.3	13.2
12/24/2017	WL_LCI_SP02	E293370		< 1.0	0.34	7.34	7.14	< 0.50	< 0.50	11.3	10.7
12/25/2017	WL_LCI_SP02	E293370		< 1.0	0.46	7.04	6.82	< 0.50	< 0.50	11	10.2
12/26/2017	WL_LCI_SP02	E293370		< 1.0	0.38	6.66	6.44	< 0.50	< 0.50	9.8	10.3
12/27/2017	WL_LCI_SP02	E293370		< 1.0	0.53	6.61	6.23	< 0.50	< 0.50	10	9.8
12/28/2017	WL_LCI_SP02	E293370		< 1.0	0.22	7.04	7.11	< 0.50	< 0.50	10.5	10.5
12/29/2017	WL_LCI_SP02	E293370		< 1.0	0.22	6.79	6.85	< 0.50	< 0.50	9.4	10.1
12/30/2017	WL_LCI_SP02	E293370		< 1.0	0.25	6.92	7.5	< 0.50	< 0.50	9.9	10.3
12/31/2017	WL_LCI_SP02	E293370									
12/31/2017	WL_LCI_SP02	E293370		< 1.0	0.29	6.97	6.78	< 0.50	< 0.50	11.6	8.6
1/1/2017	WL_WLCI_SP01	E293371		< 1.0	0.17	18.5	17.8	< 0.50	< 0.50	15.2	15.4
1/3/2017	WL_WLCI_SP01	E293371		< 1.0	0.16	18.8	17.9	< 0.50	< 0.50	15.4	15.8
1/4/2017	WL_WLCI_SP01	E293371		< 1.0	0.13						
1/5/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	19.1	20.2	< 0.50	< 0.50	12.2	13.7
1/6/2017	WL_WLCI_SP01	E293371		< 1.0	0.16						
1/7/2017	WL_WLCI_SP01	E293371		< 1.0	0.29						
1/8/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	18.9	19.8	< 0.50	0.51	13.4	14.3
1/9/2017	WL_WLCI_SP01	E293371	1.42	< 1.0	< 0.10	19.7	19.8	< 0.50	0.6	12.4	14
1/10/2017	WL_WLCI_SP01	E293371		< 1.0	0.15	19.2	19.6	< 0.50	0.52	13.6	13.7
1/11/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10						
1/12/2017	WL_WLCI_SP01	E293371		< 1.0	0.15	18.8	17.7	< 0.50	0.51	11.7	12.5

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
1/13/2017	WL_WLCI_SP01	E293371		< 1.0	0.12						
1/14/2017	WL_WLCI_SP01	E293371		< 1.0	0.14						
1/15/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	18.4	18.4	< 0.50	0.9	17.5	13.3
1/16/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	21	19.6	< 0.50	0.65	13.7	13.2
1/17/2017	WL_WLCI_SP01	E293371		< 1.0	0.27	19.1	21.5	< 0.50	< 0.50	14.6	17
1/18/2017	WL_WLCI_SP01	E293371		< 1.0	0.14	18.7	19	< 0.50	< 0.50	13.7	13.7
1/19/2017	WL_WLCI_SP01	E293371		< 1.0	0.42	19.5	19.7	< 0.50	< 0.50	12.9	13.9
1/20/2017	WL_WLCI_SP01	E293371		< 1.0	0.11						
1/21/2017	WL_WLCI_SP01	E293371		< 1.0	0.15						
1/22/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	20.3	21.5	< 0.50	< 0.50	14.9	13.2
1/23/2017	WL_WLCI_SP01	E293371		< 1.0	0.11	20.2	23.9	< 0.50	0.5	11.3	13.6
1/24/2017	WL_WLCI_SP01	E293371		< 1.0	0.11	18.8	21.1	< 0.50	< 0.50	9	14.5
1/25/2017	WL_WLCI_SP01	E293371		< 1.0	0.15						
1/26/2017	WL_WLCI_SP01	E293371		< 1.0	0.14	18.2	18.3	< 0.50	0.71	10.4	11.8
1/27/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10						
1/28/2017	WL_WLCI_SP01	E293371		< 1.0	0.13						
1/29/2017	WL_WLCI_SP01	E293371		< 1.0	0.14	18.8	20.1	< 0.50	< 0.50	12.9	12.7
1/30/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	18.1	19.1	< 0.50	< 0.50	12.5	12.4
1/31/2017	WL_WLCI_SP01	E293371		< 1.0	0.16	17.8	18.2	< 2.5	< 2.5	11.6	< 15
2/1/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	18.6	19.4	< 0.50	< 0.50	13.9	15.9
2/1/2017	WL_WLCI_SP01	E293371		< 1.0		18.6	19.5	< 2.5	< 2.5	11.2	< 15
2/2/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	19.9	20.1	< 0.50	< 0.50	16.8	10.7
2/3/2017	WL_WLCI_SP01	E293371		< 1.0	0.1						
2/4/2017	WL_WLCI_SP01	E293371		< 1.0	0.32						
2/5/2017	WL_WLCI_SP01	E293371		< 1.0	0.13	23.2	22.9	< 0.50	< 0.50	11.6	9.8
2/6/2017	WL_WLCI_SP01	E293371		< 1.0	0.13	22.4	23.4	< 0.50	< 0.50	9.6	9.7
2/7/2017	WL_WLCI_SP01	E293371	1.5	< 1.0	0.26	16.8	23.4	< 0.50	< 0.50	9.9	54.2
2/8/2017	WL_WLCI_SP01	E293371		< 1.0	0.11						
2/8/2017	WL_WLCI_SP01	E293371		< 1.0		18.8	17.3	< 0.50	0.54	10.3	8.4
2/9/2017	WL_WLCI_SP01	E293371									
2/10/2017	WL_WLCI_SP01	E293371		< 1.0	0.18	19.7	20.3	< 0.50	< 0.50	10.2	10.3
2/11/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10						
2/12/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	19.7	20.6	< 0.50	< 0.50	9.3	9.7
2/13/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	19.5	20.5	< 0.50	< 0.50	10.8	9.8
2/14/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	19.5	19.3	< 0.50	< 0.50	8.3	8.7
2/15/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10						
2/16/2017	WL_WLCI_SP01	E293371		< 1.0	0.25	18.8	19.7	< 0.50	0.78	9.6	10.2
2/17/2017	WL_WLCI_SP01	E293371		< 1.0	1.76						
2/18/2017	WL_WLCI_SP01	E293371		3.8	3.34						
2/19/2017	WL_WLCI_SP01	E293371		< 1.0	0.55	17.7	19.3	< 0.50	< 0.50	9.2	10.5
2/20/2017	WL_WLCI_SP01	E293371		1.2	0.17	18.2	19.4	< 0.50	0.93	9.6	10.1
2/21/2017	WL_WLCI_SP01	E293371		< 1.0	0.15	17.2	18.9	< 0.50	< 0.50	9.2	9.6
2/22/2017	WL_WLCI_SP01	E293371		< 1.0	0.13						
2/22/2017	WL_WLCI_SP01	E293371									
2/23/2017	WL_WLCI_SP01	E293371		< 1.0	0.21	21.2	22.3	< 0.50	< 0.50	8.8	8.9
2/24/2017	WL_WLCI_SP01	E293371		< 1.0	0.11						
2/25/2017	WL_WLCI_SP01	E293371		1.1	0.13						

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
2/26/2017	WL_WLCI_SP01	E293371		< 1.0	0.1	18.7	21.1	< 0.50	< 0.50	7.9	8.3
2/27/2017	WL_WLCI_SP01	E293371		< 1.0	0.11	20.1	20.1	< 0.50	< 0.50	7.4	6.9
2/28/2017	WL_WLCI_SP01	E293371		< 1.0	0.19	19.4	21.2	< 0.50	< 0.50	7.4	7.6
3/1/2017	WL_WLCI_SP01	E293371		< 1.0	0.15						
3/2/2017	WL_WLCI_SP01	E293371		< 1.0	0.15	18.4	18.9	< 0.50	< 0.50	8.2	7.4
3/3/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10						
3/4/2017	WL_WLCI_SP01	E293371		< 1.0	0.12						
3/5/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	18.7	19.9	< 0.50	1.36	6.9	7.8
3/6/2017	WL_WLCI_SP01	E293371	1.2	< 1.0	0.1	19.9	20.5	< 0.50	0.58	6.4	8.1
3/7/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	18.7	21.8	< 0.50	< 0.50	6.6	7.8
3/8/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10						
3/9/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	18.3	20.6	< 0.50	< 0.50	5.9	7.4
3/10/2017	WL_WLCI_SP01	E293371		1.6	< 0.10	18.5	19.3	< 0.50	< 0.50	6.2	7.5
3/11/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	16.9	17.5	< 0.50	< 0.50	6	6.9
3/12/2017	WL_WLCI_SP01	E293371		< 1.0	0.14	19.2	20.3	< 0.50	< 0.50	6.4	7.8
3/13/2017	WL_WLCI_SP01	E293371		< 1.0	0.1	18.4	19.3	< 0.50	< 0.50	8.3	7.8
3/14/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	18.2	19	< 1.0	< 1.0	7.2	7.3
3/15/2017	WL_WLCI_SP01	E293371		4.4	11.2	16.7	17.3	< 0.50	0.58	6.3	8.4
3/16/2017	WL_WLCI_SP01	E293371		17.2	53.5	14.3	14.8	< 0.50	3.02	5.1	13.8
3/20/2017	WL_WLCI_SP01	E293371		7.2	1.84	16.8	18.1	< 0.50	1	6.9	10.5
3/21/2017	WL_WLCI_SP01	E293371		< 1.0	0.61	17.1	18	< 0.50	< 0.50	7.7	9.3
3/22/2017	WL_WLCI_SP01	E293371		< 1.0	0.45	17.3	18.3	< 0.50	< 0.50	8.6	9.9
3/23/2017	WL_WLCI_SP01	E293371		1	0.38	16.6	18.3	< 0.50	< 0.50	8.9	10.2
3/24/2017	WL_WLCI_SP01	E293371		< 1.0	0.48	17.5	18.9	< 1.0	< 1.0	8.7	9.6
3/25/2017	WL_WLCI_SP01	E293371		< 1.0	0.24	17.8	18.6	< 0.50	< 0.50	9.1	9.5
3/26/2017	WL_WLCI_SP01	E293371		< 1.0	0.24	17.8	18.7	< 0.50	< 0.50	9.4	9
3/27/2017	WL_WLCI_SP01	E293371		< 1.0	0.22	18.1	18.9	< 0.50	< 0.50	8.3	9.2
3/28/2017	WL_WLCI_SP01	E293371		< 1.0	0.41	17.7	18.6	< 0.50	< 0.50	8.8	10.1
3/29/2017	WL_WLCI_SP01	E293371		< 1.0	0.22	17.9	19.1	< 0.50	< 0.50	8.9	10.6
3/30/2017	WL_WLCI_SP01	E293371		< 1.0	0.26	20.6	18.2	< 0.50	< 0.50	8.2	8.9
3/31/2017	WL_WLCI_SP01	E293371		2.4	3.45	17.7	18.7	< 0.50	0.57	8.7	9.9
4/1/2017	WL_WLCI_SP01	E293371		< 1.0	0.17	16.7	18.3	< 0.50	< 0.50	9	9.1
4/2/2017	WL_WLCI_SP01	E293371		< 1.0	0.16	17	19.5	< 0.50	< 0.50	9.8	8.8
4/3/2017	WL_WLCI_SP01	E293371	1.5	< 1.0	2.25	18.5	19.3	< 0.50	< 0.50	11.1	8.7
4/4/2017	WL_WLCI_SP01	E293371		1.7	0.19	18.7	19.3	< 0.50	< 0.50	9.2	8.9
4/5/2017	WL_WLCI_SP01	E293371		< 1.0	0.18	17.4	18.8	< 0.50	< 0.50	12	9.7
4/6/2017	WL_WLCI_SP01	E293371		< 1.0	0.17	18.6	19.9	< 0.50	< 0.50	12.5	9.6
4/7/2017	WL_WLCI_SP01	E293371		< 1.0	0.31	19.6	20	< 0.50	< 0.50	15.4	10.1
4/8/2017	WL_WLCI_SP01	E293371		< 1.0	0.18	16.8	20.2	< 0.50	< 0.50	9.7	9.9
4/9/2017	WL_WLCI_SP01	E293371		< 1.0	0.16	17.9	19.8	< 0.50	< 0.50	9.7	9.8
4/10/2017	WL_WLCI_SP01	E293371		< 1.0	0.2	18.7	19.4	< 0.50	0.7	8.2	8.8
4/11/2017	WL_WLCI_SP01	E293371		< 1.0	0.13	18.6	19.6	< 0.50	< 0.50	13.3	8.4
4/12/2017	WL_WLCI_SP01	E293371		< 1.0	0.1	18.5	19.9	< 0.50	< 0.50	8.4	8.4
4/13/2017	WL_WLCI_SP01	E293371		1.5	4.15	17.7	20	< 0.50	< 0.50	11.5	8.3
4/14/2017	WL_WLCI_SP01	E293371		< 1.0	0.2	18.5	18.8	< 0.50	< 0.50	10.9	9
4/15/2017	WL_WLCI_SP01	E293371		< 1.0	0.19	18	19.9	< 0.50	< 0.50	38.6	8.9
4/16/2017	WL_WLCI_SP01	E293371		< 1.0	0.14	18.6	16.1	< 0.50	< 0.50	7.4	8.5

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
4/17/2017	WL_WLCI_SP01	E293371		< 1.0	0.14	18.1	18.1	< 0.50	< 0.50	22	9.2
4/18/2017	WL_WLCI_SP01	E293371		< 1.0	0.11	17.6	18.6	< 0.50	< 0.50	22.2	8.1
4/19/2017	WL_WLCI_SP01	E293371		< 1.0	0.18	17.9	18.5	< 0.50	< 0.50	8.4	9.4
4/20/2017	WL_WLCI_SP01	E293371		< 1.0	0.38	18.8	17.8	< 0.50	< 0.50	8.6	8.8
4/21/2017	WL_WLCI_SP01	E293371		< 1.0	0.32	18.9	19	< 0.50	< 0.50	8.4	8.3
4/22/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	18.6	18.4	< 0.50	< 0.50	6.7	9.9
4/23/2017	WL_WLCI_SP01	E293371		< 1.0	0.24	17.8	18.2	< 0.50	< 0.50	8.2	9.4
4/24/2017	WL_WLCI_SP01	E293371		< 1.0	0.16	17.4	18.7	< 0.50	< 0.50	9.8	10.2
4/25/2017	WL_WLCI_SP01	E293371		< 1.0	0.14	18.4	19	< 0.50	< 0.50	10.5	10
4/26/2017	WL_WLCI_SP01	E293371		< 1.0	0.15	18	19	< 0.50	< 0.50	7.9	10
4/27/2017	WL_WLCI_SP01	E293371		< 1.0	0.14	17.9	18.2	< 0.50	< 0.50	32.9	10.8
4/28/2017	WL_WLCI_SP01	E293371		< 1.0	0.18	17.2	18.2	< 0.50	< 0.50	7.8	9.8
4/29/2017	WL_WLCI_SP01	E293371		< 1.0	0.32	17.8	18.4	< 0.50	< 0.50	9.3	10.2
4/30/2017	WL_WLCI_SP01	E293371		< 1.0	0.29	17.1	18.7	< 0.50	< 0.50	14.5	11.4
5/1/2017	WL_WLCI_SP01	E293371	1.23	< 1.0	0.12	17	18.2	< 0.50	< 0.50	9.8	10.4
5/2/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	17.7	17.3	< 0.50	< 0.50	10	9.5
5/3/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	17.6	16.9	< 0.50	< 0.50	9.7	9.9
5/4/2017	WL_WLCI_SP01	E293371		< 1.0	0.18	17.3	17.2	< 0.50	< 0.50	11.8	10.9
5/5/2017	WL_WLCI_SP01	E293371		< 1.0	0.47	16.8	18	< 0.50	< 0.50	9.8	9.6
5/6/2017	WL_WLCI_SP01	E293371		1	0.3	16.1	14.7	< 0.50	< 0.50	39.5	12.2
5/7/2017	WL_WLCI_SP01	E293371		1.1	0.29	17.4	16.2	< 0.50	< 0.50	14	13.8
5/8/2017	WL_WLCI_SP01	E293371		< 1.0	0.19	16.7	16.6	< 0.50	< 0.50	14.8	13.9
5/9/2017	WL_WLCI_SP01	E293371		1	0.24	17.9	15.8	< 0.50	< 0.50	12.1	14.5
5/10/2017	WL_WLCI_SP01	E293371		< 1.0	0.23	17	15.1	< 0.50	< 0.50	12.9	14.8
5/11/2017	WL_WLCI_SP01	E293371		< 1.0	0.31	15.4	13.2	< 0.50	< 0.50	15.2	16.2
5/12/2017	WL_WLCI_SP01	E293371		< 1.0	0.3	15.4	16.3	< 0.50	< 0.50	16.5	17.5
5/13/2017	WL_WLCI_SP01	E293371		< 1.0	0.18	15.3	15.6	< 0.50	< 0.50	47.7	18.8
5/14/2017	WL_WLCI_SP01	E293371		< 1.0	0.26	16.4	16.2	< 0.50	< 0.50	21.6	22.1
5/15/2017	WL_WLCI_SP01	E293371		< 1.0	0.19		13.1		< 0.50		19.4
5/16/2017	WL_WLCI_SP01	E293371		< 1.0	0.19	14.4	13.7	< 0.50	< 0.50	20.8	21.3
5/17/2017	WL_WLCI_SP01	E293371		< 1.0	0.14	12.9	14.1	< 0.50	< 0.50	18.9	22.5
5/18/2017	WL_WLCI_SP01	E293371		< 1.0	0.28	14.4	14.7	< 0.50	< 0.50	23.5	21.9
5/19/2017	WL_WLCI_SP01	E293371		< 1.0	0.17	14.5	14.5	< 0.50	< 0.50	18.9	22.8
5/20/2017	WL_WLCI_SP01	E293371		< 1.0	0.12						
5/21/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	14	13.8	< 0.50	< 0.50	25.5	25.2
5/22/2017	WL_WLCI_SP01	E293371		< 1.0	0.29	13.3	11.9	< 0.50	< 0.50	27.6	25
5/23/2017	WL_WLCI_SP01	E293371		1.2	0.21	12.3	12.5	< 0.50	< 0.50	27.4	30.5
5/24/2017	WL_WLCI_SP01	E293371		< 1.0	0.26	10.6	10.6	< 0.50	< 0.50	37.6	36.4
5/25/2017	WL_WLCI_SP01	E293371		1.3	1.25	9.02	9.06	< 0.50	< 0.50	38.5	41.3
5/26/2017	WL_WLCI_SP01	E293371		< 1.0	0.38	9.93	9.75	< 0.50	< 0.50	44.5	46.3
5/27/2017	WL_WLCI_SP01	E293371		< 1.0	0.33	10.7	10.8	< 0.50	< 0.50	53.3	53.8
5/28/2017	WL_WLCI_SP01	E293371		< 1.0	0.38	10.6	10.9	< 0.50	< 0.50	57.9	55.1
5/29/2017	WL_WLCI_SP01	E293371		< 1.0	0.22	8.06	8.54	< 0.50	< 0.50	56.3	56.8
5/30/2017	WL_WLCI_SP01	E293371		1.1	0.57	7.89	7.34	< 0.50	< 0.50	61	61.4
5/31/2017	WL_WLCI_SP01	E293371		1.5	1.49	7.39	7.38	< 0.50	< 0.50	68.6	69.3
6/1/2017	WL_WLCI_SP01	E293371		2.3	1.27	7.71	7.75	< 0.50	< 0.50	89.5	93.3
6/2/2017	WL_WLCI_SP01	E293371		1.5	0.5	7.42	7.43	< 0.50	< 0.50	91.6	92.1

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
6/3/2017	WL_WLCI_SP01	E293371		< 1.0	0.4	6.89	6.97	< 0.50	< 0.50	92.1	93.1
6/4/2017	WL_WLCI_SP01	E293371		< 1.0	0.31	6.91	7.09	< 0.50	< 0.50	89.9	91.1
6/5/2017	WL_WLCi_SP01	E293371	1.26	< 1.0	0.19	6.78	6.81	< 0.50	< 0.50	93.6	89.1
6/6/2017	WL_WLCI_SP01	E293371				6.71	7.14	< 0.50	< 0.50	78.6	91.9
6/6/2017	WL_WLCI_SP01	E293371		< 1.0	0.18						
6/7/2017	WL_WLCI_SP01	E293371		3.1	0.41	7.48	7.15	< 0.50	< 0.50	98.8	95
6/8/2017	WL_WLCI_SP01	E293371		< 1.0	0.19	6.68	7	< 0.50	< 0.50	86.6	90.8
6/9/2017	WL_WLCI_SP01	E293371		< 1.0	0.11	6.34	5.8	< 0.50	< 0.50	95.6	79.5
6/10/2017	WL_WLCI_SP01	E293371		< 1.0	0.17	7.14	7.25	< 0.50	< 0.50	95.1	95.3
6/11/2017	WL_WLCI_SP01	E293371		< 1.0	0.15	7.85	7.95	0.54	0.52	92.1	90.6
6/12/2017	WL_WLCI_SP01	E293371	1.04	< 1.0	0.12	8.6	8.6	< 0.50	0.52	88.6	88.7
6/13/2017	WL_WLCI_SP01	E293371		< 1.0	0.15	8.41	8.24	< 0.50	< 0.50	71.2	78
6/13/2017	WL_WLCI_SP01	E293371									
6/14/2017	WL_WLCI_SP01	E293371		< 1.0	0.13	8.08	8.15	< 0.50	< 0.50	85.9	84.1
6/14/2017	WL_WLCI_SP01	E293371									
6/15/2017	WL_WLCI_SP01	E293371		< 1.0	0.15	7.9	7.8	< 0.50	< 0.50	88.7	83.1
6/15/2017	WL_WLCI_SP01	E293371									
6/16/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	7.88	7.75	< 0.50	< 0.50	87.5	83.6
6/16/2017	WL_WLCI_SP01	E293371									
6/17/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	8.52	8.76	< 0.50	< 0.50	77.3	84.4
6/17/2017	WL_WLCI_SP01	E293371									
6/18/2017	WL_WLCI_SP01	E293371		1.3	< 0.10	8.71	8.81	< 0.50	< 0.50	75	83.7
6/18/2017	WL_WLCI_SP01	E293371									
6/19/2017	WL_WLCI_SP01	E293371		< 1.0	0.38	8.39	9.33	< 0.50	< 0.50	84.2	84.4
6/19/2017	WL_WLCI_SP01	E293371									
6/20/2017	WL_WLCI_SP01	E293371									
6/21/2017	WL_WLCI_SP01	E293371									
6/22/2017	WL_WLCI_SP01	E293371		< 1.0	0.66	9.4	9.52	< 0.50	< 0.50	93.4	90.2
6/22/2017	WL_WLCI_SP01	E293371									
6/23/2017	WL_WLCI_SP01	E293371		< 1.0	0.35	9.62	9.54	< 0.50	< 0.50	88.8	90.1
6/23/2017	WL_WLCI_SP01	E293371									
6/24/2017	WL_WLCI_SP01	E293371		< 1.0	0.19	9.53	9.46	< 0.50	< 0.50	83.6	82.2
6/24/2017	WL_WLCI_SP01	E293371									
6/25/2017	WL_WLCI_SP01	E293371		< 1.0	0.14	9.69	9.64	< 0.50	< 0.50	93.6	84.5
6/25/2017	WL_WLCI_SP01	E293371									
6/26/2017	WL_WLCI_SP01	E293371		< 1.0	0.91	9.91	9.69	< 0.50	< 0.50	71.3	80.4
6/27/2017	WL_WLCI_SP01	E293371		< 1.0	0.38	11	9.41	< 0.50	< 0.50	89.8	85.9
6/28/2017	WL_WLCI_SP01	E293371		< 1.0	0.13	10.8	9.2	< 0.50	< 0.50	95.1	93.9
6/29/2017	WL_WLCI_SP01	E293371		< 1.0	0.29	9.57	9.87	< 0.50	< 0.50	96.7	95.4
6/30/2017	WL_WLCI_SP01	E293371		< 1.0	0.15	10.4	10.5	< 0.50	< 0.50	96.6	92.2
7/1/2017	WL_WLCI_SP01	E293371		< 1.0	0.15	10.8	8.82	< 0.50	< 0.50	97.1	87.9
7/2/2017	WL_WLCI_SP01	E293371		< 1.0	0.17	10.1	11.1	< 0.50	< 0.50	94	99.3
7/3/2017	WL_WLCI_SP01	E293371		< 1.0	0.18	10.9	9.93	< 0.50	< 0.50	130	94.4
7/4/2017	WL_WLCI_SP01	E293371		< 1.0	0.45	10.6	11.2	< 0.50	< 0.50	90.7	104
7/5/2017	WL_WLCI_SP01	E293371		< 1.0	0.32	11	11.1	< 0.50	< 0.50	106	107
7/6/2017	WL_WLCI_SP01	E293371		< 1.0	0.23	11.5	11.5	< 0.50	< 0.50	102	99.7
7/7/2017	WL_WLCI_SP01	E293371		< 1.0	0.25	11.3	11.9	< 0.50	< 0.50	96	98.9

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
7/8/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	11.2	11.3	< 0.50	< 0.50	98.7	93.9
7/9/2017	WL_WLCI_SP01	E293371		< 1.0	0.41	10.7	11.1	< 0.50	< 0.50	87	96.5
7/10/2017	WL_WLCI_SP01	E293371	1.47	< 1.0	0.22	11.6	11.5	< 0.50	< 0.50	93.5	97.1
7/11/2017	WL_WLCI_SP01	E293371		< 1.0	0.22	12	11.8	< 0.50	< 0.50	112	110
7/12/2017	WL_WLCI_SP01	E293371		< 1.0	0.32	12.2	12.1	< 0.50	< 0.50	110	117
7/13/2017	WL_WLCI_SP01	E293371		< 1.0	0.13	11.8	11.4	< 0.50	< 0.50	106	102
7/14/2017	WL_WLCI_SP01	E293371	1.34	< 1.0	0.13	11.6	11.6	< 0.50	< 0.50	98.4	96.4
7/14/2017	WL_WLCI_SP01	E293371									
7/15/2017	WL_WLCI_SP01	E293371									
7/16/2017	WL_WLCI_SP01	E293371									
7/17/2017	WL_WLCI_SP01	E293371		< 1.0	0.42	12.5	12.1	< 0.50	< 0.50	117	115
7/18/2017	WL_WLCI_SP01	E293371		< 1.0	0.11	12.9	12.7	< 0.50	< 0.50	124	122
7/19/2017	WL_WLCI_SP01	E293371		< 1.0	0.11	12.9	13.2	< 0.50	< 0.50	109	106
7/20/2017	WL_WLCI_SP01	E293371		< 1.0	0.16	13.2	13.1	< 0.50	< 0.50	106	110
7/21/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	12	12.5	< 0.50	< 0.50	100	107
7/22/2017	WL_WLCI_SP01	E293371		< 1.0	0.16	12.7	13.2	< 0.50	< 0.50	121	125
7/23/2017	WL_WLCI_SP01	E293371		< 1.0	0.22	13.2	13.5	< 0.50	< 0.50	109	116
7/24/2017	WL_WLCI_SP01	E293371		< 1.0	0.16	13.3	14	< 0.50	< 0.50	117	111
7/25/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	13.8	14.2	< 0.50	< 0.50	120	118
7/26/2017	WL_WLCI_SP01	E293371		< 1.0	0.11	14	13.8	< 0.50	< 0.50	118	111
7/27/2017	WL_WLCI_SP01	E293371		< 1.0	0.25	14.3	14.3	< 0.50	< 0.50	109	124
7/28/2017	WL_WLCI_SP01	E293371		< 1.0	0.15	14.3	14.8	< 0.50	< 0.50	105	116
7/29/2017	WL_WLCI_SP01	E293371		< 1.0	0.18	14.8	14.5	< 0.50	< 0.50	106	109
7/30/2017	WL_WLCI_SP01	E293371		< 1.0	0.23	15	14.9	< 0.50	< 0.50	107	106
7/31/2017	WL_WLCI_SP01	E293371		< 1.0	0.1	15	14.9	< 0.50	< 0.50	104	103
8/1/2017	WL_WLCI_SP01	E293371		< 1.0	0.52	15.1	14.4	< 0.50	< 0.50	103	104
8/2/2017	WL_WLCI_SP01	E293371		< 1.0	0.49	16	15.1	< 0.50	< 0.50	106	116
8/3/2017	WL_WLCI_SP01	E293371		< 1.0	0.26	14.9	15.1	< 0.50	< 0.50	121	121
8/4/2017	WL_WLCI_SP01	E293371		< 1.0	0.29	15.7	15.8	< 0.50	< 0.50	109	108
8/5/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	15.2	14.9	< 0.50	< 0.50	116	114
8/6/2017	WL_WLCI_SP01	E293371		< 1.0	0.35	15.6		< 0.50		126	
8/7/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	14.9	15.3	< 0.50	< 0.50	112	153
8/8/2017	WL_WLCI_SP01	E293371		< 1.0	0.18	15.9	15.7	< 0.50	< 0.50	119	120
8/9/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	15.3	14.7	0.61	< 0.50	124	117
8/11/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	15.9	15.9	< 0.50	< 0.50	127	122
8/12/2017	WL_WLCI_SP01	E293371		< 1.0	0.13	16.9	16.4	< 0.50	< 0.50	113	123
8/12/2017	WL_WLCI_SP01	E293371	1.34	< 1.0	0.23	15	15.9	< 0.50	< 0.50	116	118
8/13/2017	WL_WLCI_SP01	E293371		< 1.0	0.24	17.9	16.7	< 0.50	< 0.50	110	115
8/13/2017	WL_WLCI_SP01	E293371									
8/14/2017	WL_WLCI_SP01	E293371	1.92	< 1.0	0.13	16.6	16.2	< 0.50	< 0.50	126	129
8/15/2017	WL_WLCI_SP01	E293371		< 1.0	0.36	15.7	16	< 0.50	< 0.50	131	128
8/16/2017	WL_WLCI_SP01	E293371		< 1.0	0.42	16.4	16.5	< 0.50	< 0.50	131	128
8/17/2017	WL_WLCI_SP01	E293371		< 1.0	0.16	17	17.1	< 0.50	< 0.50	120	120
8/18/2017	WL_WLCI_SP01	E293371		< 1.0	0.11						
8/19/2017	WL_WLCI_SP01	E293371		< 1.0	0.18	17.4	17.6	< 0.50	< 0.50	107	107
8/20/2017	WL_WLCI_SP01	E293371		< 1.0	0.28	17.4	17.4	< 0.50	< 0.50	120	120
8/21/2017	WL_WLCI_SP01	E293371		< 1.0	0.11	17.2	17.5	< 0.50	< 0.50	120	122

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
8/22/2017	WL_WLCI_SP01	E293371		< 1.0	0.23	16.9	17.3	< 0.50	< 0.50	119	125
8/23/2017	WL_WLCI_SP01	E293371		< 1.0	0.71	17.8	17.2	< 0.50	< 0.50	119	108
8/24/2017	WL_WLCI_SP01	E293371		< 1.0	0.15	17.5	18	< 0.50	< 0.50	102	105
8/25/2017	WL_WLCI_SP01	E293371		< 1.0	0.15	17.6	17.8	< 0.50	< 0.50	117	107
8/26/2017	WL_WLCI_SP01	E293371		< 1.0	0.15	18.3	17.9	< 0.50	< 0.50	130	132
8/27/2017	WL_WLCI_SP01	E293371		< 1.0	0.11	18.4	17.9	< 0.50	< 0.50	125	125
8/28/2017	WL_WLCI_SP01	E293371		< 1.0	0.43	18.6	18	< 0.50	< 0.50	117	112
8/29/2017	WL_WLCI_SP01	E293371		< 1.0	0.21	18.5	19.1	< 0.50	< 0.50	106	110
8/30/2017	WL_WLCI_SP01	E293371		1	0.16	19.1	19.2	< 0.50	< 0.50	103	107
8/31/2017	WL_WLCI_SP01	E293371		1.2	0.15	19.6	19.5	< 0.50	< 0.50	115	102
9/1/2017	WL_WLCI_SP01	E293371		< 1.0	0.43	19.6	19.5	< 0.50	< 0.50	115	112
9/2/2017	WL_WLCI_SP01	E293371									
9/2/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	18.8	19.1	< 0.50	< 0.50	107	109
9/3/2017	WL_WLCI_SP01	E293371									
9/3/2017	WL_WLCI_SP01	E293371		< 1.0	0.1	19	19	< 0.50	< 0.50	105	99.8
9/4/2017	WL_WLCI_SP01	E293371									
9/4/2017	WL_WLCI_SP01	E293371		< 1.0	0.28	19.2	18.7	< 0.50	< 0.50	115	112
9/5/2017	WL_WLCI_SP01	E293371									
9/5/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	18.1	18.8	< 0.50	< 0.50	130	128
9/6/2017	WL_WLCI_SP01	E293371									
9/6/2017	WL_WLCI_SP01	E293371		< 1.0	0.14	19.3	18.6	< 0.50	< 0.50	121	122
9/7/2017	WL_WLCI_SP01	E293371									
9/7/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	16.3	15.4	< 0.50	< 0.50	124	111
9/8/2017	WL_WLCI_SP01	E293371									
9/8/2017	WL_WLCI_SP01	E293371		< 1.0	0.13	19.4	19.1	< 0.50	< 0.50	105	104
9/9/2017	WL_WLCI_SP01	E293371									
9/9/2017	WL_WLCI_SP01	E293371		< 1.0	0.13	18.4	18.8	< 0.50	< 0.50	101	104
9/10/2017	WL_WLCI_SP01	E293371									
9/10/2017	WL_WLCI_SP01	E293371		< 1.0	0.14	18.9	18.5	< 0.50	< 0.50	109	109
9/11/2017	WL_WLCI_SP01	E293371									
9/11/2017	WL_WLCI_SP01	E293371		1.4	0.18	18.5	18.1	< 0.50	< 0.50	124	121
9/12/2017	WL_WLCI_SP01	E293371									
9/12/2017	WL_WLCI_SP01	E293371	1.01	< 1.0	0.26	18.8	18.6	< 0.50	< 0.50	116	115
9/13/2017	WL_WLCI_SP01	E293371									
9/13/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	18	18.6	< 0.50	< 0.50	118	123
9/14/2017	WL_WLCI_SP01	E293371									
9/14/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	18.3	18.8	< 0.50	< 0.50	134	129
9/15/2017	WL_WLCI_SP01	E293371									
9/15/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	20.4	20.1	< 0.50	< 0.50	128	129
9/16/2017	WL_WLCI_SP01	E293371									
9/16/2017	WL_WLCI_SP01	E293371		< 1.0	0.11	19.6	19.7	< 0.50	< 0.50	120	114
9/17/2017	WL_WLCI_SP01	E293371									
9/17/2017	WL_WLCI_SP01	E293371		1	0.17	20.7	19.5	< 0.50	< 0.50	107	96.7
9/18/2017	WL_WLCI_SP01	E293371									
9/18/2017	WL_WLCI_SP01	E293371		< 1.0	0.17	20.9	19.7	< 0.50	< 0.50	108	95.4
9/19/2017	WL_WLCI_SP01	E293371									
9/19/2017	WL_WLCI_SP01	E293371		< 1.0	0.13	21.4	20.7	< 0.50	< 0.50	107	105

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
9/20/2017	WL_WLCI_SP01	E293371									
9/20/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	20.8	19.8	< 0.50	< 0.50	94	89.6
9/21/2017	WL_WLCI_SP01	E293371									
9/21/2017	WL_WLCI_SP01	E293371		1	0.44	21.3	21.5	< 0.50	< 0.50	80.2	79.6
9/22/2017	WL_WLCI_SP01	E293371									
9/22/2017	WL_WLCI_SP01	E293371		< 1.0	0.29	21.1	22.6	< 0.50	< 0.50	70.3	81.7
9/23/2017	WL_WLCI_SP01	E293371									
9/23/2017	WL_WLCI_SP01	E293371		< 1.0	0.14	20.2	20.7	< 0.50	< 0.50	61	65.5
9/24/2017	WL_WLCI_SP01	E293371									
9/24/2017	WL_WLCI_SP01	E293371		1	0.4	22	21.5	< 0.50	< 0.50	69.7	66.2
9/25/2017	WL_WLCI_SP01	E293371									
9/25/2017	WL_WLCI_SP01	E293371		< 1.0	0.19	21.5	20.7	< 0.50	< 0.50	68.5	68.9
9/26/2017	WL_WLCI_SP01	E293371									
9/26/2017	WL_WLCI_SP01	E293371		< 1.0	0.16	21.8	21.5	< 0.50	< 0.50	68.2	66.9
9/27/2017	WL_WLCI_SP01	E293371									
9/27/2017	WL_WLCI_SP01	E293371		< 1.0	0.21	21	21.1	< 0.50	< 0.50	70.5	70.9
9/28/2017	WL_WLCI_SP01	E293371									
9/28/2017	WL_WLCI_SP01	E293371		< 1.0	0.9	20.8	20.6	< 0.50	< 0.50	72.9	73.8
9/29/2017	WL_WLCI_SP01	E293371									
9/29/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	20.6	20.7	< 0.50	< 0.50	75.6	76.5
9/30/2017	WL_WLCI_SP01	E293371									
9/30/2017	WL_WLCI_SP01	E293371		< 1.0	0.18	20.1	21.3	< 0.50	< 0.50	77.5	84.3
10/1/2017	WL_WLCI_SP01	E293371									
10/1/2017	WL_WLCI_SP01	E293371		< 1.0	0.28	21	20.4	< 0.50	< 0.50	91.3	95.5
10/2/2017	WL_WLCI_SP01	E293371									
10/2/2017	WL_WLCI_SP01	E293371	1.3	< 1.0	0.17	20.8	20.5	< 0.50	< 0.50	83	84.5
10/3/2017	WL_WLCI_SP01	E293371									
10/3/2017	WL_WLCI_SP01	E293371		< 1.0	0.26	21.3	21.4	< 0.50	< 0.50	62.9	62.7
10/4/2017	WL_WLCI_SP01	E293371									
10/4/2017	WL_WLCI_SP01	E293371		< 1.0	0.24	21.8	22.3	< 0.50	< 0.50	57.7	55.5
10/5/2017	WL_WLCI_SP01	E293371									
10/5/2017	WL_WLCI_SP01	E293371		< 1.0	0.21	22.3	21.9	< 0.50	< 0.50	62.3	59.9
10/6/2017	WL_WLCI_SP01	E293371									
10/6/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	22.5	21.4	< 0.50	< 0.50	63.7	60.4
10/7/2017	WL_WLCI_SP01	E293371									
10/7/2017	WL_WLCI_SP01	E293371		1.1	0.14	21.4	21.1	< 0.50	< 0.50	63.3	61.2
10/8/2017	WL_WLCI_SP01	E293371									
10/8/2017	WL_WLCI_SP01	E293371		< 1.0	0.17	21.4	21.4	< 0.50	< 0.50	59.7	55.2
10/9/2017	WL_WLCI_SP01	E293371									
10/9/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	22.5	21.4	< 0.50	< 0.50	57.3	51.1
10/10/2017	WL_WLCI_SP01	E293371									
10/10/2017	WL_WLCI_SP01	E293371		< 1.0	0.22	21.2	23.3	< 0.50	< 0.50	49.7	54.1
10/11/2017	WL_WLCI_SP01	E293371									
10/11/2017	WL_WLCI_SP01	E293371		2.7	0.12	21.9	20.7	< 0.50	< 0.50	53.9	49.4
10/12/2017	WL_WLCI_SP01	E293371									
10/12/2017	WL_WLCI_SP01	E293371		1.2	0.11	21.3	21.7	< 0.50	< 0.50	45.9	50.9
10/13/2017	WL_WLCI_SP01	E293371									

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
10/13/2017	WL_WLCI_SP01	E293371		1.2	0.12	22	22.1	< 0.50	< 0.50	45.5	46.5
10/14/2017	WL_WLCI_SP01	E293371									
10/14/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	25.8	25.4	< 0.50	< 0.50	43.7	42.5
10/15/2017	WL_WLCI_SP01	E293371									
10/15/2017	WL_WLCI_SP01	E293371		1.4	0.16	24.8	25.2	< 0.50	< 0.50	42.6	41.1
10/16/2017	WL_WLCI_SP01	E293371									
10/16/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	28.1	24.5	< 0.50	< 0.50	43.4	41.9
10/17/2017	WL_WLCI_SP01	E293371									
10/17/2017	WL_WLCI_SP01	E293371		< 1.0	0.73	22.2	22.2	< 0.50	< 0.50	42.5	43.5
10/18/2017	WL_WLCI_SP01	E293371									
10/18/2017	WL_WLCI_SP01	E293371		< 1.0	0.21	20.8	21.5	< 0.50	< 0.50	41.6	43.1
10/19/2017	WL_WLCI_SP01	E293371									
10/19/2017	WL_WLCI_SP01	E293371		< 1.0	0.17	22.5	22.9	< 0.50	< 0.50	40.5	42.1
10/20/2017	WL_WLCI_SP01	E293371									
10/20/2017	WL_WLCI_SP01	E293371		< 1.0	0.19	22.5	22.7	< 0.50	< 0.50	40.4	41.7
10/21/2017	WL_WLCI_SP01	E293371									
10/21/2017	WL_WLCI_SP01	E293371		< 1.0	0.17	22.9	25	< 0.50	< 0.50	47.9	39.3
10/21/2017	WL_WLCI_SP01	E293371									
10/22/2017	WL_WLCI_SP01	E293371									
10/22/2017	WL_WLCI_SP01	E293371		< 1.0	0.54	26	22.2	< 0.50	< 0.50	39.2	39.9
10/23/2017	WL_WLCI_SP01	E293371									
10/23/2017	WL_WLCI_SP01	E293371		< 1.0	0.21	23.2	23.2	< 0.50	< 0.50	38	36.4
10/24/2017	WL_WLCI_SP01	E293371		< 1.0	0.45	19.5	19.3	< 0.50	< 0.50	34.7	32.2
10/25/2017	WL_WLCI_SP01	E293371		< 1.0	0.61	21.2	19.7	< 0.50	< 0.50	37	34.9
10/26/2017	WL_WLCI_SP01	E293371		< 1.0	0.23	25.3	23.6	< 0.50	< 0.50	37.1	36.8
10/27/2017	WL_WLCI_SP01	E293371		< 1.0	0.27	23.9	25.6	< 0.50	< 0.50	38.8	35.2
10/27/2017	WL_WLCI_SP01	E293371									
10/28/2017	WL_WLCI_SP01	E293371		< 1.0	0.37	24.3	24.4	< 0.50	< 0.50	35	35.8
10/29/2017	WL_WLCI_SP01	E293371		< 1.0	0.36	23	23.3	< 0.50	< 0.50	34.9	37
10/30/2017	WL_WLCI_SP01	E293371		< 1.0	0.24	22.8	22.5	< 0.50	< 0.50	36.4	34.1
10/31/2017	WL_WLCI_SP01	E293371		< 1.0	0.32	22.5	23.2	< 0.50	< 0.50	35.4	35.4
11/1/2017	WL_WLCI_SP01	E293371		< 1.0	0.34	21.9	22.1	< 0.50	< 0.50	35	34.3
11/2/2017	WL_WLCI_SP01	E293371		< 1.0	0.27	22.1	23.4	< 0.50	< 0.50	31.9	31.5
11/3/2017	WL_WLCI_SP01	E293371		< 1.0	0.46	23.5	21.8	0.52	< 0.50	29.4	30.4
11/4/2017	WL_WLCI_SP01	E293371		< 1.0	0.26	21.5	22.7	1.01	0.92	25	25.6
11/5/2017	WL_WLCI_SP01	E293371		< 1.0	0.32	22.5	21.5	< 0.50	0.77	24.5	24.7
11/6/2017	WL_WLCI_SP01	E293371	1.21	< 1.0	0.2	21.8	22.3	0.96	0.85	24.1	24.6
11/7/2017	WL_WLCI_SP01	E293371		< 1.0	0.14	23.8	24	< 0.50	< 0.50	23.3	23.6
11/8/2017	WL_WLCI_SP01	E293371		< 1.0	0.79	21.1	25.5	< 0.50	< 0.50	22.8	23.2
11/9/2017	WL_WLCI_SP01	E293371		< 1.0	0.2	23.4	23.2	< 0.50	< 0.50	24.5	24.6
11/10/2017	WL_WLCI_SP01	E293371		1.6	0.35	21.7	23.4	< 0.50	< 0.50	28	26.1
11/11/2017	WL_WLCI_SP01	E293371		< 1.0	0.22	21.9	21.8	< 0.50	< 0.50	32.1	26
11/12/2017	WL_WLCI_SP01	E293371		< 1.0	0.43	22.2	22.7	< 0.50	< 0.50	24.5	23.7
11/13/2017	WL_WLCI_SP01	E293371		< 1.0	0.23	24.3	25.4	< 0.50	< 0.50	27.7	26.8
11/14/2017	WL_WLCI_SP01	E293371		1	0.35	24.7	22.7	< 0.50	0.54	25.9	25.7
11/15/2017	WL_WLCI_SP01	E293371		< 1.0	0.2	23.7	23.1	< 0.50	< 0.50	22.6	25.7
11/16/2017	WL_WLCI_SP01	E293371		< 1.0	0.15	22.5	18.6	< 0.50	< 0.50	23.3	23.7

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
11/17/2017	WL_WLCI_SP01	E293371		< 1.0	0.36	22.8	18.6	< 0.50	< 0.50	22.9	23.3
11/17/2017	WL_WLCI_SP01	E293371									
11/18/2017	WL_WLCI_SP01	E293371		1	0.26	22.8	22.3	< 0.50	< 0.50	21.7	23.1
11/19/2017	WL_WLCI_SP01	E293371		1	0.26	23.1	22.3	< 0.50	< 0.50	22.7	23.2
11/20/2017	WL_WLCI_SP01	E293371		1	0.49	22	22	< 0.50	< 0.50	22.4	21.8
11/21/2017	WL_WLCI_SP01	E293371		< 1.0	0.39	21.3	23.7	< 0.50	< 0.50	21.8	21.2
11/22/2017	WL_WLCI_SP01	E293371		< 1.0	0.44	21.9	23	< 0.50	< 0.50	21.9	21.7
11/23/2017	WL_WLCI_SP01	E293371		< 1.0	0.26	25.7	21	< 0.50	< 0.50	23.3	23.1
11/24/2017	WL_WLCI_SP01	E293371		< 1.0	0.43	24.8	21	< 0.50	< 0.50	24	22.4
11/25/2017	WL_WLCI_SP01	E293371		< 1.0	0.36	23.4	21.9	< 0.50	< 0.50	28	23.3
11/26/2017	WL_WLCI_SP01	E293371		< 1.0	0.25	23.5	22	< 0.50	< 0.50	25.1	23.9
11/27/2017	WL_WLCI_SP01	E293371		< 1.0	0.2	22.8	21.9	< 0.50	< 0.50	24.5	25.1
11/28/2017	WL_WLCI_SP01	E293371		1.6	1.27	20	20	< 0.50	< 0.50	22.4	22.3
11/29/2017	WL_WLCI_SP01	E293371		< 1.0	0.48	20.2	21.1	< 0.50	< 0.50	21.9	24.3
11/30/2017	WL_WLCI_SP01	E293371		< 1.0	0.38	22.5	22.9	< 0.50	< 0.50	21.6	22.5
12/1/2017	WL_WLCI_SP01	E293371		< 1.0	0.4	23.2	22.8	< 0.50	< 0.50	22.1	21.8
12/2/2017	WL_WLCI_SP01	E293371		< 1.0	0.35	19.7	21	< 0.50	< 0.50	19.8	23.5
12/3/2017	WL_WLCI_SP01	E293371		< 1.0	0.21	20.6	19.4	< 0.50	< 0.50	19.8	22.5
12/4/2017	WL_WLCI_SP01	E293371	1.2	< 1.0	0.18	19.9	20.3	< 0.50	< 0.50	19.8	20.1
12/5/2017	WL_WLCI_SP01	E293371		< 1.0	0.34	20.8	21.1	< 0.50	< 0.50	19.9	24.9
12/6/2017	WL_WLCI_SP01	E293371		1	0.37	20	20.5	< 0.50	< 0.50	22.4	19.9
12/6/2017	WL_WLCI_SP01	E293371									
12/6/2017	WL_WLCI_SP01	E293371									
12/7/2017	WL_WLCI_SP01	E293371		< 1.0	0.22	21.2	20.8	< 0.50	< 0.50	20.2	20.3
12/8/2017	WL_WLCI_SP01	E293371		< 1.0	0.18	21.4	21.8	< 0.50	< 0.50	17.9	19.5
12/9/2017	WL_WLCI_SP01	E293371		1.1	0.24	20.9	22.1	< 0.50	< 0.50	18	17.4
12/10/2017	WL_WLCI_SP01	E293371		< 1.0	0.29	22.2	22.8	< 0.50	< 0.50	16.9	16.6
12/11/2017	WL_WLCI_SP01	E293371		1	0.34	21.4	21.8	< 0.50	< 0.50	19.5	16.9
12/12/2017	WL_WLCI_SP01	E293371		< 1.0	0.49	20.4	20.8	< 0.50	< 0.50	16.7	17.9
12/13/2017	WL_WLCI_SP01	E293371		< 1.0	0.22	20.1	20.9	< 0.50	< 0.50	17.4	16.3
12/13/2017	WL_WLCI_SP01	E293371				22.3	21.3	< 0.50	< 1.0	19.2	18.5
12/14/2017	WL_WLCI_SP01	E293371		1	0.25	21.7	20.6	< 0.50	< 0.50	17.3	16
12/15/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	21.2	22.6	< 0.50	< 0.50	17.5	15.8
12/16/2017	WL_WLCI_SP01	E293371		< 1.0	0.36	20.4	20.8	< 0.50	< 0.50	18.2	16.3
12/17/2017	WL_WLCI_SP01	E293371		< 1.0	0.26	20.9	19.9	< 0.50	< 0.50	17.9	16.2
12/18/2017	WL_WLCI_SP01	E293371		< 1.0	0.26	20.7	20.4	< 0.50	< 0.50	16.1	17.8
12/19/2017	WL_WLCI_SP01	E293371		< 1.0	0.28	21.4	21.5	< 0.50	< 0.50	15.5	18.2
12/20/2017	WL_WLCI_SP01	E293371		< 1.0	0.32	20.1	21.1	< 0.50	< 0.50	13.7	16.3
12/21/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	21.2	21.8	< 0.50	< 0.50	14.3	15.2
12/22/2017	WL_WLCI_SP01	E293371		1.4	0.18	22.4	20.8	< 0.50	< 0.50	14.9	13.6
12/22/2017	WL_WLCI_SP01	E293371				22.4	22.5	< 0.50	< 0.50	16.1	17
12/23/2017	WL_WLCI_SP01	E293371		2.6	0.65	21.5	22	< 0.50	< 0.50	14.2	14.9
12/23/2017	WL_WLCI_SP01	E293371					20		< 0.50		14.1
12/24/2017	WL_WLCI_SP01	E293371		< 1.0	0.36	21.5	20.3	< 0.50	< 0.50	12.6	13.3
12/25/2017	WL_WLCI_SP01	E293371		< 1.0	0.31	22.1	22.2	< 0.50	< 0.50	12.7	13.3
12/26/2017	WL_WLCI_SP01	E293371		< 1.0	0.15	20.6	21.1	< 0.50	< 0.50	12.2	12.3
12/27/2017	WL_WLCI_SP01	E293371		1.2	0.43	20.9	19.4	< 0.50	< 0.50	12.1	12.2

Analyte			TOTAL ORGANIC CARBON	TOTAL SUSPENDED SOLIDS, LAB	TURBIDITY, LAB	URANIUM	URANIUM	VANADIUM	VANADIUM	ZINC	ZINC
Fraction Result Unit			T mg/l	N mg/l	N ntu	D mg/l	T mg/l	D mg/l	T mg/l	D mg/l	T mg/l
Sample Date	Location	EMS Number									
12/28/2017	WL_WLCI_SP01	E293371		< 1.0	0.14	22.4	24.2	< 0.50	< 0.50	12.4	13.8
12/29/2017	WL_WLCI_SP01	E293371		< 1.0	< 0.10	20.6	22.8	< 0.50	< 0.50	12.4	12.2
12/30/2017	WL_WLCI_SP01	E293371		< 1.0	0.12	20.7	21.3	< 0.50	< 0.50	12	12.2
12/30/2017	WL_WLCI_SP01	E293371									
12/31/2017	WL_WLCI_SP01	E293371		< 1.0	0.23	21.9	22.4	< 0.50	< 0.50	11.7	11.3

Appendix J – 2017 Spill Report Summary

Summary of Spills in 2017

Spill Date	Site	PEP#
1/6/17	Greenhills	DGIR162884
1/7/17	Elkview	DGIR162893
1/7/17	Fording River	DGIR162888
1/8/17	Fording River	DGIR162896
1/8/17	Fording River	DGIR162917
1/8/17	Greenhills	DGIR162897
1/9/17	Greenhills	DGIR162903
1/12/17	Elkview	DGIR162949
1/16/17	Elkview	DGIR162991
1/17/17	Fording River	DGIR163006
1/17/17	Greenhills	DGIR192994
1/17/17	Greenhills	DGIR163029
1/21/17	Fording River	DGIR163067
1/23/17	Line Creek	DGIR163089
1/28/17	Greenhills	DGIR163133
1/31/17	Greenhills	DGIR163153
2/1/17	Greenhills	DGIR163167
2/3/17	Elkview	DGIR163190
2/3/17	Elkview	DGIR163190
2/4/17	Elkview	DGIR163205
2/9/17	Fording River	DGIR163238
2/9/17	Fording River	DGIR163237
2/11/17	Line Creek	DGIR163267
2/15/17	Elkview	DGIR163320
2/15/17	Greenhills	DGIR163308
2/15/17	Line Creek	DGIR163389
2/16/17	Greenhills	DGIR163325
2/16/17	Line Creek	DGIR163324
2/18/17	Elkview	DGIR163359
2/22/17	Elkview	DGIR163388
2/24/17	Elkview	DGIR163410
2/24/17	Greenhills	DGIR163414
2/24/17	Greenhills	DGIR163416
2/25/17	Coal	DGIR163424
2/28/17	Elkview	DGIR163451
2/28/17	Line Creek	DGIR163443
3/1/17	Greenhills	DGIR163467
3/3/17	Fording River	DGIR163487
3/4/17	Elkview	DGIR163497
3/4/17	Greenhills	DGIR163500
3/4/17	Line Creek	DGIR163504
3/5/17	Elkview	DGIR163509
3/7/17	Line Creek	DGIR163522
3/8/17	Coal	DGIR163535
3/9/17	Fording River	DGIR163594
3/9/17	Fording River	DGIR163551

Spill Date	Site	PEP#
3/11/17	Fording River	DGIR163571
3/11/17	Fording River	DGIR163572
3/12/17	Fording River	DGIR163586
3/16/17	Line Creek	DGIR163637
3/16/17	Line Creek	DGIR163649
3/16/17	Line Creek	DGIR163639
3/17/17	Fording River	DGIR163650
3/19/17	Elkview	DGIR163683
3/19/17	Line Creek	DGIR163685
3/19/17	Line Creek	DGIR163686
3/20/17	Greenhills	DGIR163688
3/21/17	Elkview	DGIR163712
3/22/17	Greenhills	DGIR163725
3/27/17	Line Creek	DGIR163790
3/28/17	Greenhills	DGIR163792
4/1/17	Greenhills	DGIR163847
4/2/17	Greenhills	DGIR170012
4/6/17	Elkview	DGIR170078
4/7/17	Elkview	DGIR170118
4/11/17	Elkview	DGIR 170157
4/11/17	Line Creek	DGIR170158
4/18/17	Greenhills	DGIR170214
4/20/17	Line Creek	DGIR170233
4/21/17	Elkview	DGIR170250
4/21/17	Fording River	DGIR170248
4/23/17	Fording River	DGIR170275
4/23/17	Fording River	DGIR170274
4/24/17	Fording River	DGIR170304
4/26/17	Elkview	DGIR 170318
4/29/17	Fording River	DGIR170349
4/30/17	Line Creek	DGIR170348
5/1/17	Elkview	DGIR170367
5/2/17	Elkview	DGIR170374
5/3/17	Fording River	DGIR170387
5/3/17	Greenhills	DGIR170378
5/6/17	Greenhills	DGIR170446
5/7/17	Line Creek	DGIR170453
5/9/17	Fording River	DGIR170475
5/9/17	Fording River	DGIR170476
5/12/17	Elkview	DGIR170530
5/12/17	Line Creek	DGIR 170509
5/14/17	Elkview	DGIR170544
5/16/17	Coal	DGIR170583
5/17/17	Elkview	DGIR170586
5/17/17	Line Creek	DGIR170585
5/19/17	Fording River	DGIR170621
5/19/17	Fording River	DGIR170626
5/22/17	Greenhills	DGIR170640
5/23/17	Elkview	DGIR170661
5/24/17	Fording River	DGIR170671

Spill Date	Site	PEP#
5/27/17	Elkview	DGIR170715
5/27/17	Fording River	DGIR170716
5/29/17	Elkview	DGIR170742
5/29/17	Elkview	DGIR170741
5/30/17	Elkview	DGIR170759
6/3/17	Coal	DGIR170815
6/5/17	Greenhills	DGIR170825
6/6/17	Elkview	DGIR170840
6/11/17	Fording River	DGIR170901
6/13/17	Elkview	DGIR170920
6/14/17	Coal	DGIR170929
6/14/17	Greenhills	DGIR170932
6/15/17	Greenhills	DGIR107950
6/16/17	Fording River	DGIR170959
6/16/17	Fording River	DGIR170963
6/19/17	Elkview	DGIR170999
6/20/17	Fording River	DGIR171004
6/20/17	Line Creek	DGIR170995
6/23/17	Greenhills	DGIR171026
6/23/17	Greenhills	DGIR171028
6/26/17	Fording River	DGIR171100
7/7/17	Coal	DGIR171217
7/8/17	Fording River	DGIR171201
7/9/17	Line Creek	DGIR171212
7/12/17	Fording River	DGIR171239
7/14/17	Fording River	DGIR171256
7/15/17	Elkview	DGIR171261
7/18/17	Line Creek	DGIR171305
7/20/17	Elkview	DGIR171332
7/21/17	Fording River	DGIR171353
7/23/17	Fording River	DGIR171390
7/24/17	Line Creek	DGIR171403
7/25/17	Coal	DGIR171417
7/25/17	Greenhills	DGIR171429
7/27/17	Line Creek	DGIR171431
7/28/17	Line Creek	DGIR171461
7/29/17	Fording River	DGIR171477
7/31/17	Coal	DGIR171525
8/3/17	Fording River	DGIR171536
8/6/17	Elkview	DGIR171562
8/8/17	Fording River	DGIR171584
8/8/17	Fording River	DGIR171586
8/8/17	Greenhills	DGIR171575
8/11/17	Line Creek	DGIR171624
8/16/17	Greenhills	DGIR171782
8/18/17	Fording River	DGIR171704
8/18/17	Fording River	DGIR171721
8/19/17	Line Creek	DGIR171735
8/25/17	Fording River	DGIR161514
8/27/17	Elkview	DGIR171825

Spill Date	Site	PEP#
8/27/17	Elkview	DGIR171823
8/30/17	Fording River	DGIR171862
9/3/17	Elkview	DGIR171901
9/4/17	Line Creek	DGIR171939
9/5/17	Greenhills	DGIR171908
9/6/17	Greenhills	DGIR171924
9/8/17	Line Creek	DGIR171961
9/10/17	Line Creek	DGIR171981
9/11/17	Elkview	DGIR172002
9/16/17	Elkview	DGIR172084
9/19/17	Elkview	DGIR172097
9/20/17	Greenhills	DGIR172112
9/20/17	Line Creek	DGIR172110
9/25/17	Line Creek	DGIR172161
9/26/17	Elkview	DGIR172231
9/27/17	Greenhills	DGIR172201
9/28/17	Fording River	DGIR172211
9/28/17	Fording River	DGIR172212
9/28/17	Fording River	DGIR172213
9/28/17	Greenhills	DGIR172224
9/28/17	Line Creek	DGIR172209
10/2/17	Coal	DGIR172262
10/4/17	Fording River	DGIR172291
10/4/17	Line Creek	DGIR172293
10/5/17	Coal	DGIR172296
10/6/17	Coal	DGIR172318
10/6/17	Fording River	DGIR172304
10/6/17	Line Creek	DGIR172309
10/7/17	Greenhills	DGIR172317
10/10/17	Line Creek	DGIR172332
10/13/17	Fording River	DGIR172376
10/13/17	Line Creek	DGIR172389
10/14/17	Elkview	DGIR172400
10/19/17	Line Creek	DGIR172482
10/21/17	Line Creek	DGIR172516
10/23/17	Elkview	DGIR172543
10/24/17	Coal	DGIR172549
10/25/17	Fording River	DGIR172984
10/27/17	Greenhills	DGIR172579
10/28/17	Line Creek	DGIR172590
10/29/17	Fording River	DGIR172604
10/31/17	Fording River	DGIR172604
10/31/17	Line Creek	DGIR172634
11/2/17	Greenhills	DGIR172639
11/4/17	Line Creek	DGIR172677
11/9/17	Coal	DGIR172728
11/9/17	Line Creek	DGIR172727
11/11/17	Greenhills	DGIR172736
11/13/17	Greenhills	DGIR172751
11/15/17	Greenhills	DGIR172804

Spill Date	Site	PEP#
11/17/17	Coal	DGIR172833
11/24/17	Line Creek	DGIR172930
11/25/17	Coal	DGIR172938
11/29/17	Elkview	DGIR172973
12/2/17	Coal	DGIR173032
12/2/17	Line Creek	DGIR173039
12/3/17	Greenhills	DGIR173041
12/3/17	Line Creek	DGIR173048
12/5/17	Elkview	DGIR173059
12/5/17	Elkview	DGIR173063
12/6/17	Coal	DGIR173070
12/8/17	Fording River	DGIR173099
12/9/17	Greenhills	DGIR173096
12/13/17	Line Creek	DGIR173119
12/14/17	Line Creek	DGIR173129
12/15/17	Fording River	DGIR173154
12/17/17	Fording River	DGIR173165
12/18/17	Fording River	DGIR173279
12/20/17	Elkview	DGIR173221
12/20/17	Fording River	DGIR173235
12/21/17	Elkview	DGIR173227
12/24/17	Elkview	DGIR173253
12/25/17	Fording River	DGIR173260
12/27/17	Line Creek	DGIR173273

Appendix K – Maps

Map 1: Fording River Operations Surface Water Sampling Sites

Map 2: Greenhills Operations Surface Water Sampling Sites

Map 3: Line Creek Operations Surface Water Sampling Sites

Map 4: Elkview Operations Surface Water Sampling Sites

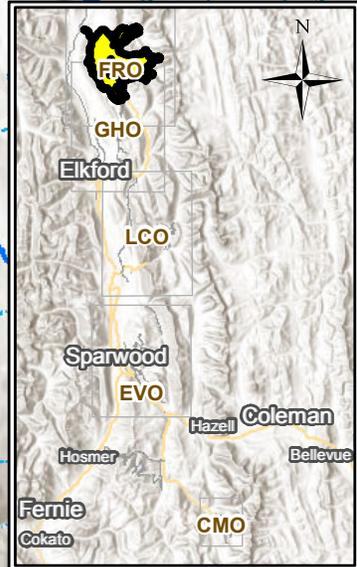
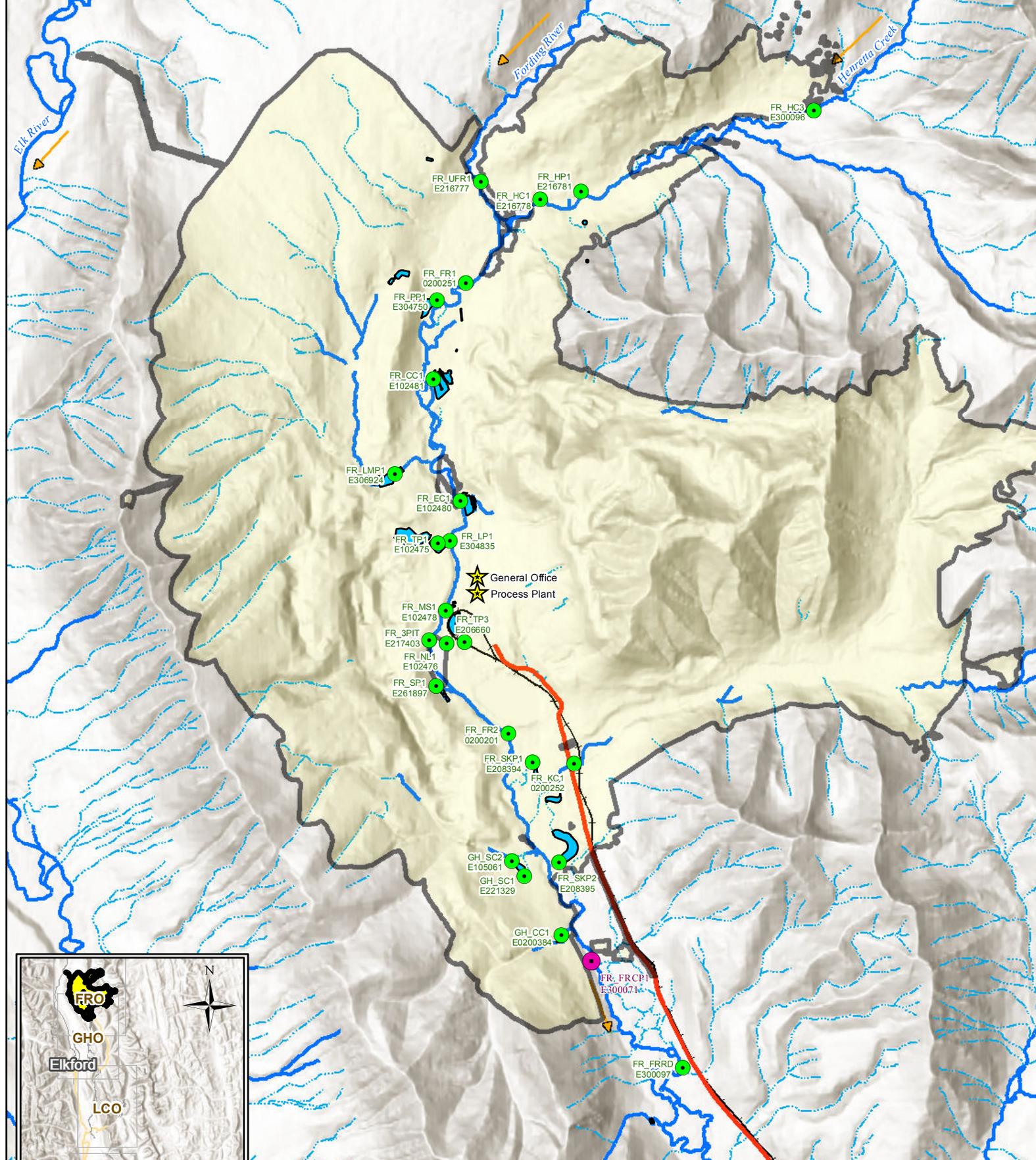
Map 5: Coal Mountain Operations Surface Water Sampling Sites

Map 6: Kooanus Reservoir Surface Water Sampling Sites

Map 7: Compliance Points Surface Water Sampling Sites

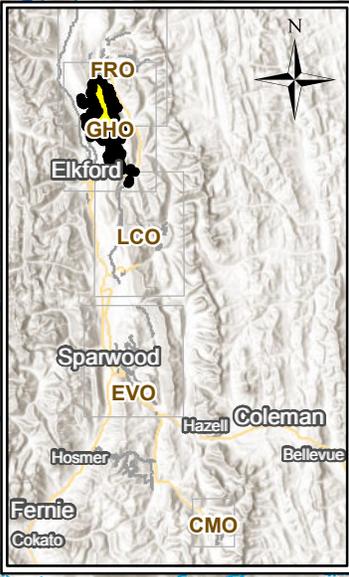
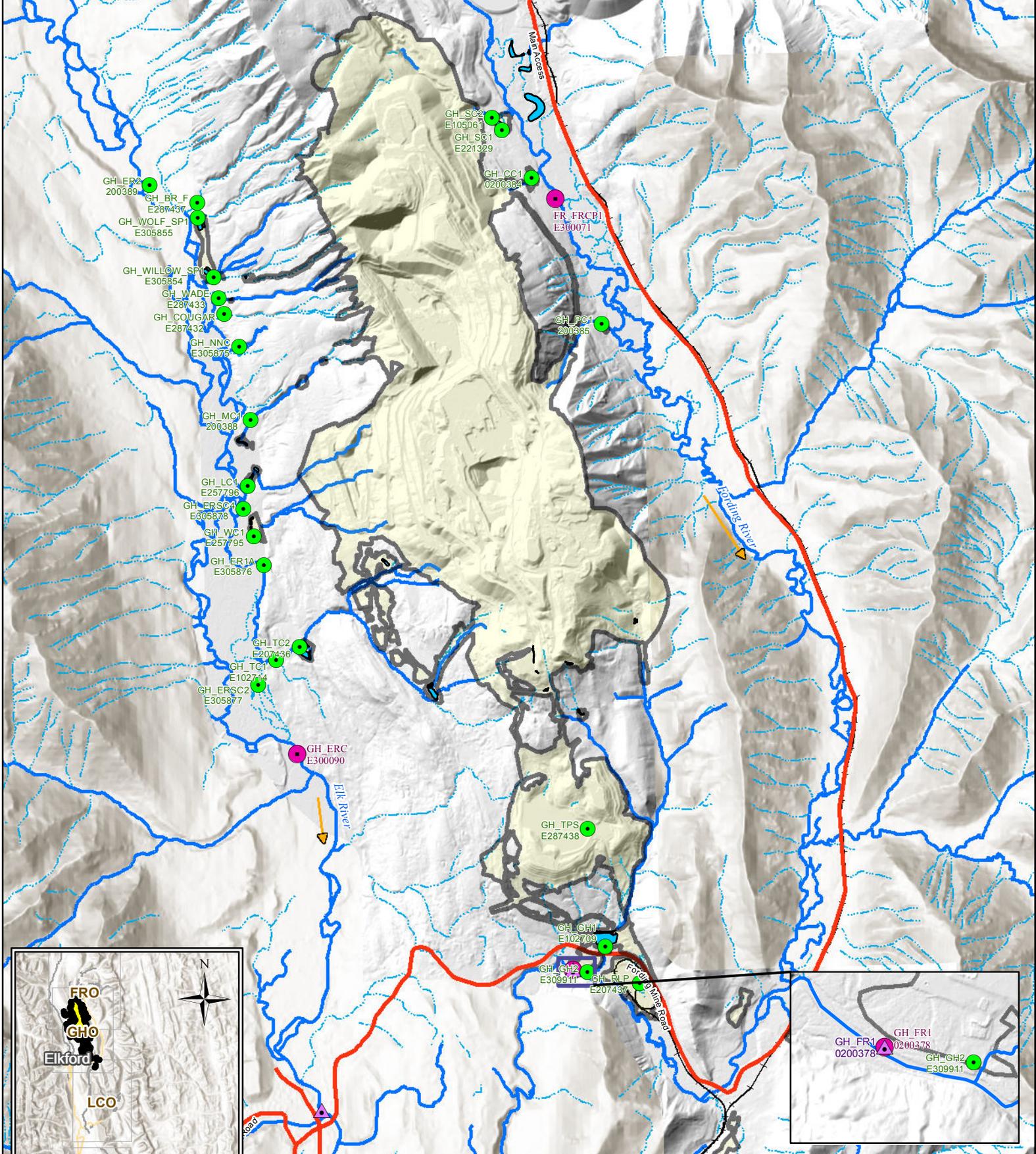
Map 8: Order Stations Surface Water Sampling Sites

Map 9: West Line Creek Active Water Treatment Facility Water Sampling Sites



Legend		Stream
● Monitoring Location	★ Facility Locations	--- Intermittent Stream
▲ Order Station	— Paved Surface	▶ Flow Direction
● Compliance Points	■ Permit Boundary	
Scale: 1:60,000		
0 625 1,250 2,500 Meters		

Map 1. Fording River Operations -Surface Water Sampling Sites	
Projection: UTM 11N Datum: NAD83 Date: Q1, 2018	Teck



Legend

- Monitoring Location
- ★ Facility Locations
- Stream
- ▲ Order Station
- Permit Boundary
- Intermittent Stream
- Compliance Points
- Paved Surface
- ▶ Flow Direction

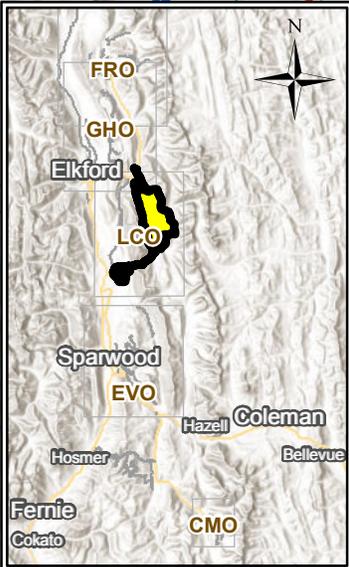
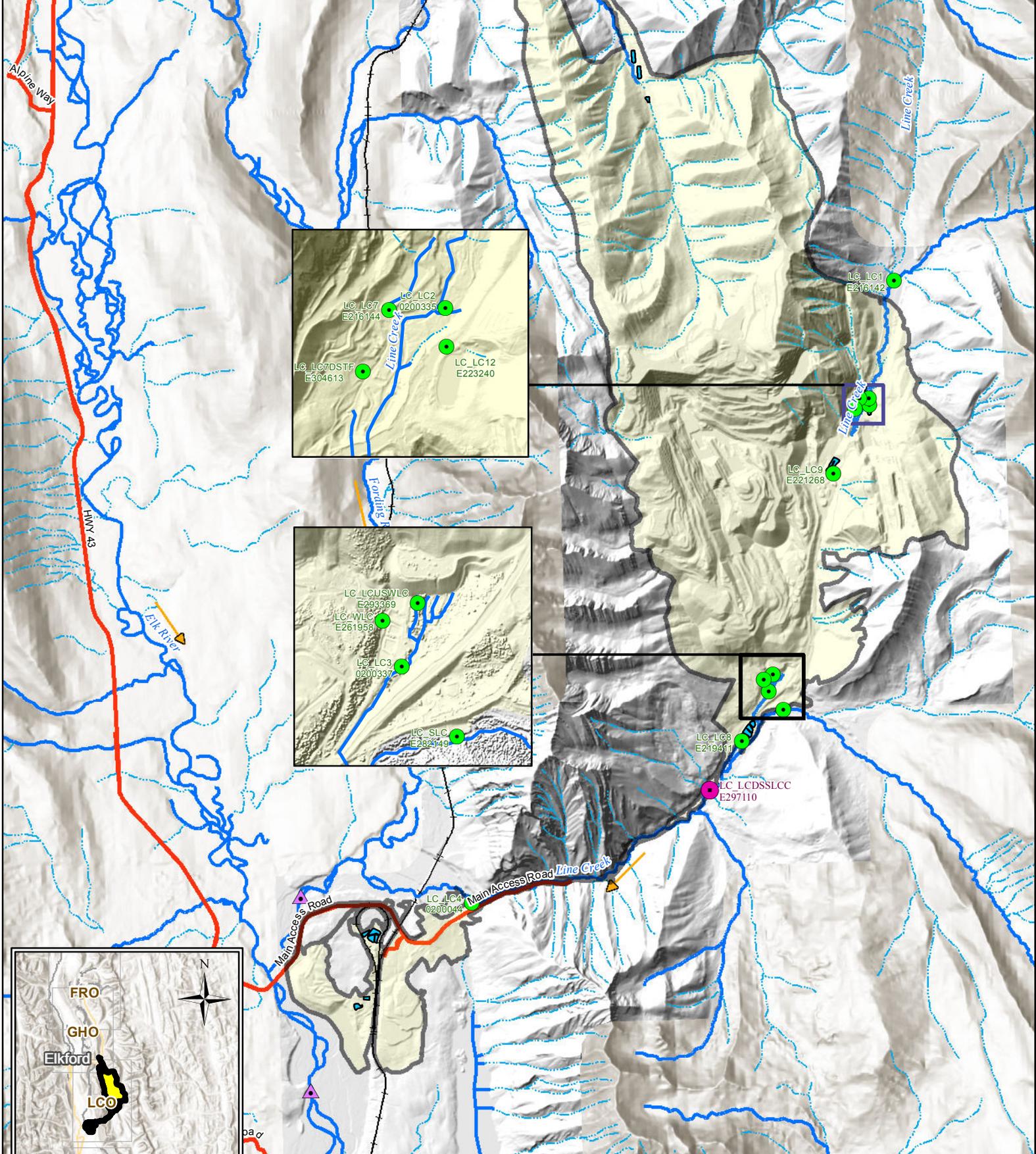
Scale: 1:75,000

0 750 1,500 3,000 Meters

Map 2
Green Hills Operations
Surface Water Sampling Sites

Projection: UTM 11N
Datum: NAD83
Date: Q1, 2018





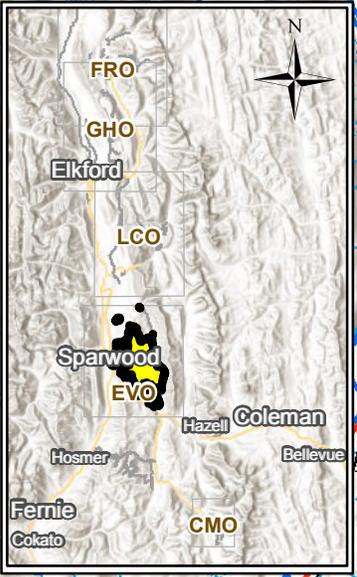
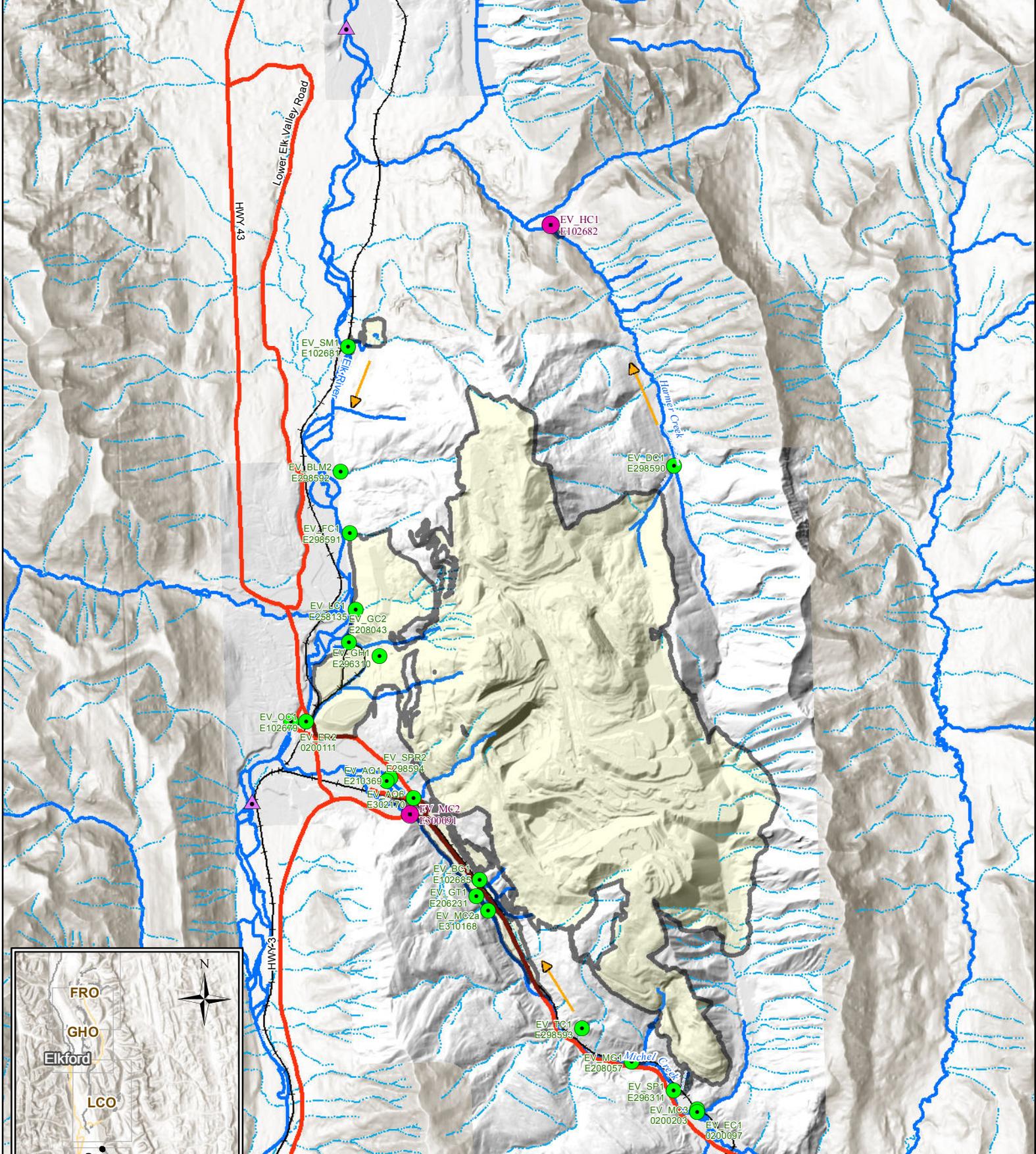
Legend		
● Monitoring Location	★ Facility Locations	— Stream
▲ Order Station	 Permit Boundary	— Intermittent Stream
● Compliance Points	— Paved Surface	▶ Flow Direction

Map 3
Line Creek Operations
Surface Water Sampling Sites

Scale: 1:75,000 Meters
 0 750 1,500 3,000

Projection: UTM 11N
 Datum: NAD83
 Date: Q1, 2018



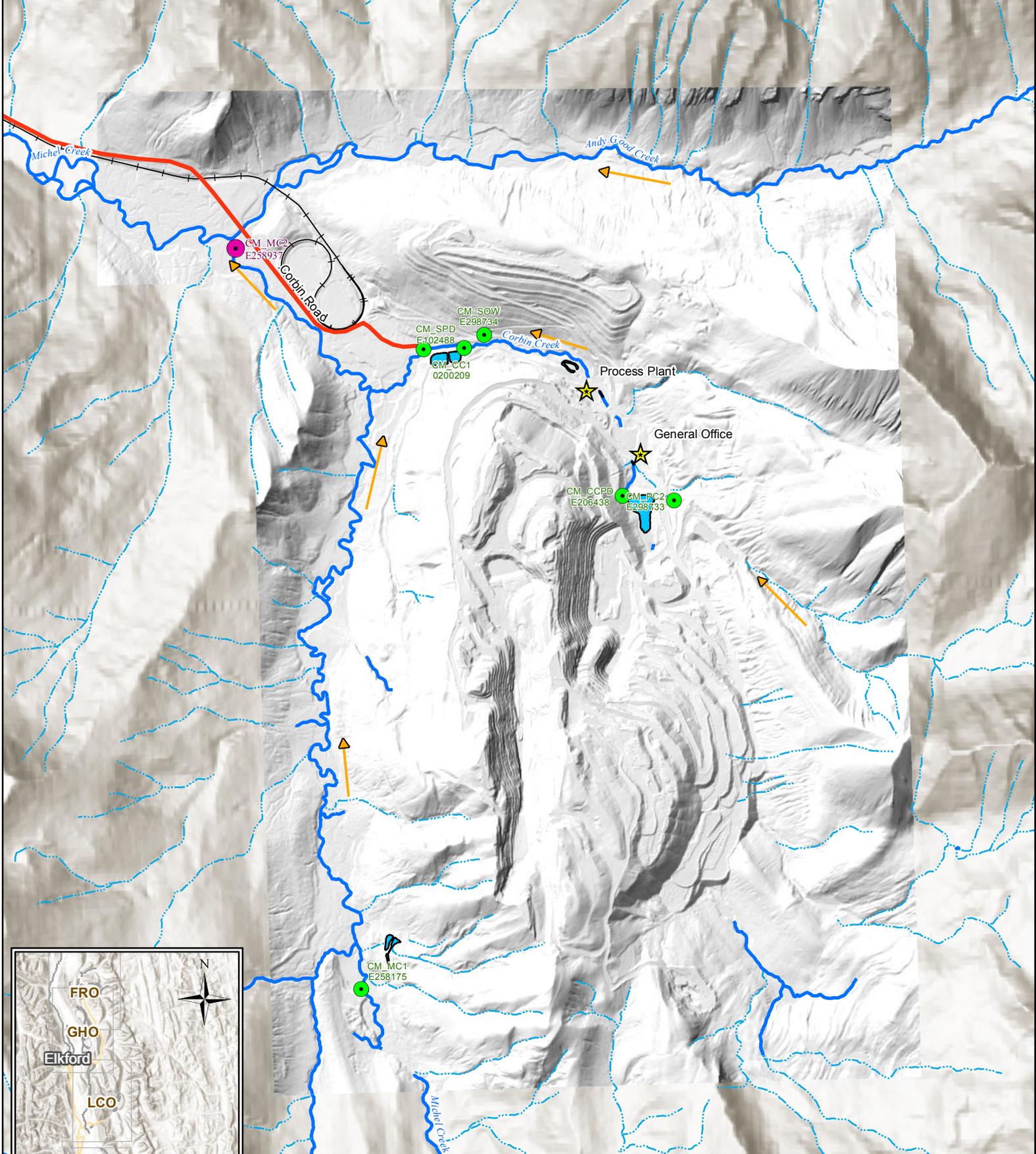


Legend		
● Monitoring Location	★ Facility Locations	— Stream
▲ Order Station	— Paved Surface	- - - Intermittent Stream
● Compliance Points	 Permit Boundary	▶ Flow Direction

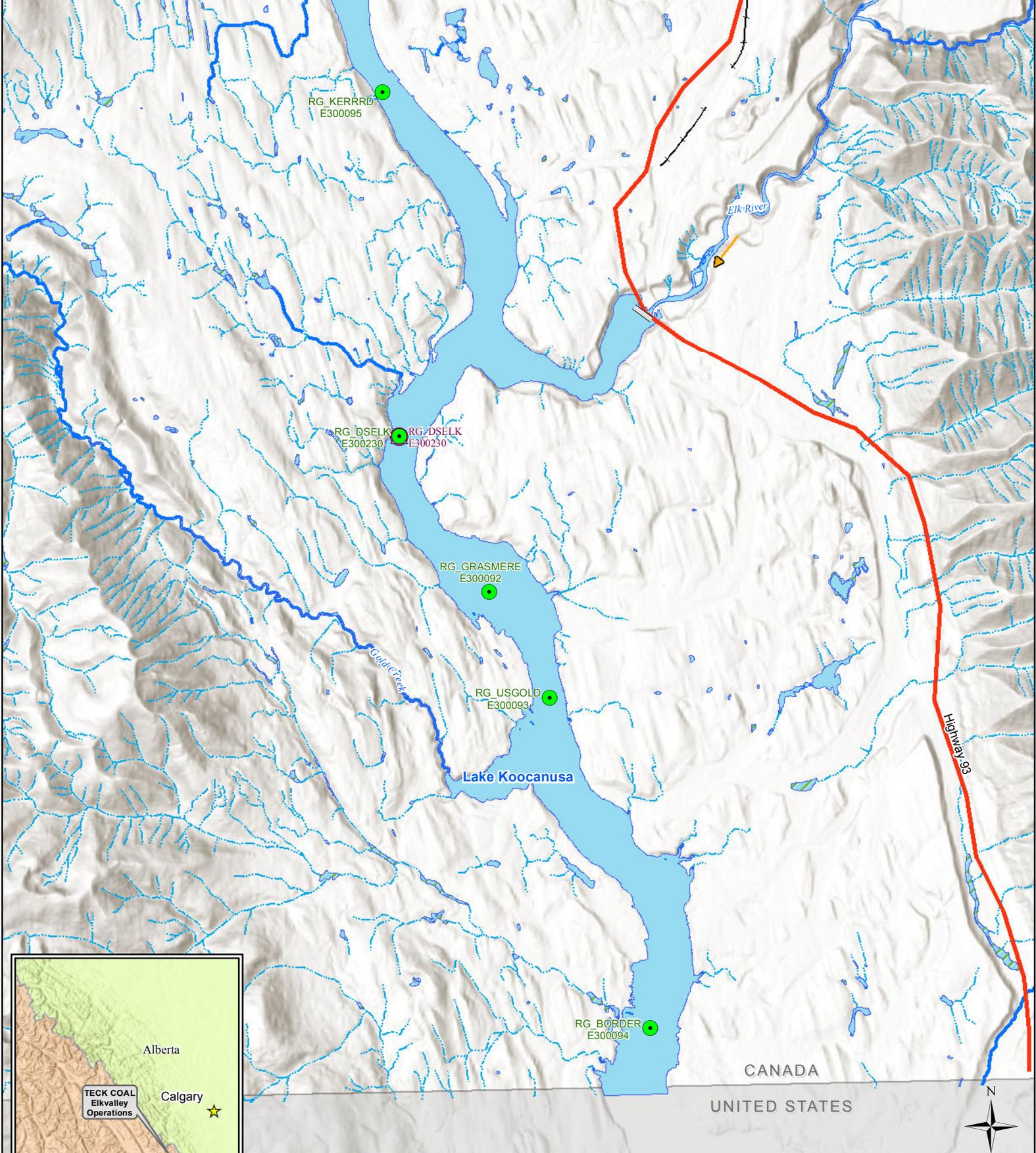


Map 4
Elkview Operations
Surface Water Sampling Sites

Projection: UTM 11N Datum: NAD83 Date: Q1, 2018	Teck
---	------



<p>Legend</p> <ul style="list-style-type: none"> ● Monitoring Location ▲ Order Station ● Compliance Points ★ Facility Locations Paved Surface C-84 Boundary 		<p>Map 5 Coal Mountain Operations Surface Water Sampling Sites</p> <ul style="list-style-type: none"> — Intermittent Stream → Flow Direction 	
<p>Scale: 1:35,000</p> <p style="text-align: center;">0 375 750 1,500 Meters</p>		<p>Projection: UTM 11N Datum: NAD83 Date: Q1, 2018</p>	



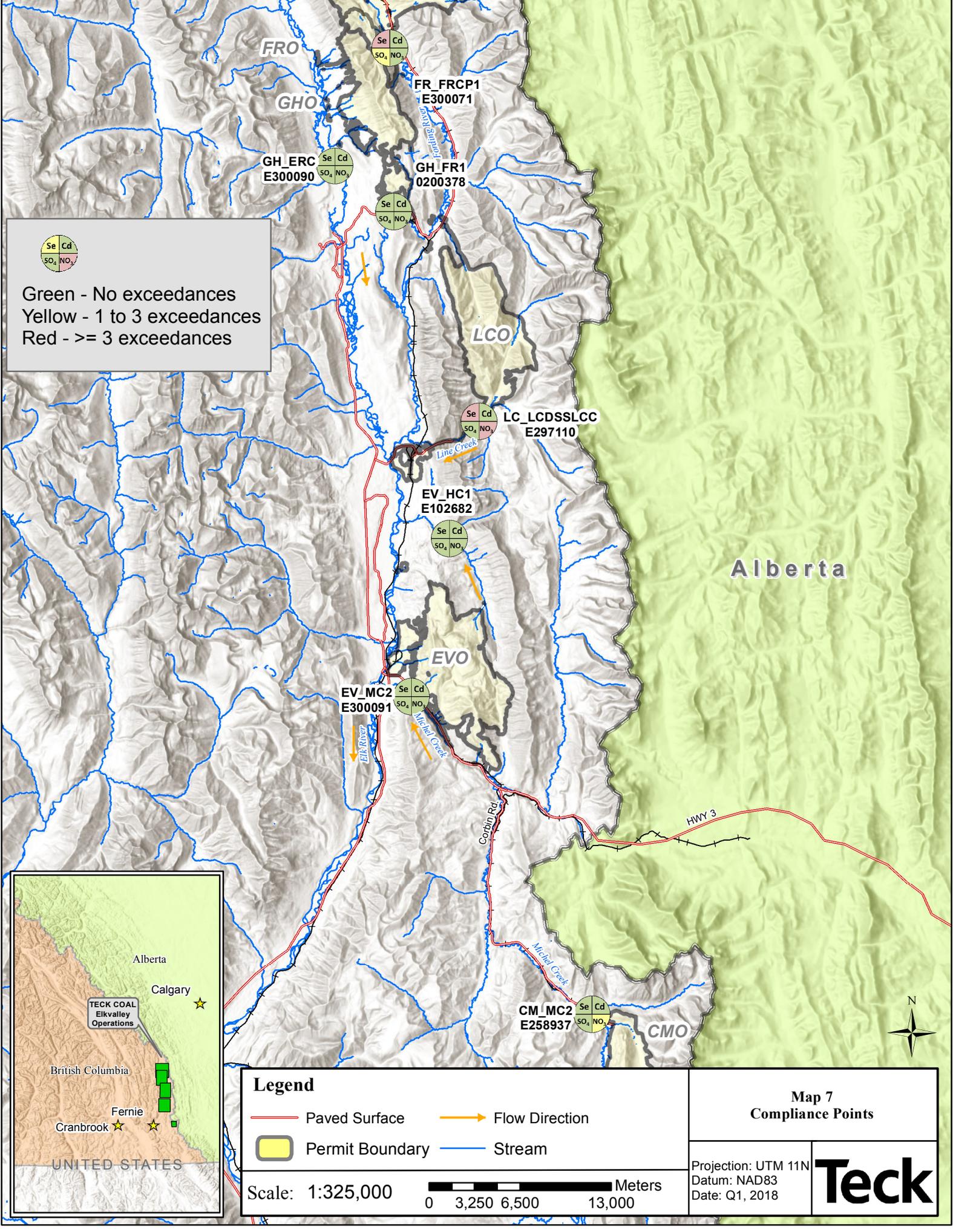
Legend		
	Monitoring Location	
	Order Station	
	Compliance Points	

Map 6
Koochanusa Reservoir
SurfaceWater Sampling Sites

Projection: UTM 11N
 Datum: NAD83
 Date: Q1, 2018



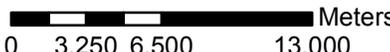
Scale: 1:125,000 Meters





 Green - No exceedances
 Yellow - 1 to 3 exceedances
 Red - ≥ 3 exceedances



Legend	
 Paved Surface	 Flow Direction
 Permit Boundary	 Stream
Scale: 1:325,000  Meters	
0 3,250 6,500 13,000	

Map 7 Compliance Points	
Projection: UTM 11N Datum: NAD83 Date: Q1, 2018	
	



 Green - No exceedances
 Yellow - 1 to 3 exceedances
 Red - >= 3 exceedances

GH_ER1 0206661 

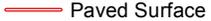
GH_FR1 0200378 

LC_LC5 0200028 

EV_ER4 0200027 



Legend

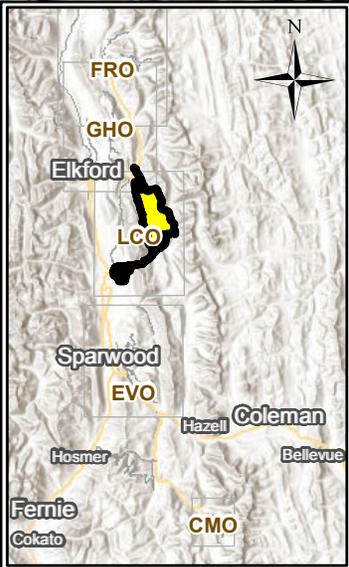
-  Paved Surface
-  Flow Direction
-  Stream
-  Permit Boundary

Scale: 1:600,000  Meters

Map 8
Order Stations

Projection: UTM 11N
 Datum: NAD83
 Date: Q1, 2018





Legend	
Monitoring Location	Permit Boundary
Order Station	Paved Surface
Compliance Points	Railway
Stream	Intermittent Stream
Flow Direction	
Scale: 1:3,000	

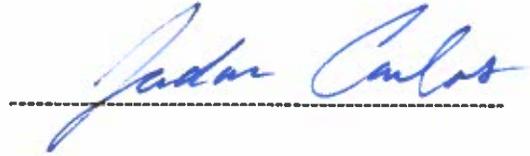
Map 9	
West Line Creek Treatment Facility Surface Water Sampling Sites	
Projection: UTM 11N Datum: NAD83 Date: Q1, 2018	

Appendix L – LCO Nitrates Compliance Action Plan (CAP) 2017 Report

Appendix REG2 – Nitrates Compliance Action Plan (CAP) 2017 Annual Report – Line Creek Operations

March 31, 2018

This report was prepared by,



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1 Overview

This annual report reflects the requirements of the Nitrate Compliance Action Plan (CAP) developed by Line Creek Operations (LCO). The CAP focuses on the critical control strategies for managing nitrate and was submitted to the Ministry of Environment and Climate Change Strategy (ENV) on September 14, 2017. This plan was developed to address the nitrate non-compliances of Permit 107517 (Permit) under the provisions of the *Environmental Management Act*. Permit was issued on November 19, 2014 and was amended on June 5, 2017.

The permit nitrate limits for the compliance point CP-E297110 are 7 mg/L monthly average and 9 mg/L daily maximum. These limits have been in effect since December 31, 2015 as per section 2.3.1 of Permit 107517 and were based on water quality model projections used to support the development of the Elk Valley Water Quality Management Plan (EVWQP).

In 2017, 41 out of the 54 samples taken exceeded the daily maximum nitrate concentrations. The monthly average nitrate concentrations exceeded Permit Limits 11 out of 12 times (Figure 1 and Figure 2).

Figure 1: Monthly Average Nitrate Concentration (mg/L) at the LCO Compliance Point (E297110)

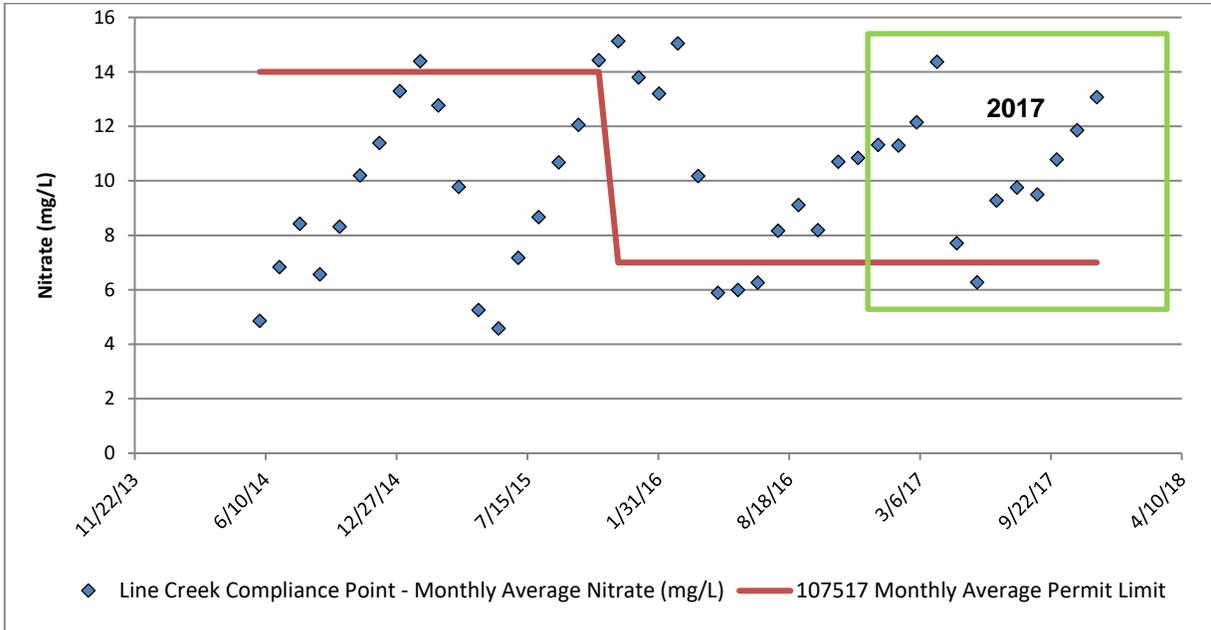
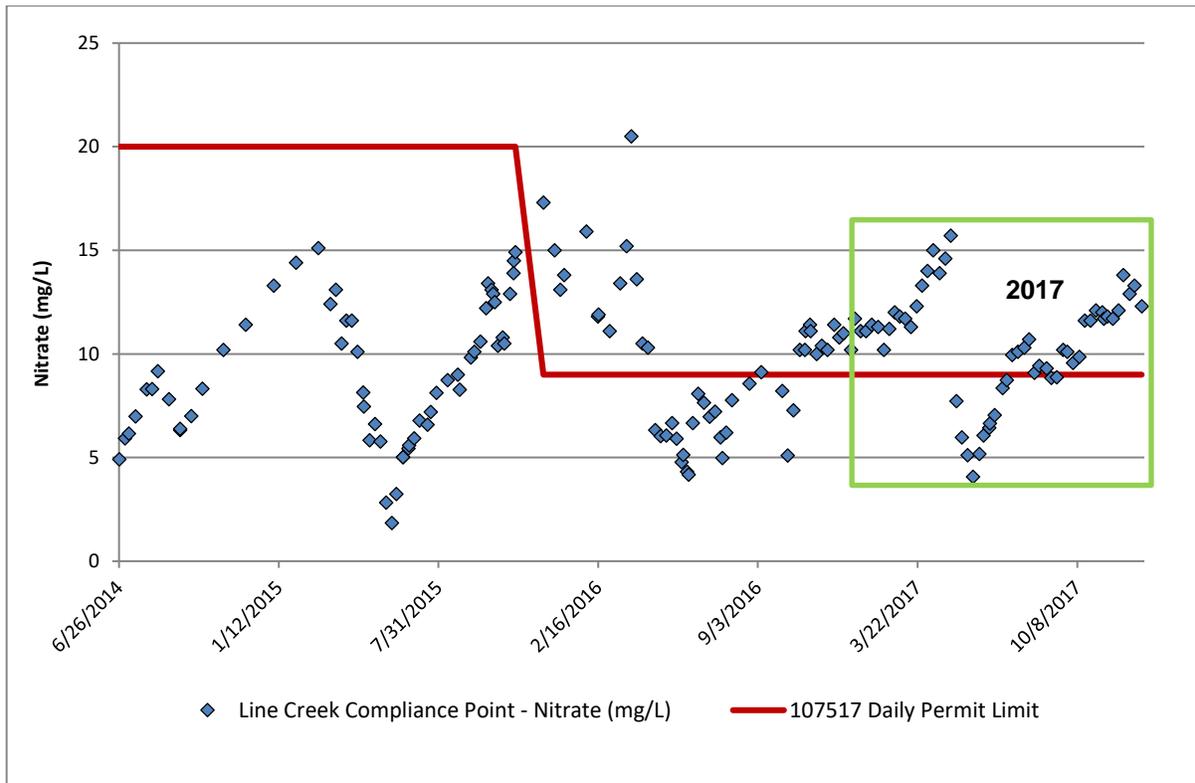


Figure 2: Daily Nitrate Concentration (mg/L) at the LCO Compliance Point (E297110)



2 Progress Summary

A summary of the actions and deliverables listed in the CAP are presented in Table 1. Where applicable, additional information is provided in the “*Additional Comments*” section below.

Table 1: LCO Nitrate Compliance Action Plan—Progress to date

Action	KPI	Results	Comments
Load dry blasting product (ANFO) in blast holes where possible	ANFO Average: Q4 2017 - 30% 2018 - 35%	ANFO Average: Q4 2017- 34%	October – 30% November – 31% December – 43% (2.1.1)
Acquire an additional dewatering truck	New dewatering truck on site and operational by September 30, 2017	Completed	Arrived and operational on October 19, 2017 (2.1.2)
Increase ANFO product load capacity by adding an additional ANFO truck to the fleet	New ANFO truck on site and operational by January 31, 2018	Completed	Commissioned January 5 and became operational by January 8, 2018 (2.1.3)
Install two in pit deep wells	Sump installed by December 31, 2018	Ongoing	Sump installed in October 2017 (2.1.4)
Planning and scheduling loading versus detonating time.	Decrease quarterly average sleep time from 6 days (August Year-to-Date YTD) to 5 in Q4 2017	Average Sleep Time: Q4 2017 - 4.5 days	Sleep time target achieved for Q4 2017 (2.1.5)
Double Prime 100% of production blast holes and implement recommendations generated from misfire incident investigations	Misfires: 10% reduction compared to 2016	YTD Total Misfire Reduction: 43%	LCO exceeded target in 2017 (2.1.6)
Maintain up to date training plan	Up to date plan	Ongoing	Plan available upon request
All drill and blast personnel trained in the following Standard Practices and Procedures (SP&P's): MO4 Blasting; MO24 Dewatering; MO35 Handling Misfires; EV15 Spill and Environmental Emergency reporting; LCO Nitrogen Management Plan (NMP).	100% of drill and blast personnel trained as per the schedule below: MO.04 - every 36 months; MO.15 Drill - every 36 months; MO. 15c Critical Drill Operation - every 18 months; LCO (NMP) - every 18 months, starting January 1, 2018	Completed	All D&B Personnel trained in SP&P's and NMP (2.1.7)
Eliminate augured explosive emulsions in blasting boreholes	0% use of augured emulsion	0% use of RIO500 since June 2016	RIO700 is unable to be loaded by auguring due to product requirements (2.1.8)
Use liners in all boreholes loaded with ANFO	100% use of borehole liners in ANFO holes	100% use of borehole liners with ANFO since Q1 2016	As per SP&P MO.04, all ANFO holes are to be lined (2.1.9)
MSAW Project	Adhere to HSP pumping plan	Currently Implemented	Observed potential positive effects of dewatering of HSP during low flow conditions (2.1.10)

2.1 Additional comments

2.1.1 Summary of average ANFO use

LCO's target average ANFO usage for Q4 2017 was 30%. The results for the quarter exceeded the target with an average ANFO usage of 34%. This reflects the progress LCO made to increase the dry product usage from 23% in Q3. Compared to 2016, LCO increased the annual average ANFO usage from 25% to 27% (Table 2).

With an additional dewatering truck, LCO is able to increase capacity by creating truck availability during maintenance events of the alternate dewatering truck. Improvements to dewatering truck productivity have created more opportunities for LCO to load ANFO.

Despite the acquisition of another dewatering truck, the challenge associated with dynamic water in the pits is still present. Although efforts are made to dewater holes as per dewatering procedures, there are holes that recharge too quickly and emulsion is loaded. During the CAP awareness presentations to the Drill and Blasting crews in Q4, it was emphasized that, although ANFO loading is encouraged and preferred over emulsion, it must be done under the right conditions to avoid the possibility of misfires.

To assist with the reduction of dynamic water and contribute to higher ANFO usage, LCO will be taking action in 2018 to develop a hydrogeological model for the site to assess a site-wide dewatering system (2.1.4). Water management will contribute to increasing the average ANFO use to a YTD average of 35% in 2018.

Table 2: 2017 ANFO Usage

	Month	% of ANFO use	Q Average %
Q1	January	38	32
	February	30	
	March	28	
Q2	April	29	17
	May	10	
	June	11	
Q3	July	5	23
	August	33	
	September	31	
Q4	October	30	34
	November	31	
	December	43	
Annual Average (%)		27	

2.1.2 Additional dewatering truck

On October 19, 2017 an additional dewatering truck with a higher capacity pump arrived on site and became operational. Obtaining the new truck allowed for more dewatering support (2.1.1) to increase the opportunities to load more ANFO.

2.1.3 Additional ANFO truck

The new ANFO truck was ordered in September 2017 from a manufacturing company in the USA with a potential delivery date on December 15th. The ANFO truck shipped from the USA on December 31, 2017 and became fully commissioned and operational by January 8, 2018.

Although the ANFO truck was delayed, it did not restrict LCO's ability to achieve the target ANFO usage for Q4 2017. Compared to 2016, LCO has been able to load 741,743 kg (13%) more ANFO in 2017 with the additional truck. Typically, the previous ANFO truck took approximately 2 minutes to load a hole. With the new truck, ANFO can be loaded in approximately 1.5 minutes. The improved efficiency and capacity of having both trucks available will increase LCO's opportunities to load more ANFO going forward.

2.1.4 In pit deep well/sump in BRX

As detailed in the Q3 CAP report LCO completed the installation of an in pit deep well in the BRX pit (October 23, 2017). The in pit deep well consisted of a 30 m cased well (two benches deep and drilled in blasted material) located in the northwest side of BRX. On November 10, 2017, the deep well became inaccessible due to mine sequencing changes. LCO assessed other opportunities to install an additional in pit deep well in blasted material, but the mine sequence did not allow room for it before the end of 2017.

LCO committed to the installation of two in-pit deep wells/blasted sumps in 2018 at a location and timeline that will be determined according to the mining sequence.

In January 2018, LCO installed a blasted sump in the North East side of BRX and on January 15, a surface pump was installed. However, the pump only ran for a couple of hours before the sump went dry (approximate pumped volume of 400 m³). LCO will report final volumes in Q1-2018 quarterly report.

2.1.5 Summary of average sleep time

One of the CAP targets was to reduce the sleep time for 700 product (Emulsion) from a YTD average of 6 days to a quarterly average of 5 days or less in Q4 2017 and maintain this average in 2018. LCO achieved the target with a quarterly average of 4.5 days for Q4. This success was due to several factors including, but not limited to, an increase in the awareness of LCO's CAP objectives, incorporating sleep time objectives into mine planning, and actively identifying wet holes early in order to delay the loading process of emulsion, reducing sleep time for a pattern. In 2017, LCO had an overall sleep time average of 5.5 days (Table 3).

Table 3: Average Sleep Time

	Month	Average Sleep Time (days)	Q Average (days)
Q1	January	4.5	5.9
	February	6.1	
	March	7.1	
Q2	April	5.4	6.6
	May	8.5	
	June	6.2	
Q3	July	6.0	5.3
	August	5.1	
	September	5.0	
Q4	October	5.4	4.5
	November	4.5	
	December	3.5	
Annual Average (days)		5.5	

2.1.6 Summary of percent misfires

From January to the end of December 2017, LCO had 67 misfires. In 2016, the total number of misfires was 117. LCO reduced the total number of misfires by 43% by the end of 2017 (Table 4).

Although 73% of explosive product loaded in 2017 was RIO700, the majority of misfires observed were related to ANFO. Despite the increase in ANFO usage in 2017 (2.1.3), LCO was able to reduce the total number of ANFO misfires by 48% and the number of RIO700 misfires by 21%. These results indicate that the actions taken by LCO over the last year to reduce misfires have been successful for both emulsion and ANFO product (Table 4).

By continuing to double prime all production blast holes as per procedure (MO.04 Blasting – 4.2 Priming), loading the right product according to SP&P MO.24, dewatering, and implementing recommendations generated from misfire incident investigations, LCO anticipates that the number of misfires in 2018 will be at or below the 2017 total.

Table 4: Number of Misfires

Misfires	ANFO	Emulsion	Total
2016	92	24	117
2017	48	19	67
Reduction (%)	48%	21%	43%

2.1.7 Training

LCO has completed updates to SP&P MO.04, MO.15, MO.24, and MO.35 to incorporate a section on nitrate management and has completed the Nitrogen Management Plan training program. The Nitrogen Management Plan overview, including the CAP was presented to the Blasters, Supervisors and Blast Technicians (B and C Crew) on December 15 and December 18. All blasting personnel were trained on the SP&P package indicated by the CAP (Table 1).

Additionally, Nitrate Management awareness presentations were conducted in Q4 at all quarterly crew meetings (including hourly and staff).

2.1.8 Augured Emulsion

Two methods are used to load explosive product into a blast hole: auguring and pumping. Pumping is done by the explosive truck lowering its product hose to the bottom of the hole and pulling it up as the product is pumped into the blast hole. Auguring is used for products containing 0% emulsion (ANFO) to 65% emulsion blends. Auguring is when the product is essentially discharged from the top of the blast hole and product drops to the bottom of the blast hole.

LCO eliminated the use of RIO500 (50% emulsion and 50% ANFO) in June 2016 and since then only utilizes two products on site: RIO700, which is 30% ANFO and 70% emulsion; and ANFO. Because the emulsion blend for RIO700 exceeds the 65% limit, it is too viscous to auger and can only be pumped into the blast hole.

2.1.9 Borehole Liners

The use of borehole liners when loading ANFO has been implemented since Q1 2016. The lining of all ANFO holes is required as per SP&P MO.04 Blasting. Liners prevent the interaction of moisture with ANFO and prevent the leaching of nitrates. Lining ANFO boreholes is required, even in dry hole conditions.

2.1.10 MSAW/Horseshoe (HSP) Pit temporary storage and release summary

Overview

The MSAW Storage/Release Project is aimed to reduce mine contact water that has accumulated in the MSAW Pit from passively decanting (nitrate load reduction) to Line Creek in the low flow period. The strategy consists of evaluating pumping water from the MSAW Pit to Horseshoe Pit (HSP) for temporary storage and retention during low flow period (Figure A). MSAW Pit is a partially backfilled pit that receives mostly mine influence water from NLX and BRX pits dewatering activities. HSP is an empty pit (not backfilled) that receives mostly non-influenced water from the upper Line Creek watershed and local runoff. During periods of high flows (e.g. freshet), if the flow rates exceed the ability of the Line Creek rock drain to convey the water, water levels will rise behind the rock drain inlet and overflow into HSP. As a critical piece of LCO's flood prevention plan to protect critical site infrastructure, the water then must be discharged into the receiving environment before the next high flow cycle.

Once HSP non-impacted water is discharged, capacity will be evaluated for MSAW water to be pumped and stored into HSP during low flow season for later discharge into Line Creek during high flow.

LCO is currently evaluating the feasibility, efficacy and impact to flood protection of a MSAW dewatering plan, similar to the one presented for HSP (section below), for the dewatering of stored MSAW water from HSP into the receiving environment. Dewatering of stored MSAW water (in HSP) into the receiving environment is projected to occur during high flow conditions in 2018, subject to the dewatering plan's approval in accordance with Condition 1.8 of PE-5353.

HSP Dewatering Summary

Section 1.8 of LCO's Permit 5353 (April 27, 2017) authorizes the discharge of stored pit water from the Horseshoe Pit (HSP), (E308146) and MSAW Pit (MSAW), (E308147) to Line Creek. On July 2017, LCO submitted the HSP Dewatering Plan to ENV to fulfill the requirements of Section 1.8.4 of Permit 5353.

As per the HSP Dewatering Plan, LCO discharged (From August 2017 to March 2018) non-mining impacted water from the upper Line Creek watershed and local groundwater into Line Creek. Water is drawn from HSP (Figure A), conveyed by a pipeline and discharged to the Line Creek rock drain, downstream of discharge from the No Name Creek Pond (LC_LC9 – E221268). Discharge of water from HSP is required to maintain water levels in the pit at an acceptable level to avoid flood risk to buildings and critical infrastructure. The objective of the Dewatering Plan is to lower the pit water level to near empty prior to freshet in 2018

A summary of the proposed vs current conditions is presented in Table 5.

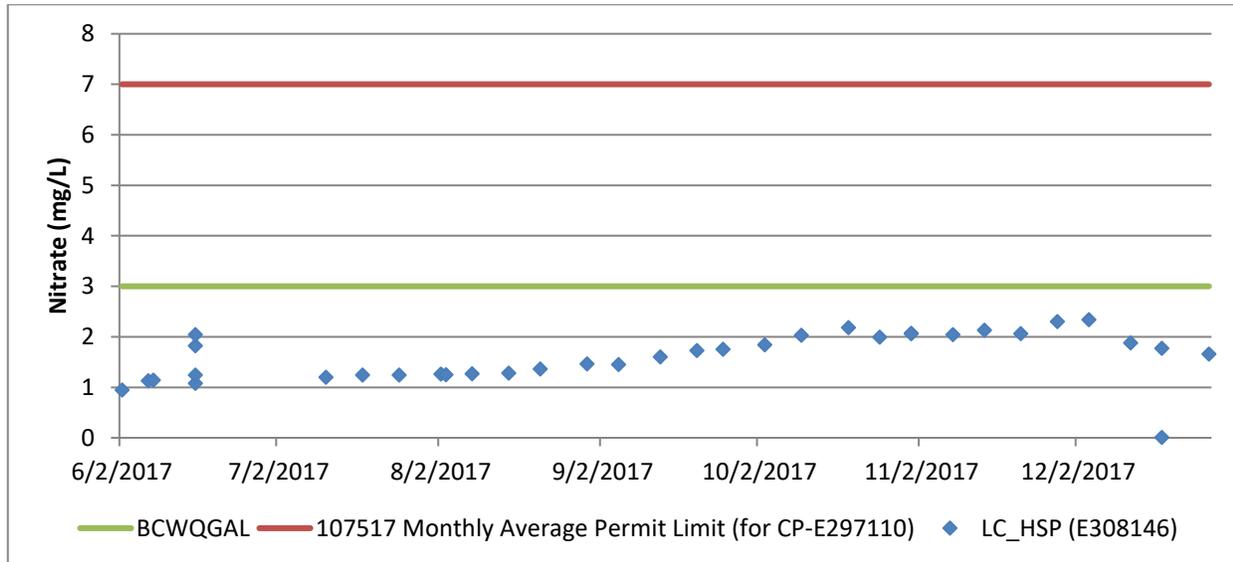
Table 5: Proposed vs current dewatering conditions

	Proposed	Current Conditions
Time frame	August – December	August 3 – March 2, 2018
Volume	1.8 Mm ³	1,462,705 m ³ pumped
Water elevation (target)	1540 m	1542m ¹
Pumping rates	Up to 25,000 m ³ /d	Approx. 8,000 m ³ /day

As per HSP Dewatering Plan (Section 4.3) all water quality sampling results of the discharge and receiving environment will be submitted with the quarterly report and uploaded to the EMS database as per Section 4.2 of PE 5353.

In 2017, nitrate results (Figure 3) for LC_HSP (E308146) ranged from 0.95 to 2.34 mg/L. These concentrations were below the British Columbia Water Quality Guidelines for Aquatic Life (BCWQGAL; 3 mg/L).

Figure 3: 2017 Nitrate Concentrations at LC_HSP – E308146

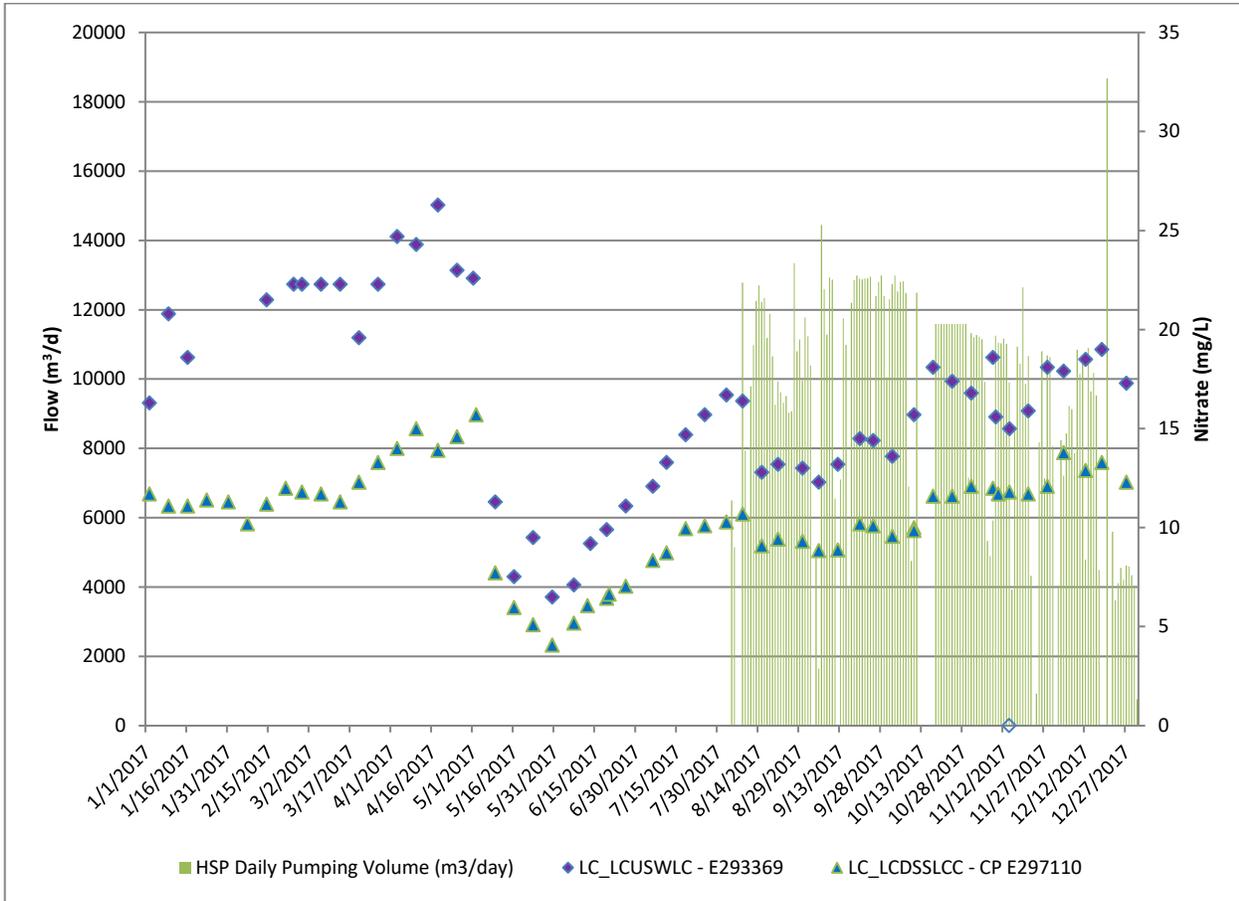


Water sampling location LC_LCUSWLC provides information on mine influence on water quality before the influence of the discharge of the AWTF. Nitrate concentrations at CP-E297110 follow a similar trend to LC_LCUSWLC.

2017 sampling results for receiving environment monitoring station LC_LCUSWLC – E293369, located immediately below the Line Creek rock drain and upstream of the West Line Creek, indicated that at the start of pumping from HSP (in August 2017) nitrate concentrations decreased (Figure 4 and Figure 7). In Q4, there were periods of time (3.1.1) when the pumps were off for maintenance and since October 17, 2017, the WLC AWTF is operating to almost half its throughput volume (2,500 m³/day).

¹ 1548.3 water elevation as of January 17, 2018.

Figure 4: 2017 Nitrate Concentrations at LC_LCUSWLC and CP-E297110



LCO followed the HSP dewatering Plan and notified on March 2, 2018 the pit pumping completion to ENV (as per section 1.8.9 of PE-5353).

3 LCO Nitrate Monitoring Program

As per Table A1 – Appendix A of the CAP, LCO has an extensive monitoring program that includes permitted and non-permitted locations.

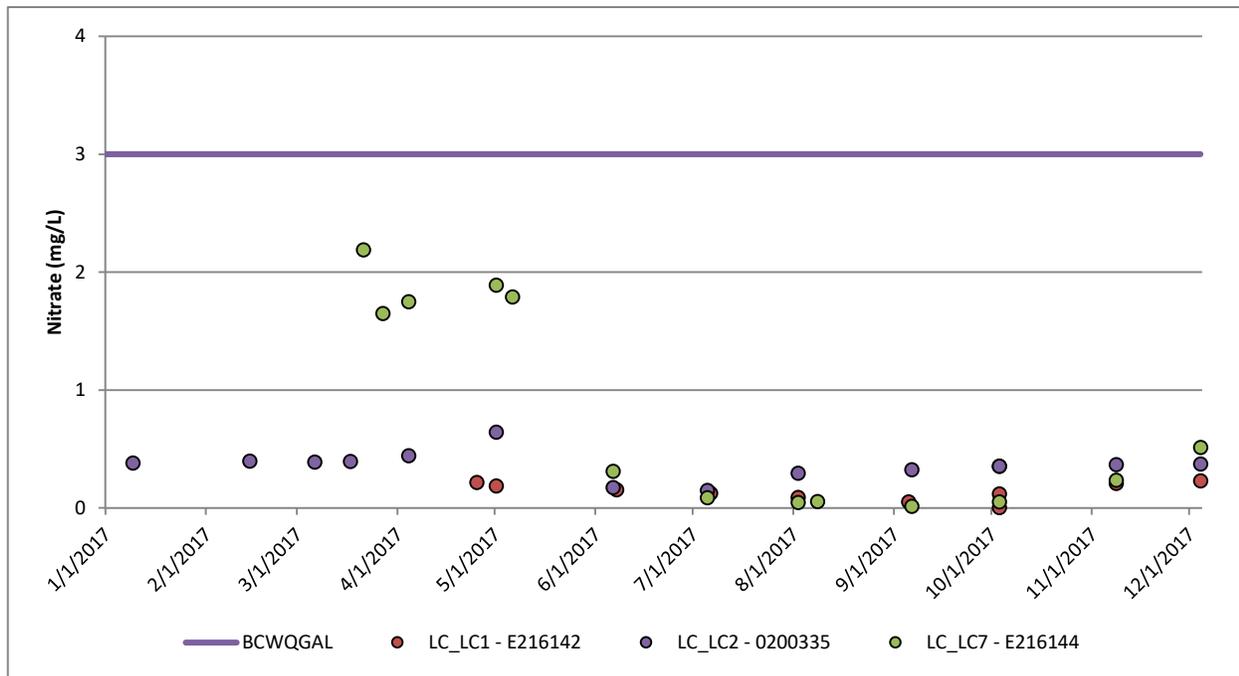
These monitoring locations were chosen to assess nitrate concentrations trends (since June 2014² to date) while implementing the CAP (Figure B, Appendix A).

3.1.1 Line Creek Phase 1

LC_LC1 (E216142) and LC_LC2 (0200335) are located in the Upper Line Creek drainage and represent receiving environment monitoring locations with limited (LC_LC2) or without mine influence (LC_LC1). LC_LC7 – E216144 is the discharge monitoring location for the MSA North Ponds, which receives water influenced by the MSX short spoil³ and historical mining disturbance in MSA North area.

In 2017, nitrate concentrations at LC_LC2 and LC_LC7 were the highest since June 2014 (Figures 5 and 6). Nitrate concentrations were the highest during the months of March, April and May in 2017. Although nitrate concentrations at these locations peaked during these months, they have remained below BCWQGAL.

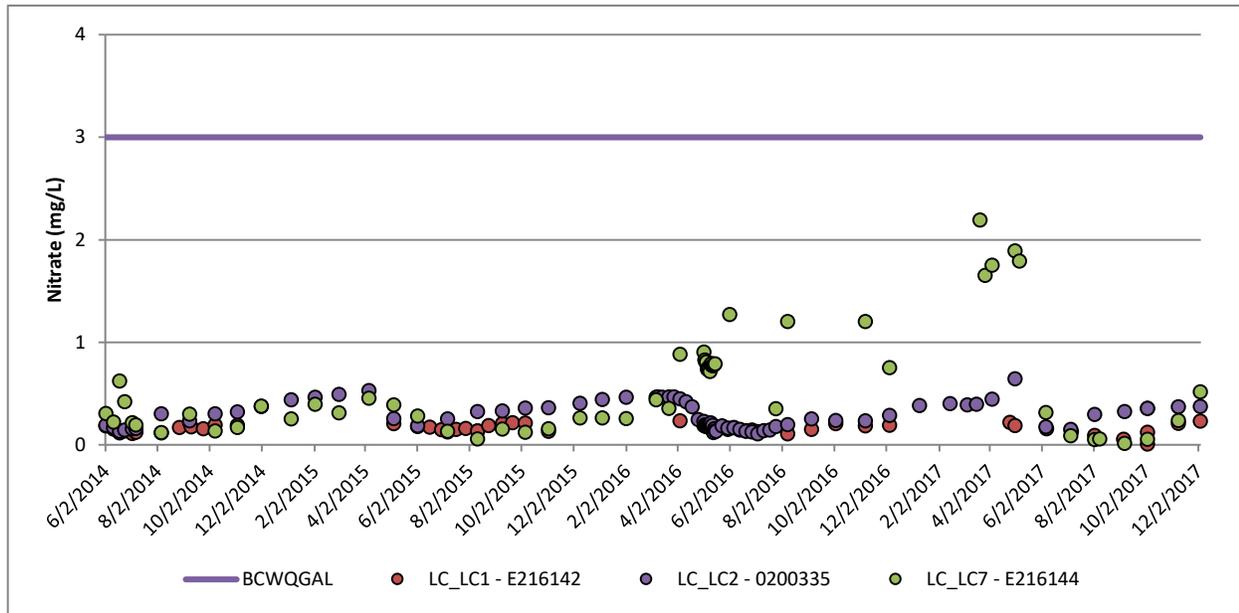
Figure 5: 2017 Nitrate Concentrations at LC_LC1 (E216142), LC_LC2 (0200335) and LC_LC7 (E216144)



² This day represents the oldest data at CP-E297110

³ Waste rock placement in MSX short spoils concluded around end of November 2017.

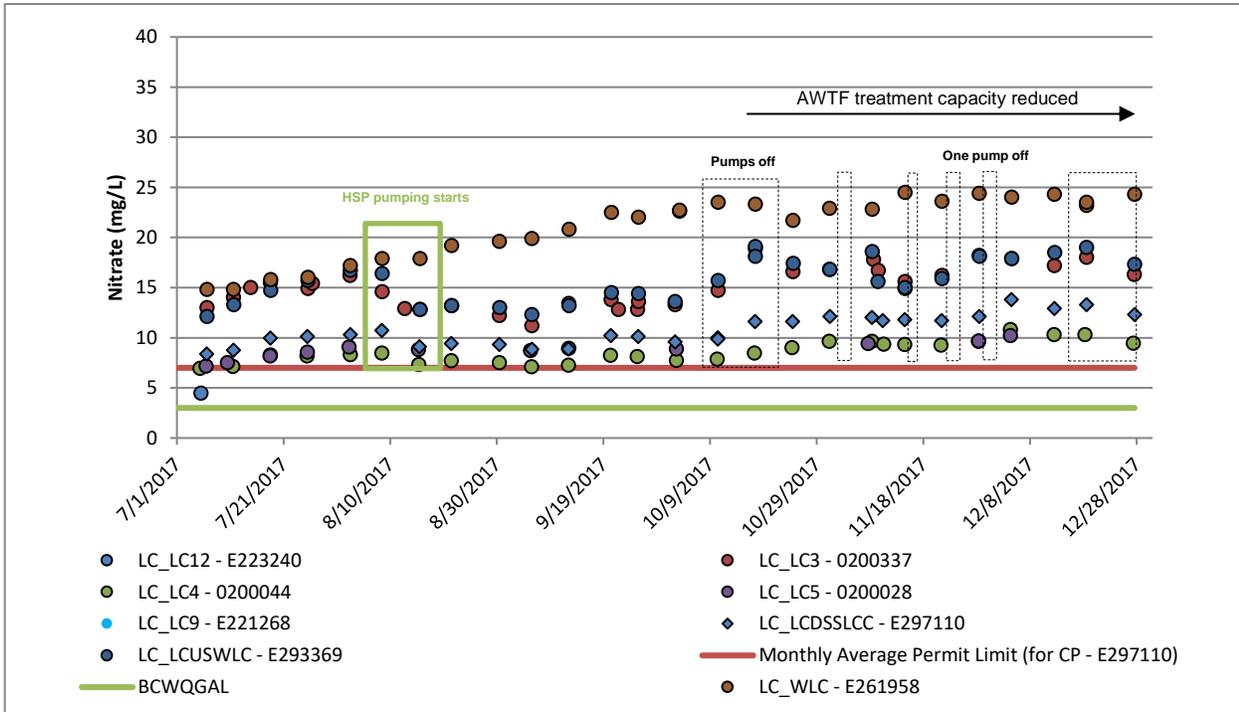
Figure 6: Nitrate Concentrations at LC_LC1 (E216142), LC_LC2 (0200335) and LC_LC7 (E216144) – June 2014 to date.



All monitoring locations presented in Figure 7 are located downstream of the rock drain and are influenced by current mining activities. The exception is LC_WLC – E261958, which represents mine influence water from the west spoils area; water at this site is treated in the WLC AWTF.

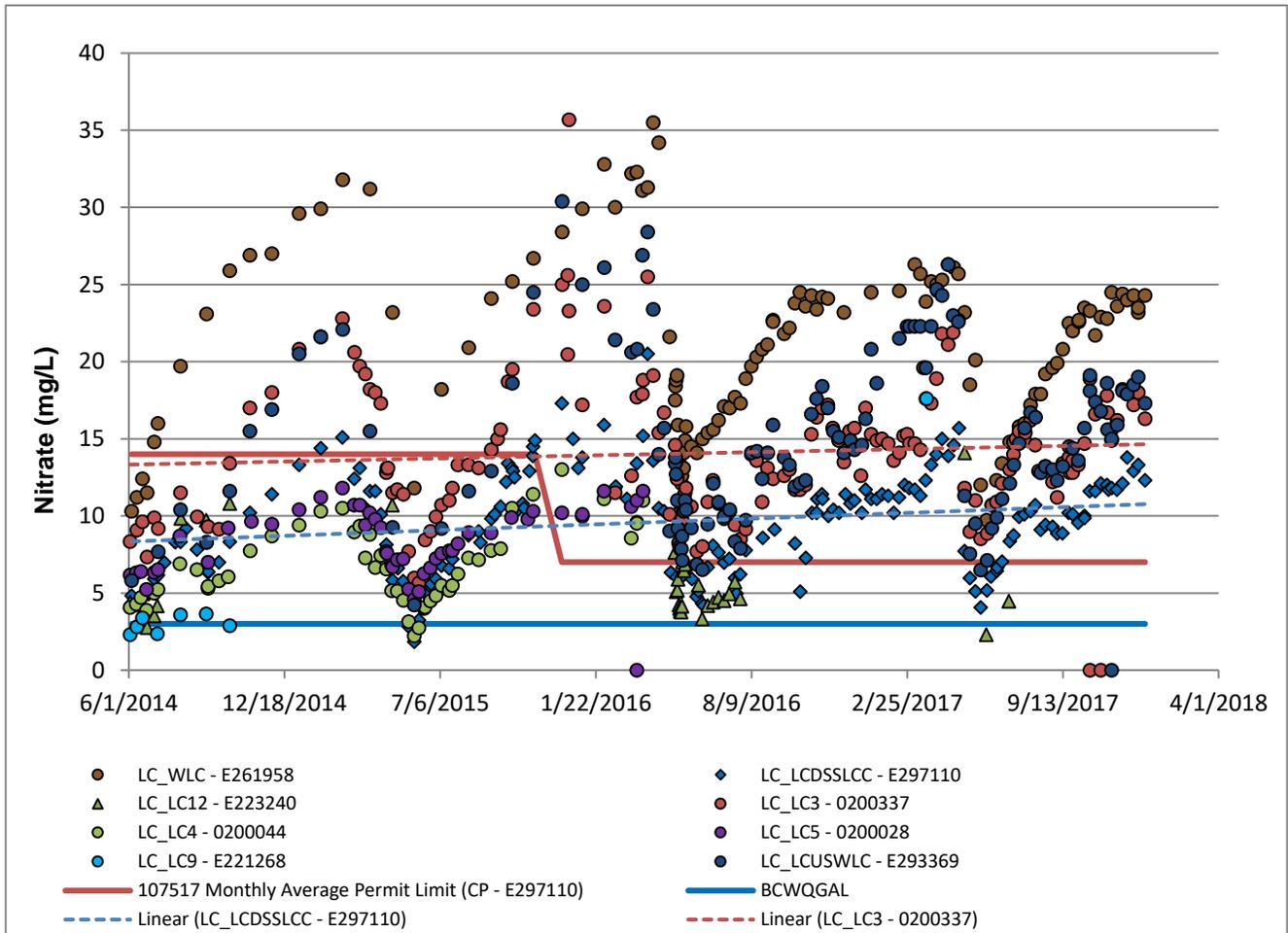
Q3 and Q4 results downstream of the rock drain showed a potentially positive influence of the HSP (non-contact water) dewatering activities on nitrate concentrations. In July, (prior to pumping) all sampling results presented a similar (increasing) trend. Immediately after pumping commenced, nitrate concentrations at all stations except for LC_WLC showed decreased nitrate concentrations. LC_WLC does not influenced by HSP dewatering activities. The dashed squares in Figure 7 represent either the periods of time where both pumps were off or one of them was not working properly. These periods of reduced or no pumping and the fact that the WLC AWTF is currently operating at reduced volume since October 17, 2017, correlate with increases in nitrate concentrations. Pump shutdowns were mostly due to system maintenance due to freezing conditions (pump repairs, freezing lines, etc.).

Figure 7: Q3 & Q4 Nitrate Concentrations at Monitoring Locations Downstream of Line Creek and West Line Creek Rock Drains



Monitoring results from June 2014 for monitoring locations downstream of Line Creek and West Line Creek to December 2017 are shown in Figure 8.

Figure 8: Nitrate Concentrations at Monitoring Locations Downstream of Line Creek and West Line Creek Rock Drains (June 2014 to December 2017)



3.1.2 Line Creek Phase 2

Line Creek Phase II predominately exists within the catchment area of Dry Creek, a tributary of the Fording River. The East Tributary of Dry Creek (DC_DCEF, E288274), Unnamed Creek (LC_UC, E295213), Grace Creek (LC_GRCK, E288275) and Chauncey Creek (RG_CH1, E295214) represent receiving environment monitoring locations not currently influenced by mining activities.

LC_DC3 (E288273) represents the inflow of mine-influenced water into the Dry Creek Water Management System (DCWMS). LC_SPDC (E295211) is the monitoring location for the discharge from the DCWMS to the receiving environment. Dry Creek downstream of sedimentation ponds (LC_DCDS, E295210), Dry Creek near mouth (LC_DC1, E288270), and Fording River downstream of Dry Creek (LC_FRDSDC, E288272) are downstream of discharge from the DCWMS. LC_FRDSDC also receives influence from Fording River Operations and will not be discussed in detail in this report.

The 2017 results show increasing nitrate trends at LC_DCDS, LC_DC1, and LC_SPDC. Additionally, the concentrations observed at LC_DCDS and LC_SPDC have increased in 2017 above the BCWQG for nitrate (Figure 10). This rise in nitrate concentrations at monitoring locations upstream of DC1 is likely in response to increased waste rock placement in Dry Creek (BRX spoil) as volumes increased from 12.5M BCMs placed in 2016 (cumulative volume of 13.5M BCMs) to a volume of 18.2M BCM's placed in 2017.

Figure 9: 2017 Nitrate Concentrations at Dry Creek monitoring locations.

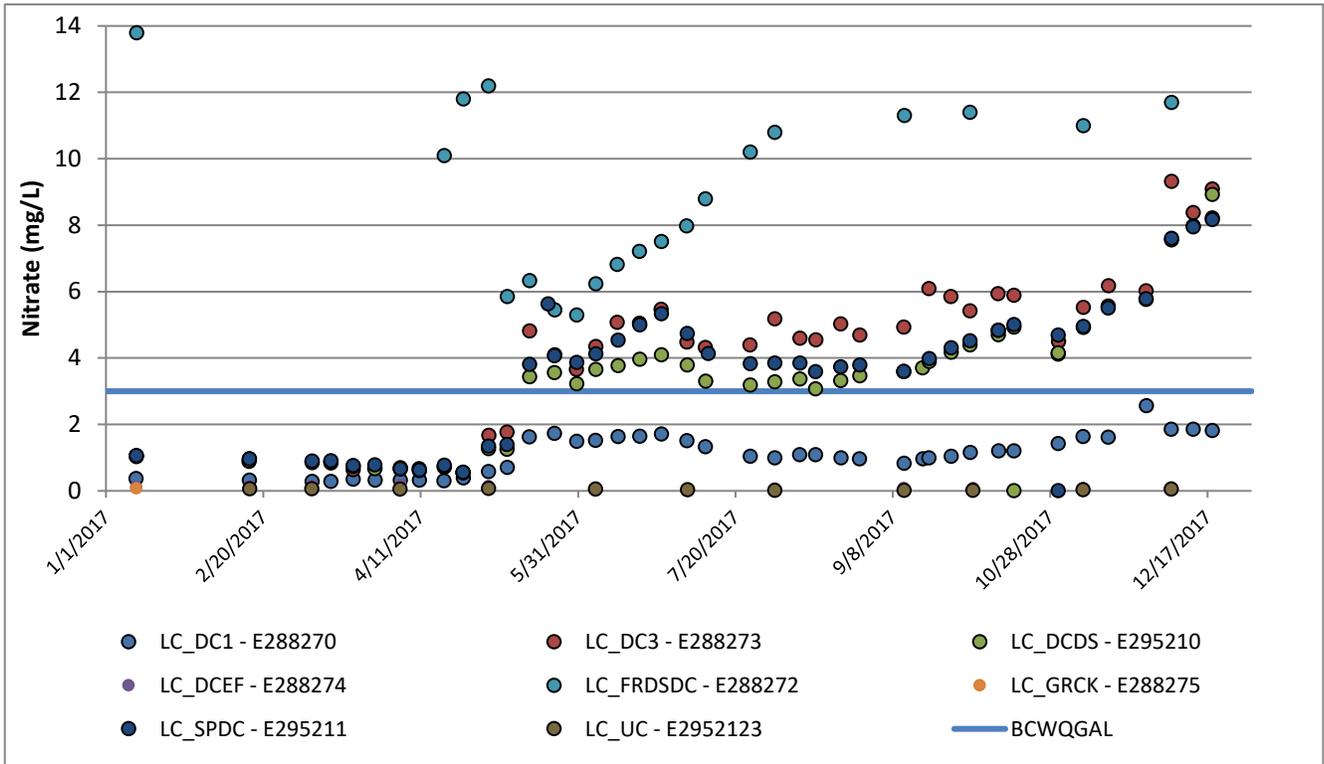
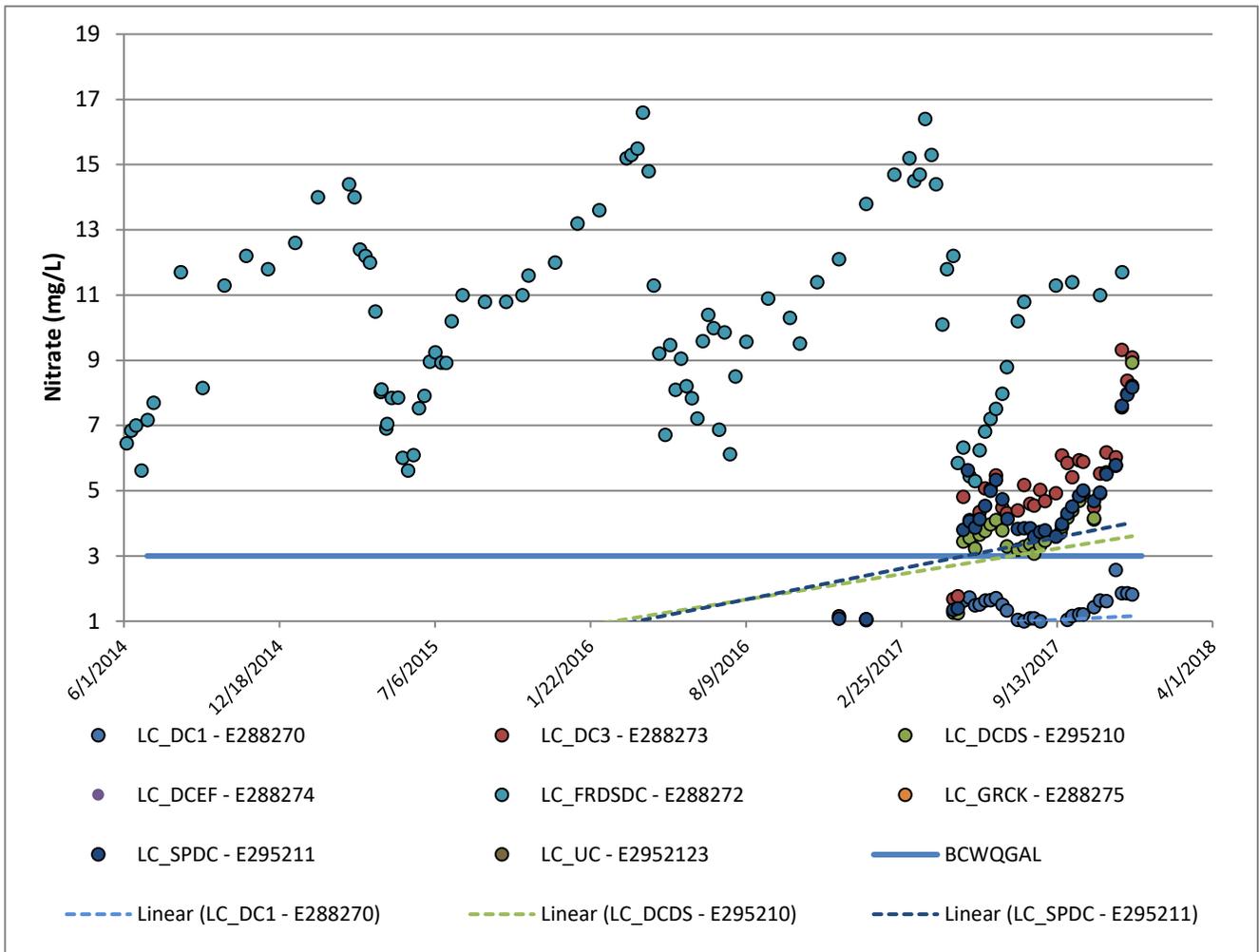


Figure 10: Nitrate concentrations at Dry creek monitoring locations (June 2014 to December 2017)



3.1.3 Operational Projects and Studies

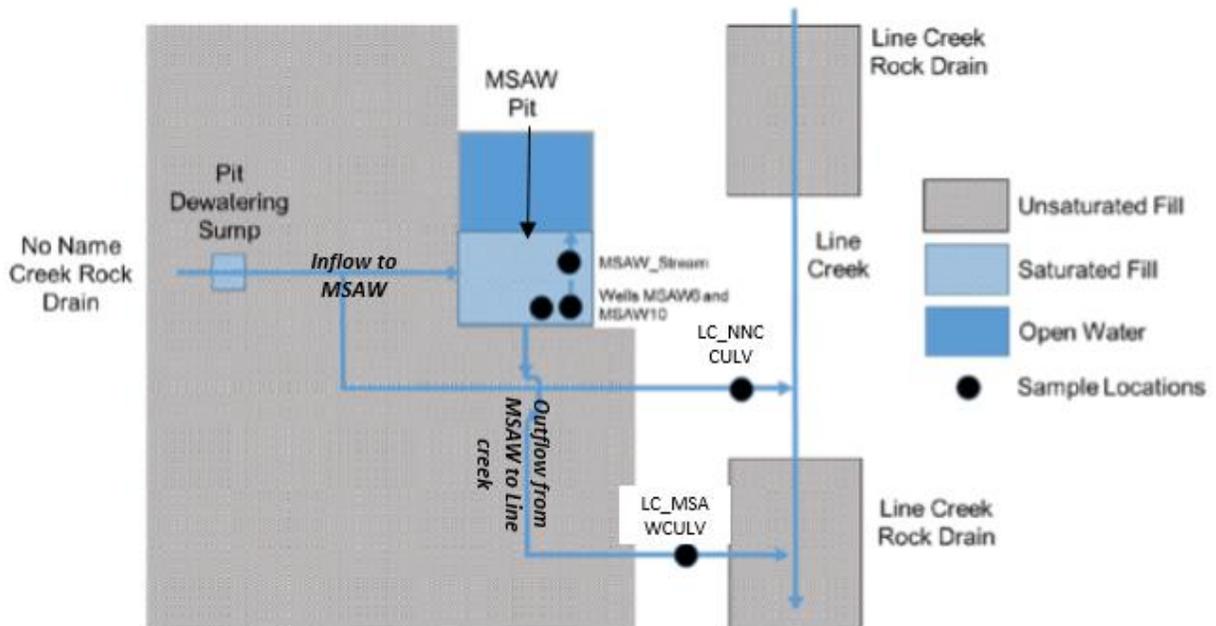
In Pit Dewatering and MSAW Project (Storage – Release Strategy)

As described in 2.1.10, the MSAW Storage/Release Project is aimed to reduce the volume of mine-contacted water that has accumulated in the MSAW Pit from passively decanting (nitrate load reduction) to Line Creek in the low flow period. The strategy consists of pumping water from the MSAW Pit to HSP for temporary storage and retention during low flow period.

As part of the MSAW project, LCO is assessing the use of a saturated rock fill (SRF) environment for the removal of nitrate and selenium (as described in CAP, September 14, 2017). As part of the assessment, LCO has been collecting water chemistry data at MSAW Pit inflow (LC_NNCCULV), outflow (LC_MSAWCULV) and groundwater wells located in the MSAW pit at different depths (LC_MSAW6_100, LC_MSAW6_150, LC_MSAW6_190, LC_MSAW6, LC_MSAW10_150) since April 22, 2016. Additional in pit dewatering monitoring locations (LC_BRSDW, LC_NLXEast) were included as part of the assessment.

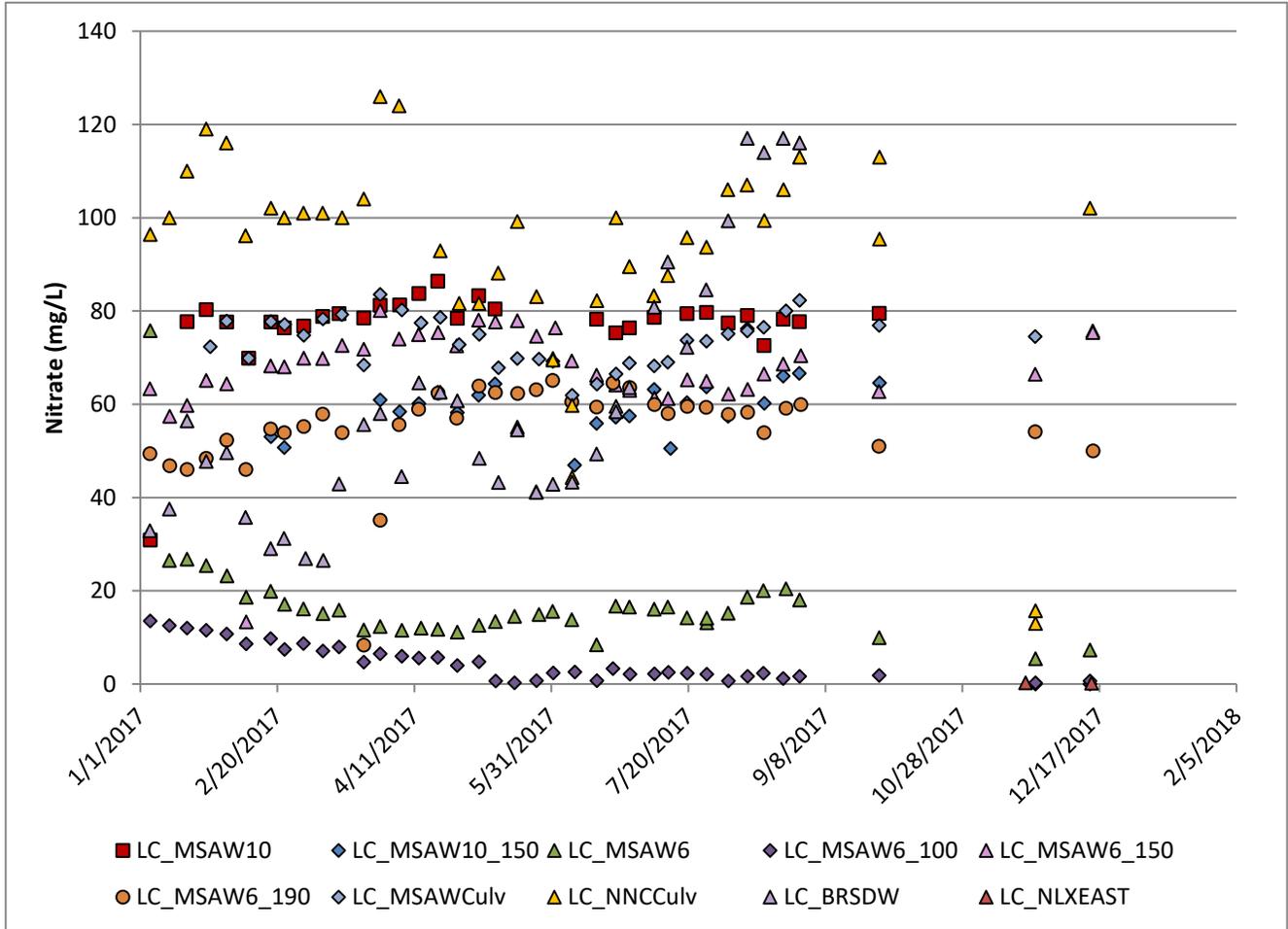
The schematics of the flow system in MSAW Pit are presented in Figure 11.

Figure 11: Schematic of Flow System and Monitoring Locations



Nitrate monitoring results (2017) are presented in Figure 12. Results from the inflow (LC_NNCCULV) vs the outflow (LC_MSAWCULV) indicate a potential reduction of nitrate concentrations within the pit. Monitoring results from the six groundwater monitoring wells also indicate that reduction occur at different depths⁴.

Figure 12: MSAW Pit monitoring locations



For the potential MSAW water release (MSAW Pit water stored in HSP to release into Line creek) phase (May-June 2018), LCO is currently developing a pit pumping plan and projected concentrations to ensure that nitrate (and other Constituents of Concern) compliance objectives can be met.

⁴ MSAW10 and MSAW10_150 are 10" wells at 250' and 150' respectively, below surface. MSAW6, MSAW6_100, MSAW6_150 and MSAW6_190 are 6" monitoring wells at 60', 100', 130' and 190' respectively, below surface.

4 Nitrate Management Actions

Other actions that occurred during 2017 were:

1. Nitrate education session, provided by Teck representatives and the LCO nitrate working group to key internal LCO stakeholders including representatives from each department - November 22, 2017.

The presentation included:

- The importance with managing nitrates with respect to regional and local influence, potential aquatic effects
- Compliance Action Plan – Objectives and targets, results to date

2. Awareness presentation of the Nitrogen Management Plan provided to all Blasting personnel (LCO and Maxam) – December 2017.

The awareness presentation included the following:

- Description of the importance of managing nitrates on site (effect of surface and groundwater quality with potential consequences to aquatic life, permit and regulatory requirements, social license to operate, sustainability objectives, production costs, etc.)
- Objectives for reducing the nitrate concentrations on site
- The relationship between the NMP, CAP, and SP&P's

3. CAP detailed presentation to internal stakeholders (Short and Long Range, Drill and Blast, Projects Engineers) to discuss objectives and timelines – September 2017

The CAP detailed presentation included the following:

- Review of the nitrates management importance and background/permit information;
- Review of the latest version of the CAP (September 14, 2017)
- Review of the internal timeline and actions to achieve KPI's. Discussion on how these actions are integrated into regular mine planning activities

4. Engagement with the Water Projects group to evaluate the potential for LCO SRF trial with the decision to proceed dependent upon the results of the Elkview Operations SRF trial.

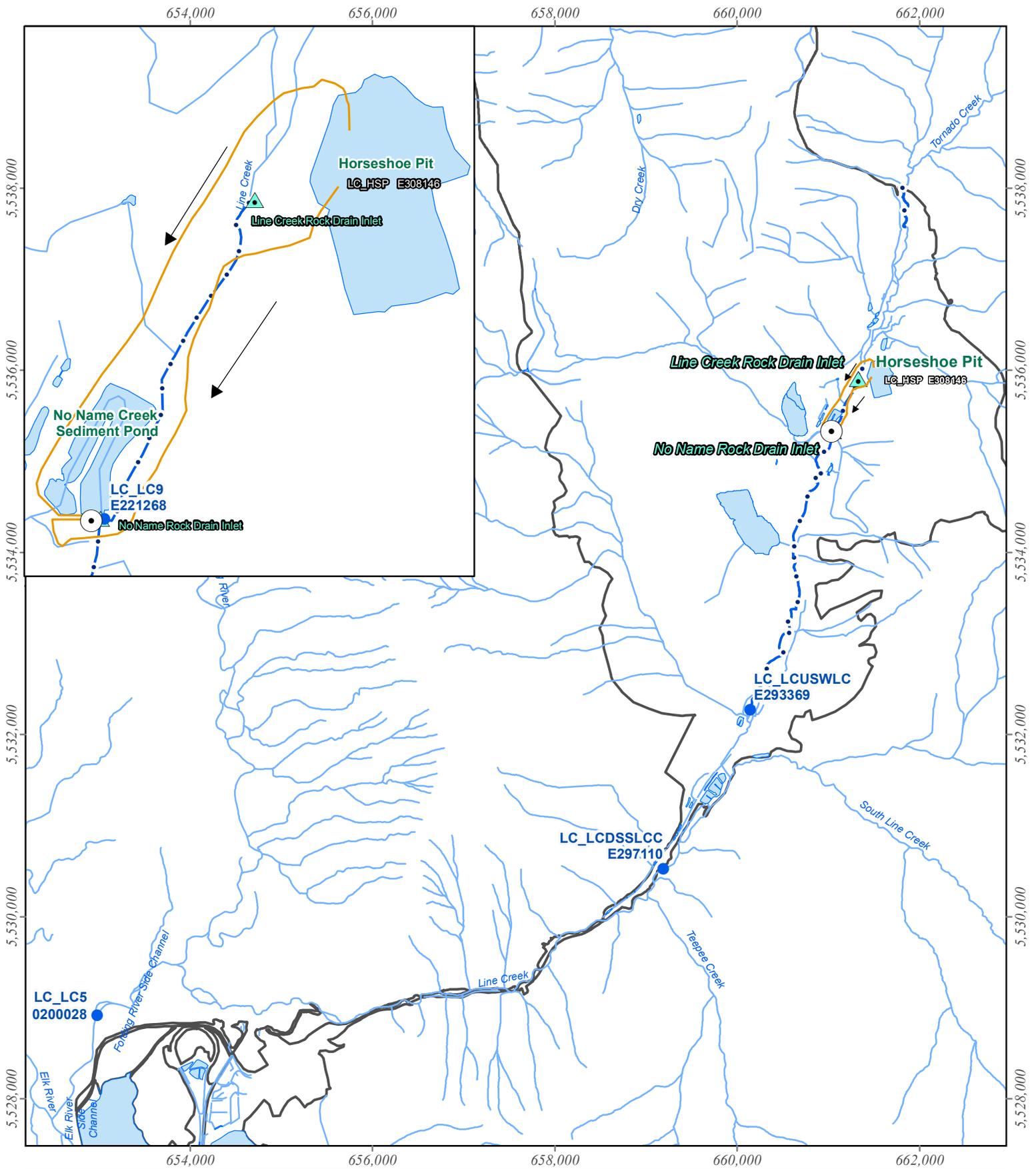
5. Q4 safety meetings: during quarterly safety meetings to all crews and staff, a CAP awareness presentation was provided. The emphasis was on explaining the importance of nitrate management and a summary of KPI's to date.

6. Nitrogen Management Plan updates: a working group within the business unit has been created to align nitrogen management practices across all Teck Coal locations.

Appendix

Appendix A - Figures

Figure A – Monitoring Locations for HSP Discharge



Teck

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Figure A - Monitoring Locations for HSP Discharge

- Location of Authorized Horseshoe Pit Discharge
- Permitted Monitoring Location
- Rock Drain Inlets
- Proposed Pumping
- Line Creek Rock Drain
- Rivers
- C-129 Permit Boundary

N

0 375 750 1,500 Meters

DATE: 10/26/2017	MINE OPERATION: Line Creek
SCALE: 1:55,000	COORDINATE SYSTEM: NAD 1983 UTM Zone 11N

Figure B – Nitrate Monitoring Locations

